Community Health Needs Assessment

2016

Prepared for

Holyoke Medical Center

Adopted by: Helen Arnold/Barry Waite on 02/25/2016

By

Partners for a Healthier Community
Collaborativefor Educational Services
Pioneer Valley Planning Commission

Partners for a Healthier Community, Inc.

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Everyone is a learner

Catalyst for Regional Progress
PVPC

Consultant Team

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Partners for a Healthier Community 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, 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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Introduction and Methods

Holyoke Medical Center is a 198-bed facility with over 1,200 employees serving individuals and families throughout the Pioneer Valley. The medical staff includes more than 300 physicians and consulting staff. Among some of the top-rated services at Holyoke Medical Center is the award-winning Holyoke Medical Center Stroke Service which has been consistently rated as one of the best in the state. Areas of clinical emphasis also include behavioral health, critical care, emergency care, orthopedics, oncology, rehabilitation, women's health services, and speech and hearing services. Holyoke Medical Center is a member of Valley Health Systems, which also includes the affiliates Holyoke Visiting Nurse Association & Hospice Life Care, Western Mass Physician Associates and River Valley Counseling Center. For more information, please visitwww.HolyokeHealth.com.

Holyoke Medical Center 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 inWestern Massachusetts together to share resources and work in partnership to conduct their community health needs assessments (CHNA) and address regional needs. Holyoke Medical Center worked in collaboration with the Coalition to conduct this assessment. The assessment was conducted so that Holyoke Medical Center can better understand the health needs of the communities it serves and to meet its fiduciary requirement as a tax-exempt hospital.

The assessment focused on the nine communities in Holyoke Medical Center's service area, which are found in Hampden and Hampshire Counties and generally center around the Medical Center's location in northern Hampden County. Holyoke comprises the bulk of the Holyoke Medical Center service area.When identifying the areas 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 this CHNA include community level social and economic determinants that impact health, barriers to quality health care, and health conditions and behaviors.

The assessment included analysis and synthesis of 1) a variety of social, economic and health data; 2) findings from recent community assessment reports; and 3) information from five focus groups and 21 key informant interviews, some of which were conducted specifically for Holyoke Medical Center, 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 Holyoke Medical Center's

community health improvement strategies and to inform the Coalition's regional efforts to improve health.

Findings

Below is a summary of the prioritized community health needs identified in the 2016 CHNA.

Community level social and economic determinants that impact health
Social, economic, and community level needs identified in this CHNA include:

- **Lack of resources to meet basic needs** – Many Holyoke Medical Center service area residents struggle with *poverty* and *low levels of income*, with approximately 15% of the population living below the federal poverty level and one third living at or below 200% of the federal poverty level. *Lower levels of educational attainment* also contribute to availability of resources to meet basic needs. Approximately 14% of Holyoke Medical Center service area residents age 25 and older do not have a high school diploma.
- **Housing needs** – *Housing insecurity* is a need that impacts Holyoke Medical Center service area residents. Over one-third of the population is housingcost burdened, with more than 30% of their income going towards housing. Housing instability and a lack of affordable housing can contribute to homelessness. Western MA 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.
- **Lack of community safety**— Lack of community safety was a prioritized health need in the previous 2013 CHNA and continues to impact Holyoke Medical Center service area residents. Crime rates are high for Holyoke Medical Center service area residents, with violent crime rates in Hampden County almost 50% higher than that of the state.
- **Transportation**-Regional public health officials interviewed for the 2016 CHNA identified an overall need for increased transportation options 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 Holyoke Medical Center service area residents to access food overall, including food that promotes good health. Parts ofHolyoke and Chicopee have high rates of food insecurity, exceeding 20%. In addition, parts of Holyoke, Chicopee, andWest Springfield are also considered *food deserts*, which are areas where low-income people have limited access to grocery stores.
- **Institutional racism**— Institutional racism was identified as a community factor impacting health and access to health care for this CHNA. Large racial and ethnic disparities in health outcomes were found across a number of health concerns.Institutional racism was identified as a factor driving health inequities and a structural and social problem that needs to be addressed to reduce these inequities.Institutional racism has been defined as racial inequities in access to goods, services, and opportunities such as quality education, housing, employment opportunities, medical care and facilities, and a healthy physical environment.

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** - Hampden County residents experience challenges accessing care due to the limited availability of providers. Fifty-four percent of Hampden County residents live in a healthcare professional shortage area.
- **Insurance related challenges** - Participants in focus groups conducted by other Coalition members identified the cost of co-pays, services that are not covered by insurance, and the limited number of providers that accept MassHealth as barriers to accessing the care and services needed to maintain their health. Key informant interviewees also identified state MassHealth insurance policies that negatively impact access to providers and services and contribute to siloed care delivery as barriers, particularly those that impact care for patients with both mental health and substance use conditions.
- **Lack of transportation** – Transportation was one of the most frequently cited barriers to accessing health care and health–related services. Though Community Listening Session participants noted that Holyoke Medical Center is providing a valuable transportation service to the community, transportation remains an issue.A lack of transportation has a large impact on the elderly and low-income individuals
- **Lack of care coordination** – Increased care coordination continues to be a need for individuals in this service area. Specificareas of need identified in focus groups and interviews conducted for other Coalition members and Holyoke Medical Center 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;the need for better connections between the hospital, police, first responders, community organizations, and schools; and the need for increased utilization of community health workers.
- **Health literacy, language barriers 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* among patients, including understanding health information, types of services and how to access them, and how to advocate for oneself in the healthcare system. In addition to patient education, the need for provider education about how to communicate with patients about medical information in a way that is accessible to patients was also cited. Focus group participants and key informant interviewees noted the need for more bilingual providers, interpreters, and health materials translatedin a wider range of languages. 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, chronic obstructive pulmonary disorder**, and associated morbidity were identified as health conditions impacting Holyoke Medical Center service area residents in this assessment. Many of these conditions were prioritized in the 2013 CHNA. Almost 30% of adults in Hampden County are obese with high rates observed among children in some communities

including Holyoke where 20% of youth are obese. Heart disease is among the leading cause of death in Hampden County. In Hampden and Hampshire Counties, more than one in five adults and more than half of older adults have hypertension, a risk factor for cardiovascular disease. Approximately 21% of the Hampden County population has pre-diabetes or diabetes, and diabetes hospitalization rates are high in Holyoke and Chicopee. An estimated 12% of Hampden County adults and 30% of Holyoke school children have asthma. ER visits for COPD were high in some communities, including Holyoke where the 2012 rate was three times the state.

- **Need for increased physical activity and healthy diet**-Increased physical activity and consumption of fresh fruits and vegetables was identified as a need forHolyoke Medical Center's service area residents. Low rates of physical activity and healthy eating contribute to high rates of chronic disease and also impact mental health.
- **Mental health and substance use disorders** – Substance use and mental health were identified as the most urgent health needs impacting the area in local and regional interviews and focus groups. Substance use disorders, and opioid use specifically, were of particular concern. *Opioid use disorder*has been declared a public health emergency in Massachusetts. 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 abuse, as well as the need for expanded treatment options. *Tobacco* use continues to remain high for Hampden County overall where 21% of adults smoke, as compared to 16% of Massachusetts residents.
- **Infant and perinatal health risk factors**–Smoking during pregnancy continued to be a prioritized health need for some communities in the service area. In addition, the need for increased utilization of prenatal care and early entry to prenatal care was identified among Holyoke residents and in some other communities in the service area.
- **Sexual health** – Rates of sexually transmitted infections (STIs), chlamydia in particular, are notably higher in Holyoke and Chicopee as compared to the state. Although local efforts have made great strides in lowering rates of teen pregnancy in Holyoke Medical Center's service area, rates still remain high in Holyoke, Easthampton, and Chicopee.

Vulnerable Populations

Available data indicate that **children and youth**; **older adults**; some communities of color, particularly **Latinos, Blacks,** and **Asians; LGBTQ** persons; **refugees;** individuals with **low income** levels; those living in **poverty**; and those that are **homeless** experience disproportionately high rates of some health conditions or associated morbidities when compared to that of the general population of communities within the Holyoke Medical Center service area. More data is needed to better understand the unique health needs of these specific populations.

Summary

The Holyoke Medical Center service area, consisting of nine communities located in Hampden and Hampshire County, continues to experience many of the same prioritized health needs identified in the 2013 CHNA. Social and economic challenges experienced by some service area residents contribute to the high rates of chronic and other health conditions identified in this needs assessment. These social and economic factors also contribute to the health disparities observed

among vulnerable populations, which include children and youth; older adults; some communities of color, particularly Latinos, Blacks, and Asians; refugees; and LGBTQ persons. 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 Holyoke Medical Center 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 to be addressed. The opioid crisis has emerged as a top issue impacting the health of the community since the 2013 CHNA. Progress has been made to address some of the prioritized health needs previously identified, such as and teen pregnancy; however, rates remain high and work needs to be continued.

Introduction

About Holyoke Medical Center

Holyoke Medical Center is a 198-bed facility with over 1,200 employees serving individuals and families throughout the Pioneer Valley. The medical staff includes more than 300 physicians and consulting staff. Among some of the top-rated services at Holyoke Medical Center is the award-winning Holyoke Medical Center Stroke Service which has been consistently rated as one of the best in the state. Areas of clinical emphasis also include behavioral health, critical care, emergency care, orthopedics, oncology, rehabilitation, women's health services, and speech and hearing services. Holyoke Medical Center is a member of Valley Health Systems, which also includes the affiliates Holyoke Visiting Nurse Association & Hospice Life Care, Western Mass Physician Associates and River Valley Counseling Center. For more information, please visitwww.HolyokeHealth.com.

The **mission** of Holyoke Medical Center is to serve the health needs of the community in a high quality and efficient manner.To this end, Holyoke Medical Center shall:

- Provide compassionate care to all whom it serves and commitment to cultural diversity in our programs and workforce, and the development of cultural competencies in our workforce so that we may better serve our patients;
- Identify and serve those needs which are prevalent and substantial in the community as a whole or within major population groups, and which can be adequately met by the provision of basic primary and secondary health care services;
- Provide information, education, and expertise to our community in order to promote the general health of its citizens;
- Provide an environment of excellence and growth in which health care professionals can use their skills and abilities to the fullest extent possible;
- Provide competitive wages and benefits, as well as safe and dignified working conditions, for all employees;
- Ensure financial responsibility in the operation of the Medical Center in order to guarantee the future viability of our mission;
- Provide a formal, public, and ongoing program of community benefits, in cooperation with community individuals and organizations, to improve the health status of the public including especially the medically and economically vulnerable.

The community benefits mission of Holyoke Medical Center is to continue its tradition of productive collaboration with community partners to assess the health needs of our community; to allocate available resources to address our community members who are uninsured and under insured and arevulnerable to chronic diseases such as diabetes, obesity, cardiac and respiratory issues; to reduce racial and ethnic health disparities; and to educate community members regarding health prevention and self-care ultimately promoting wellness in our vulnerable populations.

The Coalition of Western Massachusetts Hospitals

Holyoke Medical Center is a member of the Coalition of Western MassachusettsHospitals (Coalition). The Coalitionis a partnership between ten non-profit hospitals/health plan 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)

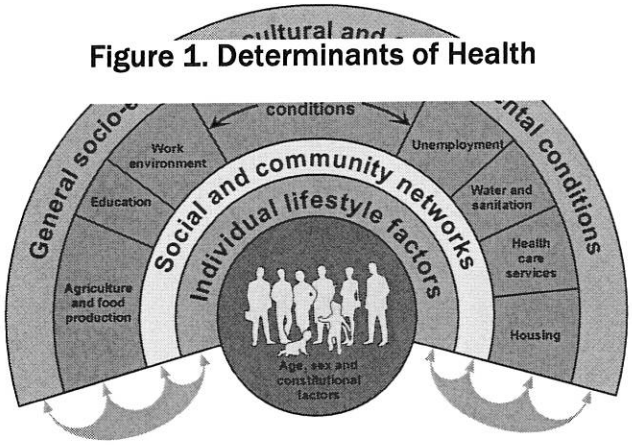
The 2016 CHNA was conducted to update the 2013 CHNA findings so that Holyoke Medical Center can better understand the health needs of the community it serves and to meet Holyoke Medical Center's fiduciary requirement as a tax-exempt hospital. The 2010 Patient Protection and Affordable Care Act (PPACA) requires tax-exempt hospitals and insurers to "conduct a Community Health Needs Assessment [CHNA] every three years and adopt an implementation strategy to meet the community health needs identified through such assessment."Information from this CHNA will be used to update the community health improvement strategies developed in 2013 and to identify regional needs and areas of action to address needs.

This CHNA was conducted in collaboration with the other Coalition hospitals/insurers. Integral to this needs assessment was the participation and support of community leaders and representatives who provided input through steering committee participation,stakeholder interviews and focus groups, a preliminary findings review meeting, and a community listening session.

Methodology for 2016 CHNA

Social and Economic Determinantof Health Framework

Figure 1. Determinants of Health

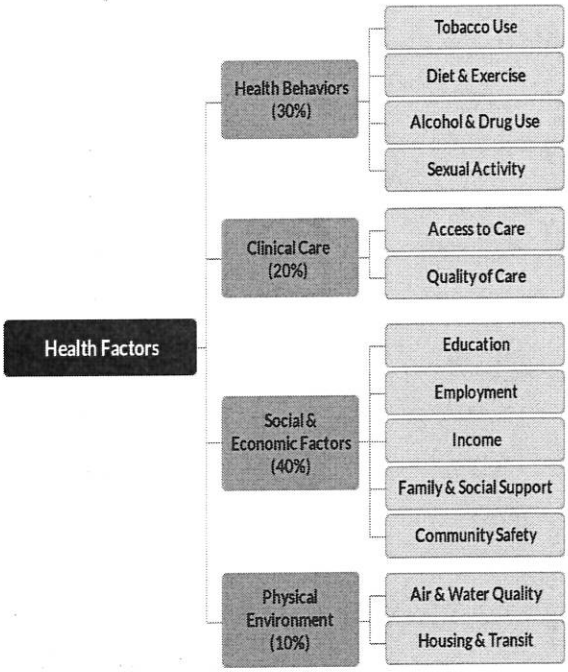


Source: Dahlgren & Whitehead, 1993

The 2016 CHNA was conducted using a **determinant 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 biology[1]. 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, estimateshow 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 disparitiesoccur as a result of inequities in these **determinants of health.**

Model - Health Factors



Among the fourteen Massachusetts' counties, County Health Rankings ranked Hampden County last in the state for both health factors and health outcomes in 2016. Hampshire County rankedfifth in health outcomes and third in health factors.[2]

Assessment Methods

The primary goals of this CHNA 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 **communitylevel 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:

Source: County Health Rankings

- analysis of social, economic, and health **quantitative data** from MA 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**focus group** and four**key informant interviews** conducted specifically for Holyoke Medical Center(Appendix II);
- analysis of findings from an additional four**focus groups** and 17**key informant interviews** that were conducted for other Coalition members and considered relevant for this CHNA (Appendix II);
- review of 12existing assessment reports published since 2013 that were completed by community and regional agencies serving Holyoke Medical Center's service area.

The assessment focused on community-level data as available.In some instances, data constraints related to accessibility and availability limited analyses to select communities in the Holyoke Medical Center service area. In these instances, analyses focused on Chicopee, Holyoke, West Springfield, and Easthampton.

To the extent possible given data and resource constraints, vulnerable populations were identified using information from focus groups and interviews as well asquantitative 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 and local 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 **CHNASteering 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 minority populations; 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: mental health and substance use, maternal and child health, 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 select communities (Holyoke, Chicopee, Easthampton, and West Springfield), counties, and the state. The 2013 dataset included data for counties and communities within Holyoke Medical Center'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 Holyoke Medical Center'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 Holyoke Medical Center includes nine communities, three of which are located in Hampden County and five of which are located in Hampshire County (Table 1). The total population of the service area is over 180,000 people. The three largest communities in the service area - Holyoke, Chicopee and West Springfield - are located in Hampden County and contain two-thirds of the service area's population. Approximately 89% of the population in the Holyoke Medical Center service area lives in urban areas (Figure 3).Urban areas consist of census tracts and/or blocks meeting the minimum population density requirement (2,500-49,999 for urban clusters and over 50,000 for urbanized areas) or are adjacent and meet additional criteria.The median ages in these cities hover near the Hampden County median age of 40 years old (Table 2). Racial and ethnic diversity is more common in the three largest communities in the service area, where over 15% of the population identifies as Black or African American, American Indian, Asian, or some other race (Table 2). There is also a sizeable Hispanic or Latino population in this service area, where 47% of the population of Holyoke and almost 17% of the population in Chicopee identifies as such. In Holyoke, 44% of the population speaks a language other than English at home. In Chicopee and West Springfield over 20% of the population speaks a language other than English at home. Public transit access is facilitated by the Pioneer Valley Transit Authority, which provides bus service to all but one of the nine communities (Westhampton). Paratransit services are offered throughout the service area for people with disabilities within ¾ mile of a fixed route in order to facilitate access to medical care.

Economically, there is significant variation between communities in the Holyoke Medical Center service area. Annual per capita income in the service area is $27,165, which is considerably less than the state average of $36,440.On a community-level, there is wide variation, with the per capita income, ranging from$19,997 in Holyoke to $32,459 in Belchertown (ACS, 2010-2014). In this service area, the overall percentage of those who pay more than 30% of their income for housing costs is 35. Again, these figures vary within the service area, where 42% of renters and owners in Holyoke are cost-burdened, versus 30% and 31% in Easthampton and Westhampton, respectively (ACS, 2010-2014). Approximately15% of Holyoke Medical Center service area residents live below the federal poverty level, as compared to17% of Hampden County residents and the staterate of 12%. The child poverty rate for the Holyoke Medical Centerservice area is 22%, which is lower than that of Hampden County (27%), but higher than that of state (15%). At the community level, these rates vary widely. In Holyoke, the overall poverty rate is 30%, and the child poverty rate is nearly 50% - over three times the state rate.

As a whole, 85% of the population has a high school diploma, with rates varying from 77% in Holyoke to over 92% in Easthampton and Belchertown. The service area's unemployment rate is6%. The unemployment rate is based on the number of people who are either working or actively seeking work. Some communities struggle with unemployment rates more so than others - Holyoke and Chicopee have rates at 8% and 7% respectively, while Belchertown and Easthampton have unemployment rates below5%. The service industry is the largest employment sector in the area, but the manufacturing and wholesale and retail trade industries are also strong economic drivers in

this service area.[3] The general sociodemographic characteristics of Holyoke Medical Center's service area are provided in Table 2.

Table 1. Communities in Holyoke Medical CenterService Area

	2014 Population Estimate
Hampden County	
Chicopee	55,795
Holyoke	40,124
West Springfield	28,627
Hampshire County	
Belchertown	14,846
Easthampton	16,036
Granby	6,333
South Hadley	17,691
Southampton	6,078
Westhampton	1,634
Total Service Area	187,164

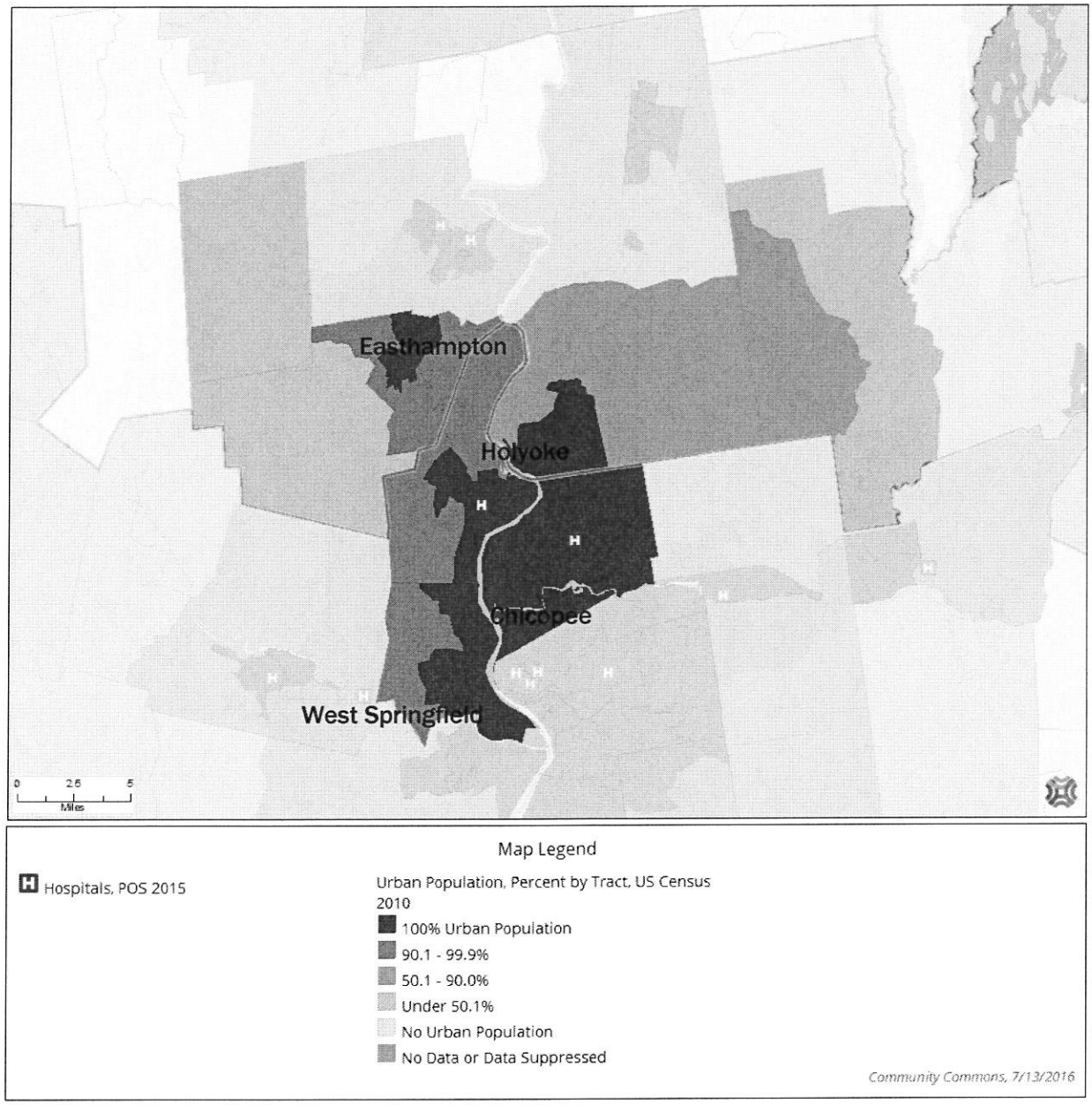
Source: Population Division, U.S. Census Bureau, http://www.census.gov/popest/index.html

Table 2. Sociodemographic Characteristics of Holyoke Medical CenterService Area

Sociodemographic Characteristic	HMC Service Area*	Hampden County	Hampshire County	Holyoke
Total population	186,666	466,447	160,328	40,079
Age				
Median age (years)	NA	38.7	35.8	35.6
Under 5 years	5.6%	5.9%	3.7%	7.4%
5 to 17 years	14.4%	17.1%	12.4%	17.2%
18 to 64 years	63.6%	62.3%	70.2%	61.4%
65 and over	15.4%	14.7%	13.7%	14.0%
Race and Ethnicity				
One race	98.0%	97.7%	97.9%	98.2%
White	87.4%	78.2%	89.1%	81.0%
Black or African American	2.9%	8.7%	2.7%	4.5%
American Indian and Alaska Native	0.3%	0.3%	0.1%	0.5%
Asian	2.1%	2.1%	5.1%	1.7%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.1%	0.0%
Some other race	5.3%	8.4%	0.8%	10.6%
Two or more races	2.0%	2.3%	2.1%	1.8%
Hispanic or Latino origin (of any race)	17.8%	22.1%	5.0%	47.0%
White, not Hispanic or Latino	NA	66.1%	85.3%	46.1%
Language Spoken at Home (population over 5)				
Speak language other than English at home	NA	25.0%	9.5%	43.7%
Educational Attainment				
Population 25 years and over	128,848	308,398	97,721	26,234
Less than high school graduate	14.1%	15.9%	6.4%	23.2%
High school graduate (includes equivalency)	NA	30.6%	24.9%	27.8%
Some college or associate's degree	NA	28.1%	25.5%	25.8%
Bachelor's degree or Higher	NA	25.5%	43.2%	23.1%
Income				
Median Income - Individual	NA	$25,416	$24,131	$19,977

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

Figure 3. Urban Population in Holyoke Medical Center Service Area



Source: Community Commons, U.S. Census Bureau, Decennial Census. 2010

Prioritized Health Needs ofthe Community

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

I. CommunityLevel Social and Economic Determinants that Impact Health

Below are the communitylevel social and economic determinants of healththat impact Holyoke Medical Center's service area.

Lack of Resources to Meet Basic Needs

In Holyoke Medical Center's service areamany residents struggle with **poverty** and **low levels of income**. The connections between poor health andpoverty, low levels of income, and limited access to 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.

Although the Holyoke Medical Center service area consists of communities in both Hampden and Hampshire County, two-thirds of the population lives in three cities in Hampden County, and the bulk of individuals served reside in Holyoke. The median family income of $61,898 in Hampden Countyisalmost 30% lower than that of the state (Table 3), and among all service area communities, the lowest median incomes were found in parts of Holyoke, Chicopee,and West Springfield where it was below $45,000. Similarly, the rate of unemployment in Hampden County is40% higher than the state (Table 3).

The Holyoke Medical Center service area also has high rates of poverty, with approximately 15% of the population living below the federal poverty level (Table 3). The highest rates were concentrated in Holyoke, Chicopee, and West Springfield (Figure 4). The federal poverty level is extremely low and omits a sizeable portion of the population that is struggling economically. The percent of the population living at or 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.Approximately one third of service area residents live in households with incomes at or below 200% of the federal poverty level, with rates over 30% in parts of Chicopee, Easthampton, Holyoke, and Springfield (CC, ACS, 2010-2014). In key informant interviews with Holyoke Medical Centerstaff and with regional public health officials,financial barriers and poverty rates were identified as factors that impact overall health, access to health care, and access to programs and services that promote health.

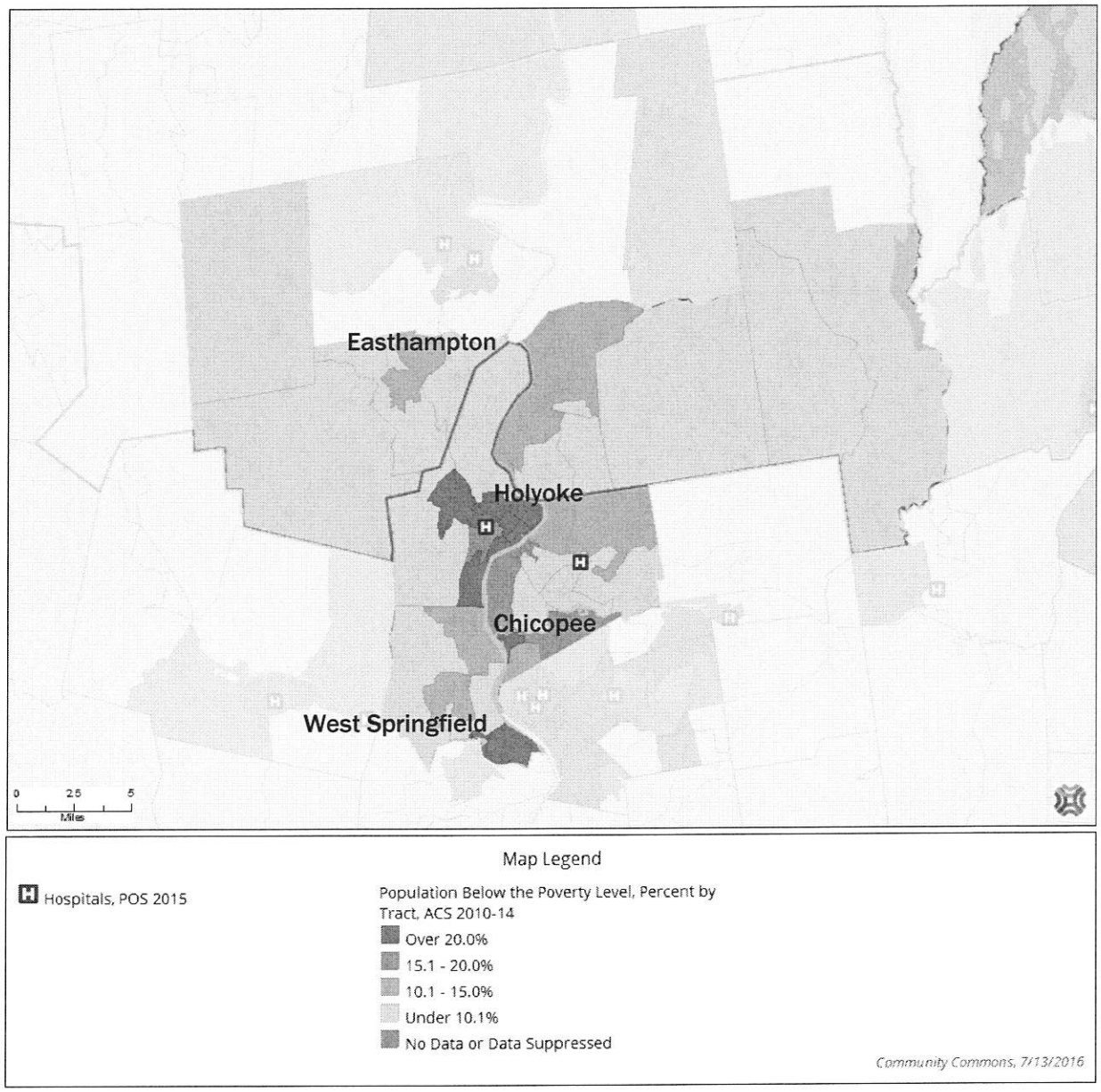
Table 3. Socioeconomic Factors

	Holyoke Medical Center Service Area	Hampden County	Hampshire County	Massachusetts
Median Family Income*	n/a	$61,989	$82,573	$86,132
Unemployment**	5.5%	6.3%	4.0%	4.7%
Poverty				
Population Living Below Federal Poverty Level*	14.6%	17.7%	13.9%	11.6%
Population Living Below 200% of Federal Poverty Level*	33.9%	36.9%	27.4%	25.0%
Children Living Below Federal Poverty Level*	21.7%	27.4%	12.7%	15.1%
Children eligible for free or reduced lunch*	54.8%	59.9%	28.4%	38.3%
No high school diploma*	14.1%	15.9%	6.4%	10.5%

*Sources:*Community Commons 2016, U.S. Census Bureau, 2010-2014; poverty is 100% below federal poverty level; no high school diploma among adults age 25 and older*

**Community Commons 2016, US Department of Labor, Bureau of Labor Statistics. February 2016

Figure 4. Holyoke Medical Center Service Area Poverty Rates



Source: Community Commons 2016, U.S. Census Bureau, 2010-2014; poverty is 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 14% of Holyoke Medical Centerservice area residents aged 25 and older do not have a high school diploma (Table 3). In some census tracts in Chicopee, West Springfield, and Holyoke, over 21% of eligible individuals do not have a high school diploma(CC, ACS 2010-2014).

Vulnerable Populations

Children and populations of color are disproportionately impacted by poor socioeconomic status in Holyoke Medical Center's service area.

- Over half of**children**(55%) living in the Holyoke Medical Center service area qualify for free or reduced lunch and 22% live below thepoverty level
- More than a third of **Latinos**, 20% of **Asians**, and 19% of **Blacks**aged 25 or older living in the Holyoke Medical Center service area do not have a high school diploma compared to 12% among Whites (CC, ACS 2010-14). Additionally, 40% of Latinos and 29% of Blacks in the Holyoke Medical Center service area live below the federal poverty level compared to 13% of Whites(CC, ACS 2010-14).

Housing Needs

Housing insecuritywas identified as a health need in the 2013 CHNA and continues to impact Holyoke Medical Center service area residents. In key informant interviews, regional public health officials identified access to **affordable housing** as a critical community need.Over one third of the population in Holyoke Medical Center'sservice area is housing cost burdened, with high rates concentrated in parts of Chicopee, Holyoke, South Hadley, and West Springfield (CC, ACS 2010-2014).Among renters in Hampden and Hampshire Counties, approximately half are housing cost burdened(CC, ACS 2010-2014). 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 necessary medications. Additionally, Holyoke Medical Center key informant interviewees noted that housing instability and frequent moves can lead to loss of coverage if insurers are not informed of address changes.

Homelessness was identified by Holyoke Medical Centerfocus group participants as a factor impacting the health of service area residents, including families with children and youth/young adults without families. 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.[4]From 2013 to 2015, the number of homeless families in Western Massachusetts increased from 631 to 909 families. The majority of these families were from Hampden County. During this same time frame, the number of homeless veterans and chronically homeless individuals in Western Massachusetts decreased. In 2015, there were 339 homeless youth (age 24 and under) in Western Massachusetts, and 280 of these youth identified as parents and had children with them. Over 80% of the homeless youth were from Hampden County. The number of homeless youth is likely an underestimate since homeless youth without children tend to avoid traditional shelters and services.[5]

Poor housing conditions also impact the health of residents. Older housing combined with limited resources for maintenancecan lead to problems(e.g. mold, pest/rodent exposure) that affect asthma andother 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 Holyoke Medical Center service area has a large older housing stock, with 30%of Hampden County and 27% of Hampshire County's occupied housing units built before 1940. Rates were similar in West Springfield (31%), Easthampton (31%), and Chicopee (34%). In Holyoke, nearly half of the occupied housing stock was built before 1940 (U.S. Census Bureau, ACS 2010-2014).

Lack of Community Safety

Lack of community safety was a prioritized health need in the previous 2013 CHNA and continues to impact Holyoke Medical Center service area residents. Findings from Holyoke Medical Center's focus group identified gang violence as a factor that contributes to mental health and substance use concerns for service area residents.

A safe community is one that is free from violence and danger. It is a place where people do not have to consider whether they will be safe or not when deciding where and when they will go outside of their homes. Crime rates are high, with violent crime rates in Hampden County almost 50% higher than that of the state. According to the FBI Uniform Crime Reports (2010-2012), rates of violent crimes in Hampden County were 641 per 100,000 compared to 431 in MA and 396 nationally (County Health Rankings, 2016). Combined hospitalization and ER visit rates for nonfatal assaults were 54% greater than the state in Hampden County. Rates were highest among men aged 25 to 34 (MDPH2013).

> *"We desperately need a homeless shelter right in Holyoke"*
> - KeyInformant Interviewee,Holyoke Medical Center

Transportation

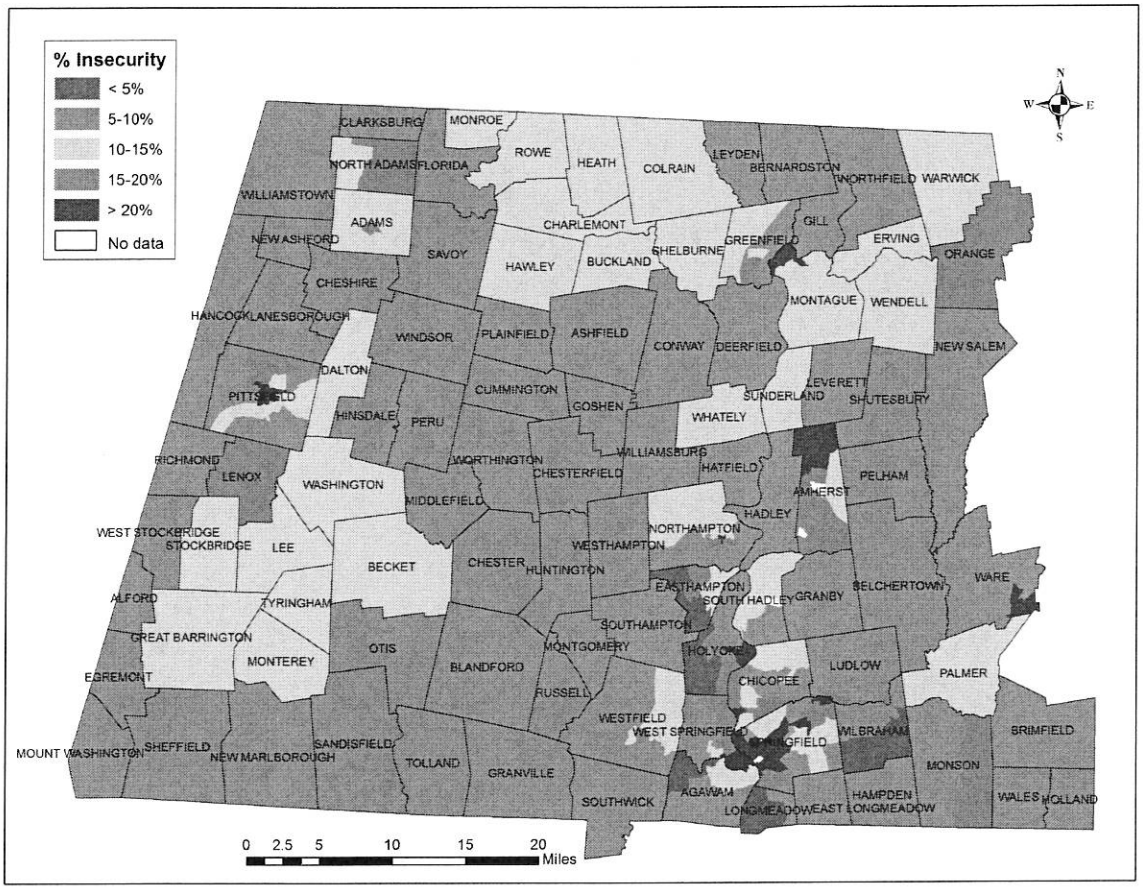
Regional public health officials interviewed for the 2016 CHNA identified increased transportation options as an overall community need for the region. Individuals who do not own a vehicle face difficulties accessing educational and employment options; community-based programs that promote health, such as exercise and nutrition programs; or other activities that promote social connection. Additionally, 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. An estimated 12% of households in the Holyoke Medical Center service area do not have motor vehicles (CC, ACS 2010-14). Rates were particularly high in Holyoke, where one in four households did not have a vehicle (ACS 2010-2014).

Food Insecurity and Food Deserts

Food insecuritywas identified as a health need in the 2013 CHNA and continues to impact the ability of many Holyoke Medical Center service area residents to access healthy food according to

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.The food insecurity rate was approximately 12% in Hampden County and 11% in Hampshire County. The rates were even higher among children at 19% in Hampden County and 15% in Hampshire County.[6]As can be seen in a map of food insecure census tracts in Western Massachusetts(Figure 5), portions ofHolyoke and Chicopee have rates of food insecurity greater than 20%.

Figure 5. Food InsecurityRates in Western MA

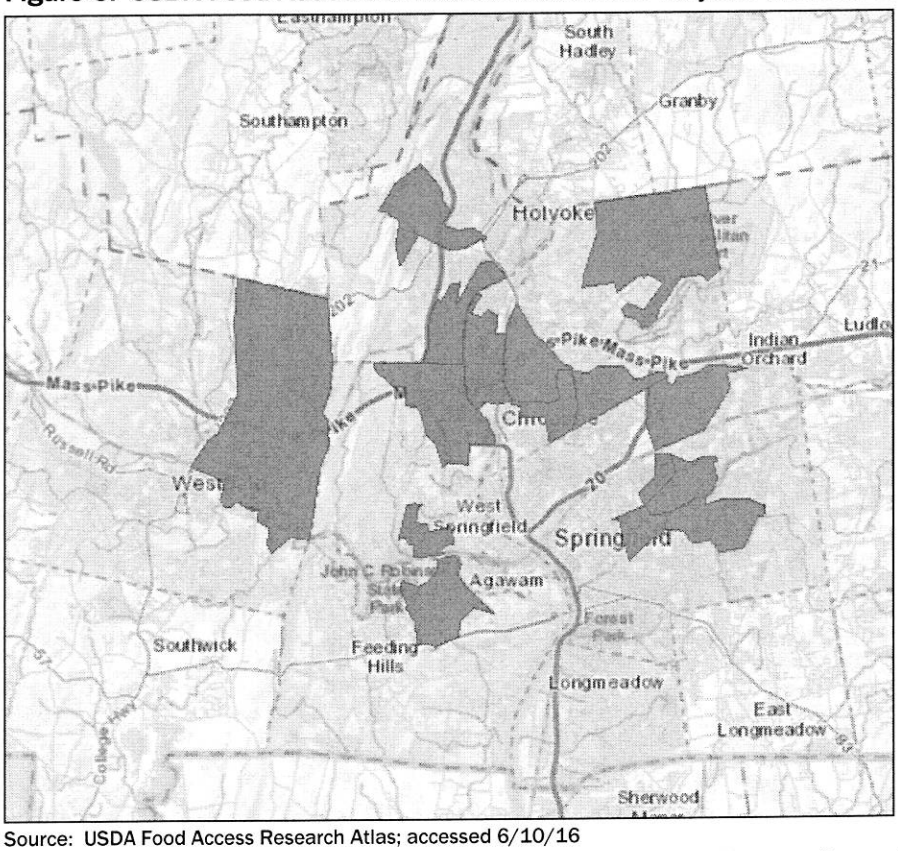


Data source: Gundersen, C., A. Satoh, A. Dewey, M. Kato & E. Engelhard. Map the Meal Gap 2015: Food Insecurity and Child Food Insecurity Estimates at the County Level. Feeding America, 2015. Feeding America. Source: Provided courtesy of the Food Bank of Western Massachusetts. Mapping: Provided courtesy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

The Holyoke Medical Center service area also has several **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 healthy food was identified as a

need by regional public health officials interviewed for this CHNA. Figure 6 highlightsin green the parts of Holyoke, Chicopeeand West Springfield that the USDA has identified as food deserts.

Figure 6. USDA Food Atlas Food Desert Areasin the Holyoke Medical Center Service Area



Source: USDA Food Access Research Atlas; accessed 6/10/16
USDA Food desert: 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

Institutional Racism

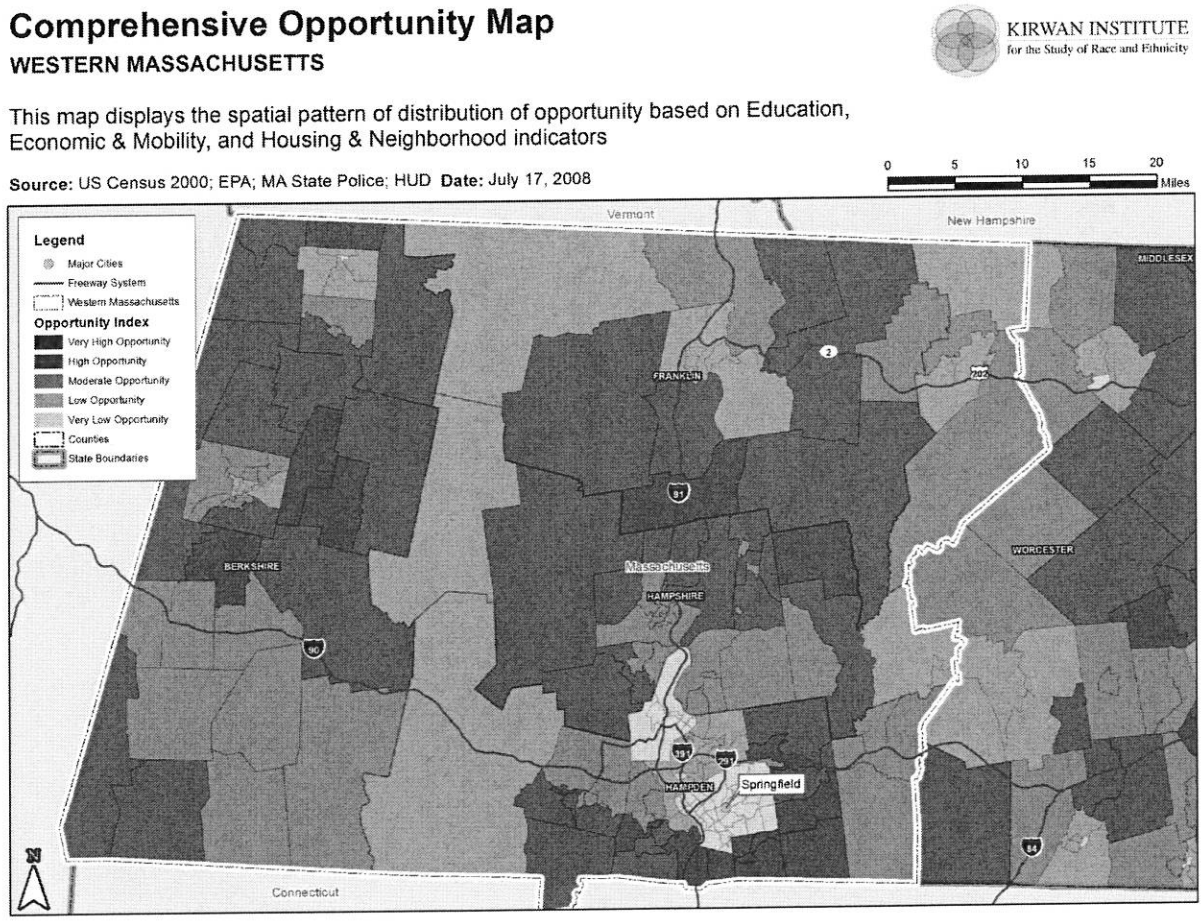
Institutional racism was identified as a community factor impacting the health of Holyoke Medical Center's service area residents for this CHNA. Institutional racism contributes to racial and ethnic health disparities in our society and has been defined by Dr. Camara Jones, current President of the American Public Health Association (APHA), as racial inequities in access to goods, services, and opportunities such as quality education, housing, employment opportunities, medical care and facilities, and a healthy physical environment.[7] Dr. Jones explains that institutional racism has become normalized into society from the historical legacy of policies that excluded non-Whites from being equally integrated into society. Although institutional racism does not necessarily transpire at the individual level, it is structurally embedded in our systems, regulations, and laws and is perpetuated by structural barriers and inaction in the face of need.[8]

Racial residential segregation is a form of institutional racism that is considered to have one of the most detrimental impacts on health. Racial residential segregation creates limited opportunity environments and embeds communities with structural barriers that directly and negatively impact access to quality education, socioeconomic attainment, and a number of other social determinants of health, such as food, and quality housing.[9]

Based on 2010 U.S Census Data, the University of Michigan's Center for Population Studies ranked the Springfield Metropolitan Statistical Area (Hampden, Hampshire and Franklin counties) as the most segregated in the U.S. for Latinos and 22nd in the country for Blacks,[10] with the largest number of Latinos and Blacks residing in Hampden County, particularly the urban cores of Springfield and Holyoke. More information can be found at http://www.psc.isr.umich.edu/dis/census/segregation2010.html

Holyoke was identified in an analysis by Ohio State University's Kirwan Institute as a "very low opportunity" community, based on access and proximity to education, affordable housing, nutrition, and "sustainable employment" (Figure 7).[11] The Kirwan Institute utilizes opportunity mapping to promote data-driven equity and public health initiatives across the county. More information can be found at http://kirwaninstitute.osu.edu/researchandstrategicinitiatives/building-healthy-communities-of-opportunity/

Figure 7. Kirwan Institute Comprehensive Opportunity Map of Western Massachusetts



I. Barriers to Accessing Quality Health Care

The lack of affordable and accessible medical care was identified as a need in Holyoke Medical Center's 2013 CHNA and remains a need for the service area

Limited Availability of Providers

Holyoke Medical Center service area residents experience challenges accessing care due to the limited availability of providers. A need for increased primary care providers, dental care, and mental health and substance use providers were all identified for Holyoke Medical Center service area residents for the 2016 CHNA.

Fifty-four percent of Hampden County residents live in a healthcare professional shortage area (HPSA), compared to 15% of Massachusetts residents overall (CC, Health Resources and Services Administration, March 2015). In addition, the U.S. Health Resources and Services Administration (HRSA) has designated medically underserved areas and populationsin Hampden County, which are found in Holyoke and West Springfield (Figure 8). Medically underserved status is based on availability of primary care providers, infant mortality rate, poverty rate and proportion of older adults. Medically underserved areas are based on the overall population, whereas medically underserved populations are based on economic, cultural, or linguistic barriers. A Governor's exception refers to a medically underserved area or population designated at the request of a Governor based on documented unusual local conditions and barriers to accessing personal health services.[12]Shortages were noted specifically for primary care physicians which have population to provider ratios of 1410:1 in Hampden County (statewide-910:1 in MA) (County Health Rankings, 2016).

> *"Children under the age of 14 with serious mental health and substance abuse issues have no place to go locally; many parents can't work if their child needs treatment in a program that is so far away"*
> -KeyInformant Interviewee,Holyoke Medical Center

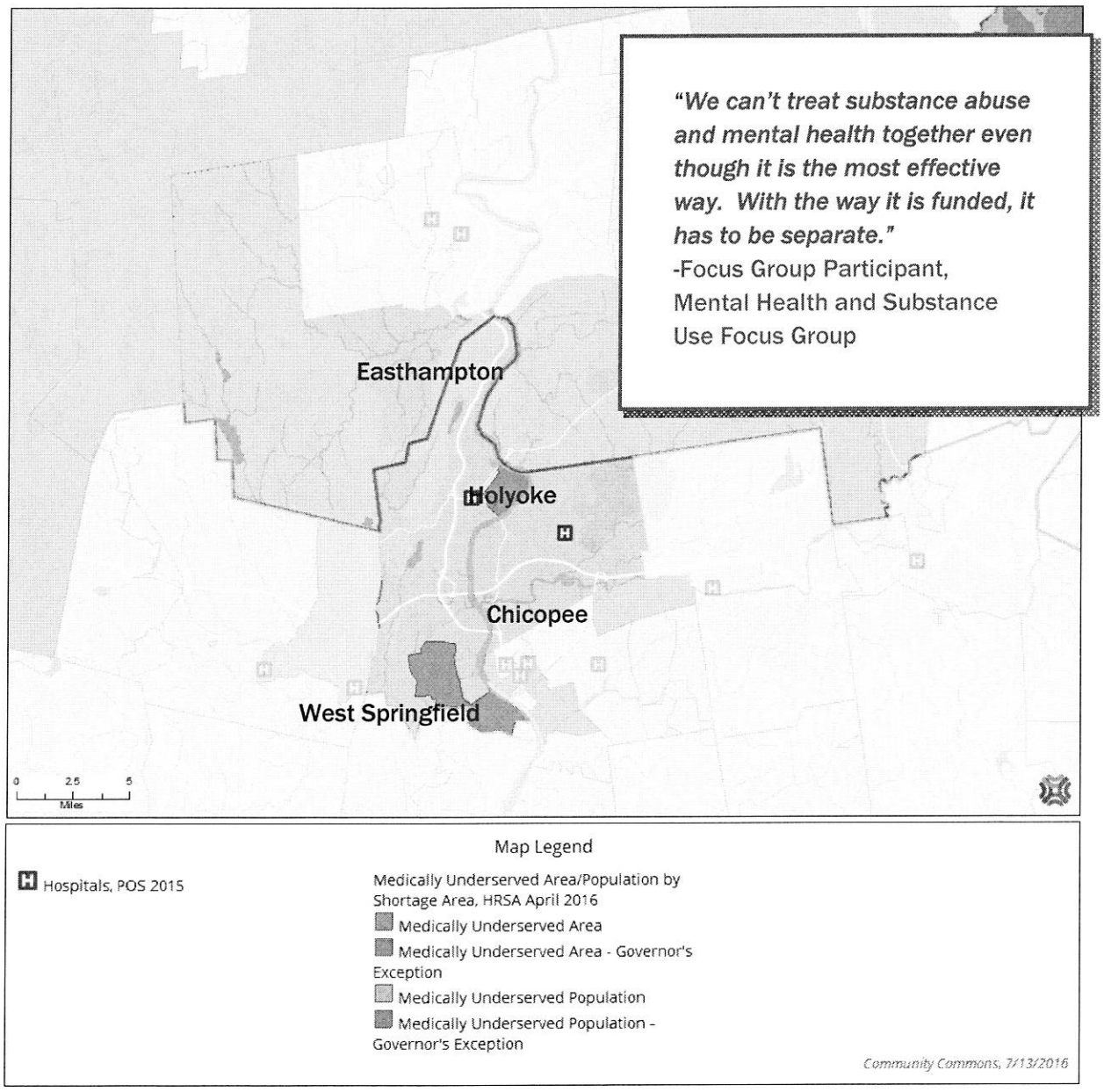
Lack ofprimary care providers (PCPs)pose a significant challenge to individuals needing health care services. Accessibility to an already limited number of providers can be impacted bycommunity location (rural or urban), and/or insurance restrictions. Low-income individuals are more negatively impacted by insurance related issues of access.Holyoke Medical Center key informants interviewed for this CHNA noted a lack of timely appointments for primary care, which is impacted by provider shortages.

A need for increased access to dental servicesfor individuals on MassHealth was also noted in focus groups conducted for other Coalition members for this CHNA. 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. This was echoed by focus group participants, who cited a needfor

dental services for MassHealth populations that offer more than "cleaning and pulling". Although access to pediatric dentists has improved over the years, access to dental services remains a challenge for adults who are on MassHealth in this region.

Findings from focus groupsand key informant interviews conducted for Holyoke Medical Center and other Coalition members overwhelmingly reported **a need for increased access tomental health and substance use treatment** services for acute, maintenance, and long-term care despite greater access to mental health providers for Hampden County residents as compared to the state (160:1 vs. 200:1 in MA) (County Health Rankings, 2016). Holyoke Medical Center key informant interviewees noted a lack of mental health and substance use treatment services for youth below the age of 14 in the region.

Figure 6. Medically Underserved Areas/Populations inHolyoke Medical Center Service Area



Source: Community Commons, HRSA 2015

Insurance Related Challenges

Issues related to insurance coverage present barriers to affordability and accessibility of care. Findings from focus groups and key informant interviews conducted for the Coalition identified multiple barriers imposed by the health insurance system. These obstacles directly impact adequate treatment of multiple health concerns, most notably mental health and substance use conditions. Issues related to insurance coverage present barriers to affordability and accessibility of care. MassHealth policies are dictated by state guidelines. Issues identified include:

- gaps in service coverage for mental health and substance use treatment between public and private insurance;
- reimbursement policies and guidelines that silo care;

- the limited number of providers that accept patients MassHealth due to bureaucratic paperwork requirements and low reimbursement rates. This lack of MassHealth providers was most significant in rural communities across Western Massachusetts.

Holyoke Medical Center key informant interviews identified that treatment services specifically for youth with mental health and/or substance use conditions can be impacted by the type of coverage they have. Additionally, 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 MassHealth are limited. The key informant interviewees identified multiple barriers that can contribute to missing three consecutive appointments:

- lack of transportation;
- financialconcerns;
- 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 ofTransportation

Transportation is also a major barrier to accessing care. Findings from key informant interviews with regional public health officials as well as Holyoke Medical Center focus group participants and key informant interviewees for this CHNAidentified transportation as one of the most serious barriers to accessing care.At the Holyoke Medical Center Community Listening Session, attendees noted that the transportation service offered by Holyoke Medical Center is an asset to the community that is often utilized by community residents.

Lack of Care Coordination

Lack of care coordination was identified as a priority health need forHolyoke Medical Center service arearesidents in both the 2013 and 2016 CHNAs.Additionally, regional public health officials interviewed for the 2016 CHNA identified lack of care coordination as a prioritized community health need, and a key to addressing health inequities in the entire region.

Care coordination refers to the coordination of patient care, including the exchange of information between all parties involved in patient care.[13]Findings from focus groups and key informant interviews conducted for hospitals/insurer in the Coalition for this CHNA identified important areas where care provided by multiple providers continues to be uncoordinated and results in challenges. Examplesinclude:

- lack of coordination in managing the overlap between mental health and substance use;
- 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),which can impact patient compliance;
- issues related to keeping track of appointments with multiple providers.

Focus group participants and key informant interviewees identified a need for **stronger clinic-community linkages** as a means to improve health for Holyoke Medical Center service area residents. Utilization of community health workers (CHWs) to increase access and care coordination and to address issues related to transportation, health literacy, care coordination, and navigation of the health care system was identified in one Coalition focus group. Additionally, Holyoke Medical Center key informant interviewees and focus group participantsspecifically identified the need for:

> *"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

- Increased connections between the hospital, emergency room, first responders, police, and community organizations;
- Clinic-school collaboration for intervention/early education around mental health and substance use;
- Continued community outreachand development of collaborative efforts;
- The development of more consistent follow-up care procedures for younger patients after a mental health or substance use crisis.

Health Literacy, Language Barriers 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

Health literacyis 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."[14]Holyoke Medical Center focus group participants identified the need for all health materials and online resources to be written at a third grade level. Additional findings from focus groups and interviews conducted for other Coalitionhospitals/insurer identified the need for increased health literacy, 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:
    - givingample time to process information;
    - asking if they understand what they are being told;
    - using less medical jargon.

Language barrierscan create multiple challenges for both patients and health care providers. Increasing availability of interpreters as well as translation of health material are specific actions that health care institutions can help to address this barrier. Holyoke Medical Center key informant interviewees and focus group participants reported a need for more bilingual providers, interpreters, and health materials translated in a wider range of languages, noting the growing refugee and increasingly diverse linguistic population in theWest Springfield area.Holyoke Medical Center key informant interviewees specifically identified the need for an increase in bilingual providers and interpreters to serve the needs of Spanish, Russian, Polish, Cambodian, and Vietnamese populations.

In the Holyoke Medical Center service area, approximately 5% of the population lives in linguistically isolated households (CC, ACS, 2010-14). **Linguistic isolation**isdefined by the U.S. Census Bureau as a household in which all members older than age 14 speak a non-English language and have difficulty with English. Approximately 8% of the service area population, age 5 and older, has limited English proficiency, meaning they speak a language other than English at home and speak English less than "very well" (CC, ACS, 2010-14). The highest rates of limited English proficiency were found in tracts within Chicopee and Holyoke, where over 10% of the population was unable to speak English well (CC, ACS, 2010-14).

> *"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

Cultural Humility

The need for **culturally sensitive care** was identified as a prioritized health need in Holyoke Medical Center's 2013 CHNA and continues to remain so. Increased training in cultural humility as a means to deliver more culturally sensitive care was identified in the 2016 CHNA. Cultural humility refers 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.[15]

> *"Hispanic clinicians are like gold and I know we struggle to recruit and retain them."*
> -KeyInformant Interviewee,Holyoke Medical Center

2016 CHNA interviews with regional public health leadersas well as findings from a Coalition focus group conducted with mothers and faith-based leaders in Hampden County identified cultural and language differences between the community and providers as a gap in service and called for increased training for health care providers in this area. 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 refugees, veterans, people with mental health or substance use issues, LGBTQ individuals, ex-offenders, homeless

individuals, and youth. Findings from focus groups conducted for another Coalition hospital identified that in some cultures asking providers a question is seen as disrespectful, which can impact care and compliance.

III. HealthConditions and Behaviors

This section focuses on the health conditions and behaviors that have the largest impact on the communities served by Holyoke Medical Center. Data is summarized for each condition or behavior included. See Appendix III for detailed hospitalization (overall and by race/ethnicity) and prevalence data as available for select communities in the Holyoke Medical Center service area.

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

Chronic Health Conditions

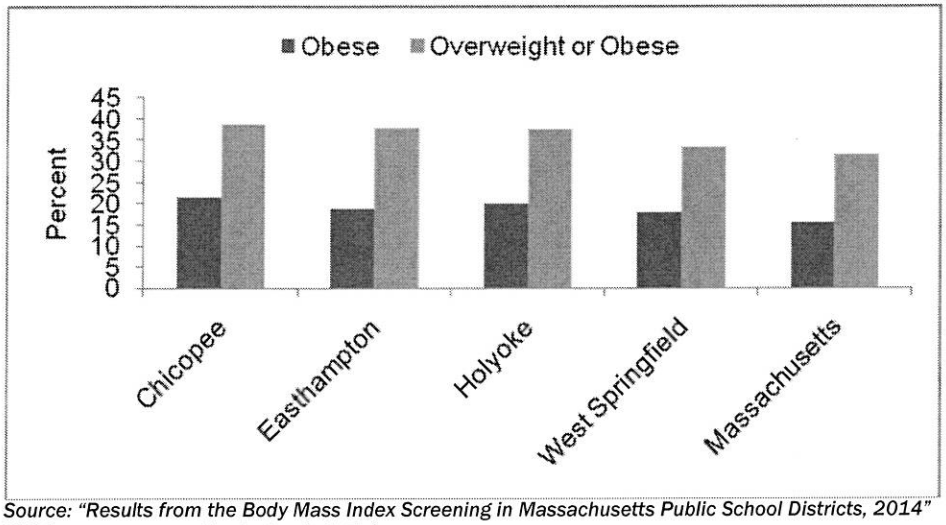
Chronic health conditions continue to remainprioritized health needs for Holyoke Medical Center service area residents. Residents experience high rates of chronic health conditions and associated morbidity, particularly for **obesity, diabetes, cardiovascular disease,asthma, and chronic pulmonary obstructive disease (COPD)**.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.[16]A **healthy diet** and **physical activity** play an important role in preventing and managing chronic diseases.

Obesity

Obesity, particularly among the pediatric population, is a priority issue for the Holyoke Medical Center service area. In their key informant interviews for the 2016 CHNA, regional public health officials identified obesity as an urgent health need to be addressed. The adult obesity rate in Hampden County is slightly higher than Massachusetts. Approximately29% of Hampden County adults are obese compared to 24% statewide, and 65% are either overweight or obese compared to 59% across the state (BRFSS 2011). Obesity is a national epidemic and contributes to chronic illnesses suchas 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 children remain high when examining school districts in select communities in the Holyoke Medical Center service area. In Holyoke, 20% of children are obese. Among select communities, obesity rates range from 18% in West Springfield to 21% in Chicopee (Figure 7). Over one-third of children examined in these four communities are categorized as either overweight or obese. County-level childhood obesity data is not available.

Figure 7. Childhood Obesity Rates for Select School Districts inthe Holyoke Medical Center Service Area



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

Vulnerable Populations

- Rates of obesity among **children** exceed that of the state in some Holyoke Medical Center service area communities. Being overweight or obese in childhood increases the risk for adult onset chronic diseases such as diabetes as well as the risk for experiencing obesity and chronic disease as an adult.

Cardiovascular Disease (CVD)

Cardiovascular disease (CVD) was identified as a prioritized health need in Holyoke Medical Center's 2013 and 2016 CHNAs. Cardiovascular disease (CVD) includes diseases that affect the heart and blood vessels, such as coronary heart disease (CHD), angina (chest pain), heart attack (myocardial infarction [MI]), and stroke.Heart disease is among the leading causes of death in Hampden County.

Older adults experience high rates of heart disease. In Hampden County, 26% of older adults have heart disease compared to 27% statewide. Heart disease prevalence is also high in Hampshire County (23%) (Medicare 2014, one-year estimate).

Hypertension, or high blood pressure, and high cholesterol are conditions that increase the risk of CVD. In the two counties, more than one in five residents have hypertension (Hampden- 30%; Hampshire-23%) (CC, BRFSS 2006-2012) and approximately one third of adults have high cholesterol (Hampden 38%; Hampshire-30%) (CC, BRFSS 2011-2012). These conditions have a high prevalence among older adults. More than half of older adults in Hampden County (62%), Hampshire (58%) have hypertension, which is reflective of the high rates in the state overall (56%) (Medicare 2014, one-year estimate).

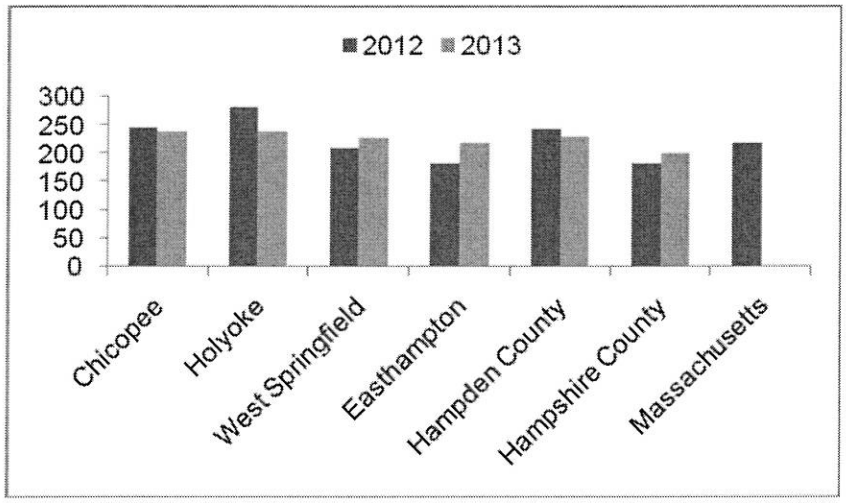
Hospitalization rates for cardiovascular conditions were elevatedin some communities. In Holyoke, the 2012 hospitalization rate for stroke was 29% greater than Massachusetts (Figure 8), and the

hospitalization rate for CHD was 53% higher than statewide levels (MDPH, 2012). Figure 9 illustrates the communities that had the highest stroke hospitalization rates in 2013.

Vulnerable Populations

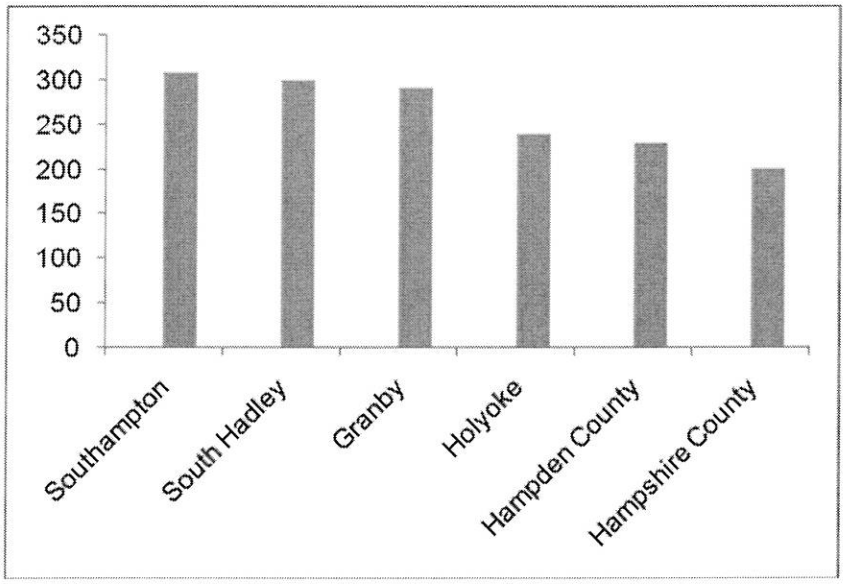
- **Older adults**experience high rates of heart disease and hypertension as described above.
- Stroke hospitalization rates in 2012 in Chicopee and Holyoke among**Latinos** were greater than that of Whites in the same community and the overall statewide rate (MDPH, 2012). Similar disparities were also found with CHD hospitalizations.

Figure 8. Hospitalization Rates for Stroke in Select Communities in Holyoke Medical Center Service Area, 2012-2013



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

Figure 9.Communities with the Highest Stroke Hospitalization Rates in the Holyoke Medical Center Service Area, 2013



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

Diabetes

Approximately13% of Hampden County residents have **diabetes**, which is greater than state and national rates, and 21% ofHampden County residents has either **pre-diabetes or diabetes**(BRFSS, 2010-2012).Community level diabetes prevalence data was limited for Holyoke Medical Center's service area with data only available for West Springfield.An estimated 8% of West Springfield residents have diabetes and 16% have pre-diabetes or diabetes (BRFSS, 2010-2012).

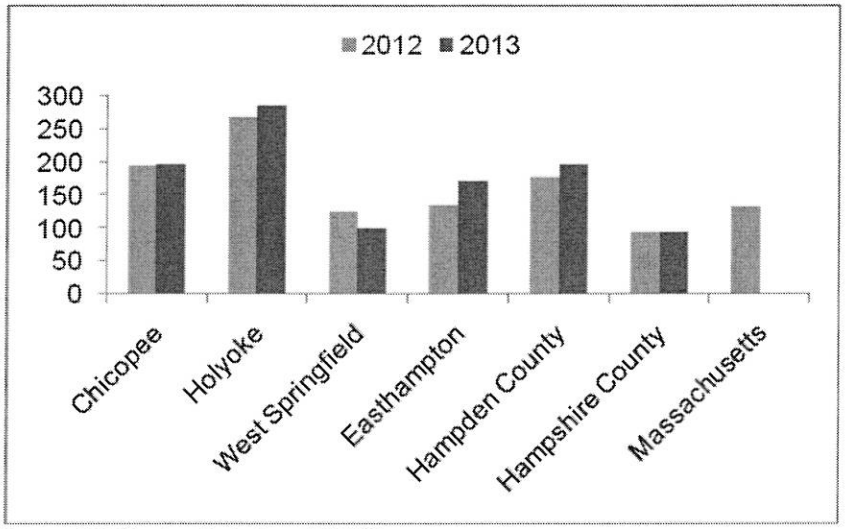
Diabetes (the vast majority of which is Type 2 diabetes[T2D]) is one of the leading causes of death and disability in the U.S. and is a strong risk factor for cardiovascular disease.The CDC estimates that 9% of people in the U.S have diabetes, of which 28% are undiagnosed.[17]Pre-diabetes is when a person 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. T2Dcan be prevented and managed with a combination of weight loss, exercise, medication, and maintaining a healthy diet.[18]

Diabetes hospitalization rates are a measure of severe morbidity due to diabetes. The 2012hospitalization rate in Holyoke was double that of the state, and the rate in Chicopee was almost 50% higher than that of the state (Figure 10). Figure 11 illustrates the communities in Holyoke Medical Center's service areathat had the highest 2013 diabetes hospitalization rates.

Vulnerable Populations

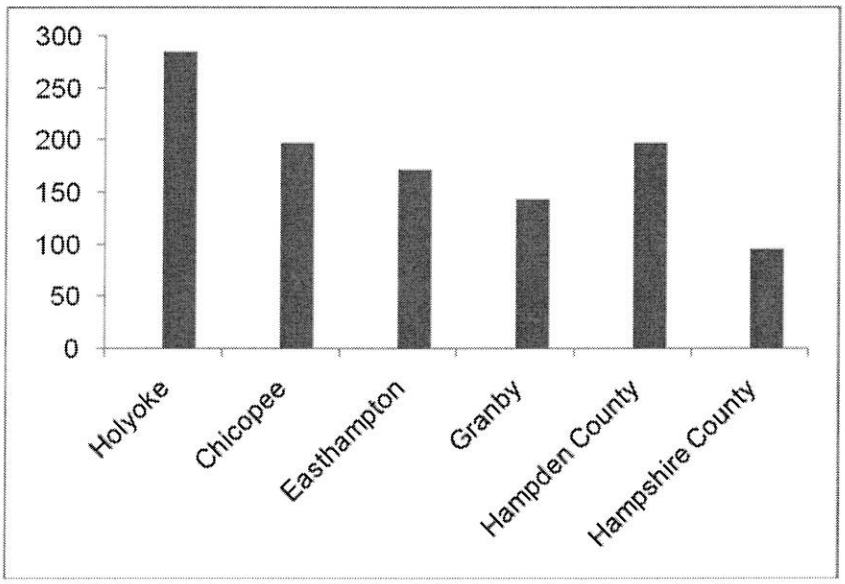
- **Older adults** experience higher rates of diabetes.Approximately 26% of Medicare enrollees age 66 and older in Hampden County have diabetes(Medicare 2014, one-year estimate).
- **Latinos** in Hampden Countyin 2012 experienceddiabetes hospitalization rates three times higher than Whites in the same county and more than double the overall statewide rate.In Holyoke, the rate among Latinos was higher than that of Whites and the overall statewide rate (MDPH 2012).
- **Blacks**in Hampden County in 2012 had diabetes hospitalization rates more than double that of Whites in the same county and the overall statewide rate (MDPH 2012).

Figure 10. Diabetes Hospitalization Rates in Select Holyoke Medical Center Service Area Communities, 2012-2013



Source: MDPH; age-adjusted per 100,000

Figure 11. Communities with the Highest Diabetes Hospitalization Rates in the Holyoke Medical Center Service Area, 2013



Source: MDPH; age-adjusted per 100,000; reliable data available for less than 5 communities

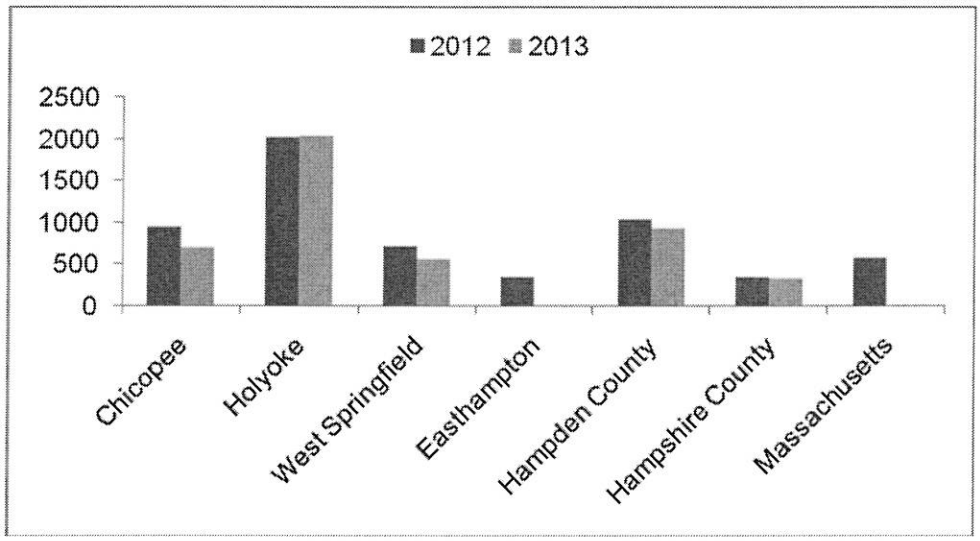
Asthma

Asthmawas identified in the 2013 and 2016 CHNAs as a health need that impacts many Holyoke Medical Center service arearesidents.Approximately 12% of Hampden County adults have asthma (BRFSS 2008-2010). Many children in the service area are impacted by asthma with almost 30% of children in Holyoke having asthma during the 2012-2014 school year. In addition, a high asthma prevalence was found in the following communities with prevalence estimates higher than the state rate of 12%:Granby (19%), Westhampton (18%), Southampton (17%), and Chicopee (16%) (MDPH EPHT, 2013-2014). Asthma prevalence among adults was not available at a community-level.

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.

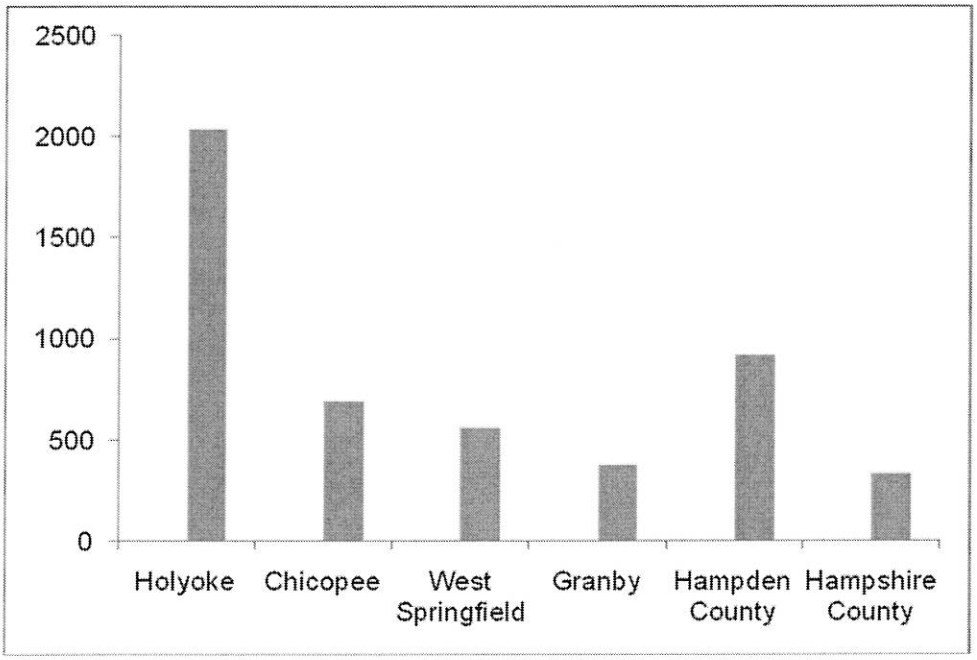
Holyoke had particularly high asthma ER visit rates with rates more than double the state and Hampden County in 2012 (Figure 12). Figure 13 illustrates the highest asthma ER visit rates among communities in the Holyoke Medical Center service area in 2013.

Figure 12. Asthma ER Visit Rates in Select Holyoke Medical Center Service Area Communities, 2012-2013



Source: MDPH; age-adjusted per 100,000

Figure 13. Communities with the Highest Asthma ER Visit Rates in the Holyoke Medical Center Service Area, 2013



Source: MDPH; age-adjusted per 100,000; reliable data available for less than 5 communities

Vulnerable Populations

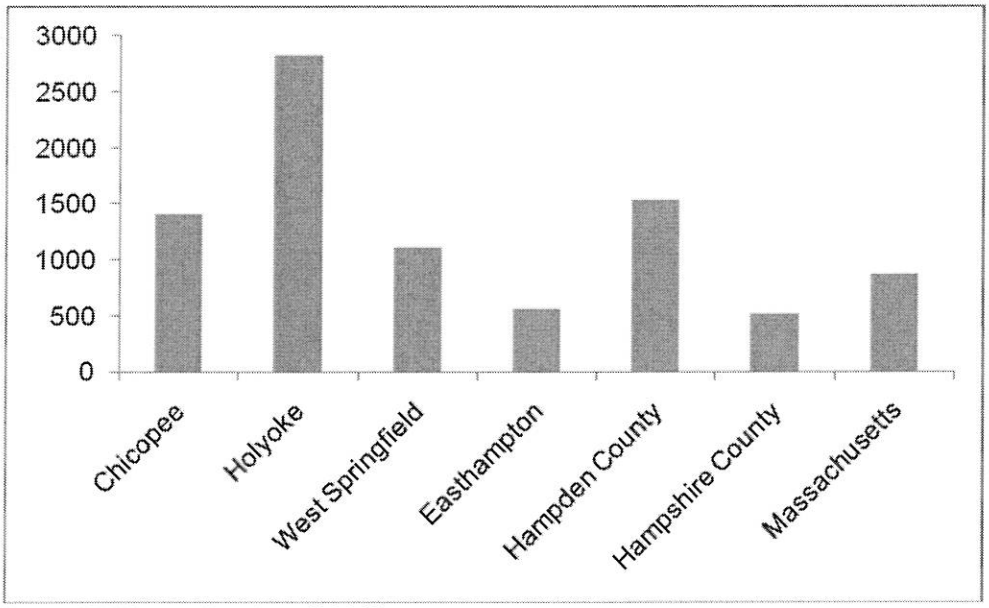
- **Children**are a vulnerable population of concernfor asthma. As discussed above, childhood asthma prevalence rates are high in Hampden County and many of the communities in the Holyoke Medical Center service area. Additionally, the 2012 pediatric ER visit rate (age 0-14) in Holyoke was triple the statewide rate and the rate in Chicopee was more than double that of the state (MDPH 2012).
- **Blacks** experienced disparities related to asthma ER visits. Blacks in Holyoke, Chicopee, and West Springfield had higher rates than Whites and the overall statewide state in 2012 (MDPH).
- **Latinos** experienced high ER visit rates overall and among the pediatric population. In Holyoke and Chicopee, the 2012 ER visit rates among Latinos were more than triple that of Whites in the same geography and the overall statewide rate. Asthma ER visit rates among Latino children (0-14 years) in Holyoke and Chicopeewere more than double that of Whites and triple the overall state (MPDH2012).
- **Older adults** havehigh rates of asthma, and are susceptible to complications due to their age and likelihood of additional co-occurring chronic conditions. The prevalence of asthma among older adults in Holyoke is approximately 15%. Older adults in Hampden County hadalmost 50% higher asthma ER visit rates compared to the general population (612 vs 419 per 100,000) (MDPH, 2012).

Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD) was identified as a health need in this CHNA due to high rates of morbidity and disparities.Holyoke Medical Center key informant interviewees identifiedCOPD among older adults as a health concern.Nearly 7% of the population living in the Western Region on Massachusetts has COPD.[19]In 2012, COPD ER visit rates were high among some select communities in the service area with rates in Holyoke more than three times that ofthe 2012 state rate (Figure 14). COPD ER visit rates also exceeded the state rate in Chicopee and West Springfield.

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.[20]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.[21]

Figure 14. COPD ER Visit Rates in Select Holyoke Medical Center Service Area Communities, 2012



Source: MDPH; age-adjusted per 100,000

Vulnerable Populations

- **Latinos** in Holyoke and Chicopee had COPD ER visit rates more than triple the rate of Whites and the state in 2012 (MDPH2012).
- **Blacks** in Chicopee, Holyoke, and West Springfield experienced higher2012 COPD ER visit rates than Whites in the same communities, respectively, and the state overall(MDPH, 2012).

- COPD primarily impacts **older adults.**Twelve percent of Hampden County and ten percent of Hampshire County older adults have COPD (Medicare 2014, one-year estimate).

Need for Increased Physical Activity and Healthy Diet

Increased**physical activity** and consumption of fresh fruits and vegetables was identified as a community need for Holyoke Medical Center service area residents by regional public health officials and key informants interviewed for this CHNA.Holyoke Medical Center key informant interviews noted the need for more youth sports in the area.

> *"Mental health and substance abuse are overlapping - we should not look at them as separate"*
> -Key Informant Interviewee, Substance Use Treatment Specialist

Among Massachusetts residents in the CDC's BRFSS 2013 survey, only 9% of respondents met the vegetable consumption recommendation and 14% met the fruit consumption recommendations,[22] which was comparable to national rates. Only half of Hampden County adults (53%) met the guidelines for aerobic physical activity, and only about a quarter (21%) met the guidelines for both aerobic and muscle-strengthening activity,[23] which was also comparable to national rates. These rates are affected by the availability of affordable healthy food and safe places to be active as well as individual knowledge and behaviors.

Mental Health and Substance Use

Across all key informant interviews and focus groups conducted for Holyoke Medical Center and other Coalition members to inform the 2016 CHNA, substance use and mental health conditions were identified as the most urgent health needs impacting the area. Substance use disorders overall, and opioid use disorder specifically, were identified as top issues. There was overwhelming consensus fromfocus group participants and key informant interviewsabout the need for:

- increased education across all sectors to reduce the stigma associated with mental health and substance use;
- increased access to treatment, and the need for long term care;
- increased integration between the treatment of mental health and substance use disorders;
- the impact of mental health conditions and substance use on families;
- increased training for physicians to address mental health and substance use concerns in the primary care setting.

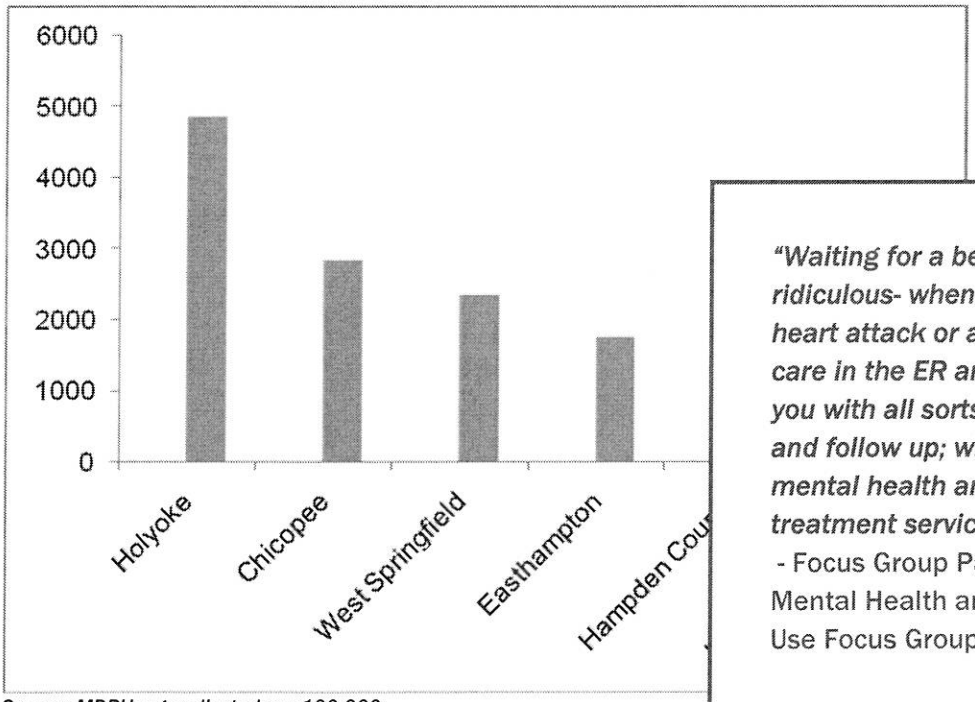
Mental Health

Approximately 16% of Hampden 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.[24]Only 17% of U.S adults are estimated to be "in a state of optimal mental health."[25]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 itaffects more than 26% of U.S adults.[26] It is estimated that by 2020, depression will be the 2nd leading cause of disability worldwide, and children are a particularly vulnerable population.[27] Mental illness often co-occurs with substance use disorders and impacts physical health as well.

Among Holyoke Medical Center service area communities, Holyoke had the highest 2013 mental health disorder ER visit rate (which includes substance use disorder), followed by Chicopee, West Springfield, and Easthampton (Figure 15). In 2012, the mental health disorder ER visit rate in Holyoke was 85% higher than the state (Figure 16).

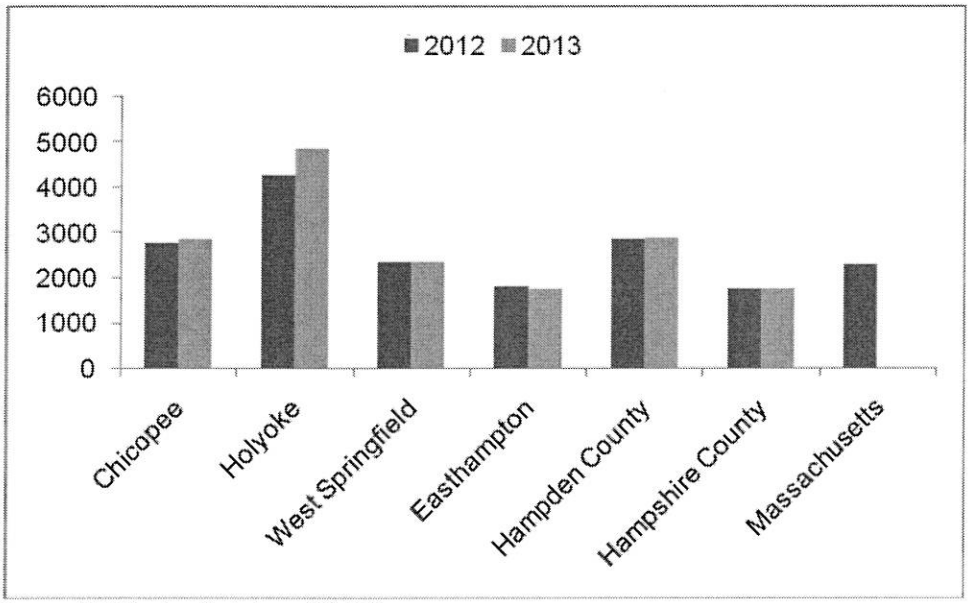
Figure 15. Communities with the Highest Mental Health Disorder ER Visit Rates in the Holyoke Medical Center Service Area, 2013



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

> *"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 16. MentalHealth Disorder ER Visit Rates in Select Holyoke Medical Center 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 with 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." Additionally, teen suicide was also raised as an issue among West Springfield interviewees.[28]
- **LGBTQ**persons were identified as vulnerable populations with unmet mental health treatment needs among Holyoke Medical Center focus group participants. Data also indicates that **LGBTQyouth**are also disproportionately impacted with mental health issues. Findings from the Hampshire County 2011 PNAS found that nearly twice as many LGBTQ youth as heterosexual youth reported feelings of depression over past year (52% of LGBTQ youth vs. 27% of heterosexual peers).[29]Focus group participants that work with LGBTQ youth at Holyoke Community College identified discrimination and bullying as contributing to high levels of stress among this population.

> *"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, Holyoke Medical Center Mental Health and Substance Use Focus Group

- **Latinos** experienced high rates of mental health disorder ER visits in 2012 compared to Whites and the state overall, with ER visit rates among Latinos in Holyoke double that of

Whites and the state. In West Springfield, the ER visit rate among Latinos was more than 90% higher than that of Whites and the overall state rate. Latinos in Chicopee and Easthampton also had higher rates than Whites (MDPH, 2012).

- **Asians** in Holyoke in 2012 experienced higher ER visit rates than Whites and the overall statewide rate (MDPH, 2012).
- **Older Adults** experience high rates of depression. In Hampden and Hampshire Counties16-17% of older adults have depression(Medicare 2014, one-year estimate).Holyoke Medical Center focus group participants noted that geriatric patients lacked placement options to meet their mental health care needs.
- **Refugees** are a growing vulnerable population. Information from an administrator at a community health center that serves refugees living in the area suggests thatthe numbers ofrefugees seeking treatment for depression and other mental health conditions areincreasing.

> *"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"*
> - Focus Group Participant, Mental Health and Substance Use Focus Group

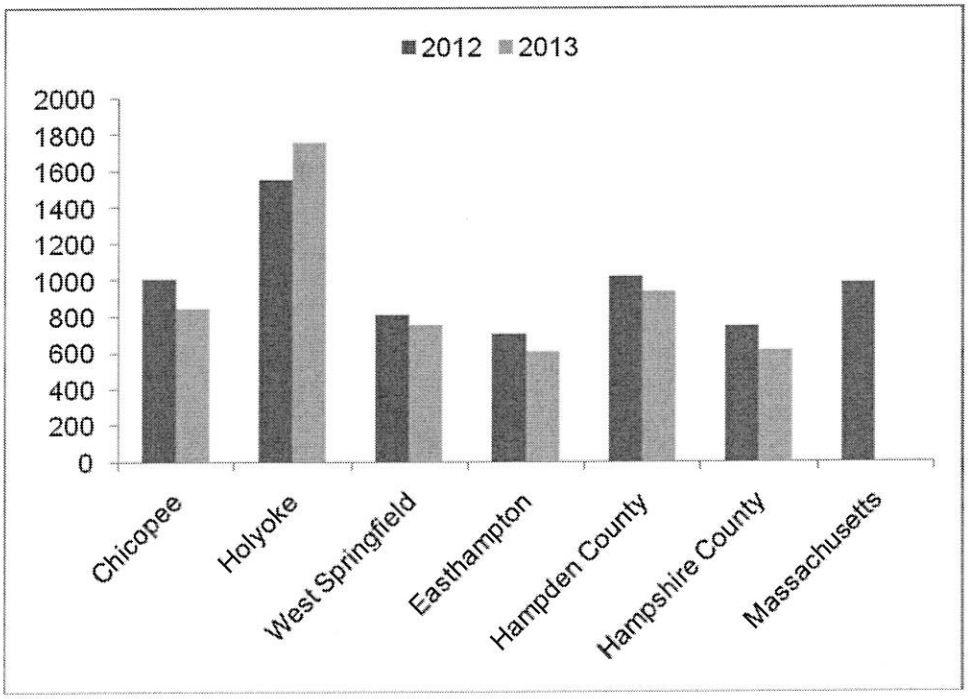
Substance Use

High rates of **substance use,**includingtobacco, alcohol and drugs,were identified as a priority health needin the 2013 CHNA, and continue to be a prioritized health need for the 2016 CHNA. Countywide smoking rates are high. Approximately 22% Hampden County residents smoke**tobacco**compared to 16% of Massachusetts residents overall (BRFSS 2012-2014). In Holyoke, an estimated 19% of adults are smokers (MDPH, BRFSS 2013-2014).

Substance use disorder (SUD)ER visit and hospitalization rates were also high in the Holyoke Medical Center service area. SUD refers to the recurrent use of drugs or alcohol resulting 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.

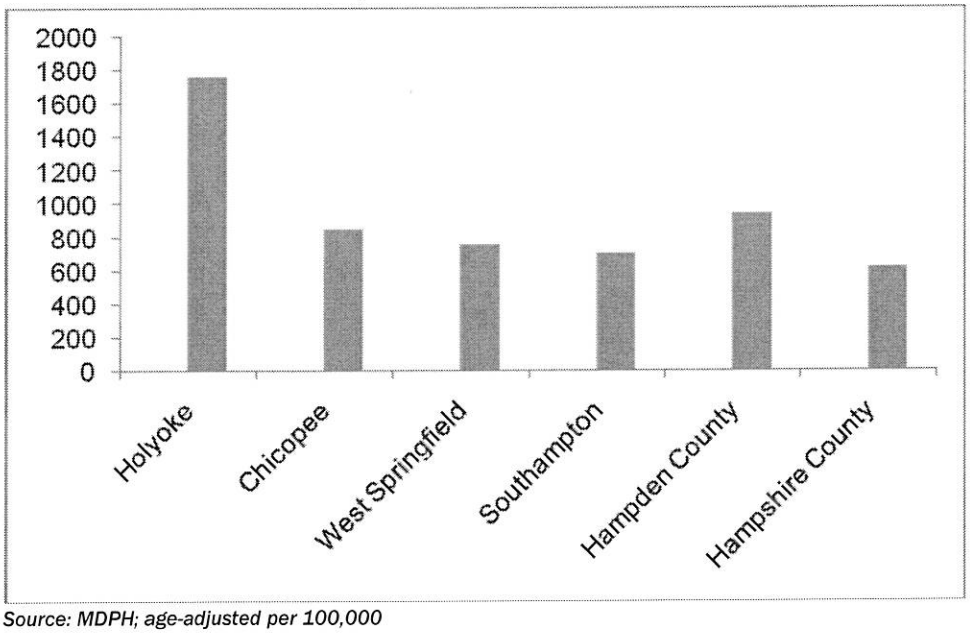
In 2012Holyoke had a high substance use ER visit rate, which was almost 60% higher than the state (Figure 17). In addition, Holyoke's substance use hospitalization rate was more than three times the state, and the ratesin Chicopee and West Springfield were more than doublethe state rate (MDPH 2012). Figure 18 illustrates the communities in the Holyoke service area that had the highest substance use ER visit rates in 2013.In feedback sessions for other Coalition members for this CHNA, health care providers and administrators 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.

Figure 17. Substance Use Disorder ER Visit Rates in Select Holyoke Medical Center Service Area Communities, 2012-2013



Source: MDPH; age-adjusted per 100,000

Figure 18. Communities with the Highest Substance Use Disorder ER Visit Rates in the Holyoke Medical Center Service Area, 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. 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]

> *"We want to more readily walk the path of harm reduction in this opioid crisis."*
> - Key Informant Interviewee, Holyoke Medical Center

Opioid overdose fatalities in Hampden County are higher than that of the state with 13 fatalities per 100,000 compared to 11 statewide. This is despite lower opioid overdose hospitalization rates in Hampden County as compared to the state (79 vs. 104 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. Additionally, 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.

In key informant interviews conducted for Holyoke Medical Center and other Coalition members, health care providers and administrators identified the following needs:

- more education and awareness of substance use issues overall;
- more collaboration among community agencies working on substance use prevention and education efforts in the area.

When asked about harm reduction approaches and the use of Narcan specifically, focus group participants noted that Holyoke Medical Center has been proactive in educating staff about the use of Narcan, and providing Narcan kits in English and Spanish. Focus group participants and key informant interviewees agreed that for the most part health care professionals support the use of Narcan, while local officials are more mixed in their views. To address this issue, interviewees and focus group participants called for increased education about the cost-effectiveness and benefits of harm reduction. Holyoke Medical Center focus group participants and key informant interviewees also agreed on the need for more education and outreach on harm reduction and the use of Narcan with the schools and youth. Exploring innovative harm reduction approaches such as 'safer injection sites' was also identified in key informant interviews.

Additionally, in key informant interviews and focus groups conducted for Holyoke Medical Center and the Coalition, health care providers and administrators identified the need for:

- more access to long-term treatment programs;
- 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.

Vulnerable Populations

- **Youth** substance use and abuse can affect the social, emotional and physical well-being of youth and lead to lifelong substance dependence problems. Holyoke Medical Center key informant interviewees noted that alcohol use appears to be starting with youth as young as aged ten, as illustrated by youth observed to be consuming alcohol on the school bus and showing up to school drunk.In Hampshire County, half of 12th graders reported drinking alcohol within the past 30 days, which was higher than national rates. Marijuana use was also high in Hampshire County, with nearly a third of 12th graders reporting that they had used marijuana in the past month.[33]
- **Latinos** experienced high substance use ER visit rates in Holyoke, which were more than double that of Whites and the overall state rate. Disparities were present on a county level as well. The 2012 ER visit rate among Latinos in Hampden County was more than double that of Whites and around 80% higher than the state (MDPH, 2012).
- Holyoke Medical Center focus group participants identified **LGBTQ** persons and **older adults** as vulnerable populations with unmet substance use treatment needs.
- **Asians** in Holyoke experienced higher substance use ER visit rates than Whites and the overall state rate (MDPH2012).

> *"Don't forget the fathers."*
> -Focus Group Participant, Maternal and Child Health Focus Group

Infant and Perinatal Health Risk Factors

Infant and perinatal health risk factors are a priority health need in the Holyoke Medical Center service area. **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 (within the first trimester), 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 one). Smoking during pregnancy is a risk factor that increases the risk for pregnancy complications and affects fetal development.[34]

In Holyoke in 2014, 9% of infants were born preterm and 8% were born low birth weight. Rates of low birth weight were particularly high in South Hadley with approximately 12% of infants born low birth weight (state 8%) (MDPH 2014).

In Holyoke, 25% of women entered **prenatal care** after their first trimester in 2012 (Figure 19). In Chicopee and West Springfield, over 20% of women had late entry to prenatal care. Similarly, 19-25% of women inthese communities had less than adequate prenatal care.Adequacy of prenatal care is based on whether a woman entered prenatal care early in pregnancy and number and timing of prenatal visits. While these rates were comparable to or lower than the statewide rate, they represent a notable portion of the population.

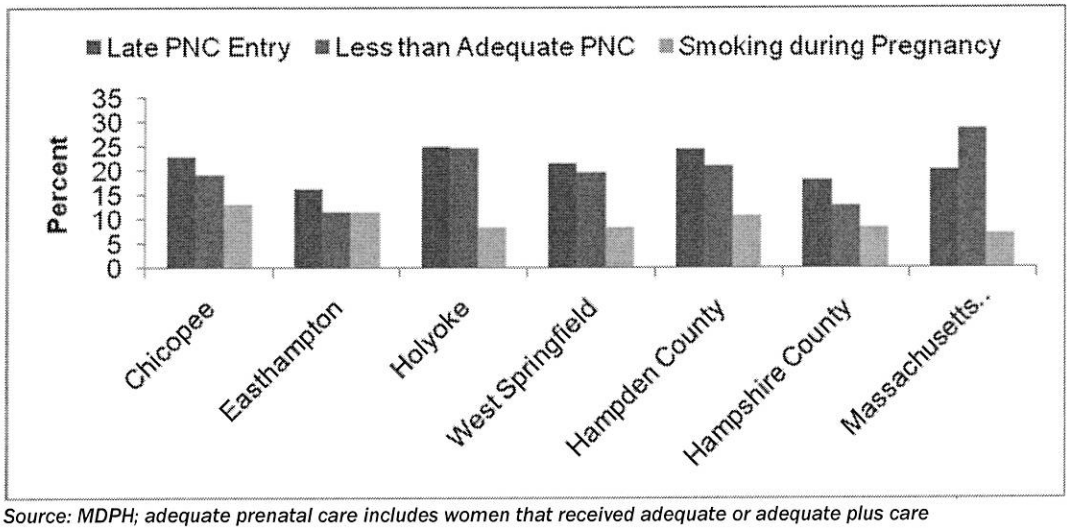
Smoking during pregnancy was identified as a prioritized health need in the 2013 CHNA and continues to remain so. In Holyoke, 9% of women smoked during pregnancy in 2012 (state rate -

7%). Among other communities in the service area, rates were high in Chicopee with 13% of women smoking during pregnancy.

Participants in a focus group conducted in Hampden County for the 2016 CHNA 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. Additionally, participants agreed on:

- the need for support around stress and anxiety, particularly in the postpartum period;
- feelings of social isolation;
- the need for increased parenting education and support for fathers.

Figure 19. Percent of Women with Late Entry to Prenatal Care, Less Than Adequate Prenatal Care, or that Smoked During Pregnancy in Select Holyoke Medical Center Service AreaCommunities, 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*

Sexual Health

High rates of STIs and teen pregnancy were identified as prioritized needs in the 2013 CHNA and continue to be needs in the service area. **Unsafe sexual behavior** contributes to these high rates.

Sexually Transmitted Infections

Chlamydia rates are elevated in Hampden County with rates 37% higher than the state (506 vs. 369 per 100,000). Among service area communities, the highest rates were observed in Holyoke (670 per 100,000) and Chicopee (607 per 100,000) (MDPH, 2014).

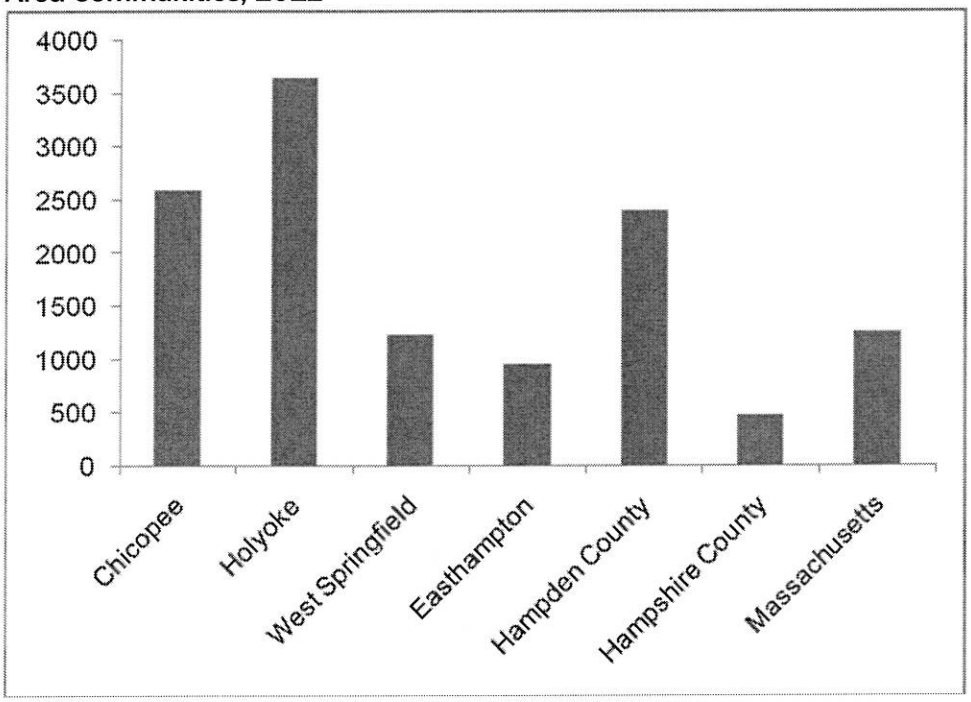
Teen Pregnancy

Though collaborative community efforts have made great strides in lowering the teen pregnancy rates in Hampden County, the Hampden County teen birth rate remains high in comparison to the state, with a rate double that of the state (22 vs. 10 per 1,000). Among service area communities, the teen birth rate was highest in Holyoke (46 per 1,000), followed by Easthampton (23 per 1,000), and Chicopee (18 per 1,000)(MDPH 2014).

Vulnerable Populations

- Hampden County **youth STI** rates were high with rates of chlamydia and syphilis 2-4 times higher than that of the state in 2012. Chlamydia rates were highest among Holyoke youth (Figure 20).
- Teen pregnancy rates are particularly high among **Latinas** with rates of 65per 1,000 in Hampden County (MDPH 2012).

Figure 20. Chlamydia Rates Among Youth Age 15-19 in Select Holyoke Medical Center Service Area Communities, 2012



Source: MDPH 2012, Rate per 100,000

IV. Vulnerable Populations of Concern

Available data indicate that **children and youth**; **older adults**; **LGBTQ persons**; some **communities of color**, particularly **Latinos, Blacks**, and **Asians**; and **refugees** experience disproportionately high rates of some health conditions or associated morbidities when compared to that of the general population of communities within the Holyoke Medical Center's service area.

- Children and youthexperienced high rates of asthma and are impacted by obesity and STIs.
- Latinos experienced high hospitalization/ER rates due to some chronic conditions, including stroke and coronary heart disease, diabetes, asthma, and COPD, as well as higher rates of hospitalizations/ER visits for mental health and substance use. Additionally, teen birth rates were high among Latinas.
- Blacks experienced high hospitalizations/ER rates for diabetes, asthma, and COPD.
- Older adults had higher rates of chronic disease (coronary heart disease, diabetes, asthma, and COPD) and hypertension.

Data also indicated increased risk for mental health and substance use conditions among **LGBTQ** (lesbian, gay, bi-sexual, transgender, queer) **youth, older adults, Latinos, Asians** and **refugee** populations.

Individuals with **low income** levels, those living in **poverty,**especially children and people of color,and those who 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 poor health outcomes.

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

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

Holyoke Medical Center has funded the following programs:

Kate's Kitchen

Kate's Kitchen, a program of Providence Ministries, serves a noontime meal 365 days a year to anyone with no questions asked. Kate's also offers a brown bag supper to people from 5-6pm. It served its first lunchtime meal in 1980, and since that day, the program has run continuously, providinga total of over one million meals. The kitchen depends heavily on volunteers to assure the smooth running of the kitchen.

Homework House

The mission of Homework House is to rekindle a love of learning, one page and one child at a time. Homework house is an arena to assist children with homework after the school hours. It is open from 3 to 5pm Monday -Friday at the Immaculate Conception Church or Sacred Heart Church.

5-2-1-0

5-2-1-0 Let's Go! is a nationally recognized childhood obesity prevention program implemented throughout Holyoke and in communities as far as Maine. It partners with schools, child care and out-of-school programs, health care practices and community organizations to change environments where children and families live, learn, work and play.

Lung Cancer Screening

HMC provides CT Lung Cancer Screening Services. Studies have shown that Low Dose Lung Cancer Screening Cat Scans can lower the risk of death from lung cancer by 20% in people who are at high risk. HMC has committed the following staffing resources for this service: Radiologist, Technologist for scan, PCP and Nurse Navigator.

Nutrition for the Cancer Patient

HMC ensures access to care for all Oncology patients with lack of food access or financial hardship. Upon admission, patients are evaluated to assess needs and follow-up services are provided.

Survivorship with all cancer patients

A survivorship care plan is started for all cancer patients. Patients are considered survivors from the beginning of their journey to the end.

Transportation Services

If you live in Holyoke and need help getting to and from the medical center campus, Holyoke Medical Center offers a van service with no appointment necessary available Monday through Friday between the hours of 7:30 a.m. and 5 p.m.

Summary

The Holyoke Medical Center service area, consisting of communities located in Hampden and Hampshire County, experiences a number of priority health needs. 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; Latinos, Blacks, Asians; refugees; LGBTQ persons; and individuals with low income, those living in poverty, and those that are homeless. Additional data is needed to better understand the specific needs of these populations in order to reduce inequities. The Holyoke Medical Center 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 and teen pregnancy; 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 six focus groups informed this CHNA. Each focus group had a specific topic, and participants represented a range of age, gender, and race/ethnicity. Focus groups included:

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: Maternal and Child Health

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

Baystate Noble Hospital: Mental Health and Substance Use

- 8 participants
- 3 women and 5 men; aged 31-60 years old
- All identified as White, Non-Hispanic
- Most identified as straight

Mercy Medical Center: Mental Health and Substance Use

- 13 family member participants (mostly parents)
- Most identified as White, Non-Hispanic
- Majority aged 51-60 years old

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

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

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

- 6 participants
- All participants were females: all identified as straight
- Most over 51 years old
- All identified as White, and Non-Hispanic

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 Depart-ment Staff
Health New England					
Robert Azeez	Medicaid Behavioral Health Manager	Health New England		X	
Kerry LaBounty	Medicaid Program Manager	Health New England		X	
David Silva	Medicaid Community Leader	Health New England		X	
Jacking Spain, MD	Medicaid Program Medical Director	Health New England		X	
Mercy Medical Center					
Dr. Andrew Balder	Director	Mason Square Neighborhood Health Center and Health Care for the Homeless	X	X	
Dr. Maria Russo-Appel	Chief Medical Officer	Providence Behavioral Health Hospital (PBHH)		X	
Dr. Robert Roose	Chief Medical Officer	Addiction Services for the Sisters of Providence Health System; Member of the Governor's Task Force on Opioid Abuse	X	X	
Dr. Louis Durkin	Director of Emergency Medicine	Mercy Medical Center		X	
Holyoke Medical Center					
Cavanaugh, Eva	Nursing Director, Emergency Department	Holyoke Medical Center		X	
O'Connor, Laura	Social Worker, Oncology	Holyoke Medical Center		X	
Perry, Melissa	Director of Behavioral Health	Holyoke Medical Center		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 Depart-ment Staff
Roberts, Cherelyn	Director, Discharge Transitions	Holyoke Medical Center		X	
Public Health Personnel					
Caulton-Harris, Helen	Commissioner of Public Health	City of Springfield	X		X
Dennis, Soloe	Western Region Director	Massachusetts Department of Public Health (MDPH)			X
Garcia, Luz Eneida	Care Coordinator	MDPH Division for Perinatal, Early Childhood and Special Needs, Care Coordination Unit			X
Hyry-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

Appendix II:
Focus Group and Key Informant Interview Summaries

Focus Group Reports

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

Key Informant Interviews

- Holyoke Medical Center
- Health New England
- Mercy Medical Center
- Public Health Personnel

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 has 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
1. What are the 3 most urgent health needs/problems in your service area?	• 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

Question	Synthesis of Responses
2. What specific vulnerable populations are you most concerned about? And why?	• 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
3. What are the most serious barriers or service gaps that consumers face in accessing mental health and substance use care?	• 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.
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?	• 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
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?	• 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.
6. What are other needs or trends in opioid addiction in this area and what impact does that have on providers and services?	• 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.

Question	Synthesis of Responses
7. What kind of structural and social changes are needed to tackle health inequities in your community/service area?	• We need more sports, things to do, to keep youth involved, 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.
8. What do you think community leaders think about the philosophy of harm reduction for addiction including the use of Narcan and needle exchange?	• No clear consensus about it, depends how you define community. There is more acceptance in some communities than others. • The majority believes that harm reduction is the way to go, but strong vocal minority (45%) don't think it's 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.

Question	Synthesis of Responses
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 supportedand sustained?	• 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: 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] see 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
1. Urgent health needs among pregnant and parenting women:	• Responsive prenatal care • Mental health: stress reduction, postpartum depression, anger mgmt • 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
2. Other supports needed:	• Groups for parents of children with special needs (managing health and school issues) • Childcare • Individualized Educational Program (IEP) advocacy with schools
3. Barriers to accessing appropriate care:	• Difficult to schedule appts • 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
2. How did you find a health care provider (for PNC or Ped):	• 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:	• 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:	• 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:	• 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?	• "Absolutely" • Others will warn friends about providers they were dissatisfied with

Question	Synthesis of Responses

7.What didn't go well:	• Scheduling appointments for routine and urgent care:
	  ○ 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:
	  ○ 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 appts
	  ○ Huge co-pays for labs, visits, and prescriptions
	• Lack of information about procedures and options;
	  ○ One mother reported routine drug, STD testing without information or consent

Question	Synthesis of Responses

8.How could we do it better:	• 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).
	  ○ 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!!
	  ○ 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; *"don't rush us out and try to cram everything in"*
	• Pregnant/postpartum: women are feeling "fat and ugly" and tired. Provide "feel good" services: e.g., manicure, massage, hair cut

9.What prenatal services did you not receive that you wish you had:	• Education, support resources for fathers

Question	Synthesis of Responses
10.What advice would you give your friend or sister about prenatal care:	• 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)
11.WHEN YOU WERE PREGNANT, what was the most helpful advice/information you received:	• MD said: "just relax"; relax and be calm; one day at a time • Nothing: "I'm pregnant now, and I can't think of one helpful thing that anyone has told me"
12. Where did you turn for information about <u>pregnancy</u>: **Where did you turn for information about <u>parenting</u>:**	• Mom, sisters, sister-in-law • Internet • Nurses • No one • Family, mother-in-law • Early Intervention "helps more than doctors' offices" ○ EI came to house to evaluate child and helped get them the stuff she needed for her child (braces, shoes) • DCF sponsored parenting class
13. How do you prefer to get information: **Information challenges:**	• 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, ○ 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

Question	Synthesis of Responses
14. How many different doctor's offices do you have between yourself and your children:	• 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
15. Are you able to use the same practice for prenatal and postpartum:	• Many "yes",
16. How do you navigate multiple providers:	• 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
17. Things that you need to have to take care of a baby or children:	• Money: *"this is what gets you access to everything else"* • 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– *"really really hard to go back to work after you've had a baby"* ○ Employee assistance program • Car seats • Father support/education • Child care

Question	Synthesis of Responses

18. Which have you had difficulty obtaining:	• 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:
	  ○ 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)

19. Challenges with housing while pregnant or parenting: **Could health care providers help with housing?**	• YES! And know many other moms • Some live with mother, other family members • Unforeseen circumstances, out of their control, can change stability quickly: *"How do you relax when you don't know where you are going to live"* • 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? ○ Services aren't there if you are in the upper low-income range: *"they want you to give up your car, take the bus, and then you are late for appointments ..."*
20. Last thoughts:	• Interest in awareness/support groups for various issues: sickle-cell, pain management, IEP needs and advocacy, sharing material goods • *"Don't forget the fathers."* • Provide postpartum mental health supports • Build and build on support systems! • Provide "really lovely" treatment for stressed moms (e.g., massage)

Focus Group Report: Mental Health and Substance Use

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. Additionally, 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

1. What are the 3 most urgent health needs/problems in your service area?	• Access issues:
	  ○ 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:
	  ○ 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

2. What specific vulnerable populations are you most concerned about and why?	• Youth
	• 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:
	  ○ 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

3. What are the most serious barriers or service gaps that adult consumers face in accessing mental health and substance use care?	• Severe shortage of providers and services offering inpatient and outpatient treatment for mental health and substance use
	• Insurance system and the pharmaceutical industry:
	  ○ 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.
	  ○ 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
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?	• 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.
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?	• 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.
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?	• 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

Question	Synthesis of Responses
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?	• 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
8. What do you think community leaders think about the philosophy of harm reduction for addiction including the use of Narcan and needle exchange?	• Narcan is necessary but does not treat the problem or root cause of why people are using opioids in the first place ○ 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
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?	• 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
10. What kind of structural and social changes are needed to tackle health inequities in your community/service area?	• Improve the insurance system
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?	Recommendations included: • 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
1. What has you/your family member's experience with the mental health care system been like? ▪ **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?**	• 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
2. What are the most serious barriers or service gaps that have you/your family faced in accessing mental health care?	• 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
3. If you have used crisis services in the ER, what has your experience been like?	• 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
4. When you think about how you currently connect to mental health services, what would make it easier or more helpful for you?	• 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
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?	• 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

Question	Synthesis of Responses
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?	• 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
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?	• 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
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?	• 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
9. What would recovery look like for you/family member?	• 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: 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 days 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 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: 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 years old
  - 1: 41-50 years old
  - 2: 51-60 years old
  - 2: >60 years old
- 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) have 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	Participants primarily focused on barriers to obtaining prescription medication, including: • 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
2. Please tell me about barriers you've experienced when trying to get care	• 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)
3. When you have gotten medical care (PCP, ER, specialty), what has your experience been like?	• 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

Question	Synthesis of Responses
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?	• 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
5. How much input do you have in setting the goals and priorities in taking care of your health?	• 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
6. What health services are valuable/not valuable, what services do you need to meet your health goals, where do you get services?	• 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
7. What other services would help you achieve your health needs/recovery goals?	Participants mentioned the following services: • 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
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?	• 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

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?	• 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:
	  ○ Glasses- better replacement options for young children
	  ○ Dental Care- increased services, such as dentures

Key Informant Interview Report

*Hospital/Insurer:*Holyoke Medical Center

Dates: February 25th - 29th, 2016

Interview Format: Phone interviews, approximately 1 hour in length.

Participants:

1. Melissa Perry, Director of Behavioral Health
2. Laura O'Connor, Social Worker in Oncology
3. Cherelyn Roberts, Director of Discharge Transitions
4. Eva Cavanaugh, Nursing Director of Emergency Department

Question	Synthesis of Responses
1.What are the 3 most urgent health needs/problems in your service area?	• patients with co-morbidities of diabetes mental health and substance use needs • access to mental health care providers • lack of education about acute and chronic diseases • opioid abuse issues are big challenge, even though Holyoke has dealt with drug abuse for some time
2.What specific vulnerable populations are you most concerned about? And why?	• smokers with COPD • chronically mentally ill and homeless persons dually diagnosed with mental health and substance use disorders • children and elders who are subjected to abuse and neglect from family or caregivers • elders with dementia and other chronic health issues such as diabetes, COPD and cancer
3.What are the most serious barriers or service gaps that consumers face in accessing health care, including mental health and substance use care?	• lack of transportation • lack of health insurance, especially those who are 'on and off' insurance when they do not comply with requirements to renew or update information to avoid gaps in coverage • lack of timely appointments for primary care
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?	• need detox and children's psych unit for young drug users; waiting lists are too long to access local treatment programs • need more consistent follow-up care procedures after a Mental Health or Substance Abuse crisis with younger patients
5.What are the community's needs for bilingual mental health/substance use care capacity? Are there other languages needed in addition to Spanish?	• need more bilingual providers and interpreters in Spanish, Russian, Polish, Cambodian, and Vietnamese
6.What are the major needs, service gaps or barriers accessing mental health and	• Expand social work services for high users of the ED with mental health and substance abuse

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?	diagnoses, but need more funds for an on-campus clinic to target such users • Need more communications and care planning with community agencies and partners who are treating the same patients we see in our ED • Certain payers will only pay for certain services for younger patients with mental health and substance use needs
7.In light of the opioid use epidemic, what are the most pressing issues and needs around access to care, prevention, and intervention?	• Implement more harm reduction and overdose prevention efforts including use of Narcan, training staff and community members in how to obtain it and use it • Hospital wants to work with more closely with community providers such as police and EMS to reduce risks of overdose and overdose deaths • Look at more innovative harm reduction approaches such as 'safer injection sites' as other hospitals are exploring • Conduct more outreach to identify opioid users, homeless users, and younger users to support a pathway to treatment and harm reduction services
8.What do you think community leaders think about the philosophy of harm reduction for addiction including the use of Narcan and needle exchange?	• Most health professionals strongly support it but local officials can be mixed on support; • Provide more education about cost-effectiveness and benefits of harm reduction
9.What kind of structural and social changes are needed to tackle health inequities in your community/service area?	• Work to address poverty and lack of educational and employment opportunities • Support improved schools • Support improved access to affordable and safe housing • More information sharing between providers, but HIPPA and other structures can be a barrier to fuller inter-agency communications • Challenge payers to cover more services and to provide a longer-term duration of coverage for services, especially mental health and substance abuse treatment
10.How would you recommend that your local hospital 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?	• Hospital can serve as entity to convene and coordinate health improvement initiatives and planning, but HMC needs grant funds to support this; continue to work with existing efforts like the Prevention and Wellness Trust Fund project • Forge closer partnerships with police, schools, community-based agencies to address stigma of mental health and substance use disorders • Hospital staff can become more active members of local coalitions and Task Forces to address opioid crisis • Focus less on competition between hospitals and

	more on regional cooperation

Quotes

- "We desperately need a homeless shelter right in Holyoke"
- "We want to more readily walk the path of harm reduction in this opioid crisis"
- "Children under the age of 14 with serious mental health and substance abuse issues have no place to go locally; many parents can't work if their child needs treatment in a program that is so far away"
- "Hispanic clinicians are like gold and I know we struggle to recruit and retain them"

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."

Key Issues

Question	Synthesis of Responses
1. What are the 3 most urgent health needs/problems impacting your members?	• 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
2. What health issues have emerged and/or dramatically increased in prevalence in the last 1-2 years in your area?	• 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
3. What specific vulnerable populations are you most concerned about? And why?	• 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
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.	<u>Structural/logistical:</u> • 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) <u>Providers:</u> • 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) <u>Housing instability:</u> • 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 <u>Cultural:</u> • Latino population, less importance placed on timeliness in terms of making appointments (mentioned by ¾ 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)
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?)	• 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)

Question	Synthesis of Responses
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).	• 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
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.	<u>Exercise and nutrition:</u> • 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, *if* members can get transport to farmers market <u>Non-compliance with medication/treatment protocols</u> • 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 <u>Multigenerational health patterns:</u> • 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
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?	Overall: • 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 For HNE specifically: • 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
9. If time: Is there anything else you would like to share?	• 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: Mercy Medical Center

Dates:

February 3rd- February 15th, 2016

Interview Format:
Phone interviews, approximately 1 hour in length.

Participants:

- Dr. Andrew Balder; Director of the Mason Square Neighborhood Health Center and Health Care for the Homeless
- Dr. Louis Durkin; Director of Emergency Medicine at Mercy Medical Center
- Dr. Robert Roose; Chief Medical Officer of Addiction Services for the Sisters of Providence Health System and member of the Governor's Task Force on Opioid Abuse
- Dr. Maria Russo-Appel; Chief Medical Officer of Providence Behavioral Health Hospital (PBHH)

Key Issues

Question	Synthesis of Responses
1.What are the 3 most urgent health needs/problems in your service area?	• addiction, especially opioid addiction in relation to pain management issues • untreated mental health needs such as depression and anxiety • overlay of poverty, poor housing, lack of 'living wage' employment and other social determinants of health that contribute to poor health
2.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?	• the opioid abuse crisis has shed more light on underlying fragmented systems of care and the mechanisms to pay for it • lack of access to care for substance abuse treatment is now more pressing with increased demand • 'silos' of care where co-location of services is not true integration • lack of beds for longer-term treatment options for mental health and addictions
3.What specific vulnerable populations are you most concerned about? And why?	• Elders with co-morbid mental health and medical care needs • Homeless person and families • Homeless alcoholic and addicted patients • Young parents with limited resources • "Working poor" who do not have health insurance, can't afford self-pay; in most cases, self–pay means no pay

4.What kind of structural and social changes are needed to tackle health inequities in your community/service area?	• need to significantly improve housing stock and options for affordable housing • need employment at living wages • need better and more accessible transportation • medical care that is not "silo'd" based on condition or payer • overcome underlying racism and other discrimination • eliminate the prior approval process for an in-patient MH or SA bed
5.What are the most serious gaps and needs for Mental Health (MH) services?	• need longer-term behavioral health care at the community level working in collaboration and as part of a truly integrated medical care team • lack of adequate in-patient and out-patient mental health and substance use care services drives people to use the Emergency department • lack of psychiatrists on the region; (also a national level problem)
6.What about long-term Mental Health care? What are those needs and who is most vulnerable?	• need more sober living and long-term care options for people in recovery from addictions • fragmented care is nothing new but it is most problematic for mental health patients whose cognition and executive functioning are compromised by the disease
7.What are the needs for bilingual Mental Health care capacity, especially psychiatrists?	• systems can often adequately address needs for bilingual services and translation with frontline staff and patient navigators, but recruiting bilingual mental health clinicians and psychiatrists is a huge challenge
8.What are the most pressing issues around access to care for detox, long-term treatment, criminalization, and stigma, especially in light of growing opioid abuse?	• lack of access to beds in timely fashion • detox is not a treatment • lack of resources drive people to use ED for pathway into the system • not enough long-term SA care resources as part of comprehensive systems of recovery • many still believe that addiction is a volitional choice
9.What about substance use disorder prevention? What is needed and what is working?	• more evidence- based programs in schools at much earlier ages • more training for prescribers and medical care professionals in training • media campaigns to broadly educate the public and work to reduce stigma and shame associated with substance use
10.What do you think community leaders think about the philosophy of harm reduction for addiction including Narcan and needle exchange?	• medical care professionals have seen the value of harm reduction for quite some time, but community leaders and officials have been less quick to adopt; • the opioid crisis may spur action on harm reduction approaches such as needle exchange and "safe rooms" for users to prevent overdose

11.How does the integration of primary care and MH care (with primary care providers prescribing psych meds) work for providers? What are the up-sides and down-sides of this?	• it must be deeper integration with shared access to EHRs and other practical aspects where the team is fully functioning together; • co-location is not integration and the paradigm of what constitutes full integration must shift to be shared system of care for all complements and phases of treatment • should be seamless to patients • integrating primary care with behavioral health provides for a more holistic approach
12.Where do you think the uninsured 'pockets' of patients are – the patients that don't show up in overall stats about how the percentage of insured populations is near 100%?	• Geriatric patients who are "Medicaid Pending" are not being placed in long-term care facilities; there can be a wait for up to 3 months and up to 10 years for out-of state patents • Some insured patients are not able to comply with communications for renewing submitting paperwork/forms and then lose insurance coverage; suffer from recurring gaps in health insurance coverage
13.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 after the CHNA is completed? What specific ways can such a partnership be supported and sustained?	• more data sharing across in-house departments and across hospitals and community providers throughout the region • more frequent case conferences about 'high utilizer' patients who are seen in EDs in region • need more collaboration and information-sharing about ways to serve new ethnic/cultural communities that are growing in Western Mass • collaboration and advocacy on larger social issues that impact health such as economic development; child-rearing supports; life cycle planning for individuals and communities; environmental justice issues

Quotes:

- "Mental health and substance use are overlapping; we should not look at them as separate"
- "I see us being 3 generations into addiction with heroin – how do we get grandma into treatment and stop parents from giving drugs to their children to begin to break the intergenerational cycle?"
- "We need relationships with new communities and their health beliefs and ways to adapt our systems for mutual understanding about their cultures"
- "I want hospitals and other community partners to support an environment where our patients can be the healthiest family possible"

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 Hyry-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

Key Issues

Question	Synthesis of Responses
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?	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. 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.

Question	Synthesis of Responses
2. What kind of structural and social changes are needed to tackle health inequities in your community/service area?	Again, the most frequently mentioned issue is lack of transportation. Other changes that would help improve inequities included: • 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
3. What are the 3 most urgent health needs/problems in your service area?	This list shows the issues named and the number of people who named each one: • 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)

Question	Synthesis of Responses
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?	Every respondent mentioned substance abuse as an emerging issue, with four specifically referencing opioids. Other issues, each noted by one respondent, were: • Mental health • Pertussis • Lyme disease • Obesity • Sexually transmitted diseases
5. What gaps in services exist in addressing these needs? What are barriers to filling these gaps?	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. 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. 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.
6. In addition to more funding, what resources do you need to better address these emerging or increasing health concerns?	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). Other needed resources that respondent noted were: • Support for families as they navigate the healthcare system • Better transportation, either public or provided by hospitals • Better-trained, more diverse health care staff
7. What specific vulnerable populations are you most concerned about? And why?	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.

Question	Synthesis of Responses
8. Externally, what resources or services do you wish people in your area had access to?	These responses varied, but three respondents mentioned better transportation options. Other resources and services mentioned included: • 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
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?	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. 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. Some specific suggestions included involving hospitals in community discussions around: • where people who been treated for overdoses can go after release from the hospital • reducing re-admissions • workplace health screenings Ideas around sustaining and supporting this collaboration included: • 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
10. Is there anything else you would like to share?	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.

Appendix III:
Data Tables

Hospitalizations and Emergency Room Visits among Select Communities in Hampshire and Hampden Counties, 2012 and 2013

Hospitalization and Emergency Room Visit Rates for Select Hampden County 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 for Conditions by Top Communities with Confidence Intervals, 2013

Hospitalizations and Emergency Room Visits among Select Communities in Hampshire and Hampden Counties, 2012 and 2013

Geography	Hospitalizations				ER Visits							
	Diabetes		Stroke		Asthma		COPD		Mental Disorders		Substance Use	
	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
Chicopee	196.3	197.3	246.5	239.2	944.1	689.3	1411.7	NA	2782.2	2846.1	1005.1	843.0
Easthampton	135.98	171.3	183.8	219.6	331.8	339.8	556.2	NA	1808.7	1760.5	704.4	604.7
Holyoke	268.7	285.7	282.4	239.3	2028.2	2040.2	2830.9	NA	4261.5	4864.6	1559.3	1761.6
West Springfield	125.8	99.9	210.6	227.1	702.7	555.4	1105.4	NA	2346.9	2346.1	811.5	752.0
Hampden County	177.4	197.0	242.7	229.2	1027.6	920.2	1532.3	NA	2850.4	2899.8	1019.1	940.0
Hampshire County	95.1	95.5	182.1	200.2	337.7	326.3	513.9	NA	1759.9	1750.4	743.7	612.0
MA	133.7	NA	219.5	NA	571.9	NA	867.9	NA	2304.4	NA	986.5	NA

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

Geography	Race / Latino Ethnicity	Hospitalizations		ER Visits			
		Diabetes	Stroke	Asthma	COPD	Mental Disorders	Substance Use
Chicopee	White	151.2	227.5	614.02	976.9	2619.66	1021.76
Chicopee	Black	602.2	NA	1559.03	2241.77	2628.98	NA
Chicopee	Latino	609.6	656.3	2186.83	3274.22	4075.22	1097.79
Chicopee	Asian / Pacific Islander	NA	NA	NA	NA	NA	0
Easthampton	White	122.8	171.7	306.82	531.84	1772.93	681.38
Easthampton	Black	NA	NA	NA	NA	NA	0
Easthampton	Latino	NA	NA	NA	NA	2677.54	NA
Easthampton	Asian/Pacific Islander	NA	NA	0	0	NA	NA
Holyoke	White	134.8	222.8	754.62	1179.13	2728.89	980.85
Holyoke	Black	NA	NA	2710.22	3598.05	4143.03	1196.68
Holyoke	Latino	443.8	462.6	3174.47	4482.05	5918.34	2366.63
Holyoke	Asian/Pacific Islander	NA	NA	NA	NA	6343.08	3721.35
West Springfield	White	108.8	201.6	486.4	834.4	2256.4	920.5
West Springfield	Black	NA	NA	1863.9	2570.9	2467.8	NA
West Springfield	Latino	NA	NA	2503.9	2919.6	4384.2	451.0
West Springfield	Asian/Pacific Islander	NA	NA	NA	NA	NA	0

Geography	Race / Latino Ethnicity	Hospitalizations		ER Visits			
		Diabetes	Stroke	Asthma	COPD	Mental Disorders	Substance Use
Hampden County	White	126.4	212.7	494.4	807.4	2240.9	869.8
Hampden County	Black	326.5	386.5	1250.7	1921.4	3355.2	1111.2
Hampden County	Latino	386.6	396.4	2577.9	3793.8	5107.2	1784.4
Hampden County	Asian / Pacific Islander	NA	NA	196.7	425.1	724.6	255.0
Hampshire County	White	91.2	181.5	292.1	469.0	1755.1	743.4
Hampshire County	Black	NA	NA	1057.9	1274.6	4054.0	1887.1
Hampshire County	Latino	NA	NA	888.4	1158.7	1935.6	585.7
Hampshire County	Asian/Pacific Islander	NA	NA	NA	NA	355.5	182.6
Massachusetts Total	White	115.9	208.2	416.9	698.4	2315.4	1019.5
Massachusetts Total	Black	320.2	309.5	1279.1	1635.1	3101.9	1301.8
Massachusetts Total	Latino	222.8	246.7	1162.1	1584.5	2610.7	1107.6
Massachusetts Total	Asian / Pacific Islander	43.1	149.7	147.8	220.7	423.8	126.1

**NA - data suppressed because of low counts*

Behavioral Risk Factor Surveillance System (BRFSS) Prevalence Estimates for Health Behaviors and ConditionsBy 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	22.0	56.3	6.7	3.1	5.3	9.4	6.8	10.8	20.6	18.4
Hampden County	28.8	64.7	7.9	3.4	5.1	13.2	7.6	15.9	21.5	16.1
Hampshire County	20.0	55.9	5.5	2.6	3.7	4.7	8.6	12.1	15.5	23.0
Franklin County	22.4	54.4	4.4	NA	3.6	8.7	10.3	12.4	19.7	17.8
Worcester County	27.3	63.0	5.8	2.4	3.8	10	8.0	11.2	19.0	19.1
MA	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 for Conditions by Top Communities with Confidence Intervals, 2013

Rank	Hospitalizations		ER Visits		
	Diabetes	Stroke	Asthma	Mental Disorders	Substance Use
1	Holyoke 285.7 (233.0 - 338.4)	Southampton 308.2 (165.8 - 450.6)	Holyoke 2040.2 (1898.6 - 2181.7)	Holyoke 4864.6 (4644.2-5085.0)	Holyoke 1761.6 (1628.3 - 1894.8)
2	Chicopee 197.3 (162.7 - 231.9)	South Hadley 299.3 (230.6 - 367.9)	Chicopee 689.3 (616.8 - 761.7)	Chicopee 2846.1 (2704.1-2988.1)	Chicopee 843.0 (766.6 - 919.4)
3	Easthampton 171.3 (111.0 - 231.6)	Granby 291.3 (160.3 - 422.4)	West Springfield 555.4 (467.1 - 643.7)	West Springfield 2346.1 (2169.0-2523.2)	West Springfield 752.0 (653.1 - 850.9)
4	Granby 143.8 (58.8 - 228.8)	Holyoke 239.3 (194.99 - 283.6)	Granby 372.7 (200.5 - 544.8)	Easthampton 1760.5 (1553.2-1967.8)	Southampton 699.4 (474.1 - 924.8)

Appendix IV:
Community and Hospital Resources to Address Identified Needs

Priority Health Need	Resource Organization Name	Description of Services Provided	Contact
Income and Employment	Career Point	CareerPoint serves the workforce and economic development needs of individual job seekers, business partners, and community and faith based organizations throughout Hampden County and beyond.	http://www.careerpointma.org/
Education	Girls Inc.	Our programs enable girls to learn, develop resiliency, get involved with their communities, build friendships, and strengthen their capabilities as critical thinkers.	https://www.girlsincholyoke.org/
	Boys' and Girls' Club	Provides sports, leadership programs, violence prevention, academic support to youth.	http://www.hbgc.org/
	Holyoke Community College	Dedicated faculty and staff, and nearly one hundred degree and certificate programs, prepare students for transfer to a four-year college or immediate entry into the workforce. Online, blended, evening and Saturday classes available.	http://www.hcc.edu/
Violence	Girls Inc.	Our programs enable girls to learn, develop resiliency, get involved with their communities, build friendships, and strengthen their capabilities as critical thinkers.	https://www.girlsincholyoke.org/
	Boys' and Girls' Club	Provides sports, leadership programs, violence prevention, academic support to youth.	http://www.hbgc.org/
	Hampden County Sherriff's Department		http://www.hampdencountysheriff.com/services

Priority Health Need	Resource Organization Name	Description of Services Provided	Contact
Institutional Racism			
Housing	HAP Housing	Provides housing assistance to tenants, homebuyers, homeowners and rental property owners; largest nonprofit developer of affordable housing in Western Massachusetts.	http://www.haphousing.org/default
Transportation	Pioneer Valley Transit Authority	Provides public transportation throughout the Pioneer Valley.	http://www.pvta.com/about.php
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/
Obesity	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
	HMC Weight Management Program	The Weight Management Program is dedicated to provide high quality, patient centered, compassionate and holistic life-long solutions to all patients who are committed to achieving and maintaining a healthy weight.	https://www.holyokehealth.com/Weight_Management_Program.aspx
Cardiovascular Disease	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
COPD	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/

Priority Health Need	Resource Organization Name	Description of Services Provided	Contact
Diabetes	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
	HMC Diabetes Self-Management Classes	Provides diabetes self-management program and classes.	April Medeiros at (413) 534-2703
Nutrition	Holyoke YMCA	Promoting community wellness and family enrichment through cause-driven programs that focus on youth development, healthy living and social responsibility.	http://www.holyokeymca.org/
	HMC Weight Management Program	The Weight Management Program is dedicated to provide high quality, patient centered, compassionate and holistic life-long solutions to all patients who are committed to achieving and maintaining a healthy weight.	https://www.holyokehealth.com/Weight_Management_Program.aspx
Physical Activity	Holyoke YMCA	Promoting community wellness and family enrichment through cause-driven programs that focus on youth development, healthy living and social responsibility.	http://www.holyokeymca.org/
	Boys' and Girls' Club	Provides sports, leadership programs, violence prevention, academic support to youth.	http://www.hbgc.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	Contact
	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
Mental Health			
	Behavioral Health Network's Outpatient Services	Through 6 licensed clinics, BHN provides services to chronically mentally ill adults, seriously emotionally disturbed children, adolescents, and families.	http://bhninc.org/content/outpatient
	Holyoke Medical Center-Center for Behavioral Health	The Center for Behavioral Health is committed to providing quality mental health and substance abuse treatment and information.	https://www.holyokehealth.com
	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
Substance Use Disorder: Tobacco	Holyoke Medical Center	Smoking cessation programs.	(413) 534-2734, www.holyokehealth.com/
Substance Use Disorder: other drugs	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
	Holyoke Medical Center-Center for Behavioral Health	The Center for Behavioral Health is committed to providing quality mental health and substance abuse treatment and information.	https://www.holyokehealth.com

Priority Health Need	Resource Organization Name	Description of Services Provided	Contact
Teen Pregnancy and Parenting	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
	Holyoke Medical Center Birthing Center	Provides birthing services, lactation specialists, post-partum support groups.	https://www.holyokehealth.com/Birthing_Center
	Young Parent Support (YPS) Young Fathers Program	Martin Luther King Jr. Family Services provides services to young fathers between the ages of 15-24.	http://www.mlkjrfamilyservices.org/child–parent-services.html
	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/
Sexually Transmitted Infections	Gandara Center's Project Health- Case Management for People with HIV/AIDS	Medical case management for HIV positive clients in the Springfield area. Staff are fluent in Spanish; Case management assists clients to access medical, mental health and substance abuse services and to maintain a positive lifestyle.	https://gandaracenter.org/adult-services/#project-health
	Holyoke Health	Providing low cost medical, dental, and pharmaceutical services in both English and Spanish to the Holyoke, Chicopee, and the surrounding communities.	http://www.hhcinc.org/en/

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%
Food environment index**	8.3	8.1	7.9	8.1	7.9	8.2

	Massachusetts	Hampshire County	Hampden County	Franklin County	Berkshire County	Worcester County
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%
Unemployment	5.8%	5.0%	7.8%	5.3%	6.5%	6.2%

	Massachusetts	Hampshire County	Hampden County	Franklin County	Berkshire County	Worcester County
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%