

Community Health Needs Assessment | 2016

Prepared for

Baystate Wing Hospital

Adopted by Baystate Wing Hospital Board of Directors on Monday, October 31, 2016

Adopted by the Baystate Health Board of Trustees on Tuesday, November 8, 2016

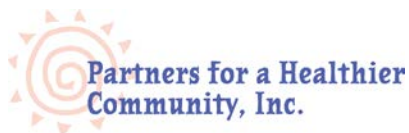
As of September 2016, the Massachusetts Public Health Council approved Baystate Wing Hospital's application to merge Baystate Mary Lane Hospital with Baystate Wing Hospital and combine the two facilities and their respective satellite facilities under one license. Inpatient care at Baystate Mary Lane transitioned to Baystate Wing, while all outpatient services continue at Baystate Mary Lane. The Baystate Mary Lane Emergency Department operates as a satellite emergency facility of Baystate Wing Hospital. The Ware facility is now known as the Baystate Mary Lane Outpatient Center.

By

Partners for a Healthier Community

Collaborative for Educational Services

Pioneer Valley Planning Commission



Consultant Team

Lead Consultant

Partners for a Healthier Community (PHC), is the Public Health Institute of Western Massachusetts. Our mission is to build measurably healthier communities with equitable opportunities and resources for all through civic leadership, collaborative partnerships, and policy advocacy. We provide skills, expertise and experience to create successful campaigns and systems to improve health and well-being in the Pioneer Valley. Our efforts focus on activities and policy changes that build on community assets while simultaneously increasing community capacity. Partners for a Healthier Community has a strong track record of supporting coalitions, engaging community members and incorporating public policy advocacy in its work. As a Public Health Institute, we provide “backbone” infrastructure support to the region in a variety of areas, including convening of multi-sector partnerships, design and implementation of population-based health programs, research and program evaluation.

Consultants

Community Health Solutions (CHS), a department of the **Collaborative for Educational Services**, provides technical assistance to organizations including schools, coalitions, health agencies, human service, and government agencies. We offer expertise and guidance in addressing public health issues using evidence-based strategies and a commitment to primary prevention. We believe local and regional health challenges can be met through primary prevention, health promotion, policy and system changes, and social justice practices. We cultivate skills and bring resources to assist with assessment, data collection, evaluation, strategic planning and training.

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

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Executive Summary

Introduction and Methods

Baystate Wing Hospital (Baystate Wing) is a 74-bed facility located in Palmer, Massachusetts (18 miles east of Springfield) that provides a broad range of emergency, medical, surgical and psychiatric services. Baystate Wing is a part of Baystate Health, Inc. which is the not-for-profit parent corporation of a multi-institutional integrated delivery system which includes the following: Baystate Medical Center, Baystate Franklin Medical Center, Baystate Mary Lane Hospital, Baystate Wing Hospital, Baystate Noble Hospital, Baystate Medical Practices, Baystate Visiting Nurse Association and Hospice, and Baystate Health Foundation. In addition to its 12,500 employees, Baystate Health has 1,500 medical staff, 2,000 nurses, 2,000 students including residents, fellow, and medical, nursing and allied health students, and over 900 volunteers. Baystate Wing's five medical centers in Belchertown, Ludlow, Monson, Palmer and Wilbraham offer extensive outpatient services to meet the needs of our communities. Baystate Wing also includes the Griswold Behavioral Health Center, providing comprehensive behavioral health and addiction recovery services and the Wing VNA and Hospice. We are fully accredited by the Joint Commission and are a designated Primary Stroke Service by the Massachusetts Department of Public Health.

Baystate Wing is a member of the Coalition of Western MA Hospitals ("the Coalition") a partnership between ten non-profit hospitals and insurers in the region. The Coalition formed in 2012 to bring hospitals in western Massachusetts together to share resources and work in partnership to conduct their community health needs assessments (CHNA) and address regional needs. Baystate Wing worked in collaboration with the Coalition to conduct this assessment. This assessment was conducted to update the findings of Baystate Wing's 2013 CHNA so Baystate Wing can better understand the health needs of the communities it serves and to meet its fiduciary requirement as a tax-exempt hospital.

The assessment focuses on the primary service area of Baystate Wing, which includes communities in Hampden, Hampshire, and Worcester Counties. When identifying the health needs that can be addressed to improve the health of the population, the assessment used the determinants of health framework since it is recognized that these factors contribute substantially to population health. The prioritized health needs identified in the 2016 CHNA include community level social and economic determinants that impact health, barriers to accessing quality health care, and specific health conditions and behaviors within the population. The assessment included analysis and synthesis of 1) a variety of social, economic and health data; 2) findings from recent western Massachusetts community health assessment reports; and 3) information from seven focus groups and 26 key informant interviews, some of which were conducted specifically for Baystate Wing and others which were conducted by other Coalition members and were relevant to this CHNA. Vulnerable populations were identified using a health equity framework with available data. Information from this CHNA will be used to inform the updating of Baystate Wing Hospital's community benefits implementation strategy as well as to inform the Coalition's regional efforts to improve health.

Findings

Below is a summary of the prioritized community health needs identified in this CHNA.

Community level social and economic determinants that impact health

A number of social, economic and community level factors were identified as prioritized community health needs in Baystate Wing Hospital's 2013 CHNA and continue to impact the health of the population in Baystate Wing's service area. Social, economic, and community level needs identified in this CHNA include:

- **Lack of resources to meet basic needs** – Many Baystate Wing service area residents struggle with *poverty* and *low levels of income*. Parts of Ware, Palmer, and Ludlow have poverty rates greater than 15%. In Warren, nearly 40% of the population lives in households at or below 200% of the federal poverty level, a measure which offer a better glimpse of individuals who are low income and may lack resources to meet basic needs. *Lower levels of education*, concentrated in Ludlow, Palmer, and Ware, contribute to unemployment and the ability to earn a livable wage. Nearly 6% of the service area population is unemployed.
- **Housing needs** – *Housing insecurity* is a need that continues to impact Baystate Wing service area residents. Nearly one-third of the population is housing cost burdened, with more than 30% of their income going towards housing. Housing instability and a lack of affordable housing can contribute to *homelessness*. Western Massachusetts has higher rates of homeless families as compared to state and national rates. Older housing combined with limited resources for maintenance can lead to *poor housing conditions*, which can also impact the health of residents.
- **Transportation** - Regional public health officials interviewed for the 2016 CHNA identified increased transportation options as an overall community need for the region. Individuals who do not own a vehicle face difficulties accessing educational and employment options or participating in community-based programs that promote health, such as exercise and nutrition programs, or other activities that promote social connection.
- **Food insecurity and food deserts** – *Food insecurity* continues to impact the ability of many Baystate Wing service area residents to access healthy food. Portions of Ludlow, Monson, and Ware have food insecurity rates over 15%. In addition, part of Palmer is considered a *food desert*, which is an area where low-income people have limited access to grocery stores.
- **Domestic Violence** – Key informant interviewees and community members that participated in the meeting to review preliminary CHNA findings identified domestic violence as a priority concern in the Baystate Wing service area. High rates of domestic violence were observed in Ware and Palmer. The impacts of domestic violence reach far beyond the person who is being abused. Children who are exposed to violence in the home are predisposed to many social and physical problems.

Barriers to Accessing Quality Health Care

The lack of affordable and accessible medical care was identified as a need in the 2013 CHNA and continues to be a need today. The following barriers were identified.

- **Limited availability of providers** – Focus group participants and key informant interviewees overwhelmingly reported a need for increased access to mental health and addiction services for acute, maintenance, and long-term care. The need for increased access to dental care was also

identified by Baystate Wing focus group participants as an important health need. In particular, a shortage of providers that accept adult MassHealth was identified as well as insufficient dental service coverage for adults with MassHealth insurance.

- **Insurance related challenges** – Focus group participants and key informant interviewees identified several barriers, including: the complexity of navigating the health insurance system; Medicaid policies that lead to substantial barriers to receiving care after missing several consecutive appointments (e.g. the closing of patient cases after missing three behavioral health appointments); and costs of co-pays and deductibles among rural Medicaid patients.
- **Lack of transportation** – Focus group participants and key informants frequently cited transportation as a major barrier to accessing care. A lack of transportation has the greatest impact on the elderly, low-income individuals, and those living in rural areas.
- **Lack of care coordination** – Increased care coordination is a need in the community. Areas identified in focus group and interviews include the need for coordinated care between providers in general; a need for increased coordination to manage co-morbid substance use and mental health disorders; and the need for better connections between the hospital, community organizations and schools.
- **Health literacy and cultural humility** – The need for health information to be understandable and accessible was identified in this assessment. Data from focus groups indicate the need for increased *health literacy* including understanding health information, types of services, how to access them, and how to advocate for oneself in the healthcare system. The need for provider education about how to communicate with patients about medical information also arose. The need for training in *cultural humility* as a means to deliver *culturally sensitive care* was identified as a prioritized health need in this assessment. Public health leaders interviewed for this CHNA called for increased training in this area for health care providers to serve the needs of increasingly diverse community residents.

Health

- **Chronic health conditions** – High rates of **obesity, diabetes, cardiovascular disease, asthma** and associated morbidities that were previously identified as prioritized health needs in the 2013 CHNA continue to impact Baystate Wing service area residents. **Chronic obstructive pulmonary disease (COPD)** was also identified as a health priority in this assessment. Despite efforts to reduce the high prevalence of obesity, obesity rates continue to be high among adults and children with children. Cardiovascular disease (CVD) continues to impact service area residents with heart disease among the top leading causes of death in all three counties and more than one in five older adults having the disease. Hypertension and high cholesterol, which are strong risk factors for cardiovascular disease, impact 20-30% of residents in the three counties. Approximately 20% of the population in Worcester and Hampden Counties has pre-diabetes or diabetes. Asthma emergency room (ER) rates and pediatric prevalence rates were high among some communities in the service area. Ware and Palmer had high ER visit rates for COPD. Asthma and COPD ER rates were particularly high among Latinos.
- **Need for increased physical activity and healthy diet** – The need for increased physical activity and consumption of fresh fruits and vegetables was identified among Baystate Wing Hospital service area residents. Low rates of physical activity and healthy eating contribute to high rates of chronic disease and also impact mental health. More programming for youth was also identified as a need for the Baystate Wing service area.

- **Mental health and substance use disorders** – Substance use and mental health were identified as the most urgent health needs/problems impacting the area, as identified in local and regional interviews and focus groups. Substance use disorders, specifically opioid use, were of particular concern. *Opioid use disorder*, which has been declared a public health emergency in Massachusetts, is impacting residents with high opioid related hospitalization rates in Ware and Palmer. There was overwhelming consensus among focus group participants and health care providers and administrators about the need for increased education across all sectors to reduce the stigma associated with mental health and substance use as well as the need for expanded treatment options. *Tobacco* use remains high with an estimated 16-21% of adults that smoke.
- **Infant and perinatal health risk factors** – Infant and perinatal health factors were identified as health needs in this assessment, specifically the need for increased utilization of prenatal care and a decrease in smoking during pregnancy among some communities in the service area. Smoking in pregnancy had previously been identified for the 2013 CHNA.

Vulnerable Populations

Available data for this assessment indicate that **children and youth; older adults;** some communities of color, particularly **Latinos;** individuals with low income levels; those living in poverty; and those who are homeless are disproportionately impacted by poor health when compared to the general population in the Baystate Wing Hospital service area.

Overall, more data is needed to understand the unique factors that impact the health of each of these vulnerable populations.

Summary

The Baystate Wing Hospital service area, which includes parts of Hampden, Hampshire, and Worcester Counties, continues to experience many of the same prioritized health needs identified in Baystate Wing's 2013 CHNA. Social and economic challenges experienced by some members of the population in the service area contribute to the high rates of chronic conditions and other health conditions identified in this needs assessment. These social and economic factors also contribute to the health disparities observed among vulnerable populations, which include youth, older adults, and Latinos. Individuals who are homeless, low-income, or living in poverty were also identified as vulnerable populations. Additional data is needed to better understand the needs of these populations in order to reduce inequities. The Baystate Wing service area population continues to experience a number of barriers that make it difficult to access affordable, quality care, some of which are related to the social and economic conditions in the community, and others which relate to the healthcare system. Mental health and substance use disorders were consistently identified as top health conditions impacting the community, and the inadequacy of the current systems of care to meet the needs of individuals impacted by these disorders arose as an important issue that needs to be addressed. The opioid crisis has emerged as a top issue impacting the health of the community. Progress has been made to address some of the prioritized health needs previously identified, such as childhood obesity; however, rates remain high and work needs to be continued.

Introduction

About Baystate Wing Hospital

Baystate Wing Hospital (Baystate Wing) is a 74-bed facility located in Palmer, Massachusetts (18 miles east of Springfield) that provides a broad range of emergency, medical, surgical and psychiatric services. Baystate Wing is a part of Baystate Health, Inc. which is the not-for-profit parent corporation of a multi-institutional integrated delivery system which includes the following: Baystate Medical Center, Baystate Franklin Medical Center, Baystate Mary Lane Hospital, Baystate Wing Hospital, Baystate Noble, Baystate Medical Practices, Baystate Visiting Nurse Association and Hospice and Baystate Health Foundation. In addition to its 12,500 employees, Baystate Health has 1,500 medical staff, 2,000 nurses, 2,000 students including residents, fellow, and medical, nursing and allied health students, and over 900 volunteers. Baystate Wing's five medical centers in Belchertown, Ludlow, Monson, Palmer and Wilbraham offer extensive outpatient services to meet the needs of our communities. Baystate Wing also includes the Griswold Behavioral Health Center, providing comprehensive behavioral health and addiction recovery services and the Wing VNA and Hospice. We are fully accredited by the Joint Commission and are a designated Primary Stroke Service by the Massachusetts Department of Public Health.

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

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

The Coalition of Western Massachusetts Hospitals

Baystate Wing is a member of the Coalition of Western Massachusetts Hospitals (Coalition). The Coalition is a partnership between ten non-profit hospitals/health insurer in western Massachusetts: Baystate Medical Center, Baystate Franklin Medical Center, Baystate Mary Lane Hospital, Baystate Noble Hospital, Baystate Wing Hospital, Cooley Dickinson Hospital, Holyoke Medical Center, Mercy Medical Center (a member of Sisters of Providence Health System), Shriners Hospitals for Children – Springfield, and Health New England, a local health insurer whose service areas covers the four counties of Western Massachusetts. The Coalition formed in 2012 when seven western Massachusetts hospitals joined together to share resources and work in partnership to conduct their community health needs assessments (CHNA) and address regional needs. The Coalition has since expanded to ten members and is currently conducting collaborative work to address mental health needs in the region.

Community Health Needs Assessment (CHNA)

Improving the health of western Massachusetts is a shared mission across the Coalition of Western Massachusetts Hospitals. To gain a better understanding of these needs, and as required by the 2010 Patient Protection and Affordable Care Act (PPACA), Coalition members conducted community health needs assessments (CHNA) in 2012-2013. Integral to this needs assessment was the participation and support of community leaders and representatives who provided input through steering committee participation, a community survey, and stakeholder interviews and focus groups. Based on the findings of the CHNA, and as required by the PPACA, the hospitals developed community benefits implementation strategies to address select prioritized needs.

The 2016 CHNA was conducted to update the 2013 CHNA findings so that Baystate Wing can better understand the health needs of the community it serves and to meet Baystate Wing's fiduciary requirement as a tax-exempt hospital. The PPACA requires tax-exempt hospitals to "conduct a Community Health Needs Assessment [CHNA] every three years and adopt an implementation strategy to meet the community health needs identified through such assessment." Information from this CHNA will be used to update the community benefits implementation strategy developed in 2013 and to identify regional needs and areas of action to address needs.

Methodology for 2016 CHNA

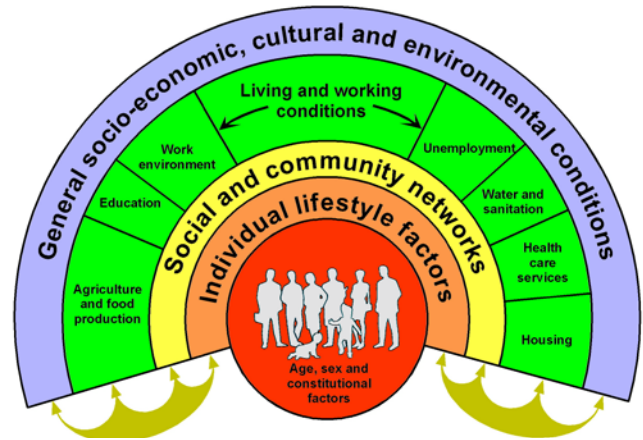
Social and Economic Determinants of Health Framework

The 2016 CHNA was conducted using a **determinants of health framework** as it is recognized that social and economic determinants of health contribute substantially to population health. It has been estimated that less than a third of our health is influenced by our genetics or biology¹. Our health is largely determined by the social, economic, cultural, and physical environments that we live in and healthcare we receive (Figure 1).

Among these “modifiable” factors that impact health, social and economic factors are estimated to have the greatest impact. The County Health Rankings model (Figure 2), developed by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, estimates how much these modifiable factors contribute to health based on reviews of the scientific literature and a synthesis of data from a number of national sources. It is estimated that social and economic factors account for 40% of our health, followed by health behaviors (30%), clinical care (20%), and the physical environment (10%). Many health disparities occur as a result of inequities in these **determinants of health**.

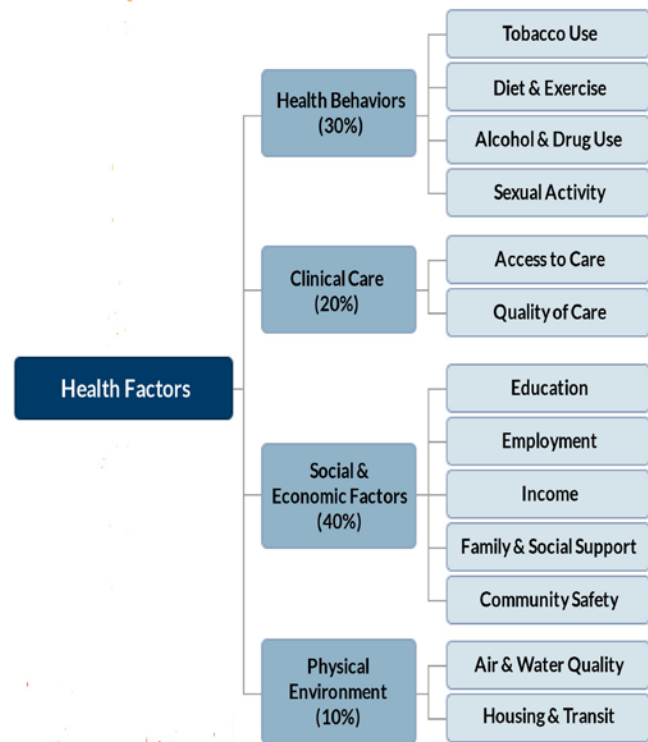
Among Massachusetts’ counties, County Health Rankings ranked Hampden County last out of 14 counties in the state for both health factors and health outcomes in 2016 (see Appendix V for County Health Rankings information). Worcester County ranked somewhat higher at seventh in health outcomes and eleventh in health factors. Hampshire County was ranked higher at fifth in health outcomes and third in health factors.²

Figure 1. Determinants of Health



Source: Dahlgren & Whitehead, 1993

Figure 2. County Health Rankings Model - Health Factors



Source: County Health Rankings

Assessment Methods

The primary 2016 CHNA goals were to update the list of prioritized community health needs identified in the 2013 CHNA conducted by Verité Healthcare Consulting and to the extent possible, identify potential areas of action. The prioritized health needs identified in this CHNA include **community level social and economic determinants that impact health, barriers to accessing quality health care** and specific **health conditions and behaviors** within the population. Assessment methods included:

- analysis of social, economic and health **quantitative data** from Massachusetts Department of Public Health, the U.S Census Bureau, the Centers for Disease Control and Prevention [CDC] Behavioral Risk Factor Surveillance System [BRFSS], the County Health Ranking Reports, Community Commons, and a variety of other data sources;
- analysis of findings from one (1) **focus groups** and thirteen (13) **key informant interviews** specifically conducted for Baystate Wing (Appendix II);
- analysis of findings from an additional six (6) focus groups and thirteen (13) key informant interviews conducted for other Coalition members and considered relevant for this CHNA (Appendix II);
- review of ten existing assessment reports published since 2013 that were completed by community and regional agencies serving Baystate Wing's service area.

The assessment focused on county-level data and community-level data as available. In some instances, data constraints related to accessibility and availability limited analyses to highlighted communities chosen by Baystate Wing and located in the Baystate Wing service area. In these instances, analyses focused on Palmer and Ware. Other communities were included as data was available and analysis indicated an identified health need for that community.

To the extent possible given data and resource constraints, vulnerable populations were identified using information from focus groups and interviews as well as quantitative data stratified (or broken down) by race/ethnicity and age with a focus on children/youth and older adults.

Prioritization Process

A systematic process was conducted to develop a list of prioritized community health needs. Community level social and economic determinant of health factor related needs and access to care needs were assessed using quantitative and qualitative data gathered for the 2016 CHNA. Health conditions were identified based on consideration of the following: magnitude of impact (low, moderate, high), severity of impact (low, moderate, high), populations impacted (including vulnerable populations), and rates compared to a referent (generally the state rate). Prioritized health needs were those that had the greatest combined magnitude and severity or that disproportionately impacted vulnerable populations in the community.

Community and Stakeholder Engagement

The input of the community and other important regional stakeholders was prioritized by the Coalition as an important part of the 2016 CHNA process. Below are the primary mechanisms for

community and stakeholder engagement (see Appendix I for list of community representatives and other stakeholders included in process):

- A **CHNA Steering Committee** was formed that included representatives from each hospital/insurer Coalition member as well as public health and community stakeholders from each hospital service area. Stakeholders on the Steering Committee included local and regional public health and health department representatives; representatives from local and regional organizations serving or representing medically underserved, low-income or communities of color; and individuals from organizations that represented the broad interests of the community. When identifying community and public health representatives to participate, a stakeholder analysis was conducted by the Coalition and Consultants to ensure geographic, sector (e.g. schools, community service organizations, healthcare providers, public health, and housing) and racial/ethnic diversity of community representatives. By including these stakeholders on the Steering Committee, the community and public health representatives had input on the CHNA process used to identify and prioritize community health needs, CHNA findings, and dissemination of information. Assessment methods and findings were modified based on the Steering Committee feedback. The Steering Committee met monthly from October 2015 – June 2016.
- **Key informant interviews** and **focus groups** were conducted to both gather information that was utilized to identify priority health needs and engage the community. Key informant interviews were conducted with health care providers, health care administrators, local and regional public health officials, and local organizational leaders that represent the broad interests of the community or that serve medically underserved, low-income or communities of color in the service area. Interviews with the local and regional public health officials were used to identify current and emerging high priority health areas and healthcare and community factors that contribute to health needs. Focus group participants included individuals representing the broad interests of the community, including community organizational representatives, vulnerable population community members (e.g. low-income, people of color) and other community stakeholders. Topics included: access to health care for low-income rural individuals, maternal and child health, mental health and substance use, behavioral health and emergency department care, and health care access and linkages to faith-based communities. Key informant interviews and focus groups were conducted from February 2016 – April 2016.
- A **preliminary CHNA findings review meeting** was held with hospital and community representatives to vet findings and obtain input on whether findings resonated with their understanding of the community and whether any important areas were missing. Prioritized health needs and presentation of data were revised based on feedback from this meeting.
- A **community listening session** was held to vet the revised list of prioritized health needs with community members and modifications were made based on findings from this session. At this session, attendees also provided information on existing resources in the community to address prioritized health needs.

Limitations and Information Gaps

The assessment focused on community determinant areas for which data was available. Given time, resource and data availability limitations, our analysis was not able to examine every health and community issue. Much of the quantitative data gathered for this report was provided by the Massachusetts Department of Public Health (MDPH) as part of a pilot effort to provide data for community health needs assessments. Challenges were experienced as this was their first effort to compile this data across multiple divisions in the short timeframe needed for this assessment. MDPH was very supportive in pulling together supplemental data, and this experience will inform the continued development of data for future CHNAs. The assessment is based on the best available data given these time and resource constraints.

This assessment utilized both 2012 and 2013 age-adjusted hospitalization and emergency room (ER) data from MDPH. This data was available at the community level if counts were 11 or higher. MDPH suppresses data for counts less than 11 because of data instability and confidentiality concerns. The 2012 data included information on highlighted communities (Palmer and Ware), counties, and the state. The 2013 dataset included data for counties and communities within Baystate Wing's service area, unless it was suppressed. 2013 data was used to identify communities with high rates within the service area. Rates presented for small communities should be interpreted with the understanding that estimates for these communities have wide confidence intervals and the potential to vary widely. Hospitalization and ER rates are based on the number of hospitalizations and ER visits reported to the state. They may include an individual utilizing these healthcare services on multiple instances within the timeframe examined.

Much of the social and economic data was obtained through Community Commons (CC), which is an online needs assessment tool that provides up-to-date data from a number of federal and non-profit data sources. The tool allows for customized data for a hospital service area based on county or zip code. As Baystate Wing's hospital service area was defined by zip code, and zip codes do not always align with community borders (e.g. some zip codes cross town/city borders), the aggregate data from the hospital service area may differ somewhat slightly than the service area defined by community borders.

Limited data was available to assess and identify health needs among some vulnerable populations; however, more data is needed. We have included emergent health needs that were identified primarily through qualitative data, though additional data may be needed to better understand the impact of the need or potential actions to address the need.

Hospital Service Area

The service area for Baystate Wing Hospital is situated halfway between the cities of Worcester and Springfield, MA, and straddles three counties - Worcester, Hampden and Hampshire. The hospital serves approximately 120,000 residents in seventeen towns, with over half this population living in the towns of Belchertown, Ludlow, Palmer, Wilbraham and Ware (Table 1). Other towns in the service area range in size from 1,000 to 8,500 residents, and are fairly rural in character. There is a mix of rural and urban populations as defined by the U.S. Census Bureau (Figure 3). Urban areas consist of census tracts and/or blocks that meet the minimum population density requirement (2,500-49,999 for urban clusters and over 50,000 for urbanized areas) or is adjacent and meet additional criteria. While the median age across the three counties is in the mid-to-upper 30's, the median ages in the service area's largest towns are over 40, ranging from Belchertown at 42 to Wilbraham at 48 years old. Fewer than 6% of residents in these service areas identify as Black or African American, Asian, Native Hawaiian, American Indian, or Hispanic or Latino.

In the Baystate Wing service, per capita income exceeds the averages in Hampden and Hampshire counties at \$31,761. Housing costs are relatively low, and the proportion of housing cost burdened households where people pay more than 30% of their income towards housing is lower than the state (37%) and county rates, though still impacting nearly a third of the population (31%). Poverty rates throughout the service area are also comparatively low at about 8% for the overall population and 9% for children. These rates are well below both the state and county rates. Over 90% of the population in the service area has a high school diploma – comparable to the statewide rate. Unemployment is somewhat higher than the state rate at 6%. The unemployment rate is based on the number of people who are either working or actively seeking work. A large portion of existing jobs are within the service, transportation, utility and wholesale-retail industries.³

The general socio-demographic characteristics of Baystate Wing's service area are provided in Table 2.

Table 1. Communities in Baystate Wing Service Area

	2014 Population Estimate
Hampden County	
Brimfield	3,723
Hampden	5,195
Holland	2,502
Ludlow	21,436
Monson	8,754
Palmer	12,174
Wales	1,878
Wilbraham	14,509
Hampshire County	
Belchertown	14,846
Ware	9,878
Worcester County	
Barre*	5,463
Brookfield	3,399
Hardwick	3,010
New Braintree	1,022
North Brookfield	4,748
Warren	5,178
West Brookfield	3,763
Total Service Area	121,478

Source: Population Division, U.S. Census Bureau, <http://www.census.gov/popest/index.html>

*Note: The following villages are a part of the service area and are subsets of communities in the above list: Wheelwright, West Warren, Gilbertville, Three Rivers, Thorndike, and Bondsville

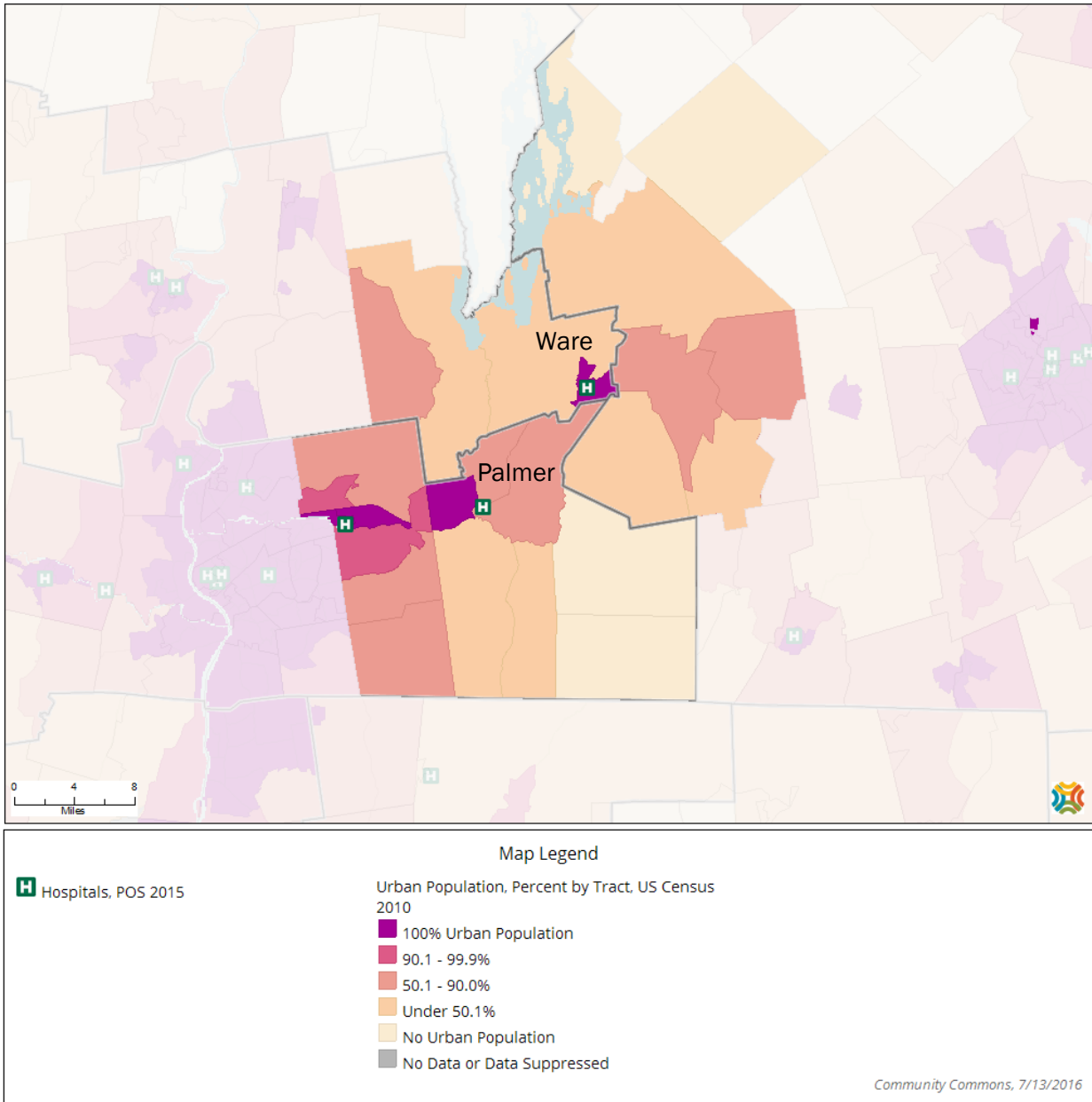
*Only the South Barre section of Barre is part of the service area

Table 2. Sociodemographic Characteristics of Baystate Wing Service Area

Sociodemographic Characteristic	Baystate Wing Service Area*	Worcester County	Hampden County	Hampshire County
Total population	121,478	806,804	466,447	160,328
Age				
Median age (years)	NA	39.6	38.7	35.8
Under 5 years	4.5%	5.7%	5.9%	3.7%
5 to 17 years	16.7%	16.9%	17.1%	12.4%
18 to 44 years	29.6%	64.0%	62.3%	70.2%
64 and over	16.1%	13.4%	14.7%	13.7%
Race and Ethnicity				
One race	98.6%	97.4%	97.7%	97.9%
White	96.4%	85.5%	78.2%	89.1%
Black or African American	1%	4.4%	8.7%	2.7%
American Indian and Alaska Native	0.1%	0.2%	0.3%	0.1%
Asian	0.7%	4.3%	2.1%	5.1%
Native Hawaiian and Other Pacific Islander	0%	0.0%	0.0%	0.1%
Some other race	0.4%	2.9%	8.4%	0.8%
Two or more races	1.4%	2.6%	2.3%	2.1%
Hispanic or Latino origin (of any race)				
White, non-Hispanic	NA	79.7%	66.1%	85.3%
Language Spoken at Home (population over 5)				
Speak language other than English at home	NA	18.6%	25.0%	9.5%
Educational Attainment				
Population 25 years and over	85,587	544,804	308,398	97,721
Less than high school graduate	9.6%	10.4%	15.9%	6.4%
High school graduate (includes equivalency)	NA	28.7%	30.6%	24.9%
Some college or associate's degree	NA	26.7%	28.1%	25.5%
Bachelor's degree or Higher	NA	34.1%	25.5%	43.2%
Income				
Median income - individual	NA	\$31,131	\$25,416	\$24,131

Source: U.S. Census, ACS, 2010-2014; *CC ACS 2010-2014

Figure 3. Urban Population in the Baystate Wing Service Area



Source: CC 2016, U.S. Census Bureau, Decennial Census 2010

Prioritized Health Needs of the Community

The following are the prioritized health needs identified for Baystate Wing's service area. The prioritized health needs of the community served by Baystate Wing are grouped into three categories: (I) community level social and economic determinants that impact health, (II) barriers to accessing quality health care, and (III) health conditions and behaviors.

I. Community Level Social and Economic Determinants that Impact Health

Below are the community level social and economic determinants of health that impact Baystate Wing's service area, many of which were identified as prioritized community health needs in Baystate Wing's 2013 CHNA and continue to contribute to the health challenges experienced in its service area.

Lack of Resources to Meet Basic Needs

In Baystate Wing's service area, a number of residents struggle with **poverty** and **low levels of income**. The connections between poor health and poverty, low levels of income, and access to fewer resources are well established. Low-income individuals are more likely to be negatively impacted by the chronic stress associated with challenges in securing basic necessities that impact health such as housing, food, and access to physical activity.

The unemployment rate in the Baystate Wing service area is slightly higher than the state at 6% versus 5% statewide (Table 3). Many communities within the Baystate Wing service area have median family incomes below that of the state. The lowest median family incomes were found in parts of Ware (\$47,934), Ludlow (\$50,000), Warren (\$50,513), and Palmer (\$54,063) (CC, U.S. Census Bureau, American Communities Survey [ACS], and 2010-2014). The overall poverty rate in the Baystate Wing service area is 8% and some communities are even higher including areas of Ware, Palmer, Warren, and Ludlow whose poverty rates were over 15% (Figure 4) (CC, ACS 2010-2014). The federal poverty level (FPL) is extremely low and omits a sizeable portion of the population that is struggling economically. The percent of the population living below 200% of the federal poverty level offers a better glimpse of individuals who are low income and may lack resources to meet basic needs. In particular, families that live below 200% of the poverty line likely do not have the resources they need to be economically self-sufficient. An analysis done by the Crittendon Women's Union found that the income needed for a family with 2 adults and 2 children in Hampden County to be self-sufficient in 2010 was \$56,347,⁴ which was higher than the 2010 200% poverty level of \$44,226 for a family of four.⁵ This was also true in Hampshire and Worcester County, where the income needed for a family of 2 adults and 2 children to be self-sufficient was \$55,808 and \$61,473, respectively.⁶ Approximately 22% of residents in the Baystate Wing service area live in households with incomes below 200% the federal poverty level. The highest levels were found in Warren, where 39% of the population lived in households at or below 200% of federal poverty level (CC, U.S. Census Bureau, ACS 2010-2014).

Across all interviews and focus groups conducted for the coalition for the 2016 CHNA, poverty was identified as a factor that impacts overall health, access to health care, and access to program and

services that promote health. Baystate Wing key informant interviewees identified the high poverty and unemployment rates in the Hospital's service area as the underlying root cause of poor health.

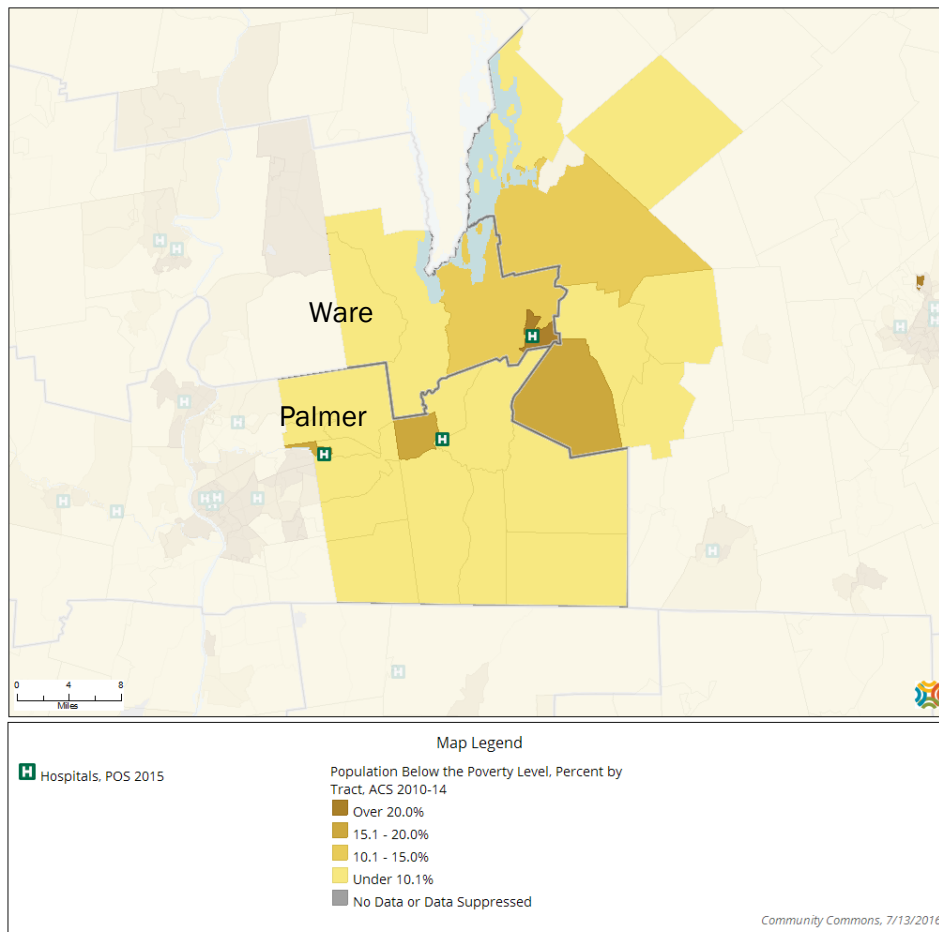
Table 3. Socioeconomic Factors

	Baystate Wing Service Area	Hampden County	Hampshire County	Worcester County	Massachusetts
Median Family Income*	n/a	\$61,898	\$82,573	\$82,736	\$86,132
Unemployment**	5.5%	6.9%	4.3%	4.9%	4.7%
Poverty*					
Population living below federal poverty level	7.9%	17.1%	13.9%	11.6%	11.6%
Population living below 200% of federal poverty level	22.2%	36.9%	27.4%	24.9%	25.0%
Children living below federal poverty level	8.8%	27.4%	12.7%	15.6%	15.1%
Children eligible for free or reduced lunch*	30.2%	59.8%	28.4%	37.7	38.3%
No high school diploma*	9.6%	15.9%	6.4%	10.4	10.5%

Sources: *CC, 2016, U.S. Census Bureau, 2010-2014; no high school diploma among adults age 25 and older; child poverty is below the federal poverty level

**CC, US Department of Labor, Bureau of Labor Statistic, February, 2016

Figure 4. Baystate Wing Hospital Service Area Poverty Rates



Source: CC, 2016, U.S. Census Bureau, 2010-2014; poverty is 100% below federal poverty level

Low levels of educational attainment also contribute to availability of resources to meet basic needs. Levels of education are strongly correlated with both employment status and the ability to earn a livable wage. Approximately 10% of Baystate Wing service area residents age 25 and older do not have a high school diploma. The highest rates are found in areas of Ludlow, Palmer, and Ware (CC, U.S. Census Bureau, ACS 2010-2014).

Vulnerable Populations

Children and populations of color are disproportionately impacted by poor socioeconomic status in the Baystate Wing service area.

- Thirty percent of **children** living in the Baystate Wing service area qualify for free or reduced lunch. More than half of students qualify for free or reduced lunch in schools located in Palmer, Warren, and Ware. In addition, a number of communities have child poverty rates that exceed the state rates of 15.1%, including parts of Hardwick, Ludlow, New Braintree, Palmer, and Warren. In part of Ware, an estimated 46% of children live in poverty (CC, US Census Bureau, ACS 2010-14).

- Poverty rates and the percent of population without a high school diploma are higher among **Latinos, Asians, and Blacks** (CC, US Census Bureau, 2010-2014)

Housing Needs

Regional public health officials identified housing insecurity and homelessness as key contributors to poor health.

Housing insecurity was identified as a health need in the 2013 CHNA and continues to impact Baystate Wing service area residents. Nearly one-third of the population in Baystate Wing's service area is housing cost burdened, with rates of 40% or greater in parts of Ludlow, Palmer, and Ware (CC, ACS 2010-14). Housing cost burden is defined as more than 30% of income going towards housing.

Lack of affordable housing can contribute to **homelessness** and housing instability, which leads to increased stress and can often force families to prioritize housing costs over factors that can influence health, such as purchasing healthy foods and medications. Key informants interviewed for the Baystate Wing and regional public health officials identified homeless individuals as a vulnerable population of concern. Despite a decrease in overall homelessness in western Massachusetts in recent years, rates of homeless families have increased and are higher than state and national rates.⁷ From 2013 to 2015, the number of homeless families in the region increased from 631 to 909 families. In 2015, there were 339 homeless youth (age 24 and under) in western Massachusetts, and 280 of these youth identified as parents.⁸ The number of homeless youth is likely an underestimate since homeless youth without children tend to avoid traditional shelters and services.⁹

Poor housing conditions also impact the health of residents. Older housing combined with limited resources for maintenance can lead to problems (e.g. mold, pest/rodent exposure) that affect asthma and other respiratory illnesses; exposure to environmental contaminants such as lead paint, asbestos, and lead pipes; and safety and accessibility issues for children, elderly or disabled populations. The Baystate Wing service area has a large older housing stock, with approximately 30% of occupied housing units in Hampden, Hampshire, and Worcester Counties built before 1940. Rates were even greater in Ware, with 38% of housing units built before 1940 (U.S. Census Bureau, 2010-2014).

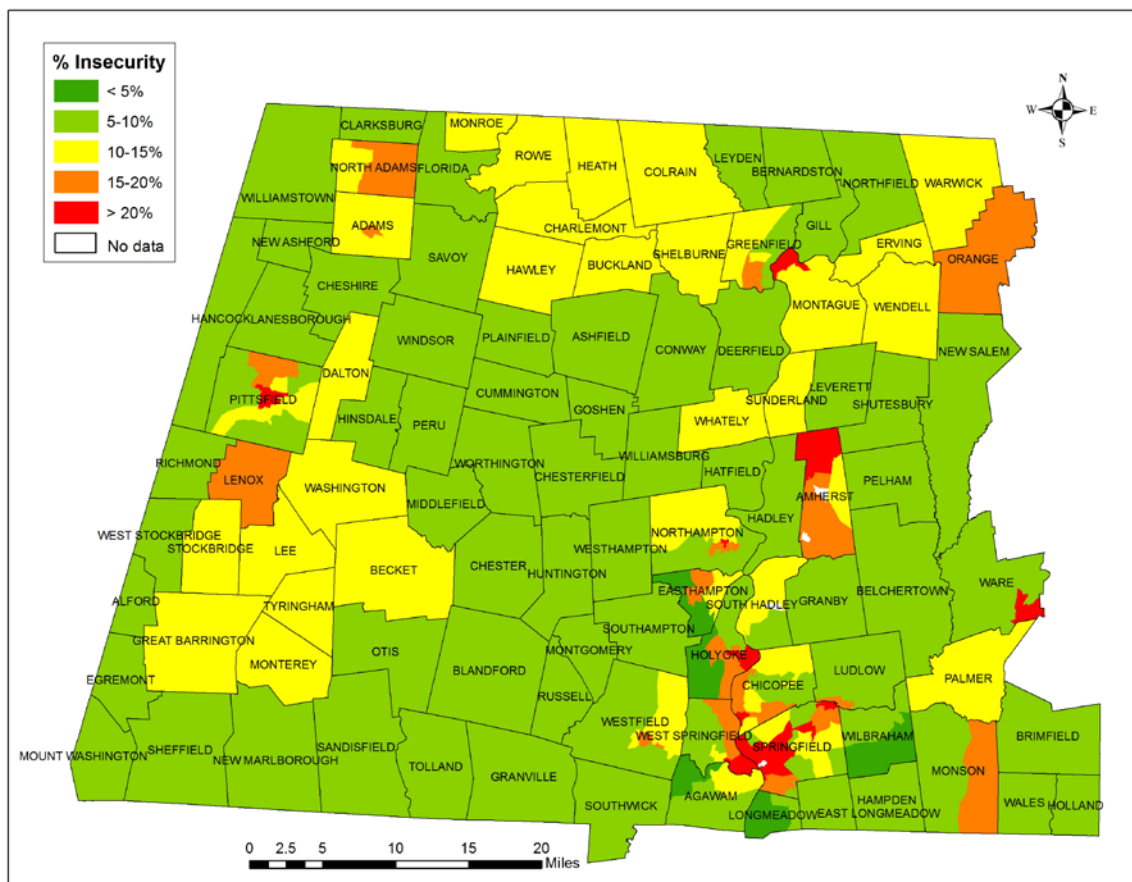
Transportation

Regional public health officials interviewed for the 2016 CHNA identified increased transportation options as an overall community need for the region. Individuals who do not own a vehicle face difficulties accessing educational and employment options; community-based programs that promote health, such as exercise and nutrition programs; and other activities that promote social connection. In addition, lack of accessible transportation has an impact on health for low-income or elderly populations living in rural areas, where public transportation may have limited routes and frequency of service.¹⁰ Lack of transportation is a concern in Ware and Palmer where 10-11% of households do not have vehicles (CC 2016, ACS, 2010-14).

Food Insecurity and Food Deserts

Food insecurity was identified as a health need in the 2013 CHNA and continues to impact the ability of many Baystate Wing service area residents to access healthy food, according to Baystate Wing key informant interviewees. Eating nutritious food is good for promoting overall health and is important for managing many chronic health conditions. However, not all individuals and communities have equal access to healthy food. Food insecurity is a measure of inadequate or uncertain access to food, including healthy food, and is estimated based on social and economic characteristics such as income. Among the three Counties in the Baystate Wing Service area, the food insecurity rate ranges from 10% in Worcester County to 12% in Hampden County. The food insecurity rate among children is even higher, ranging from 15% in Hampshire County to 19% in Hampden County.¹¹ As can be seen in a map of food insecure census tracts in western Massachusetts (Figure 5), portions of Ludlow, Monson, and Ware have rates of food insecurity greater than 15%. Data was only available for the geographic area shown.

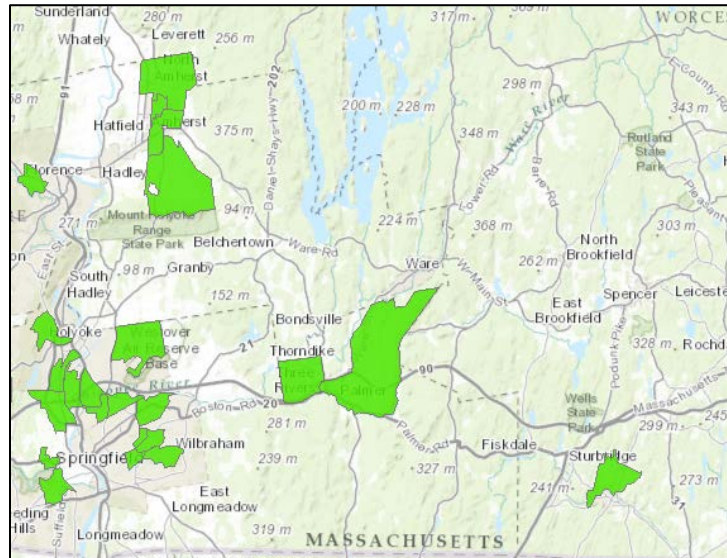
Figure 5. Food Insecurity Rates in Western MA



Data source: Gundersen, C., A. Satoh, A. Dewey, M. Kato & E. Engelhard. *Map the Meal Gap 2015: Food Insecurity and Child Food Insecurity Estimates at the County Level*. Feeding America, 2015. Feeding America. Source: Provided courtesy of the Food Bank of Western Massachusetts. Mapping: Provided courtesy of Baystate Medical Center Biostatistics and Epidemiology Core

The Baystate Wing service area also contains **food deserts**. Low-income individuals are more likely to live in food deserts, which are areas where grocery stores and other options to purchase healthy foods are far away and difficult to access for people that either do not own a vehicle or where public transportation is limited. Lack of access to grocery stores was identified as a need by Baystate Wing key informant interviewees. Figure 6 highlights in green the parts of Palmer that have areas that the USDA has identified as food deserts.

Figure 6. USDA Food Atlas Food Desert Areas in Baystate Wing Hospital Service Area



Source: USDA Food Access Research Atlas; accessed 7/13/16

USDA food desert definition: at least 500 low-income people in a census tract live more than one mile away from a grocery store in urban areas and more than 10 miles from a grocery store in rural areas

Domestic Violence

Baystate Wing key informant interviewees and community members that participated in the meeting to review preliminary CHNA findings identified domestic violence as a priority concern in this service area. The United States Department of Justice defines domestic violence as “a pattern of abusive behavior in any relationship that is used by one partner to gain or maintain power and control over another intimate partner”.¹² The impact of domestic violence reaches far beyond the person who is abused, having substantial effects on family members, friends, other witnesses, and the community. Children who are exposed to violence in the home are predisposed to many social and physical problems including substance use, and as violence becomes normalized, it increases the risk that they will become the next generation of victims or abusers.¹³

Information provided by the Ware Region Domestic Violence Task Force indicates that Ware had nearly double the number of restraining orders that were due to domestic violence per capita compared to all other towns served by the Eastern Hampshire District Court in 2015. Although Ware only represents 11% of the population served by the Eastern Hampshire District Court, they accounted for 21% of all restraining orders.¹⁴ Information provided by the Palmer Domestic Violence

Task Force indicates that Palmer had slightly higher rates of domestic violence calls than Ware and that almost 9% of all arrests were due to domestic violence in 2015.¹⁵

Baystate Wing key informant interviewees noted the overlap of mental health conditions, substance use disorder, domestic violence, and the separation of families as areas of significant concern for the region and service area.

II. Barriers to Accessing Quality Health Care

The lack of affordable and accessible medical care was identified as a need in the 2013 CHNA and continues to be a need today.

Limited Availability of Providers

Focus group participants identified the need for increased availability of dental and mental health providers. Accessibility to an already limited number of providers can be impacted by community location (rural or urban), and/or insurance restrictions. Low-income individuals are more negatively impacted by insurance related issues of access. Access issues may be compounded in the rural areas.

Focus group participants and key informant interviewees overwhelmingly reported a need for increased access to mental health and addiction services for acute, maintenance, and long-term care. In addition, focus group participants for Baystate Wing noted the need for increased training and capacity of primary care providers to provide mental health and substance use treatment services.

“Primary care doctors are refusing to or claiming they are not able to care for young family members with addictions.”

- Focus group participant,
Baystate Wing focus group

The need for increased access to dental care and education about dental hygiene was identified by Baystate Wing focus group participants as an important health need that impacts self-esteem, mental health, and employment opportunities. Baystate Wing focus group participants also noted the relationship between substance use and poor dental health. The rate of dentists to population was lower in the Baystate Wing service area, at 71 per 100,000 people compared with 91 per 100,000 statewide (CC, HRSA, 2013).

According to a member of the Massachusetts Oral Health Advocacy Taskforce, adults on MassHealth experience challenges accessing dental services because of the shortage of dental providers accepting MassHealth and insufficient coverage of services. Although access to pediatric dentists has improved over the years, access to dental services remains a challenge for adults.

Insurance Related Challenges

Issues related to insurance coverage present barriers to affordable and accessible care. Findings from a focus group conducted for the Coalition with low-income, rural residents in western Massachusetts noted the high cost of deductibles and co-pays for medication and services as barriers to accessing the care and services they need. Residents also identified their general frustrations with navigating the health insurance system. Baystate Wing focus group participants agreed that the health care system is overwhelming, complex, difficult to navigate, and that this responsibility is primarily put on individuals. Baystate Wing focus group participants recommend increased community education to improve insurance enrollment and better navigation and use of the health care system for residents in the service area.

Findings from focus groups and key informant interviews conducted with health care providers and administrators for another hospital in the Coalition identified multiple barriers imposed by the health insurance system that directly impact the treatment of health concerns. Issues identified include:

- gaps in service coverage for mental health and substance use treatment between public and private insurance;
- reimbursement policies that silo care;
- the limited number of providers that accept patients with public insurance due to state requirements (for example, the paperwork to become an approved provider and low reimbursement rates). This lack of Medicaid providers was most significant in rural, low-income communities across western Massachusetts.

In addition, key informant interviews conducted for the Coalition with individuals that are employed by a regional health insurance provider identified the “three strikes and you’re out” guidelines for Medicaid patients that are determined by state regulations. Behavioral health patients who miss three consecutive appointments have their cases closed. Similarly, MassHealth patients reported that if they miss three consecutive appointments with a primary care provider, they are required to find a new provider. It is not clear if this is due to MassHealth policy or primary care provider policy. This is an additional challenge in areas where providers that accept Medicaid are limited. The key informant interviewees identified multiple barriers that can contribute to missing three consecutive appointments, including:

- lack of transportation;
- financial barriers;
- the impacts of a health condition, such as a physical disability or mental health condition that may make it difficult for a person to leave their home.

Lack of Transportation

Transportation is also a major barrier to accessing care. In key informant interviews with local and regional public health officials for the 2016 CHNA, as well as in focus groups and interviews conducted for Baystate Wing, transportation was frequently cited as a barrier to care that has the greatest impact on the elderly, low-income individuals, and those living in rural areas. All Baystate Wing key informant interviewees who participated in this CHNA identified a lack of public transportation as the most significant barrier to accessing health care.

Lack of Care Coordination

Lack of care coordination was identified as a prioritized community health need in this assessment. Care coordination refers to the coordination of patient care and information sharing among all health care and other service providers in order to improve health outcomes.¹⁶ In the 2016 CHNA, focus groups and key informant interview findings from Baystate Wing and across the Coalition identified important areas where care provided by multiple providers continues to be uncoordinated and can negatively impact health. Examples include:

- lack of coordination in managing the overlap between mental health and substance use;
- the need for more linkages between hospitals, community organizations, and emergency responders to better manage the opioid crisis;

- an increasing need for education and capacity for primary care providers to be better equipped to manage mental health and substance use concerns within routine care provision.

Baystate Wing focus group participants noted youth as needing more support in navigating the health care system. In addition, the barriers that occur as a result of decentralized health care services (i.e. having to travel to multiple locations for care, testing, and medications) were identified as impacting patient compliance and medication adherence. In their key informant interviews, regional public health officials described improving care coordination as key to addressing health inequities in the region.

"We need comprehensive prevention work in the schools. It has been embraced in a patchwork fashion.

- Key informant interviewee, Regional public health official

Baystate Wing focus group participants and key informant interviewees identified a need for stronger clinic-community linkages as a means to improve health for the Baystate Wing service area. Recommendations include:

- clinic-school collaborations for intervention/early education around mental health and substance use;
- increased community outreach;
- community liaisons or community health workers (CHWs) to increase access and care coordination and to address issues related to transportation, health literacy, care coordination, and navigating the health care system.

Health Literacy and Cultural Humility

The need for health information to be understandable, accessible, and provided with cultural humility was identified as a regional need in this assessment

Health literacy is defined by the CDC as the capacity for an individual to find, "communicate, process, and understand basic health information and services to make appropriate health decisions."¹⁷ Data from focus groups and regional and local key informant interviews identified the need for increased health literacy in the Baystate Wing service area, including:

- the need for patient education about health information, types of services and how to access them;
- support for patients to better advocate for themselves to ensure they are getting the information and services they need;
- Provider education to ensure that patients understand what they are being told during a clinical encounter, including:

"My experience in the community shows me that providers need to understand why people don't participate. Provider systems are not structured to give explanations - the providers need to make sure that families understand."

- Key Informant Interviewee Regional Public Health Official

- Giving them time to process information,
- Asking if they understand what they are being told,
- Using less medical jargon.

Cultural Humility

The need for culturally sensitive care was identified as a prioritized health need in this assessment. Increased training in cultural humility as a means to deliver more culturally sensitive care was identified as a prioritized health need for this region in this assessment. Cultural sensitivity and humility refer to a commitment among health care providers to self-reflection and evaluation in order to reduce the power imbalance between patients and providers, and to the development of health care partnerships that are based on mutual respect and equality.¹⁸

2016 CHNA interviews with regional public health leaders called for increased training for health care providers to deliver culturally sensitive care. In their focus group, faith-based community leaders noted that cultural sensitivity is not limited to a racial or ethnic culture, but also includes care for often-stigmatized groups, such as people with mental health or substance use issues, veterans, LGBTQ (lesbian, gay, bisexual, transgender, and queer and/or questioning) individuals, ex-offenders, homeless individuals, and youth. Focus group participants also noted that in some cultures, asking providers a question is seen as disrespectful. In addition, findings from a focus group conducted for the Coalition highlighted the need for more community liaisons or community health workers (CHWs) to address issues of access, as well as care coordination, health literacy, and cultural barriers.

"When you have professionals who do not look like the people they are serving, do not speak the same language, it can affect participation, medication compliance, etc."

- Key Informant Interviewee Regional
Public Health Official

III. Health Conditions and Behaviors

This section focuses on the health conditions and behaviors that have the largest impact on the communities served by Baystate Wing Hospital. Data is summarized for each condition or behavior included. See Appendix III for detailed hospitalization and prevalence data as available for highlighted communities within the service area (overall, and by race/ethnicity).

As discussed in limitations, hospitalization and ER data for small communities should be interpreted with the understanding that they have wide confidence intervals and estimates can vary widely.

Chronic Health Conditions

Chronic health conditions continue to remain an area of prioritized health need for the Baystate Wing Hospital service area. Residents experience high rates of chronic health conditions and associated morbidities, particularly for **obesity, diabetes, cardiovascular disease, asthma** and **chronic obstructive pulmonary disease**. A chronic health condition is one that persists for a long period of time, and typically can be controlled but not cured. According to the CDC, chronic disease is the leading cause of death and disability in the U.S. By 2020 it is estimated that 81 million Americans will have multiple chronic conditions.¹⁹ A **healthy diet** and **physical activity** play an important role in preventing and managing chronic diseases.

Obesity

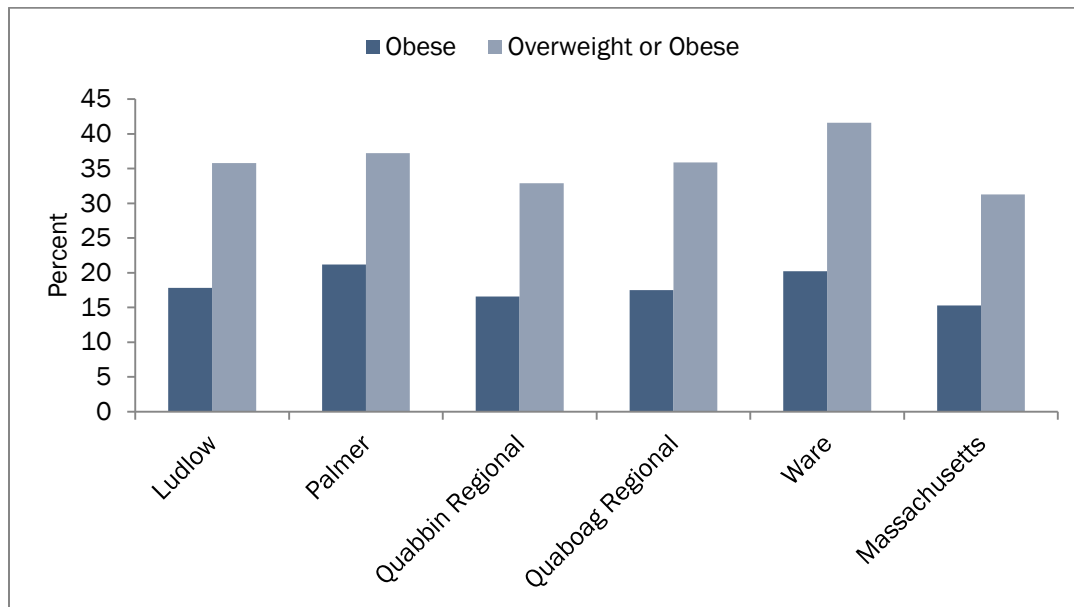
High rates of diet and exercise-related diseases, including **obesity**, were identified as a priority health need in the 2013 CHNA and continue to remain a need. Obesity was identified by Baystate Wing key informant interviewees as one of the three most urgent health concerns impacting residents in the service area. Of the three counties that make up the Baystate Wing service area, Hampden County has the highest rate of obesity, with almost 30% of adults obese and 65% overweight or obese (MA: obese - 24%; overweight/obese - 59%) followed by Worcester County (obese-27%; overweight/obese-59%) (BRFSS 2012-2014). Obesity is a national epidemic and contributes to chronic illnesses such as cancer, heart disease, and diabetes. Obesity can impact overall feelings of wellness and mental health status. A healthy diet and physical activity play an important role in achieving and maintaining a healthy weight.

Though **childhood obesity** rates have been falling nationally and within some communities in the region over the last few years, rates among school children in many communities in the Baystate Wing service area remain high, with rates over 20% observed in Palmer and Ware (Figure 7). County-level childhood obesity data is not available.

Vulnerable Populations

- **Children** experience high rates of overweight and obesity which increases their risk for adult onset chronic diseases such as diabetes, and it also increases their risk for being obese and experiencing chronic disease as an adult.

Figure 7. School Districts with the Highest Prevalence of Childhood Obesity in the Baystate Wing Service Area



Source: "Results from the Body Mass Index Screening in Massachusetts Public School Districts, 2014"
Children are screened in grades 1, 4, 7, 10

Cardiovascular Disease

Cardiovascular disease (CVD) was identified as a prioritized health need for the Baystate Wing service area. Heart disease is among the top leading causes of death in all three counties, and there is a high prevalence of heart disease among older adults. In addition, there is a high prevalence of hypertension and high cholesterol, which are strong risk factors for cardiovascular disease. Cardiovascular disease includes diseases that affect the heart and blood vessels, such as coronary heart disease, angina (chest pain), heart attack (myocardial infarction) and stroke.

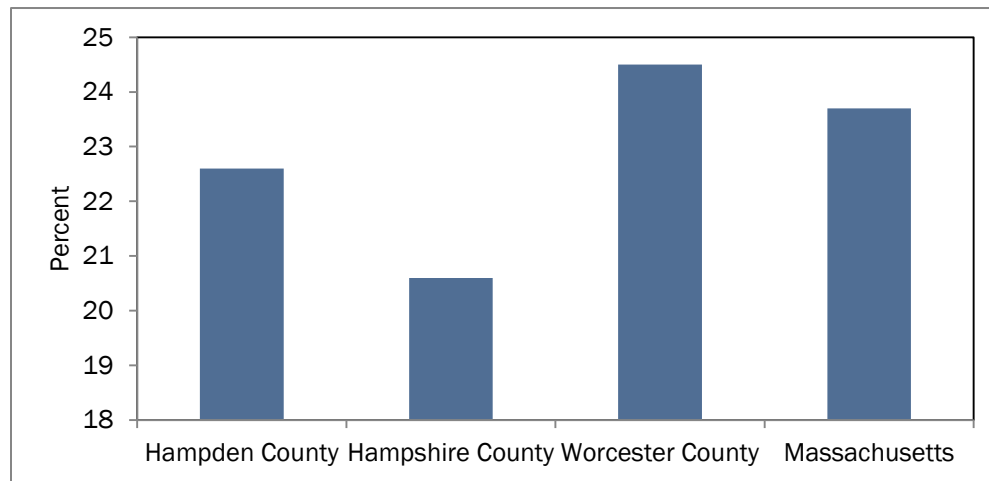
Older adults experience high rates of **heart disease**. Among the three service area counties in 2014, more than one in 5 older adults had heart disease with rates ranging from 25% in Worcester County to 21% in Hampden County (24% statewide) (Figure 8) (Medicare 2014, one-year estimate).

Hypertension, or high blood pressure, and **high cholesterol** are conditions that increase the risk of CVD. Among all three counties, more than one in five adult residents is estimated to have hypertension (Hampden 30%; Worcester 26%; Hampshire 23%) (CC, BRFSS 2006-12), and approximately one in three is estimated to have high cholesterol (Hampden 38%; Worcester 35%; Hampshire 30%) (CC, BRFSS 2011-12). In 2014, more than half of older adults in Hampden (62%), Hampshire (58%) and Worcester Counties (58%) had hypertension (statewide 56%) (Medicare 2014, one-year estimate).

Vulnerable Populations

- **Older adults** experience high rates of heart disease and hypertension as described above.

Figure 8. Coronary Heart Disease Prevalence Among Medicare Enrollees Age 65 or Older in Baystate Wing Service Area Counties, 2014



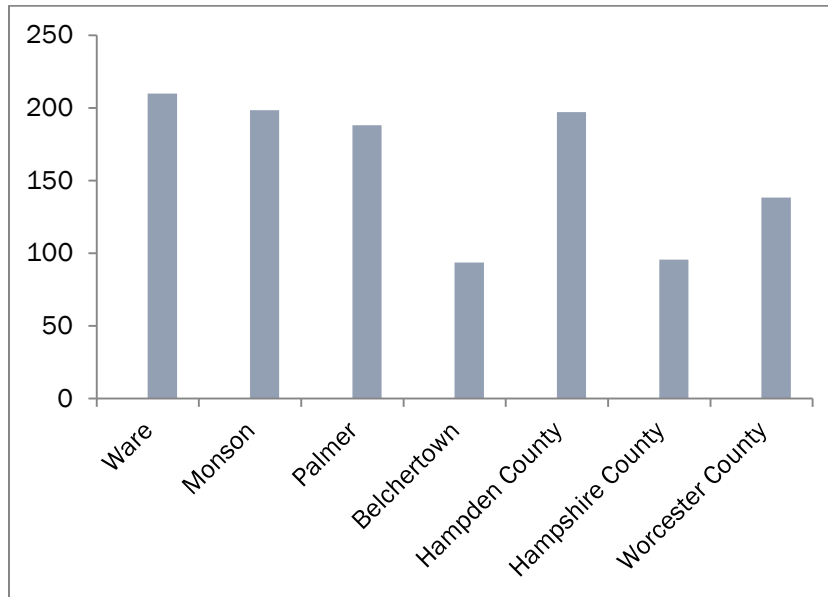
Source: MDPH, Medicare 2014, one-year estimates

Diabetes

Diabetes was noted as a top health concern for residents in the service area by Baystate Wing focus group participants and key informant interviewees. Approximately 13% of Hampden County residents have **diabetes**, which is greater than the state and national rate, and 21% are estimated to have either **pre-diabetes or diabetes** (BRFSS, 2010-2012). Rates are also high in Worcester County, where 10% of residents are estimated to have diabetes and 18% have either pre-diabetes or diabetes (BRFSS, 2010-2012). Diabetes (the vast majority of which is Type 2 diabetes [T2D]) is one of the leading causes of death and disability in the U.S. and is a strong risk factor for cardiovascular disease. The CDC estimates that 9.3% of people in the U.S. have diabetes, of which 27.8% are undiagnosed.²⁰ Pre-diabetes is when a person has high blood sugar levels that are not high enough for a diagnosis of diabetes. An estimated 15-30% of people with pre-diabetes will develop T2D within 5 years. T2D can be prevented and managed with a combination of weight loss, exercise, medication, and maintaining a healthy diet.²¹

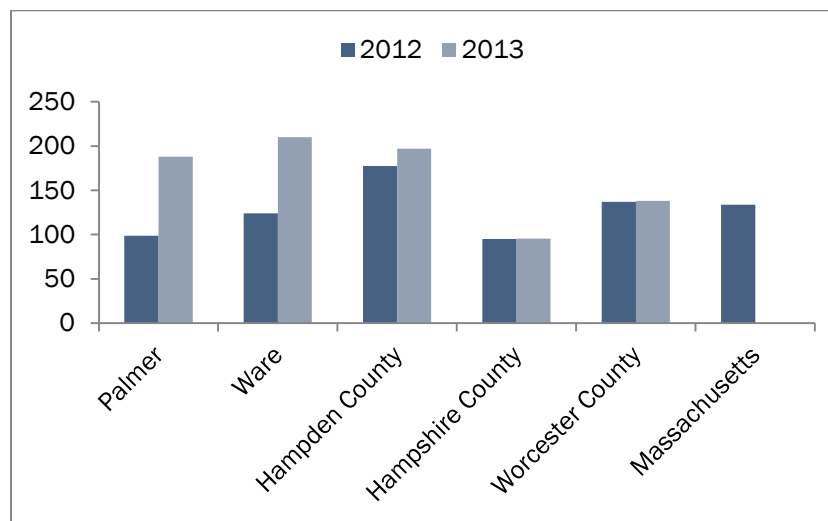
Diabetes hospitalization rates are a measure of severe diabetes-related morbidities. Among Baystate Wing service area communities in 2013, the highest rates were observed in Ware, Monson, and Palmer (Figure 9). Figure 10 illustrates 2012 and 2013 hospitalization rates among highlighted communities, service area counties and the state.

Figure 9. Communities with the Highest Diabetes Hospitalization Rates in the Baystate Wing Service Area, 2013



Source: MDPH; age-adjusted per 100,000; *Data available for less than 10 communities

Figure 10. Diabetes Hospitalization Rates in Highlighted Baystate Wing Service Area Communities, 2012



Source: MDPH; age-adjusted per 100,000

Asthma

Asthma impacts many Baystate Wing service area residents with pediatric asthma identified by Baystate Wing focus group participants as one of the top health concerns in the service area. In Hampden County, an estimated 12% of adults have asthma (BRFSS 2008-2010). Adult asthma prevalence was not available for Hampshire or Worcester Counties at the time of this analysis. Many children are also impacted with asthma prevalence among school children in 2013-2014 ranging from 11% in Worcester County to 17% in Hampden County (12% statewide) (MDPH, EPHT). Several communities in Baystate Wing's service area have a particularly high **pediatric asthma** prevalence including Holland (31%), Monson (20%), and Palmer (18%) (MDPH, EPHT, 2013-2014).

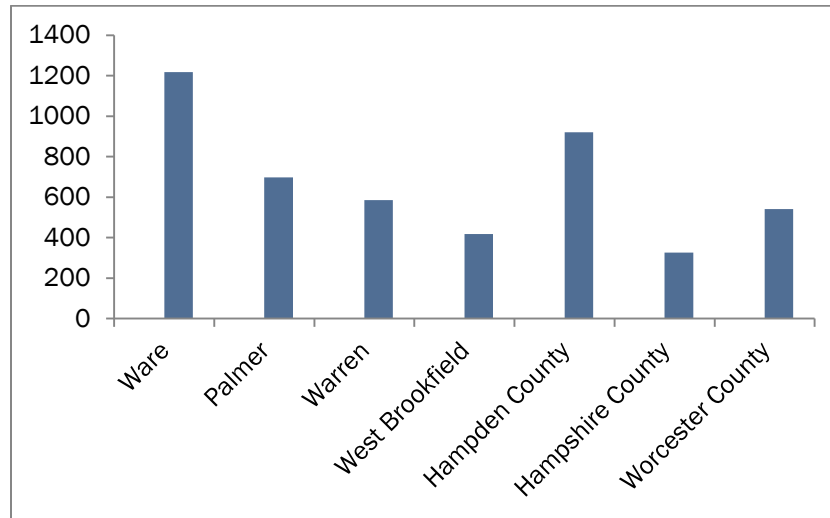
Baystate Wing focus group participants noted the link between high rates of pediatric asthma and smoking in the home. Asthma is a common chronic respiratory disease that affects the health and quality of life of children and adults. Asthma can be impacted by different factors in the environment, including cigarette smoke, second hand smoke, air pollution, pollen levels, and mold, dust, and other household contaminants or exposures.

Among Baystate Wing service area communities, Ware, Palmer, and Warren had the highest asthma ER visit rates in 2013 (Figure 11), with particularly high rates in Ware when compared to the 2012 state rate (Figure 12).

Vulnerable Populations

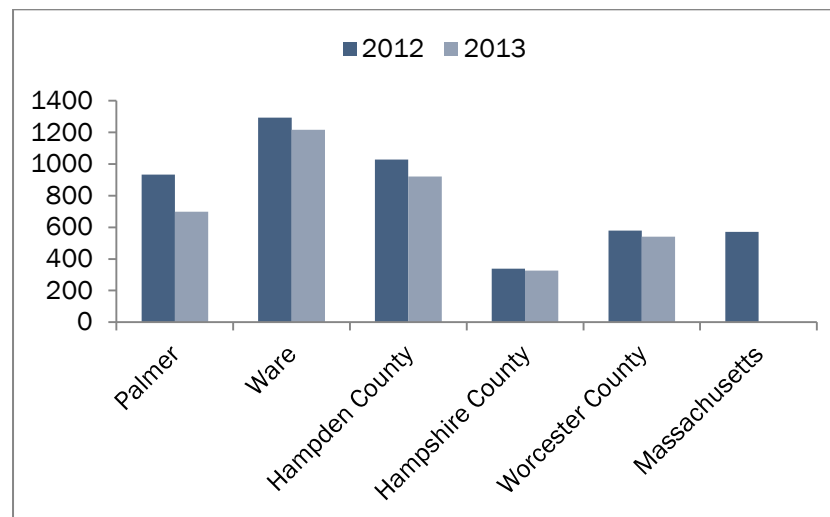
- **Children** with asthma are a vulnerable population. Pediatric asthma prevalence rates are higher than the state in many Baystate Wing service area communities. In addition, pediatric ER visit rates (age 0-14) in Palmer and Ware were approximately 20-40% higher than that of the state (MDPH, 2012).
- **Latinos** experience asthma related disparities in the service area. In Ware, asthma ER visits among Latinos were more than three times that of Whites and more than seven times the overall MA rate (MDPH, 2012).

Figure 11. Communities with the Highest Asthma ER Visit Rates in the Baystate Wing Service Area, 2013



Source: MDPH; age-adjusted per 100,000;

Figure 12. Asthma ER Visit Rates in Highlighted Baystate Wing Service Area Communities, 2012-2013



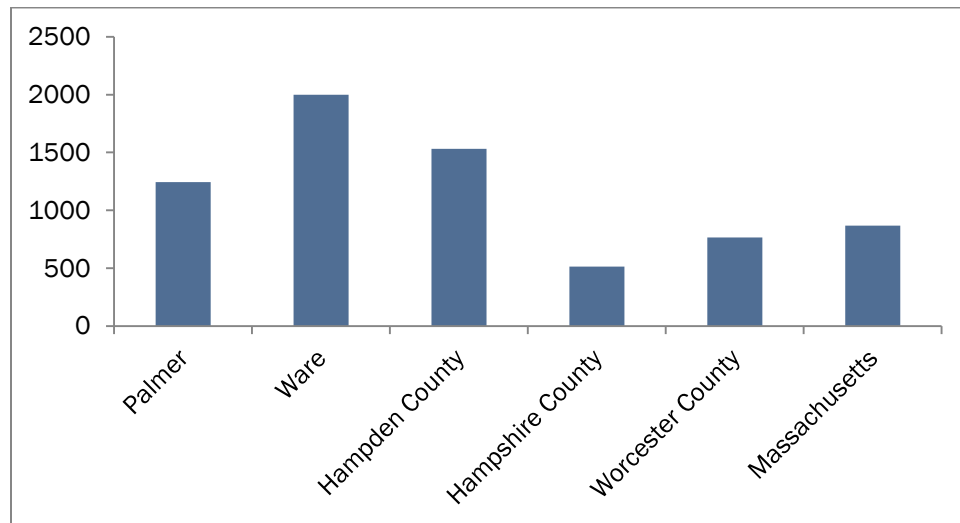
Source: MDPH; age-adjusted per 100,000

Chronic Obstructive Pulmonary Disease

Nearly 7% of the population living in the western region of Massachusetts has **chronic obstructive pulmonary disease (COPD)**.²² COPD impacts many residents in the Baystate Wing service area. In 2012, ER visit rates for COPD in Hampden County, Palmer, and Ware surpassed state rates (Figure 13). Ware’s ER visit rate of 1,998 per 100,000 was more than double the rate of the state. Palmer’s hospitalization rate also exceeded Massachusetts (MDPH, 2012).

COPD refers to “a group of diseases that cause airflow blockage and breathing-related problems”, including emphysema, chronic bronchitis, and asthma, and was the third leading cause of death in the U.S in 2011.²³ COPD is most commonly caused by smoking, although indoor and outdoor air pollution, genes, and respiratory infections can contribute. COPD is most likely to impact individuals over the age of 65, females, past or current smokers, and low-income individuals. COPD is commonly underreported, has better long-term outcomes if detected early, and can negatively impact quality of life if not managed (CDC, 2015).

Figure 13. COPD ER Visit Rates in Highlighted Baystate Wing Service Area Communities, 2012



Source: MDPH; age-adjusted per 100,000

Vulnerable Populations

- **Latinos** in Ware experienced ER visit rates three times that of whites and more than six times the overall statewide rate (MDPH, 2012).

Need for Increased Physical Activity and Healthy Diet

Increased **physical activity** and **consumption of fresh fruits and vegetables** was identified as a community need by regional public health officials and key informants interviewed for this CHNA. The CDC’s BRFSS 2013 survey estimated that only 9% of MA residents met the national vegetable consumption recommendation and only 14% met the fruit consumption recommendation.²⁴ In addition, only 55% of adults in the Springfield Metropolitan Statistical Area, Hampden, Hampshire, and Franklin Counties, engaged in 30 or more minutes of moderate activity on five days per week or 20 minutes of vigorous activity on three or more days per week (BRFSS 2009). These rates are affected by the availability of affordable healthy food and safe places to be active as well as individual knowledge and behaviors.

Increased youth programming that encourages physical activity and recreation was identified as a need by key informant interviewees consulted for this CHNA. Key informant interviewees from the Coalition also noted that access to recreation opportunities is a significant barrier for low-income

individuals and families living in rural communities, where activities are disparately located, cost-prohibitive, and inaccessible by public transit.

Mental Health and Substance Use

Across all key informant interviews and focus groups conducted for the Coalition to inform the 2016 CHNA, including Baystate Wing, substance use and mental health conditions were identified as the most urgent health need impacting the area. Substance use disorders overall and opioid use disorder specifically, were identified as top issues. There was overwhelming consensus among community members at the preliminary findings meeting, health care providers, and administrators about the need for:

- increased education across all sectors to reduce the stigma associated with mental health and substance use;
- more treatment options, including access to long term treatment programs;
- increased integration between the treatment of mental health and substance use disorders, particularly in the primary care setting;
- the need for increased education and prevention efforts targeting youth;
- the negative impact of untreated mental health conditions and substance use on families.

Baystate Wing key informant interviewees noted the cyclical impacts of mental health, substance use, domestic violence, and the fragmentation of families as overlapping areas of significant concern for the region and service area.

Mental Health

An estimated 16% of Hampden County residents, 12% of Hampshire County residents, and 11% of Worcester County residents have poor mental health on 15 or more days in a month (11% statewide) (BRFSS 2012-2014). Though mental health is commonly thought of as the absence of mental illness, mental well-being extends beyond the presence or absence of mental disorders, and has been defined by the World Health Organization as the “state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.”²⁵ Only 17% of U.S. adults are estimated to be “in a state of optimal mental health.”²⁶ Mental health is an indicator of health itself, but also contributes to physical health and inequities.

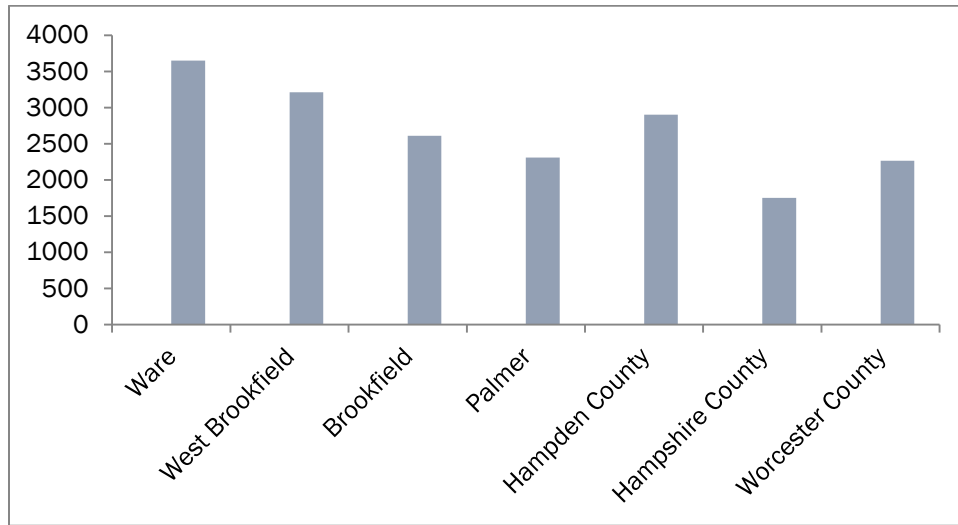
Depression is the most common type of mental illness, and it affects more than 26% of U.S. adults.²⁷ It is estimated that by 2020, depression will be the second leading cause of disability worldwide, and children are a particularly vulnerable population.²⁸ Mental illness often co-occurs with substance use disorders and impacts physical health as well.

Of all Baystate Wing service area communities in 2013, the highest ER visit rates, which include those occurring as a result of substance use, were observed in Ware, West Brookfield, and Brookfield (Figure 14). Ware had the highest rate in 2013, and their 2012 ER visit rate due to mental disorders was much higher than the state rate (Figure 15).

“Waiting for a bed to open is ridiculous- when you have a heart attack or a stroke, you get care in the ER and then they help you with all sorts of after care and follow up; where is that with mental health and addiction treatment services?”

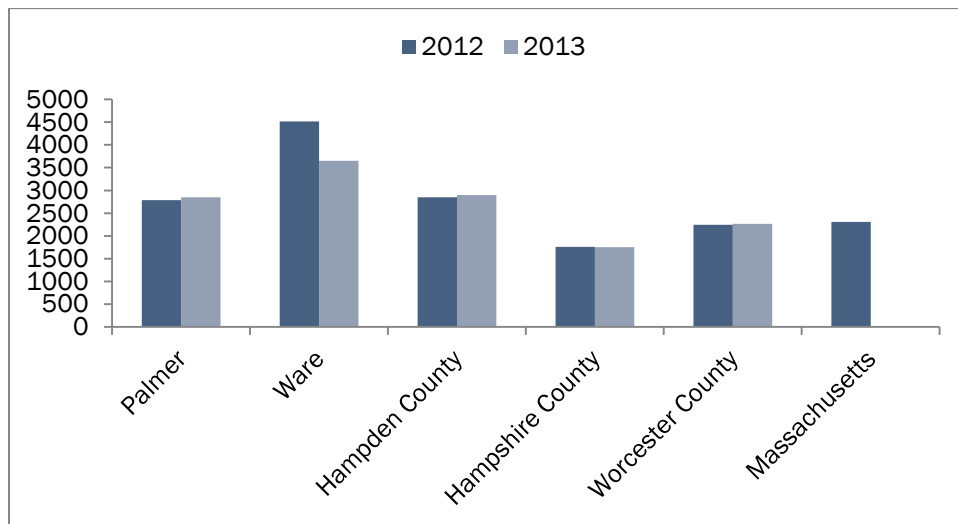
- Focus Group Participant,
Mental Health and Substance Use
Focus Group

Figure 14. Communities with the Highest Mental Health Disorder ER Visit Rates in the Baystate Wing Service Area, 2013



Source: MDPH; age-adjusted per 100,000;
 Note: mental health disorder ER visits include those related to substance use

Figure 15. Mental Health Disorder ER Visit Rates in Highlighted Baystate Wing Service Area Communities, 2012-2013



Source: MDPH; age-adjusted per 100,000
 Note: mental health disorder ER visits include those related to substance use

Vulnerable Populations

- **Youth** are disproportionately impacted by mental health issues. In the Hampden County Twelve Town Community Health Assessment, depression among youth was identified as an issue with a key informant interviewee noting “there’s more depression and desperation just under the surface among the young.”²⁹ Baystate Wing key informant interviewees cited the

importance of more outreach and prevention education, crisis interventions, and opportunities for youth as essential to addressing mental health and substance use concerns.

- **Older adults** experience high rates of depression. Across the three counties, an estimated 16-17% of older adults have depression (16% statewide) (Medicare 2014, one-year estimate).

Substance Use

High rates of **substance use**, including **tobacco**, continue to be a prioritized health need for the community. An estimated 21% of Hampden County residents, 19% of Worcester County residents, and 16% of Hampshire County residents are smokers (16% statewide) (BRFSS 2012-2014).

ER visit and hospitalization rates for **Substance use disorder** (SUD) were also high among some communities in the Baystate Wing service area. SUDs refer to the recurrent use of drugs or alcohol that result in health and social problems, disability, and inability to meet responsibilities at work, home, or school. Risk factors for SUD include genetics, age at first exposure, and a history of trauma. Figure 16 illustrates the communities in the Baystate Wing service area with the highest ER visit rates that occurred due to substance use in 2013. As can be seen in Figure 17, Ware 2012 ER visit rates were noticeably higher than Hampden, Hampshire and Worcester County rates and that of the state. In addition, 2012 hospitalization rates for substance use were higher than the state in Palmer, Ware, and Hampden County. The hospitalization rate in Ware was more than double that of the state (MDPH, 2012). In feedback sessions for other Coalition Members for this CHNA, hospital providers noted that substance use ER and hospitalization visit rates are likely an underestimate as people with substance use disorder are sometimes given a primary mental health diagnosis instead to satisfy criteria for admission.

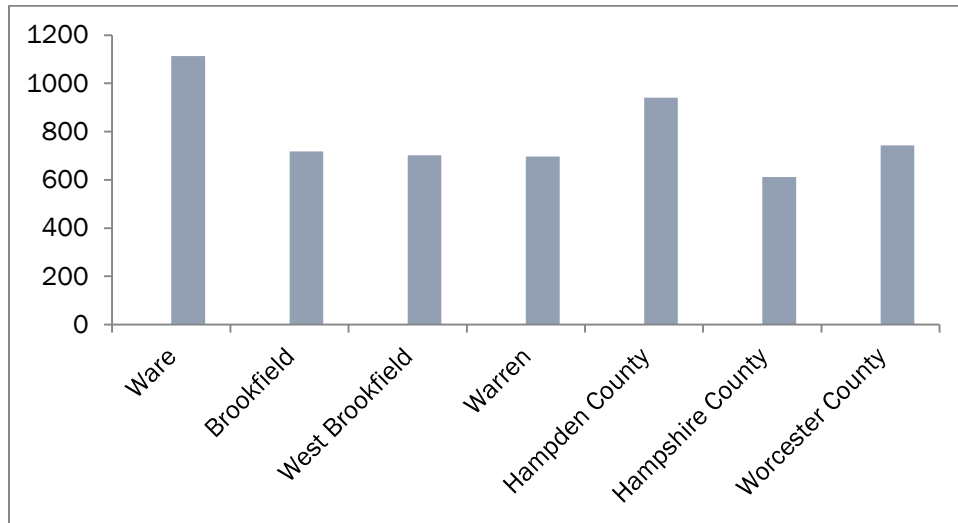
"Kids are being raised by aunts, uncles, or grandparents because of parents' drug use and mental health issues. This cycle continues unless it is nipped in the bud. We all need to start earlier."

- Focus Group Participant,
Mental Health and Substance Use Focus
Group

"There is a lot of work being done in all different areas, for families, active users, people in recovery, but there is not a lot of continuity of care. There isn't one overall agency or group tying it all together."

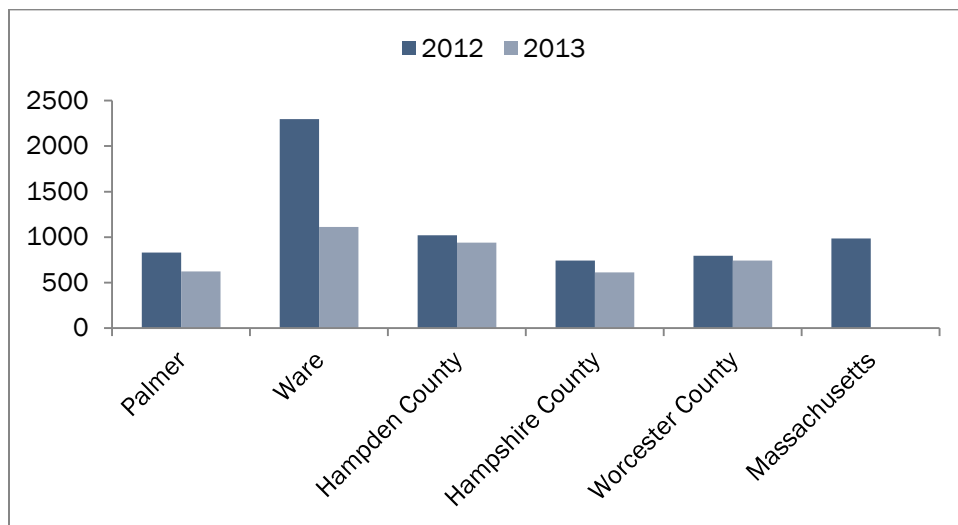
- Key Informant Interviewee, Regional
Public Health Official

Figure 16. Communities with the Highest Substance Use Disorder ER Visit Rates in the Baystate Wing Service Area, 2013



Source: MDPH; age-adjusted per 100,000

Figure 17. Substance Use Disorder ER Visit Rates in Highlighted Baystate Wing Service Area Communities, 2012-2013



Source: MDPH; age-adjusted per 100,000

Opioid use disorder has rapidly emerged as a public health crisis in Massachusetts and across the country. Western Massachusetts is impacted as well. Key informant interviews for the 2016 CHNA frequently cited the opioid crisis as an emerging issue and a top health issue facing the community. Between 2002 and 2013 in the U.S, there has been an almost threefold increase in opioid-related deaths.³⁰ In Massachusetts alone, the number of opioid-related deaths in 2014 represents a 65% increase from 2012.³¹

Opioid overdose fatalities in Hampden were higher than that of the state with 12.7 fatalities per 100,000 as compared to 10.7 statewide, and this is despite lower opioid overdose hospitalization rates (79.4 vs. 103.9 per 100,000).³² Data from Massachusetts state police indicate that approximately 40% of opioid overdose related fatalities in the first six months of 2014 were attributed to heroin, pharmaceutical opioids, and fentanyl. In addition, many of the opioid overdose fatalities in the first six months of 2014 were the result of using a combination of drugs including heroin, pharmaceutical opioids, fentanyl, cocaine, methadone, antidepressants, antipsychotics, benzodiazepines, stimulants, and muscle relaxants.³³

Findings from key informant interviews and mental and substance use focus groups conducted for the Coalition identified the following needs:

- increased institutional support to promote harm reduction approaches, such as Narcan, to reduce morbidity and mortality that occur as a result of opioid overdose;
- more access to long-term medication-assisted treatment (MAT) programming;
- continued focus on therapeutic, not just pharmaceutical, treatment of substance use disorders;
- more support and prevention education for youth, particularly those with histories of trauma.

Opioid-related hospitalizations in Palmer (697 per 100,000) and Ware (674 per 100,000) were higher than the statewide rate (375 per 100,000) in 2012 (MDPH 2012). 2012 ER visit rates were also higher than the state in these two communities (MDPH 2012).

Vulnerable Populations

- **Youth** are a vulnerable population for substance use. Substance use can affect the social, emotional and physical well-being of youth and lead to lifelong substance dependence and substance use disorder. As with mental health concerns, Baystate Wing key informant interviewees cited the importance of more outreach and prevention education in the schools and the community, crisis interventions, and opportunities for youth as essential to addressing substance use.

Infant and Perinatal Health Risk Factors

Infant and perinatal health risk factors were identified as health needs in this assessment. **Preterm birth** (<37 weeks gestation) and **low birth weight** (<2,500 grams) are among the leading causes of infant mortality and morbidity in the U.S., and can lead to health complications throughout the life span. Early entry to **prenatal care** (in the first trimester of pregnancy), as well as adequate prenatal care, are crucial components of health care for pregnant women that directly impact birth outcomes, including preterm birth, low birth weight, and infant mortality (infant death before age 1). **Smoking during pregnancy** is a risk factor that increases the risk for pregnancy complications and affects fetal development.³⁴

Among counties included in Wing's service area 7-9% of infants were born preterm (9% statewide) and 6-8% were born low birth weight (8% statewide) (MDPH 2014). In the Baystate Wing service area, preterm birth rates were particularly high in Brookfield (18%) and Warren (17%) with rates approximately double that of the state (MDPH 2014). Ware had the highest low birth weight rate at 8% (MDPH 2014).

Adequacy of prenatal care is based on whether a woman entered prenatal care early in pregnancy and number and timing of prenatal visits. In 2012, more than half of pregnant women (52%) in Worcester County received less than adequate **prenatal care**, which was almost double the statewide rate of 29% (Figure 18). In Hampden County in 2012, 21% of women had less than adequate prenatal care, and although this was lower than the state rate, it represents a sizeable proportion of women that did not receive adequate care. Rates of less than adequate prenatal care in Palmer and Ware were 19% and 17% respectively.

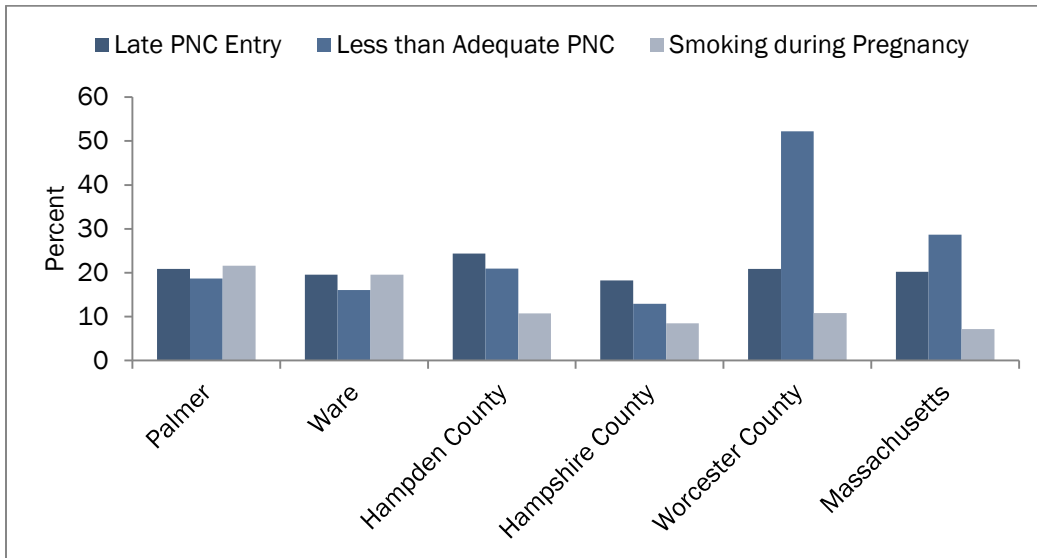
Another area of need identified was **smoking during pregnancy**, with rates in Palmer (22%) and Ware (20%) about three times the statewide rate (7%) (Figure 18). Prenatal care and smoking during pregnancy data was only available from MDPH for 2012 for highlighted communities and counties.

Participants in a Coalition focus group with mothers of young children receiving services in Hampden County expressed a need for the health care system to be more understanding about the challenges women experience managing their own care as well as the care of their families. In addition, focus group participants agreed on the need for support around stress and anxiety, particularly in the postpartum period; feelings of social isolation; and the need for increased parenting education and support for fathers.

"Don't forget the fathers."

- Focus Group Participant, Maternal and Child Health Focus Group

Figure 18. Percent of Women with Late Entry to Prenatal Care, Less Than Adequate Prenatal Care, or that Smoked During Pregnancy in Highlighted Baystate Wing Service Area Communities, 2012



Source: MDPH; adequate prenatal care includes women that received adequate or adequate plus care
 *Late PNC entry is entry to prenatal care after the 1st trimester

IV. Vulnerable Populations of Concern

Available data indicate that **children and youth**, **older adults**, and some communities of color, particularly **Latinos**, experience disproportionately high rates of some health conditions or associated morbidities when compared to that of the general population in the Baystate Wing Hospital service area.

- Children/youth experienced high rates of asthma and are impacted by obesity and mental health issues. In addition, substance use among young people can have lifelong consequences, making youth a particularly vulnerable population.
- Older adults had higher rates of heart disease, hypertension, and depression.
- Latinos experienced higher rates of ER visits due to some chronic diseases, including asthma and COPD.

Individuals with **low income** levels, those living in **poverty** (especially children and some communities of color), and those that are **homeless** are also disproportionately impacted by poor health. Though data was not available for health conditions by income/poverty level, these health determinants have been consistently documented with adverse health outcomes.

Community & Hospital Resources to Address Identified Needs

Community and hospital resources to address identified needs can be found in Appendix IV.

Impact of Actions Taken by Hospital Since Last Community Health Needs Assessment

In September 2014 Baystate Health acquired Wing Memorial Hospital, located in Palmer, Massachusetts. The new Baystate Wing Hospital and Baystate Mary Lane Hospital shared a service area of city and towns in parts of Hampshire, Hampden and Worcester counties. The merged service areas of the two hospitals are now known as the Baystate Eastern Region. Subsequently, the well-established Baystate Mary Lane Community Benefits Advisory Council expanded its membership to include representatives from Baystate Wing's service area. The Council is now known as the Baystate Eastern Region Community benefits Advisory Council.

In September 2016, the Massachusetts Public Health Council approved Baystate Wing Hospital's application to merge Baystate Mary Lane Hospital with Baystate Wing Hospital and combine the two facilities and their respective satellite facilities under one license. Baystate Mary Lane became a satellite of Baystate Wing. Inpatient care at Baystate Mary Lane transitioned to Baystate Wing, while all outpatient services continue at Baystate Mary Lane. The Baystate Mary Lane Emergency Department operates as a satellite emergency facility of Baystate Wing Hospital. Patients receive same level of 24-hour emergency care delivered by the same caregivers. Those who need to be admitted for hospital care are transported to Baystate Wing, Baystate Medical Center in Springfield, or another appropriate medical facility depending on their care needs. The Ware facility is now known as the Baystate Mary Lane Outpatient Center.

It is important to highlight that the actions taken by Baystate Wing as described below are listed under one health priority, but many, if not all address more than one health priority. In addition, many of the action taken reflect the collaborative efforts of the Baystate Eastern Region Community Benefits Advisory Council.

PROMOTE HEALTHY DIET & EXERCISE

Listening, the Barre Integrated Health Center was awarded funding for the **Wheels in Motion** program geared toward families with an overweight adolescent and families with youth who could benefit from improving their physical or social skills. The youth participants meet for two hours, once a week, for six weeks, to learn bicycling skills, safety and maintenance, and to go on rides on local bicycle trails. Each child has the opportunity to select a used bicycle through the Worcester Earn-A-Bike program, which they can keep at the conclusion of the program. The program ran three six-week sessions in 2015. This program functions as an impetus for families to begin thinking more confidently about physical activity and healthy eating and to then put those ideas into motion. While their rural location does not offer the resources of an urban area, the area does provide an abundance of well-maintained rail trails, which are perfect for biking; this, combined with the fact that bicycling is an accessible, life-long sport, makes cycling a perfect way for our target population to exercise.

The Literacy Project was awarded funding to support the **Healthy Choices, Healthy Lifestyles** adult basic education (ABE) curriculum at the Ware Adult Learning Center. Healthy Choices, Healthy Lifestyles lessons address nutrition; how to eat healthy on a SNAP budget; exercise instruction and the importance of exercise in maintaining good health; stress management techniques; how to access quality healthcare without being dependent on emergency room services; healthy relationships; how to read blood pressure charts; exploring the opiate abuse in the Ware region; and understanding the relationship between healthy eating and exercise and prevention of diabetes, obesity, and high blood pressure. Students participated in activities that develop family literacy skills

to support raising healthy children; learn to advocate for themselves in the healthcare system; and learn how to communicate with physicians/understand instructions.

MENTAL HEALTH AND SUBSTANCE ABUSE IMPROVE ACCESS TO CARE & SERVICES

The **Quaboag Hills Community Coalition (QHCC)** was awarded funding to address the high rates of alcohol and drug use in the Quaboag Hills region by helping communities build the infrastructure necessary for effective and enduring alcohol and drug abuse prevention across the region. The QHCC applied the grant funds to support coordination to engage the membership of its sub-group, the **Quaboag Hills Substance Use Task Force (QHCC SUFT)**, in a year-long Strategic Prevention Framework (SPF) planning and implementation process, as well as interim substance use education/training, prevention, and/or intervention activities to be carried out by the QHSUFT in response to the current public health crisis. SPF is built on evidence-based theory and practices and the knowledge that effective prevention programs must engage individuals, families, and entire communities.

Baystate Mary Lane and Baystate Wing Hospitals have played an active role in the **Quaboag Hills Community Coalition (QHCC)** and the **Quaboag Hills Substance Use Task Force (QHCC SUTF)** and the **Hampshire Heroin Opiate Prevention and Education (HOPE) Coalition**. The hospitals have co-sponsored the printing and distribution of the QHCC SUTF Resource Guide and Emergency Resource Cards, and educational materials throughout the region. In addition, the hospital joined the QHCC SUTF in sponsoring Nasal Narcan training and providing Nasal Narcan to area school nurses, and to those at greatest risk of overdosing. The hospital also joined the QHCC SUTF to hold the 2nd annual Community Dinner to discuss and address addiction issues in the region, over 100 legislative and local leaders joined police, EMS providers and community members at this special event.

The hospital has been an integral partner to QHCC SUTF by providing meeting space and training and communications to local and regional medical care providers including SCOPE of Pain trainings for prescribers. To help the QHCC SUTF expand and sustain its work, the hospital has been instrumental in supporting Task Force applications for multi-year funding including the federal Drug Free Communities Support Program grant and funding from the Greater Worcester Community Foundation and the Community Foundation of Western Massachusetts.

The Baystate Eastern Region Community Benefits Advisory Council continued to foster community partnerships to further address health needs identified in the 2013 community health needs assessment. The following describes these additional projects and partnerships.

More than ever, older members of our communities are living on limited, fixed incomes and are struggling to meet their basic needs. Rising costs in healthcare, food, and expenses associated with helping to raise children and grandchildren make seniors especially vulnerable when balancing their budgets each month. The **Brown Bag Food for Elders** helps to meet the needs by providing income qualified senior citizens with monthly supplemental bags of food. All types of food are included, from canned goods, pasta, and produce when available. Through the efforts of the Baystate Eastern Region Community Benefits Advisory Council (CBAC) and Country Bank, Baystate Mary Lane has been able to bring the Brown Bag Program, sponsored by the Food Bank of Western MA to seniors in Ware for over two years. Starting in 2015, through the efforts of the team, the Food Bank now delivers food directly to the Ware Senior Center, providing supplemental food monthly to over 130 low-income seniors in Ware.

Mobile Food Pantry - as a result of collaborative work between the Baystate Eastern Region CBAC and the Quaboag Hills Community Coalition, the Food Bank of Western Mass established a mobile food pantry to come to Ware once a month. The mobile food pantry is a way to expand the reach of the food bank, to provide healthy food that may not be available from other sources, and provide a more comfortable community-based way to accessing food. The mobile pantry program consists of a refrigerated truck coming from the food bank with 6 or more fresh items (primarily produce) to be directly distributed to families in Ware. The mobile pantry will be positioned at the Highland/Hillside village parking lot in Ware – where over 200 low income families currently reside. Members of the CBAC and hospital staff have agreed to be the site supervisors responsible for monitoring and documenting activities and clients at the mobile pantry and serving as a liaison between the Food Bank and mobile pantry site. Hospital staff volunteer at this monthly program to extend the reach of the hospital by providing access to programs and services, including flu shots provided at no cost by our Nursing Department and access to our Financial Counselor, WIC services, Fuel Assistance, and SNAP. Outreach efforts at the Mobile Pantry lead by the Community Action enrollment coordinator for the Head Start Program in Ware continue to result in class rooms being filled. Prior to this effort, enrollment in Ware was very low. The Mobile Pantry comes to Hillside Village the third Tuesday of every month.

Baystate Wing continued to provide much needed **financial counseling** services to its community and patients who have concerns about their health care costs. Financial Counselors are dedicated to: identifying and meeting their client's health care needs; providing assistance to apply for health insurance; navigating the health care industry; as well as determining eligibility for the Baystate Financial Assistance Program. They can also assist in linking their clients to health insurance and community resources. There has been an increase in providing additional community support, including assisting patients with finding a new primary care physician, providing information on behavioral health services and also contacting pharmacies to straighten out insurance issues.

Baystate Financial Assistance Program – Baystate Health is committed to ensuring that the community has access to quality health care services provided with fairness and respect and without regard to a patient's ability to pay. Baystate hospitals' not only offers free and reduced cost care to the financially needy as required by law, but has also voluntarily established discount and financial assistance programs that provide additional free and reduced cost care to additional patients residing within the communities served by the hospitals. Baystate hospitals also makes payment plans available based on household size and income.

Baystate Wing Hospital (Baystate Mary Lane Outpatient Center) awarded a \$30,000 grant to the **Quaboag Valley Community Development Corporation (QVDC)** to support the **Quaboag Connector**, a new transportation service for transportation to and from work and the Work Force Training program in Ware offered by Holyoke Community College (HCC). In addition to providing transportation to employment and the college site, community members will also have access to the Quaboag Connector for transportation to and from medical visits and cultural activities.

The **Tri Community YMCA** of Southbridge, MA and **Highland/Hillside Village**, a member of Meredith Management of Boston, MA were awarded funding to continue a year round, drop in, after school program at the co-joined Hillside and Highland Village apartment complexes. Meredith Management owns, operates, and manages both low income properties in Ware, MA. The property lines of these low income properties abut one another and the youth on both properties frequently use both sites as play areas. These funds maintain the established educational programs and activities that address the daily issues of at risk, low income youth who reside at both apartment communities.

The **Ware Domestic Violence Task Force** was awarded funding for Phase II of the initial BMLH Domestic and Sexual Violence Screening and Response Project funded in 2013. In Phase I, screening questions and practices were analyzed and evaluated, and all nurses were surveyed with an on-line survey on their experience and needs with regard to screening. National consensus guidelines on screening were reviewed, and a consultant from Newton Wellesley Hospital visited Baystate Mary Lane to assist with recommendations. A new protocol for screening was also developed. In Phase II, new screening protocols were implemented. The Emergency Department will use the same screening questions they use now, but where and how questions are asked will be changed to increase privacy in general, and allow patients to ask for complete privacy which is not generally available now. Nurses who screen will be trained and will practice screening so their comfort level increases. Patients will also be given a health safety card when they are treated.

Baystate Mary Lane and Baystate Wing partner with **Quality EMS Educators of Worcester** to offer **Basic EMT Training** to community members. Strained town budgets make EMS training and education a challenge for many rural fire/ambulance squads. To date over 90 community members have taken the EMT Basic Course. EMS providers are a vital part of the safety infrastructure of our community, and the first link in the chain of care for our residents. Many of the candidates that have completed this EMT course are now providing essential emergency care in the communities they live in. To date over 130 community members have taken the EMT Basic Course. Baystate physicians shared their expertise beyond the walls of the hospital by offering high quality training and monthly continuing education programs at no cost to EMS providers that serve our communities. The close working relationship between hospital emergency physicians and EMS providers is essential to ensuring residents and patients receive the highest quality care in the field.

The **Ware Fire Department** was awarded funding to aid in developing a distance learning center/video conference room located at the Ware Fire Department. This will be used to help provide video conference training that will help EMTs and Paramedics in their continuing education to maintain their national and state certification. Ware Fire Department has invested in a 70 inch smart board, 60 inch remote TV, controlled by a computer with an overhead sound system. The funds provided by the BMLH DoN Grant helped cover the costs for the video interlink equipment.

Community Hospital Acceleration, Revitalization and Transformation (CHART) Investment Program, with a primary goal of reducing 30-day readmissions, Baystate Wing Hospital implemented a High Risk Care Team (HRCT) to provide enhanced services to patients with a life-limiting condition and/or a behavioral health diagnosis within the Emergency Department (ED), in the inpatient setting, and following discharge. All target population patients will have an individual care plan, either developed in the ED or in the hospital, which drives services across the continuum of care. In the ED, the HRCT partners with pharmacy staff to conduct medication reconciliation and optimization. In addition, the HRCT provides warm handoffs to the next care setting – whether inpatient, primary care, VNA, or other services. During an inpatient stay, the HRCT participates in multidisciplinary care rounds and coordinates with hospital staff to improve care planning while in the hospital and post-discharge. Following discharge, the HRCT conducts in-home follow-up within 72 hours and engages with patients for 30 days, or longer, as necessary.

Summary

The Baystate Wing Hospital service area, which includes parts of Hampden, Hampshire, and Worcester Counties, continues to experience many of the same prioritized health needs identified in Baystate Wing's 2013 CHNA. Social and economic challenges experienced by the population in the service area contribute to the high rates of chronic conditions and other health conditions identified in this needs assessment. These social and economic factors also contribute to the health disparities observed among vulnerable populations, which include youth, older adults, and Latinos. Individuals who are homeless, low-income, or living in poverty were also identified as vulnerable populations. Additional data is needed to better understand the needs of these populations in order to reduce inequities. The Baystate Wing service area population continues to experience a number of barriers that make it difficult to access affordable, quality care, some of which are related to the social and economic conditions in the community, and others which relate to the healthcare system. Mental health and substance use disorders were consistently identified as top health conditions impacting the community, and the inadequacy of the current systems of care to meet the needs of individuals impacted by these disorders arose as an important issue that needs to be addressed. The opioid crisis has emerged as a top issue impacting the health of the community. Progress has been made to address some of the prioritized health needs previously identified, such as childhood obesity; however, rates remain high and work needs to be continued.

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Appendix I: Stakeholders Involved in CHNA Process

Steering Committee Members

Focus Group Participants

Key Informant Interviewees

Steering Committee Members

Name (Last, First)	Title	Organization	Organization Serving Broad Interests of Community	Organization Serving Low-Income, Minority, And Other Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
Allard, Andrea	President/CEO	YMCA of Westfield	X	X	
Amador, Ruth	President	National Association of Hispanic Nurses – Western MA Chapter	X	X	
Ayres, Jim	Executive Director	United Way of Hampshire County	X	X	
Barber, Tania	President/CEO	Caring Health Center	X	X	
Blanchette, Mary Ellen	Nurse Leader	Palmer Public Schools	X	X	
Caisse, Ed	C3/Safe Neighborhood Initiative – South Holyoke	Hampden County Sheriff's Dept.	X	X	
Christopolis, Dave	Executive Director	Hilltown CDC	X	X	
Garozzo, Salvatore	Executive Director	United Cerebral Palsy Assoc. of Berkshire County, Inc.	X	X	
Graves, Marie	Program Director	Springfield Dept. Health & Human Services	X		X
Koehn Rudder, Shannon	Executive Director	MotherWoman	X	X	
Lee, Jennifer	Systems Advocate for Change	Stavros Center for Independent Living	X	X	
Lewandowski, Sue	Representative for Worcester County	Assumption College	X	X	
Lopez, Luz	Springfield Organizer	Stand for Children	X	X	
McCafferty, Gerry	Director of Housing	City of Springfield, Office of Housing	X	X	
Prullage, Beth	Clinical Social Worker	Providence Behavioral Health		X	

Name (Last, First)	Title	Organization	Organization Serving Broad Interests of Community	Organization Serving Low-Income, Minority, And Other Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
Reeves, Halley	Community Health Planning and Engagement Specialist	MA Dept. of Public Health			X
Silverman, Risa	Coordinator, Office for Public Health Practice & Outreach	UMASS Amherst School of Public Health and Health Sciences	X	X	
Simmons, Tony	Community Liaison	Hampden County District Attorney's Office	X	X	
Simonds, Jane	Sr. Program Manager	Behavioral Health Network - Outpatient Services	X	X	
Walker, Phoebe	BFMC CBAC Co-chair	Franklin Regional Council of Governments (FRCOG)	X		X
Wilson, Gloria	Member	Western MA Black Nurses Association	X	X	
Wood, Ben	Healthy Community Design Coordinator	MA Dept. of Public Health			X

Focus Group Participants

Findings from seven focus groups conducted in Hampden County informed this CHNA. Each focus group had a specific topic, and participants represented a range of age, gender, and race/ethnicity. Focus groups included:

Baystate Wing Hospital: Mental Health and Substance Use

- 15 participants
- Primarily female
- Identified as white, non-Hispanic

Baystate Noble Hospital: Mental Health and Substance Use

- 8 participants
- 5 male, 3 female
- Identified as white

Mercy Medical Center: Mental Health and Substance Use

- 13 participants
- Primarily female
- Identified as white and Asian

Holyoke Medical Center: Mental Health and Substance Use

- 9 participants
- Primarily male, aged 51-60
- Identified as white, Hispanic, and African-American

Baystate Medical Center and Mercy Medical Center: Faith-based Leaders

- 11 participants
- Half male, half female
- Identified as white and African-American

Baystate Medical Center: Maternal and Child Health

- 7 participants
- All females between 21-30
- Identified as African-American, Latina, and multi-racial

Health New England: Access to Health Care for Low-Income Individuals

- 6 participants
- All females
- Identified as white

Key Informant Interviewees

Name (Last, First)	Title	Organization	Organization Serving Broad Interests of Community	Organization Serving Low-Income, Minority, And Other Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<i>Baystate Wing Hospital and Baystate Mary Lane Hospital</i>					
Bradley, Leah	Director of Behavioral Health	Baystate Wing Hospital Griswold Center	X	X	
Cardaropoli, Antonia	School Adjustment Counselor	Ware Junior/Senior High School	X	X	
Davis, Kim	Nurse Manager	Baystate Mary Lane Hospital	X	X	
Di Leo, Marlene	Superintendent	Ware Public Schools	X	X	
Jean-Guillaume, M.D., Rock	Chair of Emergency Medicine	Baystate Wing Hospital	X	X	
Jock, Jacqueline	School Adjustment Counselor	Ware Middle School	X	X	
Merriam, Carolyn	Public Health Nurse	Town of Ware	X	X	X
Ostiguy, Karen	Nurse Manager	Baystate Wing Hospital	X	X	
Paulson, Tina	Nurse Manager	Baystate Mary Lane Hospital	X	X	
Plourde, Annette, RN	Nurse	Monson Medical Center	X	X	
Reilly, Elizabeth		Hardwick Youth Center and Food Pantry		X	
Taylor, Charles	Reverend	United Church of Ware	X	X	
Velazquez, M.D., Louis		Baystate Wing Griswold Center	X	X	
<i>Public Health Personnel</i>					
Caulton-Harris, Helen	Commissioner of Public Health	City of Springfield	X		X
Dennis, Soloe	Western Region Director	Massachusetts Department of Public Health (MDPH)			X

Name (Last, First)	Title	Organization	Organization Serving Broad Interests of Community	Organization Serving Low-Income, Minority, And Other Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
Garcia, Luz Eneida	Care Coordinator	MDPH Division for Perinatal, Early Childhood and Special Needs, Care Coordination Unit			X
Hyr-Dermith, Dalila	Supervisor	MDPH Division for Perinatal, Early Childhood and Special Needs, Care Coordination Unit			X
Metcalf, Judy	Director	Quabbin Health District	X		X
O'Leary, Meredith	Director	Northampton Health Department	X		X
Steinbock, Lisa	Public Health Nurse	City of Chicopee	X	X	X
Walker, Phoebe	Director of Community Services	Franklin Regional Council of Governments (FRCOG)	X		X
White, Lisa	Public Health Nurse	Franklin Regional Council of Governments (FRCOG)	X		X
<i>Health New England</i>					
Azeez, Robert	Medicaid Behavioral Health Manager	Health New England		X	
LaBounty, Kerry	Medicaid Program Manager	Health New England		X	
Silva, David	Medicaid Community Leader	Health New England		X	
Spain, M.D., Jackie	Medicaid Program Medical Director	Health New England		X	

Appendix II: Focus Group and Key Informant Interview Summaries

Focus Group Reports

- Baystate Mary Lane and Baystate Wing Hospital: Mental Health and Substance Use
- Baystate Noble Hospital: Mental Health and Substance Use
- Mercy Medical Center: Mental Health and Substance Use
- Holyoke Medical Center: Mental Health and Substance Use
- Baystate Medical Center and Mercy Medical Center: Faith-based Leaders
- Baystate Medical Center: Maternal and Child Health
- Health New England: Access to Health Care for Low-Income Individuals

Key Informant Interviews

- Baystate Mary Lane and Baystate Wing Hospital
- Public Health Personnel
- Health New England

Focus Group Report: Mental Health and Substance Use

Participants: Families of Consumers of Mental Health and Substance Use Treatment Services

Primary Hospital/Insurer: Baystate Wing Hospital and Baystate Mary Lane Hospital

Date: March 4, 2016

Executive Summary

Participant Demographics

The 15 participants were members and invited guests representing providers and agencies attending the Community Benefits Advisory Council (CBAC) meeting.

Demographically, the participants were:

- 80% female; 20% male
- 100% white
- 100% not Hispanic
- 6% were between the ages of 21-30
- 20% were between the ages of 41-50
- 33% were between the ages 51-60
- 40% were over the age of 60

Areas of Consensus

- There is a lack of primary care providers' knowledge and skills to treat mental health and addiction as chronic diseases.
- Need increased parental and community education to broaden understanding of what addiction is, how it can be prevented and treated.
- The health insurance system is overwhelmingly complex and hard to navigate; much of the burden to navigate is put on the individual; lack of skills and motivation interfere with meeting insurance enrollment and renewal requirements.
- Lack of transportation, poverty, and rural isolation are major barriers to accessing health care and improving community health status.

Recommendations

- Look at innovative care and support models with more emphasis on outreach and community health workers in role to overcome transportation barriers and bring services to most vulnerable populations.
- Invest in broad community education and social norms marketing campaigns on addictions (similar to campaign on domestic violence).
- Substance use treatment needs to be longer, more accessible, more flexible, and take into account the ease of accessing opioids outside of treatment; establish and sustain local, active peer recovery programs.
- Provide more community education about using health care and how the health care systems and personal health choices interact with one another.

Key Issues

Question	Synthesis of Responses
<p>1. What are the 3 most urgent health needs/problems in your service area?</p>	<ul style="list-style-type: none"> • Obesity and the chronic illnesses associated with it such as diabetes • Substance use including tobacco, alcohol, marijuana and opioid use • Mental health needs, especially depression, family guidance and parenting training • Rate of asthma among young children is very high, exacerbated by tobacco smoking in the home
<p>2. What specific vulnerable populations are you most concerned about? And why?</p>	<ul style="list-style-type: none"> • Homeless population • Domestic violence victims • Youth with an unplanned pregnancy • Rural, socially isolated communities with limited access to health care and health education • Young adults (ages 20-30) • Low- income individuals/families at the intersection of low education, poverty, and unmet health needs
<p>3. What are the most serious barriers or service gaps that consumers face in accessing mental health and substance use care?</p>	<ul style="list-style-type: none"> • Lack of beds and providers - there are wait lists for behavioral health care and primary care • Lack of primary care providers' knowledge and skills to treat mental health and addiction as chronic diseases <ul style="list-style-type: none"> ○ People with addiction are afraid to admit it, because they feel it will impact their health care ○ Needs to be better integration between primary care and local hospitals and outside/greater community resources ○ Lack of continuity and consistency for patients results in "stops and starts", fragmented care
<p>4. What about mental health care and substance use/addiction care for adolescents and young adults? What are the major needs and issues for such care?</p>	<ul style="list-style-type: none"> • Young members of the community are often unaware about how to use and navigate through the health care system, i.e., where to appropriately go for what types of and levels of health care such as primary care, urgent care, emergency care, behavioral health care, hospital care, etc. They misuse ED and other urgent care providers when primary care would be more appropriate

Question	Synthesis of Responses
<p>5. In light of the opioid use epidemic, what are the most pressing issues and needs around prevention, intervention and access to care?</p>	<ul style="list-style-type: none"> • Treatment needs to be more accessible and flexible and take into account the ease of accessing opioids outside of treatment • Need for local, active peer recovery programs • Need longer and more comprehensive care options based on 'best practices' for addiction treatment • Doctors need to prescribe less opioid painkillers; goal is to REDUCE pain; taking away pain is counterproductive to understanding patients symptoms and needs • Need increased parental and community education to broaden understanding of what addiction is <ul style="list-style-type: none"> ○ improve the link between the community and services to help people better know what resources are available and how to access them ○ there are limitations on what we can do to help members of our community; I can't bring my neighbor to any services because of lack of my authority on the part of the community • Opiates are linked to alcohol/tobacco/marijuana/other drugs; heroin is rarely the first drug used
<p>6. What are some other needs or trends in opioid addiction in this area and what impact does that have on providers and services?</p>	<ul style="list-style-type: none"> • Effective programming for middle schools on understanding substance abuse crisis • Hepatitis C is a substantial community health issue; transmission is largely via sharing needles ; area could benefit from establishing a needle exchange program that is more than just providing needles could also provide: <ul style="list-style-type: none"> ○ Linkage to treatment and support resources ○ Other harm reduction and health services • Community education and social norms marketing campaigns on addictions (similar to campaign on domestic violence)
<p>7. What is your wish list for improving health in your rural service area and for the populations you serve?</p>	<ul style="list-style-type: none"> • Outreach services to bring people into care** <ul style="list-style-type: none"> ○ This may be a first step to helping address lack of transportation services • Community liaison or Community Health Worker (CHW) doing in home consulting services • Primary care that is invested in communities • Transportation services**** • Broader based community education services

Question	Synthesis of Responses
<p>8. What kind of structural and social changes are needed to tackle health inequities in your community/service area?</p>	<ul style="list-style-type: none"> • Need better jobs; we lack access to jobs that are life sustaining and provide a livable wage • Need more community education about using health care and how the health care systems and personal health choices interact with one another • Need a more access to dental health care services <ul style="list-style-type: none"> ○ Children are facing increasingly difficult health issues when parents do not practice good dental hygiene; loss of teeth and dental disease affect health, but also affect appearance and future prospects for jobs ○ Substance abuse compounds poor dental health • The health insurance system is overwhelmingly complex and hard to navigate; much of the burden to navigate is put on the individual; lack of skills and motivation interfere with meeting insurance enrollment and renewal requirements <ul style="list-style-type: none"> ○ Individuals with substance abuse/mental health issues need help, but must also exercise personal responsibility, to maintain insurance and eligibility for services ○ PATCH program was brought up as a suggestion for supplemental support ○ Need to provide life skills training • Need urgent care options that are not an ED

Quotes

- “Primary care doctors are refusing to or claiming they are not able to care for young family members with addictions”
- “People don’t get well (from substance use) in a short period of time”
- “Treat it (substance use) as a chronic illness - you wouldn’t suggest treating a diabetic like that”
- “We need to be more mindful with prescriptions and how much we prescribe for what”
- “(We need) systems of care that are flexibly responsive to what people need, when then need it”

Focus Group Report: Mental Health and Substance Abuse

Participants: Professionals working in the area of mental health and/or substance abuse services.

Primary Hospital/Insurer: Baystate Noble Hospital

Date: February 26, 2016

Executive Summary

This focus group explored mental health and substance abuse services and access to care for pediatric and adult populations. Participants had backgrounds working and/or engaging with populations with mental health and/or substance abuse issues, ranging from direct services, to educational contexts, to public service.

Participants concurred that the severe need for mental health and substance abuse care and services for both adults and youth far exceeds what is available. The most significant issue for participants was the shortage of inpatient and outpatient mental health and substance abuse treatment providers and facilities. Many individuals seek care in the emergency room, and the lack of discharge options contributes to long waiting periods in the ER. In addition, individuals are subjected to long gaps for follow-up care, which is a serious barrier to recovery and a hazard. An overall system of training and treatment that separates mental and substance use care was also discussed as a significant issue given frequency of dual diagnoses in these areas.

The other major issue for participants related to the insurance system dictating care through coverage, limiting access with high deductibles, and discouraging practitioners from serving low-income populations with non-commercial insurance due to bureaucracy and low reimbursement rates. Participants repeatedly noted that the time spent obtaining approval for care or submitting claims detracted from time spent with patients. This, along with the powerful role of the pharmaceutical industry in shaping care systems, was the dominant theme among participants.

Participant Demographics

Eight individuals participated in the focus group. Three participants were women and five were men. All eight participants identified as White and Non-Hispanic. Participants ranged in age between 31-over 60. Most participants identified as straight, while two identified as gay or lesbian.

Areas of Consensus

- Shortage of providers and facilities for emergency and long-term inpatient and outpatient care for adult and pediatric mental health and substance abuse.
- Community lacks information about available services.
- Difficulty recruiting and retaining sufficient number of qualified clinicians, especially psychiatrists, especially in practices that take Mass Health and treat youth.
- Limited access and availability of services forces patients needing intensive and long-term treatment to seek care in the emergency department.

- Limited or no follow-up options after leaving emergency department, or placement on long waitlists that put patients at serious risk and more likely to return to ED.
- Culture that emphasizes quick fixes in the training and treatment of mental and substance use issues.
- Mental health and substance use treatment are siloed, despite frequent comorbidity. Both require long term, multifaceted, responsive, high touch treatment.
- The insurance system and pharmaceutical industry present some of the most significant barriers to care:
 - Dictates patient options for treatment;
 - High deductibles deter people from accessing care;
 - Extensive paperwork and low reimbursement rates reduce a practitioner's time with patients and deter practitioners from serving low-income populations;
 - Pharmaceutical industry has a significant role in catalyzing the current opioid crisis through proliferating read access to opiate drugs.
- Paradigm shift needed in which mental health and substance abuse are treated with the same urgency and system of substantive long-term support as other chronic diseases.

Recommendations

- More mental health and substance abuse providers, services, and facilities.
- More information for patients about how to access mental health and substance abuse services and resources.
- Support for patients and families to deal with severe stigma attached to mental and substance abuse issues.
- Expanded proactive early education on substance use.
- Systems change how mental health and substance abuse services are insured so patients can access the care they need and so providers can focus on patients rather than negotiating coverage and treatment options with insurers.
- Paradigm shift so mental health and substance abuse are treated as medical conditions, comparable to chronic diseases, with implications for training treatment, insurance coverage, available services.
- Integrated treatment of mental and substance use issues.

Key Issues

Question	Synthesis of Responses
<p>1. What are the 3 most urgent health needs/problems in your service area?</p>	<ul style="list-style-type: none"> • Access issues: <ul style="list-style-type: none"> ○ Financial burden of care ○ Lack of sufficient outpatient and inpatient services for youth and adults with behavioral health issues ○ Lack of awareness within the community about services and resources for mental health and substance abuse ○ Difficulty navigating the system relative to getting treatment and insurance coverage • Systemic problems with the insurance system and government regulations- wasted time getting authorization for care, paperwork, coding systems, insurance dictates care • Mental/Behavioral health services, outpatient and inpatient services • Other urgent needs/problems: <ul style="list-style-type: none"> ○ Stress, Depression, Anxiety ○ Dental Care ○ Homelessness ○ A culture which prioritizes quick fixes at a low cost. This is reinforced by mental health and substance abuse training

Question	Synthesis of Responses
<p>2. What specific vulnerable populations are you most concerned about and why?</p>	<ul style="list-style-type: none"> • Youth <ul style="list-style-type: none"> ○ Prevention and early interventions for substance abuse and mental health issues ○ Medicating and overmedicating youth can have long-term negative consequences • Elderly • Other vulnerable populations: <ul style="list-style-type: none"> ○ People with substance abuse issues and their families ○ People with chronic conditions ○ People with comorbid mental health and substance abuse disorders. ○ Low-Income people, who are at the mercy of insurance companies and struggle with other issues like transportation ○ People who don't earn enough to afford care but earn too much to qualify for subsidized care ○ Pregnant teens and overwhelmed parents ○ Veterans, who may have PTSD or other mental illnesses and are using substances as a coping strategy

Question	Synthesis of Responses
<p>3. What are the most serious barriers or service gaps that adult consumers face in accessing mental health and substance use care?</p>	<ul style="list-style-type: none"> • Severe shortage of providers and services offering inpatient and outpatient treatment for mental health and substance use • Insurance system and the pharmaceutical industry: <ul style="list-style-type: none"> ○ Even with insurance, the cost of care (high deductibles) may deter people from getting services ○ Control insurance companies exert over care and access to treatment ○ Insurance industry has influenced the availability of services and created service gaps, most particularly the shortage of outpatient and inpatient services for mental health and substance abuse ○ Low reimbursement rates and excessive paperwork are barriers to providers, many of whom opt to only accept private insurance, further limiting services for low-income consumers ○ Many practitioners would rather spend time with patients than on the phone with insurance companies determining and negotiating coverage for treatment ○ Low insurance reimbursement rates are also barriers for hiring practitioners; practices have difficulty recruiting qualified practitioners in all areas, and acutely in both adult and pediatric psychiatry • Severe shortage of detox facilities • The industry is slanted toward pharmaceutical solutions and away from longer-term relationship-based therapeutic treatment • Financial barriers and the prohibitive cost of care for many and especially for low-income adults and families. <ul style="list-style-type: none"> ○ People in the middle who don't qualify for health subsidies but are also not earning enough to comfortably pay for care ○ Disparities in coverage between public and commercial insurance • Burden of accessing care falls on the patient. The system is already incredibly difficult to navigate, but when you are struggling with a mental health or substance abuse issue, you may not be able to manage appointments and medication

Question	Synthesis of Responses
<p>4. What are the most serious barriers or service gaps that children, adolescents, and young adults face in accessing mental health and substance use care?</p>	<ul style="list-style-type: none"> • HIPAA-- barrier to continuity of care, particularly when providers are prohibited from obtaining information about previous or on-going patient treatment or student • Insurance system, both commercial and governmental-- limits access to care, in an arena where options for youth are already limited. Government regulations and paperwork have sacrificed a provider's time with patients. Some practices actually avoid Medicaid patients because of the bureaucratic burden. • Lack of mental health services for youth, including limited options and long waitlists. It is more difficult to find mental health outpatient care for youth than adults. The shortage of mental health outpatient care options impacts continuity of care, leaving inappropriate and even dangerous gaps between inpatient and outpatient care.
<p>5. In light of the opioid use epidemic, what are the most pressing issues and needs around access to care for detox, long-term treatment, criminalization, and stigma? What are other needs or trends in opioid addiction in your service area and what impact does that have on providers and services?</p>	<ul style="list-style-type: none"> • More treatment and detox beds in the area. In addition to a shortage in detox beds, there is a shortage of post-detox treatment and follow-up care. • Need to treat substance abuse and mental health together, or to at least remove the barriers of addressing these co-morbid conditions. Funding and regulations perpetuate this separation even though treating these conditions together is more effective. • Liability issues influencing access to care. Risk aversion deters providers from using harm reduction models even though they more effective in the long run. Higher liability working with certain populations (i.e. youth). • Need more proactive treatment, including resources to catch substance abuse early before it escalates to full blown addiction. Narcan and detox beds are considered reactive responses. • The pharmaceutical industry has perpetuated the opioid crisis by pushing pain medication, and now drugs like Narcan. • The opioid crisis has made it difficult for terminally ill cancer patients to access pain medication.

Question	Synthesis of Responses
<p>6. What are the major needs, service gaps or barriers for accessing mental health and substance use care in a crisis situation, such as urgent/emergency care in the emergency department? What is working well and what can be improved?</p>	<ul style="list-style-type: none"> • Shortages in inpatient and outpatient beds. When there no discharge options, patients end up waiting in the hospital. • Model of aftercare used by Westfield State brings together the individual, their family, their providers, and the school has been effective to ensure the individual doesn't fall through the cracks. • Having a community of support is needed for recovery
<p>7. What about long-term mental health and substance use care needs for adults and youth? What are the needs for such services and who is most vulnerable when those services are not available?</p>	<ul style="list-style-type: none"> • Education for youth about substance abuse both in the school and outside. • Other needs: Peer group based support for youth, more resources, and improvement in the insurance realm
<p>8. What do you think community leaders think about the philosophy of harm reduction for addiction including the use of Narcan and needle exchange?</p>	<ul style="list-style-type: none"> • Narcan is necessary but does not treat the problem or root cause of why people are using opioids in the first place <ul style="list-style-type: none"> ○ People are not mandated to go into treatment after receiving Narcan • Shift in the use of Methadone and Suboxone from temporary treatment to long-term maintenance
<p>9. If you could change any aspect of the mental health and substance abuse care system, what one or two things would you change that would have the most profound positive impact on access and care for the populations we've been discussing?</p>	<ul style="list-style-type: none"> • Changes in the insurance system. Treatment/care and profit are opposing forces and insurance should be nonprofit. • Institute mental health screenings for youth, comparable to annual physicals and vaccinations
<p>10. What kind of structural and social changes are needed to tackle health inequities in your community/service area?</p>	<ul style="list-style-type: none"> • Improve the insurance system

Question	Synthesis of Responses
<p>11. How would you recommend that your local hospitals/insurers and the Western Massachusetts Hospital Coalition work in closer partnership with local and regional municipal public health entities and other community partners after the CHNA is completed? What specific ways can such partnerships be supported and sustained?</p>	<p>Recommendations included:</p> <ul style="list-style-type: none"> • Create more opportunity for providers to be heard. A practitioner will have a better sense of what treatments are successful, and these recommendations should be brought up the ladder and to government. • Involve and inform policy makers. • Create a complaint/feedback process. • The Hospital should take the lead role in bringing together care providers and groups that are already working towards common goals but are disconnected. • Accountability and action.

Quotes

- “Substance abuse and mental health are definitely connected, but based on how they are funded and regulated, they are completely separate. In the mental health hospital, we can’t treat someone for substance abuse; we have to treat them for mental health. At an outpatient mental health clinic, if someone has a problem with heroin, we have to make sure to find a mental health condition too otherwise we can’t bring him in. We can’t treat substance abuse and mental health together even though it is the most effective way. With the way it is funded, it has to be separate.”
- “It’s about continuity of care...We know from 24-hour care a day into 1-hour of care bi-weekly in two months from now is a really long inappropriate gap. It makes it really hard, and it makes it really dangerous. We’ve seen these people come back to the ED again and again and again.”
- “You can’t treat an opioid addiction in the Emergency Room and that’s what we’re doing.”
- “You really need to be in detox, but there are no detox beds so go home and call detoxes tomorrow. If that doesn’t work, call them the next day. If there aren’t, call another hospital, and then the next day do the same. Maybe in a few weeks some hospital will say we have a bed, come in. That’s the reality of what is going on.”
- “Lots of the stuff we do is reactive. For a child who is starting to have problems with Percocet, you call a program and they say to call back in 2 months. By then, it evolves into a full addiction. The system doesn’t allow us to address substance abuse issues early on before they evolve into more serious issues.”

Focus Group Report: Mental Health and Substance Use

Participants: Families of Consumers of Mental Health and Substance Use Treatment Services

Primary Hospital/Insurer: Mercy Medical Center

Date: February 11, 2016

Executive Summary

Participant Demographics

The 13 participants were family members (primarily the parents) of consumers of mental health and substance use treatment services; they were also members of the Holyoke *Learn to Cope* meeting held weekly at Providence Behavioral Health Hospital. Demographically, the participants were:

- 82% female
- 90% white
- 10% Asian
- 100% not Hispanic
- 10% were between the ages of 31-40
- 63% were between the ages 51-60
- 27% were over the age of 60

Areas of Consensus

- Care is extremely fragmented; there needs to be better communications between primary care and behavioral health programs and services.
- Stigma is applied to both the consumers/patients and their families members and is a tremendous barrier to accessing care and feeling welcome into systems of care; this stigma significantly adds to the stress faced by families in a complex and disjointed system of behavioral health care.
- Physicians and the pharmaceutical industry should be held accountable for contributing to the opioid crisis and industry must make amends for their actions.
- Widespread education and media campaigns to educate the public about addiction and mental health needs are essential to reduce the stigma associated with behavioral health issues.

Recommendations

- More staff training around the disease of addiction and mental illnesses and how behavior is affected by the disease process.
- Treatment services need to be better matched to disease progression and take into account the chronic, progressive and relapsing characteristics of mental illness and substance use disorders.

- Look at models like Mass General Hospital where they have an ARMS (Addiction recovery management Services) team that meets with families in the ED when young adults are seen for mental or substance use crisis needs.
- More patient navigators and facilitators to help families navigate through the system know more about levels of care and types of treatments and what is available for long-term support and recovery services.
- More treatment services need to be longer and in much greater supply; we need significantly more in-patient beds and insurance must cover services for much longer periods of time.
- Staff communications with patients and family need to be more consistent and frequent – staff need to return phone calls and have to engage in more mutual planning of treatment with patients and families.

Quotes

- “Addiction treatment needs to be longer, longer, longer; detox is not a treatment and it puts my child at risk for overdose.”
- “We need to treat mental health and addiction just like we treat cancer or diabetes; it’s a chronic, progressive disease.”
- “Why is it that when my mother has dementia I get all of this support and help and the ability to make decisions for her, but when my addicted son is not capable of making decisions based on his illness, I am told I can’t do that?”
- “We should not have to work so hard to get access to services for our loved ones, we need more navigators and supports to find out about and use services, this waiting for a bed to open is ridiculous - when you have a heart attack or a stroke, you get care in the ER and then they help you with all sorts of after care and follow-up; where is that with mental health and addiction treatment services? Why is that not as available to us?”
- “At the very least, I should be given adequate information about follow-up services and resources when my family member is in crisis and is in the ER.”
- “Many of the staff and organizations that are treating mental illness and addictions are caring and want to help, but many also need significantly more training and understanding of the disease progression that is part of addiction; some staff should not be in the field at all.”
- “The behavioral health and addiction treatment systems seem to be designed so that you have to fail over and over before you get what you really need.”

Key Issues

Question	Synthesis of Responses
<p>1. What has you/your family member's experience with the mental health care system been like?</p> <ul style="list-style-type: none"> ▪ What has worked well? Why? ▪ What has not worked well? Why? ▪ Can you share any positive experiences with the hospital's mental health care services? What about negative experiences? 	<ul style="list-style-type: none"> ▪ Care is episodic and fragmented ▪ Section 35 rules are confusing and cumbersome ▪ HIPPA can be a barrier to family engagement and support ▪ More information should be provided in terms of resources, pamphlets, websites , etc. to family members to tap into after the crisis ▪ Primary care and other doctors seem to know little about addiction and mental illness yet are treating patients for them
<p>2. What are the most serious barriers or service gaps that have you/your family faced in accessing mental health care?</p>	<ul style="list-style-type: none"> ▪ lack of information about what the system and levels of care look like and how to enroll into hem ▪ system that requires families to make the calls and pursue empty beds for treatment on a daily basis ▪ lack of access to care locally when the family member is ready to engage in treatment ▪ insurance coverage does not adequately pay for the lengths of stay need for MH and SA care
<p>3. If you have used crisis services in the ER, what has your experience been like?</p>	<ul style="list-style-type: none"> ▪ ED care can be helpful to stabilize someone in crisis, but also lacks follow-up and continuity ▪ EDs need to have more privacy and staff training in how to more appropriately work with patients with behavioral health needs ▪ Overdose patients are released too soon after seeking ED care
<p>4. When you think about how you currently connect to mental health services, what would make it easier or more helpful for you?</p>	<ul style="list-style-type: none"> ▪ More information about local supports earlier in the process and at the first time of a crisis ▪ More availability of beds and services in the region ▪ Staff need to return phone calls and be more engaged with patients and families

Question	Synthesis of Responses
<p>5. How does the integration of primary care and Mental Health care work for you or your family? What are the up-sides and down-sides of this?</p>	<ul style="list-style-type: none"> ▪ Many primary care providers are not well-versed in behavioral health needs and issues and the current standards of care, especially around pain management and risks of addiction ▪ There is not enough screening for behavioral health needs and referral being done by primary care providers
<p>6. Are there some services available now but you cannot access them because of when or where they are offered? What are they and what are the barriers?</p>	<ul style="list-style-type: none"> ▪ Too few inpatient beds and supports for long-term recovery ▪ Insurance is a barrier to enrolling into and sustaining certain types of care for the recommended length of time
<p>7. What are the most pressing issues around access to care for detox, long-term treatment, criminalization, and stigma, especially in light of the emerging opioid use epidemic?</p>	<ul style="list-style-type: none"> ▪ Need many more options for longer term care and supports for stabilization after initial care ▪ Need much more peer supports for ongoing care and treatment ▪ Post-treatment needs for stable housing, employment, training, etc. ▪ Need a massive education and public awareness campaign to address stigma
<p>8. How much input do you have in setting the goals and priorities in your or your family member's treatment plan? How much input and choice do you have about which services you receive to help you meet those treatment plan goals and priorities?</p>	<ul style="list-style-type: none"> ▪ Participants feel that choices are severely limited by the short supply of treatment services and rigid eligibility criteria ▪ Laws and regulations often prohibit family from being involved with the planning and decision-making for young adults in need of treatment
<p>9. What would recovery look like for you/family member?</p>	<ul style="list-style-type: none"> ▪ Stable living situation with hope for employment, healthy family relationships and social connections ▪ Supports are available for long-term recovery and self-management of illness ▪ Well-managed symptoms and improved functionality

Focus Group Report: Mental Health and Substance Use

Participants: Service Providers and Public School Leaders

Primary Hospital/Insurer: Holyoke Medical Center (HMC)

Date: February 18, 2016

Executive Summary

Participant Demographics

The 9 participants were service providers and leaders from the local public schools; Hampden County Sheriff's Department/corrections; Massachusetts Department of Public Health; Holyoke Community College; Homework House; Behavioral Health Network; Holyoke Health Center and Holyoke Medical Center. Demographically, the participants were:

- 63% male; 37% female
- 87% white
- 13% African-American
- 0% Asian
- 87% not Hispanic
- 13% Hispanic
- 13% were between the ages of 31-40
- 25% were between the ages of
- 50% were between the ages 51-60
- 13% were over the age of 60

Areas of Consensus

- The recent increase in opioid abuse is a major health issue, but the drug trade and negative impact of substance use and addiction on the Holyoke community is not necessarily anything new.
- There is still a widespread need for more bilingual services, providers and educational materials that are written in accessible ways with attention to low-literacy rates in both English and Spanish; need to look at materials and online resources written at a 3rd grade level.
- Trauma, intergenerational substance use, gang violence, and mental health issues are closely tied together and result in significant need for mental health and substance use disorder treatment services; there are is a lack of adolescent psychiatric and shelter services; substance use prevention, intervention and mental health support services must start at much younger ages.
- The HMC service area still faces a significant percentage of community members who are not insured; there is a significant homeless population or families “doubling up” and that have a huge impact on young children and school age youth.

- Holyoke is a small enough community that with leadership and enough collaboration, we could go after money on a larger scale; with a significant amount of funding, could do something like the Harlem Children’s Zone which includes intensive wraparound services for children and families. The Flats, South Holyoke - these neighborhoods are small enough to make a huge impact on education, jobs, and resources for the parents.

Recommendations

- We need to focus on our collaborations more. There are a variety of networks and partnerships in Holyoke, but they are not talking to each other. Around issues of drug and alcohol dependence, the Hospital could work with and convene other entities, in order to continue this type of collective ‘big picture’ dialogue and problem-solving. The Hospital can play a leadership role to bring people together. We can then advocate for more services in the schools and community, and strategize on ways to better address underlying social-economic issues that impact health. A strong collaborative network would be important.
- There is a need for more mental health counselors in the schools and community; we need to find a way to collaborate with school nurses and work toward creating a better and more standardized referral process for behavioral health services in the community.
- We need to look more closely at the LGBTQ+ community’s health needs, as this population may need more support, but may currently get the least.

Quotes

- “Kids are being raised by aunts, uncles, grandparents or other relatives because of parents’ drug use and mental health issues. This cycle continues unless it is nipped in the bud. We all need to start earlier.”
- “We can’t talk about this (the opioid abuse crisis) without mentioning big pharma; they are pushing opioids, now they push drugs for opioid-induced constipation. One of our doctors works here and in Greece; in Greece, they don’t prescribe opioids, just Tylenol. Here, everyone gets opioids. Drugs are pushed in the U.S.”
- “My instincts are that there is more of a stigma around behavioral health and mental health than substance abuse. We have gotten numb to addiction issues.”
- “The heroin trade is not new in Holyoke. In 1999, the drug trade in Holyoke was estimated at \$50 million annually. We have always dealt with families that are gang involved, involved with drug abuse.”

Key Issues

Question	Synthesis of Responses
<p>1. What are the 3 most urgent health needs/problems in your service area?</p>	<ul style="list-style-type: none"> • opioid abuse; (opiates are a problem, but also substance abuse in general; with marijuana seen as legalized, there has been an increase in marijuana smoking and use in youth) • obesity • asthma • mental health issues, especially among children
<p>2. What specific vulnerable populations are you most concerned about? And why?</p>	<ul style="list-style-type: none"> • Youth ages 15-25 , because of the availability of drugs; • alcohol use starting with younger kids; age 10+ as shown by alcohol drinking on the school bus, coming to school drunk and what incarcerated persons tell us about their use of drugs at very young ages
<p>3. What are the most serious barriers or service gaps that consumers face in accessing mental health and substance use care?</p>	<ul style="list-style-type: none"> • Lack of transportation. • Language; there is need for more bilingual capacity in services and educational materials • Kids who are inappropriately medicated is a big issue; too many kids are suffering from trauma and not being treated. • Lack of insurance; people think everyone has insurance, but if you live under a bridge, you do not have insurance.
<p>4. What are the major needs, service gaps or barriers accessing mental health and substance use care in a crisis situation, such as urgent/emergency care in the emergency department? What is working well and what can be improved?</p>	<ul style="list-style-type: none"> • Need to allocate funds to organizations working with schools and the hospital around improving crisis and emergency care • Kids don't get the follow-up care they need once they're in the system. For example, a child whose mom or dad is in the criminal justice system, or kids go into foster care, they go off the radar completely and are disconnected from care. • There are no placement options for children after crisis care; lack of emergency youth shelters, even temporary ones. • If a student is homeless, there is no place to take them after the crisis; they can easily get disconnected from school, and other services.

Question	Synthesis of Responses
<p>5. What about long-term mental health and substance use care needs? What are the needs for such services? Who is most vulnerable when those services are not available?</p>	<ul style="list-style-type: none"> • Geriatric patients are lacking placement options. Nursing homes don't take behavioral patients outside of small dementia units. With Medicaid/ Mass Health, some nursing homes don't accept these because of payment issues. • LGBTQ - this population needs the most and gets the least. • At Holyoke Community College, there is a growing population of students facing issues of homelessness, bullying and behavioral health needs. In the LGBTQ student group, there is concern about bullying, discrimination; levels of stress are very high.
<p>6. What are other needs or trends in opioid addiction in this area and what impact does that have on providers and services?</p>	<ul style="list-style-type: none"> • Holyoke Health Center has been proactive in educating staff about opioid overdose prevention. Staff members are trained in the use of Narcan; they have Narcan kits and information in English and Spanish. What is not working as well is that people are still afraid to talk about it. • There is a lot of education going on right now to train providers in safer prescribing. • MDPH working with medical schools in MA on teaching doctors about opioid overuse. • Overdose deaths have been significant in past year and this is waking up people. All of a sudden, wealthy children are dying and this is opening up minds and resulting in more media attention • There's also a problem with social acceptability of drug use. People have in their minds that marijuana use is OK.
<p>7. What kind of structural and social changes are needed to tackle health inequities in your community/service area?</p>	<ul style="list-style-type: none"> • We need more sports, things to do, to keep youth involved, and have conversations. Get to know kids, families. Not just sports, also arts, music, crafts, computers. • We have the Youth Task Force and it got money from SAMHSA, but not in that kind of coordinated, big-picture way. We need more capacity than any small organization can manage. Coalitions are doing a great job, but coalitions come, make an impact, move on; we need more permanence. • Universal Pre-K is a huge need in a community like Holyoke; the sooner kids are in the system, the better they will be. Starting earlier, we can identify issues before they become big problems. By the time they start school, it's harder to address them.

Question	Synthesis of Responses
<p>8. What do you think community leaders think about the philosophy of harm reduction for addiction including the use of Narcan and needle exchange?</p>	<ul style="list-style-type: none"> • No clear consensus about it depends how you define community. There is more acceptances in some communities than others. • The majority believes that harm reduction is the way to go, but strong vocal minority (45%) don't think its right. In some sense, it's all political noise. The real data need to come from health organizations. • In looking at first responders (police and fire departments), do they have Narcan, and are they willing to administer it? In departments within the HMC service area, some do, some don't. • HCC has Narcan and some public schools have it. We need to advocate for all schools to have it and for it to be accessible. • There should be a bigger effort to educate about Narcan.
<p>9. How would you recommend that your local hospitals/insurers and the Western Massachusetts Hospital Coalition work in closer partnership with local and regional municipal public health entities and other community partners after the CHNA is completed? What specific ways can such partnerships be supported and sustained?</p>	<ul style="list-style-type: none"> • There are limited resources. Organizations must collaborate with others to seek out best practices, find a way to solve the problem. There are a lot of programs, but limited resources, need to develop a mindset of working together. The MA DPH can assist as possible. • There is a lot of collaboration already going on. We need to cultivate more positive influences on young people. Need supports like Homework House, different after school programs; connections to mentors and more mentor volunteers; • Need to include higher education as it is critical to process. There is currently a disconnect between academia and community groups. Holyoke Community College is in the process of developing an office to engage higher education around opioids and other health needs so that we can write grants, help solve problems.

Focus Group Report: Faith-based Leaders

Participants: Faith Based Leaders

Primary Hospital/Insurer: Baystate Medical Center and Mercy Medical Center

Date: February 29, 2016

Executive Summary

Participant Demographics

The focus group included 11 faith-based leaders from Hampden County, including Springfield, Holyoke, and several other towns. A small number specifically referenced their work with low-income or homeless populations. Several reflected primarily on the needs of working or middle class and older populations. The group included:

- 6 women and 5 men
- 9 White and 2 African-American participants

Areas of Consensus

- Faith leaders are clearly interested in enhanced communication and coordination with hospital staff. Several agreed they want to be able to count on communication from the hospital when congregants are hospitalized or need community supports. They see personal outreach from hospital chaplain's office as an effective way to build relationships and bridges. Several would facilitate health outreach and education efforts aimed at their parishioners/community.
- There was general consensus about the breadth of substance use and addiction problems affecting diverse populations. The opioid crisis is appearing in all communities. All noted that drug use is prevalent among youth, and many pointed to alcohol addiction in older populations. Some are particularly concerned with the dual challenges of homelessness and addiction. All agreed on the need for enhanced short and long term treatment options for those with and without insurance.
- Many pointed to the widespread need for greater health literacy; access to information about wellness, health promotion, diseases, and service options. Several said they would work with the hospital to organize community events promoting wellness, at which health care providers could provide education, information, and referral services.
- For many consumers, navigating and advocating within the health care system is a major challenge. Many consumers simply don't know where to go or how to access certain services. Particularly those with multiple issues--several mentioned increasingly complex health concerns faced by seniors--have trouble finding providers and coordinating among multiple providers, treatments, and medications.
- Faith leaders identified a number of issues affecting health equity. These include: financial status, noting that MassHealth doesn't offer the same quality and access to services as private insurance and that those above the MassHealth threshold face greater challenges in

accessing care; cultural insensitivity among providers; education and cultural background affecting patient advocacy skills; and stigma relative to certain populations (those who use drugs, ex-offenders, homeless, mentally ill, e.g.).

Recommendations

- Hospitals are well-positioned to collaborate with churches on outreach and education. This process needs to respect community stakeholders as equal partners who have essential knowledge about community needs and engagement. Church leaders would welcome hospital representatives to provide education on specific health issues and to offer community-based health services at church organized events. Collaboration with parish nursing programs could benefit health providers and faith communities by enhancing or expanding health education and screening opportunities for congregants. However, only a few of the churches have such programs or other informal health care educators (e.g., retired health professionals).
- One particular area to address is coordination of care and managing transitions for seniors. Hospitals could consider expanding on municipal senior service programs to reach a broader swath of the elderly. Collaboration between churches and hospital services could promote effective communication with the seniors and family members and help get community supports in place as seniors require an expanded array of services.
- Faith leaders often find themselves ill-informed or lack the time to help congregants with health advocacy and navigation. They suggested that health care providers could help to train church representatives on service availability, resources, and advocacy skills; so that these lay leaders could support congregants in accessing appropriate care. Hospital and faith leaders could work together to identify other ways to create a “health care clearinghouse.”
- This focus group provided a forum that faith leaders were excited to participate in. They welcomed the opportunity to come together to share ideas and challenges. Baystate and Mercy should consider opportunities to follow-up with these participants and those from other faith communities. Personal outreach and relationships will offer a foundation for creating a stronger network of health system and faith community leaders working together to address community health issues.

Quotes

Substance use:

- *“Immensity of [opioid use] overwhelms me.”*
- *“Especially when dealing with drug addiction, a parishioner’s depression when not well managed can lead to drug abuse. Insurance may be done but his health needs are far from done. People need ongoing care to stay clean.”*

Health literacy and access to information:

- *“In general people need a little more education. And easy access [to information on health care options], [it’s] available on websites, but to find an answer to an exact question is very*

difficult for people. They don't use official sources, word of mouth, sometimes it is not the real useful information."

- *"People need services and don't know to ask for them, don't know they exist, don't know who to ask."*

Coordination of care:

- *"[A big problem is] parishioners that have many medications and many doctors. Miss the day's one doctor was looking at all of it."*

Collaboration between hospitals and communities/churches:

- *"How do you collaborate with community with integrity? ... Agencies from health care go to organizations with credibility, credibility means we [community stakeholders] have to have a say."*
- *"Relationship building that would benefit populations that we serve: [hospitals] could serve the target populations far better than they do [through] outreach and collaboration."*

Navigation and advocacy:

- *"Sometimes we are the only rational person in the room; have to broker a lot of deals. [We could use] local formal training. We know the people and they know us."*
- *"One minute I'm a pastor, the next I'm navigating their care. They are looking at their doctor like what are they talking about."*
- *"When these things happen, people are in crisis. [It's] hard to navigate, make [the needed] phone calls."*

Health care coverage:

- [This is] *"a moral issue! When did healthcare become for profit, immoral to me!"*

Focus Group Report: Maternal and Child Health

Participants: Mothers

Primary Hospital/Insurer: Baystate Medical Center

Date: March 7, 2016

Executive Summary

Participant Demographics

The 7 participants were recruited through informal networks primarily by CHNA Steering Committee members. Several worked or had previously worked in health related field.

- All participants were women who had at least one child.
- 6/7 were in the 21-30 age range.
- 4 identified as Hispanic/Latino; 3 as African-American; 2 as more than one race.

Areas of Consensus

- Women face a variety of challenges in terms of managing medical care for themselves and their families, among many other responsibilities (work, child care, children's education, housing, etc.).
- Stress, anxiety, depression all make it difficult to make decisions, manage health care, and take care of oneself as a new parent.
- Appointment scheduling: women are consistently frustrated with challenges in scheduling timely appointments. They often have to wait for weeks to address immediate needs.
- Payment/cost frequently hinders access to care.
- Women rely on informal support systems (family and friends) for information, guidance, and shared resources. They would be very interested in health services that work with or build support systems among mothers.
- Many are interested in expanded supports and education for fathers, so they can be more effective and active in the parenting role.
- Many women feel that medical providers are working from a protocol, rather than tuning in to a specific woman's needs. They identify several instances where providers don't follow-up on issues or appropriately attend to patient concerns.

Recommendations

- **Build (on) informal support systems:** women expressed an interest in accessing health care that has built into informal support systems (for example, a support group that is initiated early in prenatal care). They tend to share information through family members, who could potentially be recruited to help women access appropriate care.
- **Build formal support structures:** for example, include a patient advocate, social worker, or case manager early in prenatal care to support care coordination for mothers and their children. This role would check in with mothers on mental and physical health, barriers to

accessing care, and other stressors and help women to navigate the various support systems.

- **Identify ways to make health care service delivery more patient-centric:**
 - Use accessible (non-technical) language; translate documents
 - Ease access to appointments: Recognize that pregnant and parenting women have many obstacles to getting to appointments on time. Increase flexibility to allow for short-term appointment scheduling and late arrivals for appointments.
 - Prior to any testing or treatment, provide relevant and accessible information; time for parents to process information, ask questions, and make decisions; and a clear consent process.
 - Immediately after delivery, women are engaged in intense physical recovery and emotions. Hospital staff should look at policies and practices to alleviate the pressure on mothers to make decisions and prepare for discharge.
 - Add some luxury services to help relieve stress (e.g., massage, manicure).
- **Coordination and Access:**
 - Provide multiple services under one roof: let women and children access health care appointments in one location.
 - Facilitate sharing of information among patients and their providers including, prenatal, postpartum, pediatricians, and specialists. For example, women are more likely to see their newborn's pediatrician over the first six months than their own ob/gyn. Consider how staff in pediatric offices could follow-up with mothers on mental and physical health issues.
- **Communication:**
 - Use multiple methods of communication, and communicate information more than once. Follow-up with mothers before and after appointments.

Quotes

Scheduling challenges:

- I tell them to call me as soon as they get an appointment. I harass them every day?"
- "My daughter is always sick, so I need to be able to get in. I can't wait for a long time for an appointment."
- "I had tons of morning sickness. [My doctor's office policies are] if you are more than 15 minutes late, you have to reschedule. They should have more common courtesy and be flexible."

Provider sensitivity and communication:

- "[Hospital staff] sees people having babies everyday; it's no big deal. They don't see it from a new mom's eyes."
- Providers need to talk in "regular English" – break it down; Moms "may not ask because they don't want to feel stupid."

Ease of access/ one-stop shopping:

- "If there was one place we could go, we would get there."

Key Issues

Question	Synthesis of Responses
<p>1. Urgent health needs among pregnant and parenting women:</p>	<ul style="list-style-type: none"> ● Responsive prenatal care ● Mental health: stress reduction, postpartum depression, anger management ● Follow-up medical/emotional care and supports after post-partum visit(s) ● Diabetes management and follow-up ● Providers to pay attention to women’s concerns and issues that arose in previous pregnancies
<p>2. Other supports needed:</p>	<ul style="list-style-type: none"> ● Groups for parents of children with special needs (managing health and school issues) ● Childcare ● Individualized Educational Program (IEP) advocacy with schools
<p>3. Barriers to accessing appropriate care:</p>	<ul style="list-style-type: none"> ● Difficult to schedule appointments ● Insurance; high cost of services; lack of money to cover co-pay ● Provider-centric policies (e.g., scheduling, late arrivals) put women off ● Mother’s feeling that providers are not listening or following-up on issues ● Awareness of appropriate services ● Transportation ● Understanding all the information and making decisions (e.g., vaccine information given at birth) ● Lack of knowledge/information regarding birthing classes
<p>2. How did you find a health care provider (for PNC or Pediatrician):</p>	<ul style="list-style-type: none"> ● Mother, sister ● ER ● Internet/google ● Hospital (where gave birth) recommended pediatrician ● MD/nurse recommendations ● School referral for counselors ● Early Intervention ● Rick’s Place ● Square One

Question	Synthesis of Responses
3. Trusted sources of information:	<ul style="list-style-type: none"> ● Pediatrician (but some don't trust MD recommendation) ● Family/Friends ● WIC ● Family/personal history with specific MD ● Knowledge/reputation of area hospitals strengths and weaknesses for OB (e.g., liked Riverbend/Mercy for PNC and likes patient portal; like Baystate for delivery because the NICU is there)
4. Ever had trouble finding a provider:	<ul style="list-style-type: none"> ● Yes, for mothers and for kids, particularly for mental health for moms, and special therapeutic services for kids ● Helps to be connected through one provider: e.g., Square One
5. What works about health care services you have received:	<ul style="list-style-type: none"> ● Convenient location: my OB was in the same place I worked ● Had own transportation ● Hours worked around work schedule ● Doctor made me feel really comfortable ● Meeting pediatrician in hospital (at delivery) and continuing to work with that MD ● WIC is good at frequently reminding/checking-in with women about service options, decisions that need to be made
6. Would you recommend to others?	<ul style="list-style-type: none"> ● "Absolutely" ● Others will warn friends about providers they were dissatisfied with

Question	Synthesis of Responses
7. What didn't go well:	<ul style="list-style-type: none"> ● Scheduling appointments for routine and urgent care: <ul style="list-style-type: none"> ○ Difficult to get appointment quickly ○ If need to re-schedule may have to wait for a long time ○ Had to switch doctors because couldn't get an appointment ○ Difficult to get through to scheduling ● Switching doctors ● Unfriendly/insensitive nurses, doctors ● Providers going through their "checklists," but not paying attention to individual patient responses and needs; patient is treated as a diagnosis, not as a person ● Payment challenges: <ul style="list-style-type: none"> ○ providers say we won't see you any more if you can't pay; one mother had to find a new provider for PNC, because she owed money to previous provider ○ If supposed to bring co-pay at time of visit, often postpone appointments ○ Huge co-pays for labs, visits, and prescriptions ● Lack of information about procedures and options; <ul style="list-style-type: none"> ○ One mother reported routine drug, STD testing without information or consent

Question	Synthesis of Responses
<p>8.How could we do it better:</p>	<ul style="list-style-type: none"> ● Provide easy-to-read handouts with clear explanations of what patient can expect, and what lab work they are doing. ● Flexibility in scheduling appointments – be more accessible on short notice. Follow-up promptly on needed appointments. ● Recognize the demands and challenges for moms -- if they are late for an appoint, figure out how to accommodate ● Be more sensitive to patient perspective and needs; speak in easy-to-understand language (avoid technical jargon) ● Home visits for PNC and post-partum ● Attention to individual woman’s issues and follow-up (e.g., don’t just ask once how the mom is feeling postpartum; ask again in a week or a month; pay attention to stressors). <ul style="list-style-type: none"> ○ Assign a counselor or therapist that really pays attention to mom’s status and needs ● Moms need someone to talk to; providers or other supports services need to find time to listen and talk ● Cover mom’s post-partum health and baby visits at the same time ● Don’t do treatment, tests, or even little things (e.g., pacifier) without getting consent ● Skype call (“mobile doctor”) so you can get quick access to a MD ● Group visits: appealed to many; create support group early in pregnancy. Women who can share information and ideas with each other. Perhaps they can have medical visits at the same time. ● Includes supports for fathers and families; family counseling to help manage stress and help new parents work together. ● Should have all services together in one place!! <ul style="list-style-type: none"> ○ Services are set up at convenience of doctors and hospitals; patients/women are not at the center of the service design ● Let mom rest for the hours after delivery; <i>“don’t rush us out and try to cram everything in”</i> ● Pregnant/postpartum: women are feeling “fat and ugly” and tired. Provide “feel good” services: e.g., manicure, massage, hair cut

Question	Synthesis of Responses
<p>9. What prenatal services did you not receive that you wish you had:</p>	<ul style="list-style-type: none"> • Education, support resources for fathers
<p>10. What advice would you give your friend or sister about prenatal care:</p>	<ul style="list-style-type: none"> • Go to the birthing classes • Request frequent reminders about different service options, decisions they will need to make • Get ongoing support for nursing • Get more information for after the baby is born: what to expect from baby and what you can expect (e.g., hair loss)
<p>11. WHEN YOU WERE PREGNANT, what was the most helpful advice/information you received:</p>	<ul style="list-style-type: none"> • MD said: “just relax”; relax and be calm; one day at a time • Nothing: <i>“I’m pregnant now, and I can’t think of one helpful thing that anyone has told me”</i>
<p>12. Where did you turn for information about <u>pregnancy</u>:</p> <p>Where did you turn for information about <u>parenting</u>:</p>	<ul style="list-style-type: none"> • Mom, sisters, sister-in-law • Internet • Nurses • No one • Family, mother-in-law • Early Intervention “helps more than doctors’ offices” <ul style="list-style-type: none"> ○ EI came to house to evaluate child and helped get them the stuff she needed for her child (braces, shoes) • DCF sponsored parenting class

Question	Synthesis of Responses
<p>13. How do you prefer to get information:</p> <p>Information challenges:</p>	<ul style="list-style-type: none"> • Text messages and emails • Mail - hard copies • Needs to be translated • In person • Want test results whether they are normal or abnormal. • Patient portal – can see all your results • Online videos: yes interested, but how are you going to know what’s out there • Davis Foundation: has texting campaign to let people know about things going on in Springfield • Baystate Pediatrics is very helpful • Can’t always make it to everything and then you miss out on information, <ul style="list-style-type: none"> ○ Often don’t find out about things until after it’s over (e.g., free shoes and hair cut for your kids) • Phone calls: often too rushed; don’t get complete information • Need more coordination among different providers, so getting same information from everyone
<p>14. How many different doctor’s offices do you have between yourself and your children:</p>	<ul style="list-style-type: none"> • Some just have one doctor (pediatrician) • Several said 3 • Ranged up to 5, including primary care/gyn, pediatrician, therapists, and specialists • Others included ER as one of their providers • Most have to go to multiple buildings or practices for parents and children • Get different information from different providers: “crazy”; huge waste of time and money
<p>15. Are you able to use the same practice for prenatal and postpartum:</p>	<ul style="list-style-type: none"> • Many “yes”
<p>16. How do you navigate multiple providers:</p>	<ul style="list-style-type: none"> • Good calendar systems • Moms as navigator for family • Reminder calls are really helpful • Patient care coordinator – they were going to get the patients calendars and help patient follow-up on appointments

Question	Synthesis of Responses
<p>17. Things that you need to have to take care of a baby or children:</p>	<ul style="list-style-type: none"> • Money: <i>“this is what gets you access to everything else”</i> • Shelter/housing • Support system • Information • Patience • Milk/formula – when you first come out of the hospital; food • Clothing • Support group for sharing resources (e.g., knowledge and needed resources, e.g., formula) • Transportation to get to appointments • Free services • Timely appointment (ease of access to medical appointments) • Need help addressing the multiple challenges: education, job, child care • Supportive employers– <i>“really, really hard to go back to work after you’ve had a baby”</i> <ul style="list-style-type: none"> ○ Employee assistance program • Car seats • Father support/education • Child care
<p>18. Which have you had difficulty obtaining:</p>	<ul style="list-style-type: none"> • Milk/formula • Child care • Education • Resources for fathers • Father groups/supports • Father education • Fathers don’t know what it entails to take care of a baby/family • They need to be educated on how to support mom • Lack of access to support system • Timely appointments: <ul style="list-style-type: none"> ○ E.g., son having a reaction to a medication, and they say wait for 3 weeks for an appointment ○ Don’t schedule time-sensitive appointments 1-2 weeks out • Information on short-term decisions/things to do for your baby (e.g., circumcision)

Question	Synthesis of Responses
<p>19. Challenges with housing while pregnant or parenting:</p> <p>Could health care providers help with housing?</p>	<ul style="list-style-type: none"> • YES! And know many other moms • Some live with mother, other family members • Unforeseen circumstances, out of their control, can change stability quickly: <i>“How do you relax when you don’t know where you are going to live”</i> • Have a newborn in far below acceptable housing is very stressful (e.g., with rodents) • Could have someone helping with all social services – make sure all essential supports are in place • How do they help people who aren’t eligible for services? <ul style="list-style-type: none"> ○ Services aren’t there if you are in the upper low-income range: <i>“they want you to give up your car, take the bus, and then you are late for appointments ...”</i>
<p>20. Last thoughts:</p>	<ul style="list-style-type: none"> • Interest in awareness/support groups for various issues: sickle-cell, pain management, IEP needs and advocacy, sharing material goods • <i>“Don’t forget the fathers.”</i> • Provide postpartum mental health supports • Build and build on support systems! • Provide “really lovely” treatment for stressed moms (e.g., massage)

Focus Group Report: Access to Health Care for Low-Income Individuals

Participants: Mothers

Primary Hospital/Insurer: Health New England

Date: April 5, 2016

Executive Summary

The focus group consisted of six female residents of a low-income housing development in Greenfield, MA. Discussions revolved around access to healthcare, including gaps and barriers to obtaining needed services.

Poverty was an underlying theme of this focus group. Poverty is a significant barrier to health. Respondents spoke about their inability to afford medications, transportation to appointments, childcare, and gym memberships.

Participant Demographics

6 participants, recruited through the housing coordinator at a low-income housing complex located in Greenfield

- All participants were females: all identified as straight
- Age distribution:
 - 1: 21-30
 - 1: 41-50
 - 2: 51-60
 - 2: >60
- All identified as White, and not Hispanic/Latino

Areas of Consensus

- Participants generally agreed that lack of transportation is a significant barrier to accessing needed care. Most participants rely on others for rides or use public transportation.
- Public transportation was reported to run infrequently, and/or have limited drop off locations that require a secondary form of transport (or walking in areas that are not pedestrian friendly).
- "TP1's" (insurance funded transportation system) has to be scheduled in advance, and do not make accommodations for accompanying a dependent.
- Participants agreed that waiting for appointments is a barrier. They reported that it can take a few days to see a doctor when sick, a few weeks to see a specialist, and up to a year to schedule a routine physical. Limited access to transportation compounds this issue.

- Participants agreed that they have limited input in setting the goals and priorities for their health.
- Most participants reported feeling rushed during appointments; not having enough time for questions; and having a limited understanding of medical jargon when discussing medical conditions.
- Half of the participants reported limited dental coverage.
- Changes in prescription coverage as a result of recent insurance changes were a frustration for most participants.

Recommendations

- Increased availability of transportation options for those that don't own cars.
- More free venues for exercise and more nutrition/diet support services.
- More comprehensive dental and vision coverage.
- Better training for customer service representatives at insurance companies and doctor's office.
- More social workers/patient navigators to assist with paperwork, scheduling appointments, transportation, and support during (and to prepare for) doctor's appointments.

Quotes

- "My son has been on his medication for 13 years, and now they are saying that they cannot cover it. They offer an alternative, but we have already done all of the alternatives- Why step backwards?"
- "Everyone in my house was sick last month. I had already taken too much time from work. I couldn't get appointment with primary care doctor that worked with my schedule, so I went to the clinic. Then the clinic made me wait for authorizations."
- "TP1s only apply to that one person. It is difficult for single parent- you can't bring your kids with you."
- "You have to wait 45 minutes for a 5-minute appointment. I think of things afterwards because they rush you and you don't have time to think about it sometimes."

Key Issues

Question	Synthesis of Responses
1. What has you/your family member's experience with the health care system been like	<p>Participants primarily focused on barriers to obtaining prescription medication, including:</p> <ul style="list-style-type: none">• The cumbersome and timely preauthorization process• Insurance company stopping coverage of certain prescription drug benefits• Co-pays for prescription medications• Waiting for prescriptions to be filled• In response to this question, participants primarily focused on service coverage as opposed to interpersonal interactions when seeking care

Question	Synthesis of Responses
<p>2. Please tell me about barriers you've experienced when trying to get care</p>	<ul style="list-style-type: none"> • Most participants agreed that transportation was a significant barrier to getting care • Although transportation vouchers (“TP1’s”) are available, they are limited to doctor’s appointments (i.e. not pharmacy visits) and are only valid for the patient receiving services (and therefore do not cover the cost of bringing or accompanying a child/dependent to an appointment) • TP1 vouchers must be scheduled nearly a week in advance, so are not helpful in emergency situations • Specialty services (i.e. optician) that accept their insurance are not located on a bus line- this requires paying for taxi fare, or walking on the shoulder of the road • Services that are not housed in one location are more difficult to access; this means more time away from work to access all services • A few participants noted barriers surrounding vision care, specifically limited optician services within a reasonable distance • Insurance only covers one pair of glasses/year, which can be challenging for children who are prone to damage them; when broken, it can take up to 6 months to repair • Other barriers mentioned included difficulty getting appointments to see Primary Care Provider (PCP) with short notice, long office waits, and cumbersome authorizations required to visit urgent care clinics. • Although some providers have e-portals for communication, participants reported the cost of Internet service and availability of computers as a barrier to accessing this service • Most reported missing appointments that have to be booked far in advance • If three consecutive appointments are missed, the patient it required to find a new PCP • Most reported long wait times for appointments (2 days for urgent care, a few weeks for specialty care, 1 year for primary care)

Question	Synthesis of Responses
<p>3. When you have gotten medical care (PCP, ER, specialty), what has your experience been like?</p>	<ul style="list-style-type: none"> • The majority of participants reported long wait times in doctor's offices, and short appointment times • One participant expressed feelings of not being listened to • Participants report feeling rushed during appointments, and forgetting to ask questions • The use of medical jargon is frustrating
<p>4. Who do you call if you or a family member has a health crisis? (i.e. family member, clergy, doctor, mental health professional, friends, police, emergency room, hotline?) Who do you contact if you have a concern about your treatment or recovery?</p>	<ul style="list-style-type: none"> • Answers varied: some participants call 911, others call a family member to avoid the high cost of taking an ambulance • Some participants reported calling their doctor's office if they have concern about their treatment or recovery • One participant noted that you sometimes get a faster response if you call to speak to a nurse • Most participants referred to seeking professional input (call lines at doctor's office) versus seeking input from family or other social support connections
<p>5. How much input do you have in setting the goals and priorities in taking care of your health?</p>	<ul style="list-style-type: none"> • Most participants reported having limited input or choices in the services and care they receive. • This is linked to limited appointment time and use of medical jargon that confuses patients
<p>6. What health services are valuable/not valuable, what services do you need to meet your health goals, where do you get services?</p>	<ul style="list-style-type: none"> • Participants generally agreed that follow-up appointments seemed like they were for no reason, and were a waste of time • It appears that individuals could benefit from increased education about what conditions need immediate care and/or prescription medication • Two participants shared stories about their doctors making recommendations that they could not afford, including attending a specific seminar and buying PediaSure • Half of the participants spoke about needing to have medications and conditions explained in plain language, and requested less medical jargon overall • Two participants reported their doctors told them to go home and Google their questions

Question	Synthesis of Responses
<p>7. What other services would help you achieve your health needs/recovery goals?</p>	<p>Participants mentioned the following services:</p> <ul style="list-style-type: none"> • Services for diet and exercise, including diet educators, nutritionists, and no-cost exercise facilities • Participants were either unaware of gym membership reimbursements, or were unable to pay out of pocket at the time • The length of time to get reimbursed was noted to be a barrier to using this service • More dental services • Childcare for appointments and in general • Patient navigators/social workers to help with insurance sign-ups, paperwork, transportation, coordinating appointments, etc. • Patient advocates/navigators to help prepare questions while waiting for appointments, elucidate medical jargon and navigate appointments • Increased transportation services • Job training
<p>8. If you could change any aspect of the health care system that you have experienced, what one or two things would you change that would have the most positive impact?</p>	<ul style="list-style-type: none"> • The majority of participants focused on training customer service professionals at insurance companies and doctors' offices to ease a patient's ability to navigate the system and get prompt responses. • Need for expanded dental coverage (more than just "pulling and cleaning") • For doctor appointments: more time, be listened to more, have more input and choices, simplify language
<p>9. IF TIME: Are there some health or other services available now but you cannot access them because of when or where they are offered? What are they and what are the barriers?</p>	<ul style="list-style-type: none"> • Participants mentioned limited accessibility to women's health services • When asked, all 6 participants reported not receiving routing OB GYN care • Other services mentioned throughout the focus group include: <ul style="list-style-type: none"> o Glasses- better replacement options for young children o Dental Care- increased services, such as dentures

Key Informant Interview Report: Baystate Mary Lane and Baystate Wing Hospital

Dates:

February 23rd - March 9th, 2016

Interview Format:

Phone interviews

Participants:

- Leah Bradley, Director of Behavioral Health, Baystate Wing Hospital Griswold Center
- Antonia Cardaropoli, School Adjustment Counselor, Ware Junior/Senior High School
- Kim Davis, Nurse Manager, Baystate Mary Lane Hospital
- Marlene Di Leo, Superintendent, Ware Public Schools
- Dr. Rock Jean-Guillaume, Chair of Emergency Medicine, Baystate Wing Hospital
- Jacqueline Jock, School Adjustment Counselor, Ware Middle School
- Carolyn Merriam, Public Health Nurse, Town of Ware
- Karen Ostiguy, Nurse Manager, Baystate Wing Hospital
- Tina Paulson, Nurse Manager, Baystate Mary Lane Hospital
- Annette Plourde, RN, Monson Medical Center
- Elizabeth Reilly, Hardwick Youth Center and Food Pantry
- Rev. Charles Taylor, United Church of Ware
- Dr. Louis Velazquez, Baystate Wing Hospital Griswold Center

In addition, Elizabeth Reilly shared the interview questions with a youth group in Hardwick. She recorded their responses and they are incorporated below.

Question	Synthesis of Responses
<p>1. What are the 3 most urgent health needs in your service area?</p>	<p>Every respondent except one mentioned substance abuse and/or the opioid crisis as a problem in the area.</p> <p>Other responses included:</p> <ul style="list-style-type: none"> • Behavioral health and/or lack of access to behavioral health care in the area (noted by five respondents) • Obesity/poor nutrition (three respondents) • A lack of specialty medical services (two respondents) <p>One respondent each noted: domestic violence, hepatitis C, lack of access to care for the elder population, diabetes, lack of ambulance services, and lack of services for the homeless.</p>
<p>2. What health issues have emerged or dramatically increased in prevalence, especially among youth and young adults, in the last 1-2 years in your area?</p>	<p>Again, all but one respondent (the same person as in Question 1) noted opioids and/or other substance abuse as dramatically increasing in prevalence in recent years. No other issues were mentioned by more than one person.</p>
<p>3. What specific gaps or barriers to health care are you most concerned about? For whom are these barriers most critical?</p>	<p>The most frequently mentioned gap was the lack of public transportation in the area, noted by five people. Lack of access was a recurring theme, including:</p> <ul style="list-style-type: none"> • Lack of access to behavioral health services (noted by three people) • Lack of access to addiction treatment (noted by two people) • Lack of access to grocery stores (noted by two people) • Lack of specialty services, especially with cutbacks in services offered at Mary Lane Hospital (noted by two people) <p>One respondent, however, believes that the Carson Center provides adequate behavioral health services to people in the service area.</p> <p>The barriers are most critical for those who lack cars, because of the need to travel to other communities.</p>

Question	Synthesis of Responses
<p>4. What are the underlying root causes that contribute to pain, suffering and ill health in your service area?</p>	<p>Four respondents cited the high poverty and/or unemployment rates in the service area as an underlying root cause. Lack of transportation, lack of access to healthy food, and lack of effective parenting were each cited by three people. Two people each noted low education levels and high alcoholism and/or substance abuse rates.</p>
<p>5. How do mental health and substance use disorders among youth and young adults impact your service area? What underlies and contributes to these disorders in younger populations?</p>	<p>There was general agreement that mental health and substance abuse are significant problem areas in the Mary Lane/Wing service area. Areas of concern included:</p> <ul style="list-style-type: none"> • Lack of access to behavioral health services • High domestic violence rates contribute to mental health issues • There has been an increase in children being removed from their homes because of parental drug abuse
<p>6. What has been the impact of the opioid abuse epidemic in this region? What are you seeing among youth and young adults in terms of opioid abuse and health risks?</p>	<ul style="list-style-type: none"> • People are self-medicating for depression and anxiety - this filters down to children, who see drugs as an answer for everything • Students as young as 13 or 14 are experimenting with drugs • More education and prevention around drug abuse is needed - most efforts go into treatment • Physicians need more education about treating pain without opioids <p>The Carson Center, and particularly the Patch Program, was cited as a resource. The Patch Program provides people with supports for issues related to DCF, the legal system, domestic violence issues - it does not include medical care, but one respondent suggested that it could be expanded to connect people with mental and physical health care providers.</p>

Question	Synthesis of Responses
7. In addition to more funding, what resources do you need to better address newly emerging or increasing health concerns, such as the opioid abuse epidemic?	<p>People spoke of the need for supportive services for families and teens, to help them address issues before they become serious. There needs to be a way to establish trust in providers among young people - they are feeling alienated. Specific suggestions included:</p> <ul style="list-style-type: none">• Hotlines to direct people to immediate medical attention• Small gatherings in providers' offices• Additional recruitment of providers• Support for physicians in prescribing non-opioid painkillers, such as buprenorphine and suboxone (both are heavily regulated)• One campus for all preschools, connected with community-based services• Activities for young people

Question	Synthesis of Responses
<p>8. What opportunities exist or are needed for better prevention efforts? Which health issues need significantly more prevention efforts? What is needed for improved mental health and substance use disorder prevention?</p>	<p>One respondent noted that the area has an active substance use task force, but that they haven't gotten past the hand-wringing stage - she has not seen any changes in what services are available. "We need concrete resources, not just looking at the numbers and feeling sad."</p> <p>Another noted that additional screenings are not helpful if there is a lack of services available to provide treatment for the conditions that are identified.</p> <p>Several respondents noted that collaboration is important in implementing prevention efforts. Harm reduction (needle exchanges) and Narcan education can save lives, but there can be political resistance. The support of various community groups coming together can help overcome this.</p> <p>Respondents also mentioned better access to nutritious food, activities for young people, and more systematic and ingrained prevention programs at schools.</p> <p>The young people from Hardwick said that big assemblies don't work for prevention - they want to be able to talk about issues in small groups, not necessarily with a therapist but with someone who understands the issues they are facing. They also noted that primary care doctors can be helpful to talk to, and said that they would like to see walk-in or phone-in crisis centers for when they need to talk.</p>
<p>9. What is your wish list for your rural service area and for the populations you serve?</p>	<p>The responses to this question echoed those heard earlier in the interviews. The most frequent response was transportation, followed by more opportunities for activities for youth and greater access to mental health services.</p>

Question	Synthesis of Responses
<p>10. How would you recommend that the Western Massachusetts Hospital Coalition work in closer partnership with local and regional organizations after the CHNA is completed? What specific ways can such a partnership be supported and sustained?</p>	<p>Several people used the opportunity posed by this question to note that they are concerned about the merger of Mary Lane Hospital with Baystate. They see that service cuts are already beginning, and with the renovations at Wing Hospital they fear that Baystate plans to close Mary Lane. This is a significant concern in Ware.</p> <p>Speaking more generally about partnerships, people made the following suggestions:</p> <ul style="list-style-type: none"> • Resources are out there, but it’s hard to know what is available, or how to lead in the right direction. • Need to preach the gospel of public health - this is not billable and individual practices cannot allocate time to it. • Medical personnel coming to schools, to the elderly, to shelters - building up connections with community organizations. • Need to put together objective information - health care is very competitive, and the challenge is to work collaboratively. • Quarterly gatherings, with food as an incentive, to discuss issues, look at progress, and keep the ball rolling.

Quotes:

- “Ware is an isolated, sad little town.”
- “Ware is #1 per capita in the state for overdose deaths.”
- “We’re seeing young people on scheduled painkillers for fibromyalgia, chronic pain. The pain clinics are overflowing.”
- “Mental health starts at home.”
- “Kids use drugs when they’re bored - they use them recreationally. They do not understand the power of addiction.”
- “Somehow, the hospital (Mary Lane) has become a crisis provider of aid, rather than a community organization.”

Key Informant Interview Report: Health New England

Dates:

February 3rd - February 15th, 2016

Interview Format:

Phone interviews, approximately 1 hour in length.

Participants:

- David Silva, Medicaid Community Leader
- Robert Azeez, Medicaid Behavioral Health Manager
- Kerry LaBounty, Medicaid Program Manager
- Jackie Spain, MD, Medicaid Program Medical Director

Summary:

Interviewees range in their professional roles within Health New England, yet there were multiple areas of consensus, including:

- Increased capacity to treat substance use disorder and mental health needs within primary care;
- More care coordination, including increased access to transportation and multiple services offered in one location/in closer proximity to each other;
- Need for more patient education about what constitutes “good care” (for example, more intervention is not always appropriate, but is often expected/defined as receiving good care);
- Rural areas face multiple barriers to health, including limited programming, transportation barriers, low access to healthy foods;
- A need to collect more data;
- Insurance policies (lose coverage or provider after missing 3 consecutive appointments) significantly impact patients with behavioral health needs (mental health and addiction) who often miss appointments as a result of their health condition;
- Need for patient education to improve overall health literacy;
- Need for provider training to improve cultural sensitivity/competency.

Quotes:

- “Heart of improving health care, giving people that ability to lead a healthy lifestyle.”
- “Need to get beyond ‘we deliver care, they pay for care’ to ‘where can we bring common resources to bear?’”
- “Do not make assumptions about what we think that problems are- get a better sense of community needs, and act based on data and not what you think.”
- “Use community agencies, churches, etc. to reach people to make differences.”
- “How we get care and who we trust may depend on who we are.”
- “If we are truly patient centered, then we really need to be patient center.”

Question	Synthesis of Responses
<p>1. What are the 3 most urgent health needs/problems impacting your members?</p>	<ul style="list-style-type: none"> • Poverty • Lack of access to nutritional foods (food deserts) • Lack of transportation • Homelessness- difficult for member engagement and follow up • Untreated Behavioral Health (BH) conditions • Unmet maternal, Child, Health (MCH) needs (i.e.-access to contraception, late entry to prenatal care, poor birth outcomes) • Diabetes, hypertension, CVD, diabetes block
<p>2. What health issues have emerged and/or dramatically increased in prevalence in the last 1-2 years in your area?</p>	<ul style="list-style-type: none"> • Opioid use disorder • Hepatitis C from chronic alcohol use and opioid use (current treatment carries an extremely high internal cost) • Unmet behavioral health needs • Obesity, cardiovascular disease, Type 2 Diabetes block • Asthma
<p>3. What specific vulnerable populations are you most concerned about? And why?</p>	<ul style="list-style-type: none"> • Minority populations, specifically African American and Latino/a • Disparities in cancer screening rates by race/ethnicity • Homeless individuals/families • Rural poor (who have the highest ER and ambulance utilization rates) • Those with Substance use (SA) issues • Youth not engaging in routine PC- lack of immunizations • Socially isolated individuals • Obese and underactive children and the earlier onset of adult diseases • Children in foster care system (fragmented care, hard to follow) • Incarcerated adults/adolescents (fragmented care, hard to follow)

Question	Synthesis of Responses
<p>4. Please discuss the barriers to accessing care such as (1) logistical, family, psychosocial, financial, geographical; (2) health insurance (coverage of benefits, cost sharing, etc.); (3) type of care people are seeking (primary, dental, behavioral, specialty); (4) lack of providers (if so, what kind); and (5) other.</p>	<p><u>Structural/logistical:</u></p> <ul style="list-style-type: none"> • Access to and affordability of transportation (MassHealth transportation system is not accessible for unplanned medical needs) • Distance to providers (rural areas) • Distance between services required to be compliant (ex. if x-ray, lab, and pharmacy are all in different places, people may be more likely to end up seeking all of those services in the ER) • State regulations- can change plan daily, this impacts continuity of care • Rules for BH care for Medicaid population: cases are closed after 3 no-shows, but various barriers can contribute • BH issues themselves pose barrier to care (ex. depression) <p><u>Providers:</u></p> <ul style="list-style-type: none"> • Lack of providers in rural areas that accept Medicaid • Lack of specialty providers that accept (ex. dental and dermatology) • Lack of BH providers, overall • Long wait times for specialty and primary care (leads to high emergency room (ER) utilization) <p><u>Housing instability:</u></p> <ul style="list-style-type: none"> • Housing instability makes tracking members challenging, changing contact info means some might lose insurance because they don't see notices • Notices sent re: maintaining insurance are not always at the appropriate literacy level/translated <p><u>Cultural:</u></p> <ul style="list-style-type: none"> • Latino population, less importance placed on timeliness in terms of making appointments (mentioned by 3/4 interviewees) • White populations have less family support systems as compared to AA and Latino populations • Fear of losing benefits if health improves • Cultural ideas of what good care is (for some, lots of med and interventions are seen as good quality care, if not received from PCP, go to ER to get- this relates more to overuse)

Question	Synthesis of Responses
<p>5. Please discuss quality of care as reported by members and/or clinicians (perceptions of quality of care members are receiving- i.e. do people believe that the care they are getting has value?)</p>	<ul style="list-style-type: none"> • Members are frustrated by access to and time to get appointments • Providers are frustrated by lack of compliance and rates of no shows • Need for more integration of BH care into routine PC (primary care) • Need for more culturally sensitive care (more training for specialty populations- transgender individuals, adolescents, varying ethnic groups)
<p>6. Please discuss the access to and availability of community resources needed to be healthy (built or community environment (e.g.- food, safety); fitness/gym facilities; benefits covered by health insurance; community organizations).</p>	<ul style="list-style-type: none"> • Rural areas- programming is limited, or spread out/located in pockets that can be difficult to get to • Urban areas- programs exist, but often people are unaware of what is available • Need for lower cost gyms, afterschool programs not just focused on homework • Lack of culturally tailored programming, especially in rural areas • Lack of access to healthy, culturally relevant foods • Lack of safe areas for recreation

Question	Synthesis of Responses
<p>7. Please discuss health behaviors of concern (ex. tobacco use, alcohol & drug use, lack of physical activity, etc.) and the barriers to engaging in healthy behaviors among members.</p>	<p><u>Exercise and nutrition:</u></p> <ul style="list-style-type: none"> • Lack of exercise options for children: team sports are cost-prohibitive, and transpiration is an issue (4/4 mentioned) • HNE offers reimbursement for gym memberships, vastly underutilized in Medicaid pop- not exactly certain why • Food deserts • Lack of education about portion size • Come cultural practices/beliefs: a “fat baby is a healthy baby” • Lack of cultural support for breastfeeding • SNAP benefits for farmers market underutilized in urban area due to lack of culturally relevant foods; more utilized in rural areas, <i>if</i> members can get transport to farmers market <p><u>Non-compliance with medication/treatment protocols</u></p> <ul style="list-style-type: none"> • Lack of comprehension about chronic health conditions- (i.e. feel better, stop meds) • Lack of understanding about preventative health, importance of continuous care to manage chronic conditions • Cultural beliefs and attitudes and expectations of western medications • Lack of understanding about medications (e.g. antibiotics, stimulant meds) • Education for Latino population about new diagnoses is not given enough time; often need 1-1 and more time to understand diagnosis and importance of adherence to meds and lifestyle recommendations <p><u>Multigenerational health patterns:</u></p> <ul style="list-style-type: none"> • Parental lack of education and modeling (3/4 interviewees) • Multigenerational patterns of SA and MH • Need more opportunities for fun, physical activity (ex. adult sports leagues/softball to get entire families active)

Question	Synthesis of Responses
<p>8. How would you recommend that your local hospitals/insurers and/or Western Massachusetts Hospital Coalition work in closer partnership with local and regional municipal public health entities after the CHNA is completed? What specific ways can such a partnership be supported and sustained? Specifically, what can Health New England do to help impact the health of its most vulnerable members?</p>	<p><u>Overall:</u></p> <ul style="list-style-type: none"> • More support for peer education model (2/4 mentioned) • More collaboration across multiple sectors- business community, faith-based, hospitals, etc.) • More grassroots education in rural areas about substance use • More accessible resources • Shift perception of hospital as a stand-alone entity, increase its role in screening people for unmet health needs, link people to resources to address social determinants of health • Bundled rates that support education and visit, support/fund peer educators, support providers <p><u>For HNE specifically:</u></p> <ul style="list-style-type: none"> • Explore alternative reimbursement models • Community perception that HNE is not involved in the community- perhaps sponsor a sports team, or support transportation efforts for rural sports programs • Partner more with providers to explore alternative models of health care delivery by using shared resources
<p>9. If time: Is there anything else you would like to share?</p>	<ul style="list-style-type: none"> • Need to collect better data on who is being seen and what their needs are • Need to improve cultural competence/sensitivity

Key Informant Interview Report: Public Health Personnel

Dates:

January 2nd - February 1st, 2016

Interview Format:

Phone interviews, approximately 45 minutes in length.

Participants:

- Helen Caulton Harris, Commissioner of Public Health, City of Springfield
- Soloe Dennis, Western Region Director, Massachusetts Department of Public Health (MDPH)
- Dalila Hiry-Dermith, Supervisor, MDPH Division for Perinatal, Early Childhood and Special Needs, Care Coordination Unit
- Luz Eneida Garcia, Care Coordinator, MDPH Division for Perinatal, Early Childhood and Special Needs, Care Coordination Unit
- Judy Metcalf, Director, Quabbin Health District
- Merridith O’Leary, Director, Northampton Health Department
- Lisa Steinbock, Public Health Nurse, City of Chicopee
- Phoebe Walker, Director of Community Services
- Lisa White, Public Health Nurse, Franklin Regional Council of Governments

Question	Synthesis of Responses
<p>1. What local policies and social conditions predispose people in your community/service area to good health and mental wellness? Are there groups of people who benefit from these policies/social conditions more than others?</p>	<p>All respondents agreed that the region provides excellent health services, but many talked about the difficulty some populations have in accessing them. Lack of transportation is a major issue for some groups of people throughout the service area.</p> <p>Respondents from Hampden county had difficulty naming local policies and service conditions other than health care institutions that promote health and wellness. One mentioned Mass Health as expanding access to most people. In Franklin and Hampshire counties, respondents named access to fresh local food, compliance policies around tobacco and alcohol, town-based programs such as senior centers, Mass in Motion, public transportation, and access to mental health providers as predisposing people toward good health.</p>

Question	Synthesis of Responses
<p>2. What kind of structural and social changes are needed to tackle health inequities in your community/service area?</p>	<p>Again, the most frequently mentioned issue is lack of transportation. Other changes that would help improve inequities included:</p> <ul style="list-style-type: none"> ● Help families understand what resources are available to them ● Follow through beyond initial outreach ● Workforce development ● Affordable/improved housing ● Continuity of care around addiction treatment ● Healthy markets ● Workplace wellness programs ● Education around harm associated with marijuana ● Coordination of care/avoiding readmission
<p>3. What are the 3 most urgent health needs/problems in your service area?</p>	<p>This list shows the issues named and the number of people who named each one:</p> <ul style="list-style-type: none"> ● Substance abuse/addiction/treatment (5) ● Mental health (3) ● Poverty (2) ● Communicable diseases (2) ● Obesity (1) ● Diabetes (1) ● Teen pregnancy (1) ● Lack of prevention services in schools (1) ● Smoking (1) ● Lack of youth engagement (1) ● Perception of city as drug-friendly (1) ● Chronic diseases (1) ● Need to improve workforce development in health care (1)
<p>4. What health issues have emerged and/or dramatically increased in prevalence in the last 1-2 years in your area? What evidence/data do you have to illustrate this increase?</p>	<p>Every respondent mentioned substance abuse as an emerging issue, with four specifically referencing opioids. Other issues, each noted by one respondent, were:</p> <ul style="list-style-type: none"> ● Mental health ● Pertussis ● Lyme disease ● Obesity ● Sexually transmitted diseases

Question	Synthesis of Responses
<p>5. What gaps in services exist in addressing these needs? What are barriers to filling these gaps?</p>	<p>Some respondents' spoke of gaps around connecting people with services - the services exist, but people are not aware of them or unable to reach them because of barriers including lack of transportation, waiting lists, cultural and language differences between the community and providers, and lack of information about what is available.</p> <p>Other gaps included lack of services for substance abuse, the lack of coordination among agencies doing similar work, lack of comprehensive prevention work in some schools, lack of mental health providers, lack of access to exercise and healthy food.</p> <p>Barriers cited included lack of funds, lack of time for coordination and planning, and lack of consensus in the community about the importance of the issues.</p>
<p>6. In addition to more funding, what resources do you need to better address these emerging or increasing health concerns?</p>	<p>Several respondents mentioned the need for increased coordination and communication among hospitals concerning the services that are available and what is needed (one person noted that the CHNA is a good start).</p> <p>Other needed resources that respondent noted were:</p> <ul style="list-style-type: none"> ● Support for families as they navigate the healthcare system ● Better transportation, either public or provided by hospitals ● Better-trained, more diverse health care staff
<p>7. What specific vulnerable populations are you most concerned about? And why?</p>	<p>Three respondents mentioned the elderly, and two each mentioned mentally ill people, homeless people, and low-income people. Reasons given usually addressed these populations' lack of access to services that meet their needs. These are populations which are less able to advocate for themselves and find help.</p>
<p>8. Externally, what resources or services do you wish people in your area had access to?</p>	<p>These responses varied, but three respondents mentioned better transportation options. Other resources and services mentioned included:</p> <ul style="list-style-type: none"> ● Mental health care ● Better care coordination ● More workforce development ● Partnerships or services around improving air quality (high asthma rates) ● More money for community outreach ● Universal child care/after school care ● Support groups and behavioral interventions ● Access to healthy food

Question	Synthesis of Responses
<p>9. How would you recommend that your local hospitals/insurers and/or Western Massachusetts Hospital Coalition work in closer partnership with local and regional municipal public health entities after the CHNA is completed? What specific ways can such a partnership be supported and sustained?</p>	<p>Respondents often did not have a clear idea of what this could look like. Two respondents addressed community benefit programs and expressed an interest in or questions about how these programs relate to coalition-building, particularly with regard to hospitals acquired by Baystate. Both said it was unclear what these programs look like in their communities.</p> <p>One respondent spoke of the need for greater coordination among and also within hospitals, including sharing information on individual patients (within the hospital) and letting people know what is available in the community. Hospitals could also work together to identify and fill local service gaps.</p> <p>Some specific suggestions included involving hospitals in community discussions around:</p> <ul style="list-style-type: none"> ● where people who been treated for overdoses can go after release from the hospital ● reducing re-admissions ● workplace health screenings <p>Ideas around sustaining and supporting this collaboration included:</p> <ul style="list-style-type: none"> ● Regular meetings ● Open forums to discuss issues and problems ● Discussion of what resources are available ● Funds are available as part of capitation - hospitals are changing the kind of work that they do, supporting efforts to keep people out of hospitals ● Developing a common vision for improving health ● Making it an ongoing effort with partners who are engaged with the process
<p>10. Is there anything else you would like to share?</p>	<p>Only one person took the opportunity to add to the conversation. She suggested that more efforts need to be placed on prevention programs, and suggested that hospitals partner with the YMCA or other organizations to offer vacation and afterschool programs for youth. This would motivate young people to exercise and also keep them out of trouble.</p>

Appendix III:

Data Tables

Hospitalizations and Emergency Room Visits among Highlighted Communities, 2012 and 2013

Hospitalization and Emergency Room Visit Rates for Highlighted Communities by Race/Ethnicity, 2012

Behavioral Risk Factor Surveillance System (BRFSS) Prevalence Estimates for Health Behaviors and Conditions by County

Hospitalizations and Emergency Room Visits among Top Communities with Confidence Intervals, 2013

Hospitalizations and Emergency Room Visits among Highlighted Communities, 2012 and 2013

Geography	Hospitalizations					
	Diabetes		COPD		Substance Use	
	2012	2013	2012	2013	2012	2013
Palmer	98.7	188.1	410.4	NA	751.2	645.7
Ware	124.0	209.9	260.7	NA	528.8	529.4
Hampden County	177.4	197.0	385.6	NA	691.9	676.3
Hampshire County	95.1	95.5	247.7	NA	368.3	390.6
Worcester County	137.1	138.2	765.3	NA	280.4	240.0
Massachusetts	133.7	NA	325.5	NA	362.4	NA

Geography	ER Visits							
	Asthma		COPD		Mental Disorders		Substance Use	
	2012	2013	2012	2013	2012	2013	2012	2013
Palmer	932.7	697.5	1243.7	NA	2787.6	2846.1	829.8	622.8
Ware	1293.3	1216.9	1997.8	NA	4516.3	3651.1	2297.1	1113.0
Hampden County	1027.6	920.2	1532.3	NA	2850.4	2899.8	1019.1	1019.1
Hampshire County	337.7	326.3	513.9	NA	1759.9	1750.4	743.7	743.7
Worcester County	578.3	541.3	765.3	NA	2241.7	2263.8	794.2	794.2
Massachusetts	571.9	NA	867.9	NA	2304.4	NA	986.5	NA

*MDPH, 2012; rates are per 100,000 and are age-adjusted

Hospitalization Rates and ER Visit Rates for Highlighted Communities by Race/Ethnicity, 2012

Geography	Race/Ethnicity	Hospitalizations			ER Visits			
		Substance Use	Diabetes	COPD	Asthma	COPD	Mental Disorders	Substance Use
Palmer	White	728.8	85.9	407.2	896.78	1195.35	2777.84	821.63
Palmer	Black	NA	NA	NA	NA	NA	NA	NA
Palmer	Latino	NA	NA	NA	NA	NA	NA	NA
Palmer	Asian / Pacific Islander	NA	NA	NA	NA	NA	0	0
Ware	White	532.36	127.8	239.57	1170.2	1844.57	4557.24	2365.61
Ware	Black	NA	NA	NA	NA	NA	NA	NA
Ware	Latino	NA	NA	NA	4458.49	5819.36	NA	NA
Ware	Asian/Pacific Islander	NA	NA	NA	0	0	0	0
Hampden County	White	675.5	126.4	301.03	494.38	807.42	2240.9	869.79
Hampden County	Black	443.1	326.5	328.54	1250.7	1921.36	3355.17	1111.17
Hampden County	Latino	922.1	386.6	896.56	2577.85	3793.81	5107.16	1784.4
Hampden County	Asian / Pacific Islander	114.9	NA	248.69	196.71	425.09	724.59	255
Hampshire County	White	377.49	91.18	244.02	292.06	469	1755.1	743.43
Hampshire County	Black	NA	NA	NA	1057.91	1274.6	4053.96	1887.09
Hampshire County	Latino	711.89	NA	317.91	888.41	1158.67	1935.62	585.71
Hampshire County	Asian/Pacific Islander	NA	NA	NA	NA	NA	355.45	182.59
Worcester County	White	292.6	129.03	317.61	468.04	650.5	2242.73	811.47
Worcester County	Black	293.62	333.5	376.65	1079.34	1282.28	3028.73	1190.41
Worcester County	Latino	199.52	130.85	405.37	1089.68	1282.74	2265.28	630.6
Worcester County	Asian/Pacific Islander	NA	NA	113.38	173.66	215.35	443.22	92.14
Massachusetts Total	White	392.6	115.9	300.78	416.94	698.38	2315.35	1019.46
Massachusetts Total	Black	260.2	320.2	434.29	1279.13	1635.07	3101.85	1301.8
Massachusetts Total	Latino	317.8	222.8	468.54	1162.06	1584.54	2610.65	1107.56
Massachusetts Total	Asian / Pacific Islander	39.8	43.1	118.27	147.8	220.69	423.8	126.12

*NA - data suppressed because of low counts

Behavioral Risk Factor Surveillance System (BRFSS) Prevalence Estimates for Health Behaviors and Conditions By County

Geography	Obese*	Over-weight or Obese*	Heart Disease**	Stroke*	Heart Attack or MI*	Diabetes*	Pre-diabetes*	Poor Mental Health (15+ days)*	Current Smoker*	Binge Drinker*
Berkshire County	22.04	56.28	6.72	3.14	5.30	9.4	6.78	10.79	20.64	18.35
Hampden County	28.76	64.69	7.85	3.38	5.06	13.2	7.56	15.86	21.47	16.12
Hampshire County	19.97	55.94	5.54	2.56	3.74	4.7	8.56	12.12	15.52	23.04
Franklin County	22.40	54.38	4.42	NA	3.63	8.7	10.27	12.41	19.66	17.81
Worcester County	27.33	62.99	5.84	2.44	3.75	10	8.04	11.17	18.96	19.10
Massachusetts	23.6	59.0	6.1	2.4	4.0	9.0	7.3	11.1	16.1	18.7

*Direct estimates 2012-2014

**Direct estimates 2011, 2012, 2014

NA - estimate unavailable

Hospitalizations and Emergency Room Visits among Top Communities with Confidence Intervals, 2013

Rank	Hospitalizations	ER Visits		
	Diabetes	Asthma	Mental Disorders	Substance Use
1	Ware 209.9 (122.2-297.6)	Ware 1216.9 (991.5-1442.3)	Ware 3651.1 (3272.9-4029.3)	Ware 1113.0 (902.1-1323.9)
2	Monson 198.5 (101.2-295.8)	Palmer 697.5 (543.7-851.3)	West Brookfield 3209.1 (2644.2-3773.9)	Brookfield 717.3 (394.8-1039.9)
3	Palmer 188.1 (114.4-261.8)	Warren 584.7 (371.9-797.5)	Brookfield 2610.5 (2015.7-3205.2)	West Brookfield 702.2 (421.2-983.1)
4	Belchertown 93.6 (40.6-146.5)	West Brookfield 417.5 (190.5-644.4)	Palmer 2309.6 (2039.1-2580.2)	Warren 696.8 (466.0-927.7)

Appendix IV:

Community and Hospital Resources to Address Identified Needs

Priority Health Need	Resource Organization Name	Description of Services Provided	Website Address
Income and Employment	Springfield Partners for Community Action	Federally designated Community Action Agencies serving low-income individuals and families	http://www.springfieldpartnersinc.com
	Community Action of Hampshire County;		http://www.communityaction.us/index.html
	Worcester Community Action Council, Inc. for towns in Worcester County		http://www.wcac.net/
Education	Ware Adult Education Center	Provides free adult education classes at 3 levels: basic literacy, pre GED, through GED. provides access to post-secondary education and job training skills	http://www.literacyproject.org/
	Top Floor Learning in Palmer		https://www.facebook.com/topfloorlearningpalmer/info/?entry_point=page_nav_about_item&tab=overview
Housing	HAP Housing	Housing assistance to tenants, homebuyers, homeowners and rental property owners; largest nonprofit developer of affordable housing in Western Massachusetts' serves Hampden and Hampshire Counties	http://www.haphousing.org/default
		Greater Worcester Housing Connection: <i>provides housing and supportive services to homeless and formerly homeless individuals towards the community goal of ending homelessness</i>	http://www.smoc.org/greater-worcester-housing-connection.php

Priority Health Need	Resource Organization Name	Description of Services Provided	Website Address
Transportation	Ware Senior Center "Van Go" Van Services		http://warema.virtualtownhall.net/Pages/WareMA_COA/Transportation
	Pioneer Valley Transit Authority (PVRTA)		http://www.pvta.com/
	Worcester Regional Transit Authority		http://www.therta.com/
Food Insecurity, Food Deserts	Brown Bag-Food for Elders Program	Food Bank of Western Massachusetts provides a free bag of healthy groceries to eligible seniors once a month at local senior centers and community organizations.	https://www.foodbankwma.org/get-help/brown-bag-food-for-elders/
	Worcester County Food Bank	Collects and inspects perishable and non-perishable food and distributes it through a network of 131 Partner Agencies in all 60 cities and towns of Worcester County	http://foodbank.org/
Obesity	Comprehensive Adult Weight Management Program	Proven methods for weight management tailored to individuals' unique health needs and lifestyle	https://www.baystatehealth.org/services/weight-management
	Baystate Health Support Groups	support groups, exercise, and education workshops that cover topics related to weight loss, nutrition and exercise	https://www.baystatehealth.org/services/weight-management/support-services/support-groups
	Healthy Hampshire Mass In Motion/ Palmer, MA	Community-based coalitions to improve health equity in Ware and Palmer through improved access to healthy eating and active living	http://www.northamptonma.gov/1482/Healthy-Hampshire http://www.pvpc.org/tags/mass-motion
Cardiovascular Disease	Heart & Vascular Care Services	Comprehensive diagnostics, and treatment options for coronary artery disease (CAD), heart rhythm disorders (arrhythmias) heart failure; cardiac surgeries for adults and children; cardiology clinical trails	https://www.baystatehealth.org/services/heart-vascular

Priority Health Need	Resource Organization Name	Description of Services Provided	Website Address
Diabetes	Diabetes Education Center	complete range of services for the evaluation, treatment, and management of diabetes and other endocrine disorders; education, information, classes and support groups	https://www.baystatehealth.org/services/diabetes-endocrinology
	Diabetes Self-Management Program	Help adult patients and their families learn to manage their diabetes and live full and productive lives.	https://www.baystatehealth.org/services/diabetes-endocrinology
Nutrition	Baystate Nutrition Services	Resources and information, registered dietetic staff available for individual and group nutrition counseling sessions	https://www.baystatehealth.org/services/nutrition-services
	Mass In Motion/ Palmer, MA		http://www.pvpc.org/tags/mass-motion
Physical Activity	Physical Therapy Services	Information, resources, coaching and education, stretching, core strengthening, walking and strength training to improve or restore physical function and fitness levels	https://www.baystatehealth.org/services/rehabilitation
	Scantic Valley YMCA Tri-Community YMCA	Fitness sessions, swimming, dance classes, after-school care, summer camp, senior health initiatives and mentoring opportunities.	http://www.springfieldy.org/family-centers/scantic-valley-y-family-center/ http://www.tricomcommunityymca.org/
Asthma	Pioneer Valley Asthma Coalition	Community partnership that works to improve the quality of life for individuals, families and communities affected by asthma.	www.pvasthmacoalition.org

Priority Health Need	Resource Organization Name	Description of Services Provided	Website Address
Mental Health	Baystate Behavioral Health Care	Continuum of high-quality inpatient and outpatient care, information, support groups and education. Child and Adolescent Psychiatric Care, services for families, Adult Psychiatric Care and Geriatric Psychiatric Care.	https://www.baystatehealth.org/services/behavioral-health
	Griswold Behavioral Health Center	Individual, couples, family, and group therapy; psychiatric and psychological assessment for children, teens, adults and elders; Substance abuse/Addiction recovery programs; medication management program; driving under the Influence program	http://www.baystatewinghospital.org/services-conditions/behavioral-health/services-we-provide/griswold-behavioral-health-center
	Valley Human Services/Carson Center Behavioral Health Network's Outpatient Services	Provides services to chronically mentally ill adults, seriously emotionally disturbed children, adolescents, and families; substance use disorder treatment; domestic violence services; traumatic brain injury services; child care and summer camps	http://www.carsoncenter.org/
Substance Use Disorder: Tobacco	Smoking Cessation Programs	Monthly hypnosis program designed to help residents quit smoking. Fee and pre-registration are required	http://www.baystatewinghospital.org/patients-visitors/patient-resources/support-groups/smoking-cessation-through-hypnosis
Substance Use Disorder: Opioids and Other Substances	CleanSlate Addiction Treatment Center (Suboxone Treatment)	Patient-focused treatment for opioid, alcohol and other drug addictions; appointment-based outpatient treatment	http://cleanslatecenters.com/
	Valley Human Services/Carson Center Behavioral Health Network's Outpatient Services	Intensive Outpatient Treatment services and support for addiction recovery	http://www.carsoncenter.org/
	Griswold Behavioral Health Center	Substance abuse/Addiction recovery programs; medication management program; driving under the Influence program	http://www.baystatewinghospital.org/services-conditions/behavioral-health/services-we-provide/griswold-behavioral-health-center

Priority Health Need	Resource Organization Name	Description of Services Provided	Website Address
	Behavioral Health Center's Addiction Services:	Comprehensive addiction services including detox, post-detox residential series, long-term residential, day treatment programs, and outpatient services.	http://bhninc.org/content/addiction-services
	Needle Exchange Program	Needle exchange programs in Holyoke and Northampton, sterile needles to injection drug users, trainings on Naloxone, education and counseling	http://www.tapestryhealth.org/index.php/services/prevention/needle-exchange
	Quaboag Hills Community Coalition Substance Use Task Force	Regional coalition that works to prevent and reduce substance use in the 15 towns of the Quaboag Hills; supports and advocates for expanded support and recovery services; train, educate, advocate, and provide support and resources on opiate abuse and overdoses.	http://qhcc.weebly.com/substance-use-task-force.html
Prenatal and Perinatal Care	Baystate Mary Lane OB/GYN	Pregnancy and high risk pregnancy; Infertility; Ultrasound; Fetal echocardiogram; Nonstress testing; Amniocentesis Chorionic villous sampling (CVS); Fetal blood sampling; High risk pregnancy counseling; Genetic consultation and testing.	https://www.baystatehealth.org/locations/outpatient-center-ware/ob-gyn
Domestic Violence	Valley Human Services/Carson Center Behavioral Health Network	Batterer's Intervention Program at Carson Center. Domestic Violence Advocacy, Support and Safe House Program.	http://www.carsoncenter.org/programs/domesticviolence/

Appendix V:

County Health Rankings, 2016

Shaded columns are rankings based on the 14 counties in Massachusetts. Lower numbers indicate better status. A rank of 14 indicates a county is ranked last in the state.

The Rankings are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play.

The County Health Rankings measure the health of nearly all counties in the nation and rank them within states. The Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights.

For more information, visit: <http://www.countyhealthrankings.org/>

	Massachusetts	Hampshire County	Hampden County	Franklin County	Berkshire County	Worcester County
Health Outcomes		5	14	8	11	7
Length of Life		5	14	7	12	8
Premature deaths	5,100	4,700	6,600	5,500	6,200	5,500
Quality of Life		5	14	8	10	7
Poor or fair health	14%	12%	19%	12%	13%	12%
Poor physical health days	3.5	3.3	4.4	3.5	3.4	3.1
Poor mental health days	3.9	3.9	4.5	4.0	4.1	3.6
Low Birthweight	8%	6%	8%	7%	8%	7%
Health Factors		3	14	7	9	11
Health Behaviors		6	14	8	7	11
Adult smoking	15%	15%	18%	15%	15%	16%
Adult obesity**	24%	21%	29%	22%	23%	26%

	Massachusetts	Hampshire County	Hampden County	Franklin County	Berkshire County	Worcester County
Food environment index**	8.3	8.1	7.9	8.1	7.9	8.2
Physical inactivity**	22%	16%	26%	18%	20%	23%
Access to exercise opportunities	94%	86%	94%	72%	79%	91%
Excessive drinking	20%	24%	18%	20%	18%	19%
Alcohol-impaired driving deaths	29%	28%	32%	27%	21%	31%
Sexually transmitted infections**	349.2	222.2	576.5	257.2	320.0	278.0
Teen births	17	4	37	20	21	19
Clinical Care		2	12	7	3	9
Uninsured	4%	4%	5%	4%	4%	4%
Primary care physicians	940:1	690:1	1,410:1	1,420:1	910:1	960:1
Dentists	1,070:1	1,550:1	1,300:1	1,540:1	1,310:1	1,500:1
Mental health providers	200:1	140:1	160:1	160:1	150:1	250:1
Preventable hospital stays	56	47	63	49	44	55
Diabetic monitoring	90%	89%	89%	90%	91%	89%
Mammography screening	74%	77%	71%	72%	73%	70%
Social & Economic Factors		3	14	7	11	9
High school graduation**	85%	90%	73%	84%	84%	86%
Some college	71%	78%	59%	67%	63%	67%

	Massachusetts	Hampshire County	Hampden County	Franklin County	Berkshire County	Worcester County
Unemployment	5.8%	5.0%	7.8%	5.3%	6.5%	6.2%
Children in poverty	15%	13%	26%	17%	20%	15%
Income inequality	5.4	4.9	5.7	4.5	4.9	5.0
Children in single-parent households	31%	31%	47%	33%	36%	29%
Social associations	9.5	9.6	8.7	12.4	11.8	8.8
Violent crime**	434	245	641	379	403	447
Injury deaths	46	42	53	49	58	48
Physical Environment		10	13	11	14	12
Air pollution - particulate matter	10.5	10.7	10.7	10.6	10.8	10.5
Drinking water violations		Yes	Yes	Yes	Yes	Yes
Severe housing problems	19%	17%	19%	16%	18%	16%
Driving alone to work	72%	71%	83%	78%	79%	82%
Long commute - driving alone	41%	35%	27%	35%	23%	41%