2016
Regional Health Assessment
OZARKS HEALTH COMMISSION
Executive Summary

In early 2015, a variety of organizations across the Ozarks came together to better understand the health status, behaviors and needs of the populations they serve.

Under the umbrella of the local Ozarks Health Commission, this first-time collaboration is the largest in the region spanning four states—Missouri, Oklahoma, Arkansas and Kansas—51 counties and four hospital systems.

The working group saw the value of using a systematic, data-driven assessment to inform decisions and guide efforts to improve community health and wellness on a regional level. This larger, concerted approach will leverage common strengths and strategies to move in the same direction on significant health concerns.

This assessment, along with the resulting action plan, will allow decision-makers to have a more holistic and up-to-date picture with which to strategically address community health concerns in their own jurisdictions.
The priorities for each community emerged as a result of data and feedback collection from a variety of sources, including:

- a survey open to members of the public and partner agencies in all jurisdictions;
- secondary data collected from CommunityCommons.org and other sources;
- focus groups targeting underserved, chronically ill and low-income populations in each community; and
- emergency department data from hospital partners.

These sources were combined and compared to develop community priorities which weighed morbidity, mortality and a variety of other factors. More on the results of the survey, focus group, data analysis and priority ranking can be found in the Methodology section of this report.

Themes for the Region

It quickly became apparent through this assessment that health issues transcend State and County boundaries and health system catchment areas. Health problems such as cardiovascular disease and behavioral health manifest themselves in a similar manner.
throughout the entire 51-county footprint. As we move forward, it’s not difficult to imagine a scenario where we have consensus on what the health challenges are, how to best address those challenges and end up with improvements to the public’s health based on collective impact.

**We Want to Hear From You**

The Ozarks Health Commission (OHC) welcomes and encourages feedback and suggestions on future assessments and action plans as this effort continues. Questions, comments or concerns can be submitted at OzarksHealthCommission.org.

***Signed, top leadership*****
Springfield Community
Christian County, MO; Greene County, MO; Webster County, MO
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1. Community Summary

For the purposes of this Assessment, the Springfield Community is made up of Christian, Greene and Webster counties.

**Greene County**

**Springfield**

Often called the “Queen City of the Ozarks,” Springfield is the seat of Greene County and serves as a healthcare, entertainment and shopping hub for much of Southwest Missouri as the third-largest city in the state.

Springfield boasts a world-class park system, more than 100 miles of scenic trails, two top-rated hospital systems and four innovative and well-regarded colleges and universities. Springfield is home to the Springfield Cardinals, a Double-A affiliate of the St. Louis Cardinals, as well as two large sports arenas, Juanita K. Hammons Hall for the Performing Arts and the 10,000+ piece Springfield Art Museum. The city is also well-known as the home of Bass Pro Shops and Springfield-style cashew chicken.

**Republic**

Republic is a charter city located in western Greene County, Missouri. The city grew as a result of the railroad and is home to the annual Republic Pumpkin Daze festival which celebrates fall in the Ozarks.

**Christian County**

**Nixa**

Nixa began as a crossroads settlement within a half-day’s ride of Springfield with a team of horses. It was officially incorporated as a village in 1902 with the name Nixa, in part as homage to Nicholas A. Inman, who was one of Nixa’s first civic leaders¹. Nixa grew exponentially in the 1960s and ‘70s as a commuter city for nearby Springfield employment. In more recent years, rapid residential construction has continued to spur Nixa’s growth, as well as a reputation for excellent schools. Nixa is regionally known for Nixa Sucker Days, a weekend festival and parade in May celebrating the Nixa Sucker Fish.

Ozark

Ozark gets its name in part because of its location nestled in the Ozark Mountains north of the Arkansas River. Before being formally named, travelers described the area north of the Arkansas River in French as “Aux Arks.” It was first incorporated as Hoover’s Mill, although that only lasted for about a year and half before being changed to Ozark in 1840. The city is the county seat of Christian County which lies along the Findley River. Ozark too has enjoyed rapid growth in recent years, but maintains a strong reverence for its past via the numerous historic properties preserved by the Ozarks Historic Preservation Commission. Nixa and Ozark enjoy a friendly rivalry, which most often plays out between the respective high schools during football season.

Webster County

Marshfield

Marshfield is a town built as a result of the post-Civil War railroad boom, largely as a dairy, poultry and livestock producer. Marshfield is most famously known as the hometown of astronomer Edwin P. Hubble, and several monuments and other attractions honor the native son. Also of note is the annual Marshfield Cherry Blossom Festival, which highlights American History, the planting of cherry blossom trees and serves as a reunion of sorts for descendants of American Presidents. Nearby Seymour also boasts the renowned Seymour Apple Festival, an homage to its history as the largest apple producer in the state.

Ozarks Health Commission

Recognizing the value of assessing and acting together on local health issues, key players from local hospital systems, public health entities, behavioral health systems and others formed a working group to begin the task of a regional health assessment.

This group grew under the umbrella of the local Ozarks Health Commission (OHC). This first-time collaboration of this size in the area spans four states—Missouri, Oklahoma, Arkansas and Kansas—51 counties and four hospital systems. This footprint will be referred to throughout the report as the OHC Region, a map of which can be found in the Executive Summary.

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4 Webster County, Missouri, http://www.webstercountymo.gov/about-webster-county/
This assessment, along with the resulting implementation plan, will allow decision-makers to have a more holistic and up-to-date picture with which to strategically address community health concerns in their own jurisdictions. This report outlines priorities and data for the Springfield Community—all other Communities’ reports can be found at ozarkshealthcommission.org.

**Primary Health Needs Identified**

After careful analysis of the community health data, multiple health needs were identified and the following priorities were selected:

- **Lung Disease**
  
  Lung disease continues to impact the health and wellness of too many in our community.

- **Cardiovascular Disease**
  
  As a leading cause of death, cardiovascular disease is wreaking havoc on our community.

- **Mental Health**
  
  Mental health issues are a result of a multitude of factors and cause a magnitude of negative effects to our community.

**Common Threads**

Throughout this assessment, common threads often emerged in discussion around data and findings. While not explicitly identified as priority health issues, the Ozarks Health Commission recognizes the importance of highlighting the impact of these common threads on the health issues in the report.

In studying these common threads, the Ozarks Health Commission used the Socioecological Model\(^5\) as a framework to examine the impact on health issues. The Socioecological Model recognizes a wide range of factors working together to impact health and includes influences at the individual, interpersonal, organizational, community, and policy levels. Each of these common threads can impact health issues

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\(^5\) Centers for Disease Control and Prevention, [http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html](http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html)
at levels throughout the model, and as such, community partners targeting to affect the common threads should consider action throughout the spectrum of the model. Throughout the common threads section, the Socioecological Model will be referenced to suggest possible strategies and provide context.

**Socioecological Model**

![Socioecological Model Diagram]

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**Access to Appropriate Care**

The understanding of and the ability to access appropriate care and treatment is critical to improve and maintain quality of life while reducing the burden of disease.

Accessing healthcare has always been a struggle within our country, and has long been recognized as an issue, especially for vulnerable populations. Out of this need, safety net providers, such as Federally Qualified Health Centers and Rural Health Clinics, have arisen. Additionally, various federal and state programs have been implemented and changed to provide increased access to care: most notably Medicare, Medicaid and the Affordable Care Act. Despite numerous efforts, access to appropriate health care

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remains a concern for many. Currently, 20.8% of Americans do not have adequate access to healthcare services. The OHC Region also faces challenges to accessing care, with 25.2%, an estimated 576,000 people, without health insurance. Those without care face obvious health challenges since they are not as able to adequately treat acute issues or chronic diseases, resulting in further exacerbation of the condition, reducing quality of life and resulting in early death.\(^7\)

Accessing care can be a multi-faceted and complex challenge that spans all diseases and conditions and is closely connected with each of the seven assessed health issues. Examining some of the community health data more closely, there is concerning data within the OHC Region. The rate of preventable hospital events that are considered to be ambulatory care sensitive in the OHC Region is 67.7 per 1,000 Medicare enrollees, compared with a national rate of 59.2. There are fewer care physicians in the OHC Region: 63.6 per 100,000, compared to the nation’s rate of 74.5. Most alarming is the percent of people living in a designated Health Professional Shortage Area, which is 60.5%, compared to 34.1% of the national population. This concern is further supported by the community survey and focus groups that were conducted. The survey demonstrated many individuals face challenges with accessing care and the cost of health care, which suggests a challenge with being uninsured or underinsured. Of the nine community focus groups, access to care was identified as one of the emergent themes in five of the Communities.

The effect of a lack of access results in significant cost to both the individuals and communities. A 2014, Kaiser Family Foundation Report sums up the impact: “In 2013, the cost of ‘uncompensated care’ provided to uninsured individuals was $84.9 billion. Uncompensated care includes health care services without a direct source of payment. In addition, people who are uninsured paid an additional $25.8 billion out-of-pocket for their care.”\(^8\) Since the passage of the Affordable Care Act, one of the four states within the assessment, Arkansas, has expanded Medicaid. In the first few years, 275,000 estimated people now have insurance coverage, reducing the uninsured rate by 49%.\(^9\) The other three states, Kansas, Missouri and Oklahoma have not expanded Medicaid, leaving thousands without viable options for health insurance. With a Medicaid expansion, Kansas would provide coverage to an estimated additional 200,000 individuals, Missouri to 452,000 individuals and Oklahoma to 348,000.\(^10\) By expanding

\(^7\) U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, [https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services](https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services)


\(^9\) HealthInsurance.org, [https://www.healthinsurance.org/medicaid/](https://www.healthinsurance.org/medicaid/)

\(^10\) HealthInsurance.org, [https://www.healthinsurance.org/medicaid/](https://www.healthinsurance.org/medicaid/)
coverage, people have the ability to not delay treatment and prevent or mitigate the effects of disease through treatment.

While having access to care is vital to improving treatment and health for people, accessing appropriate care is equally important. This certainly includes ensuring individuals have a plan to cover the cost of care and making sure that there is appropriate provider coverage in communities; however, another important component is changing the culture to access care appropriately. Too many times individuals are using the emergency department for non-emergent issues, as is shown in the primary hospital data. While everyone can use the emergency department for non-emergent issues, the emergency departments are the least efficient and effective treatment options because the facility and staff are designed to treat emergent health needs.

Improving access to appropriate care will require changes at multiple levels of influence, including individual, community, organizational and policy levels, as indicated by the Socioecological Model. Efforts to address each assessed health issue should a) focus on improving the systems around the individual to improve health and access to appropriate care, and b) work to modify the way that individuals consume health services to ensure care is effective and efficient.

The interconnectedness of health, education, economic viability, housing and quality of life impact an individual, family and community’s ability to thrive.

Throughout the world, our country and in our own communities, factors exist that affect the ability of people to live a life that provides the best opportunity to be healthy. Health, as defined by the World Health Organization, can be considered a state of physical, mental and social well-being and not merely the absence of disease or infirmity. In considering the interconnectedness of the multitude of factors that affect health for people, social determinants of health are often described. The Institute of Medicine suggests the following description for:

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as “place.”
In addition to the more material attributes of “place,” the patterns of social engagement and sense of security and well-being are also affected by where people live. Resources that enhance quality of life can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and environments free of life-threatening toxins.

Improvements in population health may be achieved by assessing, understanding and addressing root causes of poor health which can often be traced to include the social determinants of health. This assessment analyzed the following social determinants of health:

- Unemployment
- Income level
- Poverty rate
- Population receiving SNAP benefits
- Population on Medicaid
- Free and reduced lunch rate
- Education level

Although there are other factors that affect health, these are some of the most widely used and accepted indicators of determining the health of a person. Achieving a state of health and desired quality of life requires economic stability, social and community connection, safe living arrangements, access to quality and appropriate health care and much more. Just like many aspects of life that deal with resource availability, a good state of health is often associated with more readily available resources. Poor health or a lack of health affects each and every one of us by way of personal associations and community health achievement, which ultimately affects our individual and community ability to thrive.

A good example of this is the employment sector. Employers struggle with recruiting and retaining individuals to work decent-waged jobs in some scenarios because potential employees struggle with unreliable transportation or health concerns caused by poor living conditions or lack of access to healthy foods. Communities can struggle to attract businesses that pay good wages and offer good jobs because employers do not want to reside in a place where the population is burdened by higher-than-average

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**Gornick, Marian E., “Disparities in Health Care: Methods for Studying the Effects of Race, Ethnicity, and SES on Access, Use, and Quality of health care”,**

[http://www.iom.edu/~/media/Files/Activity%20Files/Quality/NHDRGuidance/DisparitiesGornick.pdf](http://www.iom.edu/~/media/Files/Activity%20Files/Quality/NHDRGuidance/DisparitiesGornick.pdf)
prevalence of poor health indicators such as high rates of tobacco usage, obesity, heart disease and lung disease. Businesses are attracted to communities where neighborhoods thrive, educational attainment is high and employees are healthy and thriving—and therefore not a threat to the bottom line due to high health care costs as a result of preventable illness. The unemployment rate across the OHC Region (5.4%) varies by county, from 4.2% in Washington County, AR to 8.7% in Taney County, MO.

In addition to employment, the OHC Region struggles with a number of other indicators used to describe social determinants of health. As indicated by the chart below, poverty is higher in the OHC Region than across the U.S. Not shown in the chart, but worth noting, is that 27.9% of families earn more than $75,000 per year, which is much lower than the country (42.8%). Also, of those 25 years of age and older, 15.3% in the OHC Region have not received a high school diploma or equivalent, which is higher than the U.S. (14.0%).

Social determinants of health tell us a story about the way that people live and, by extension, how their lives affect the community. Ultimately, where we live, where we work and our educational attainment level have huge impacts on the quality and length of our lives. Communities that consider the health impacts of policy decisions can make a positive impact on the social determinants of health.

In considering how to apply the Socioecological Model to address the social determinants of health, it is important to understand that many of these factors are related, often in a cyclical fashion. For example, low education levels can lead to challenges finding and maintaining steady employment, which can lead to poverty, which can lead to a lack of access to educational opportunities. Armed with this understanding, the Socioecological Model can be applied to a single social determinant, such as education. Interventions should target multiple levels of influence. Yet, the
greatest population health impact will be made when policy level changes are made to target the social determinants of health.

**Tobacco Use**

High prevalence in tobacco use results in some of the biggest health concerns related to lung disease, cardiovascular disease and mental health. Interventions need to range from individual behavior change to policy change.

Awareness regarding the ill-health effects of tobacco use has grown significantly since the Surgeon General’s Report on Smoking and Health published in 1964. The report laid the foundation for tobacco control efforts in the United States. However, as the leading cause of preventable death in the United States, there is still a great deal of work to be done.

According to the most recent Surgeon General’s report published in 2014, smoking causes 87% of all lung cancer deaths, 32% of deaths due to coronary heart disease, and is responsible for 79% of all cases of chronic obstructive pulmonary disease. Nationally, 18% of adults are tobacco users. Within the OHC Region, 23% of residents use tobacco. Additionally, the prevalence in each of the nine communities identified in this report is higher than the national average. Therefore, in order to reduce the threat of death and poor quality of life among residents in the OHC Region, it is imperative that efforts are taken to reduce tobacco use.

While the evidence reveals that tobacco use can lead to complex physiological health issues, it can also complicate existing health issues. Those dealing with mental illness may smoke to curtail the severity of their mental health symptoms. According to the most recently published Centers for Disease Control and Prevention (CDC) vital sign report on smoking among adults with mental illness, 36% of adults with mental illness were current smokers, which is much higher than those without a mental illness (21%). Additionally, 48% of people with a mental illness living below the poverty level smoke cigarettes.\[12\]

Although data does not currently exist for the OHC Region regarding tobacco use among adults with mental illness, it is safe to assume that smoking in this population is significantly high considering the high rates of depression (17.5% compared to 15.5%)

\[12\] Centers for Disease Control and Prevention, [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6205a2.htm?s_cid=mm6205a2_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6205a2.htm?s_cid=mm6205a2_w)
nationals) and poverty (18.6% compared to 15% nationally) in the region. People with mental illness may not have access to tobacco cessation services and may smoke more frequently than the general population. Therefore, it is important to monitor tobacco use across all subpopulations, and use evidence-based interventions at multiple levels of influence.

According to the Socioecological Model, there are multiple levels of influence that affect a person’s behavior. The levels of influence include individual, interpersonal, organizational, community and public policy. Interventions targeting the individual level include raising awareness about the harms of first, second and third-hand smoke, providing tobacco cessation classes and offering various modes of counseling to stay tobacco-free. Tobacco cessation classes may also serve as an interpersonal intervention because of the social support offered in a group setting. Organizational interventions may include tobacco-free workplace policies, as well as insurance companies increasing rates for tobacco users. At the community level, successful strategies include changing cultural norms through high-powered, cohesive and consistent media campaigns. Finally, policy-level interventions have the greatest impact. Policy advocacy at the local, states and national levels may include increasing tobacco tax, improving warning labels on tobacco products, implementing indoor air ordinances, regulating smoking in schools and implementing comprehensive tobacco control programs.

### Physical Activity and Nutrition

Good nutrition, regular physical activity and a healthy body size are important in maintaining health and well-being and for preventing health conditions such as cardiovascular disease, diabetes and cancer.

Obesity continues to be a growing issue for the physical and economic health of our nation. The CDC reports that obesity rates in America have increased from 35% in 2011-2012 to 38% in 2013-2014. Currently, 27.1% of adults are obese, nationally. Within the OHC Region, 31.8% of adults are obese. The ramifications for this can be severe. Obesity contributes to the exacerbation of many chronic conditions including cardiovascular disease, diabetes and cancer. According to the CDC, chronic diseases are responsible for 7 out of 10 deaths each year and accounts for 86% of our nation’s health care costs. The trending increase can be attributed to the American lifestyle, with most Americans eating more and moving less.
Regular physical activity improves overall health and well-being and reduces the risk of chronic diseases and obesity. More than 80% of adults and adolescents do not meet the guidelines for physical activity. People who are physically active tend to live longer and have lower risk for cardiovascular disease, diabetes, depression and cancer. Physical activity can also help with weight control, and inactive adults have a higher risk for premature death.

Poor diets are not only a risk factor for obesity, but for other chronic diseases as well. For example, diets high in added sugar lead to health issues such as obesity, diabetes and cardiovascular disease. High dietary fat intake is a risk factor for the development of high blood lipid levels, and high dietary salt intake is a risk factor for the development of high blood pressure. In turn, high blood lipid levels and high blood pressure are significant risk factors for cardiovascular disease and other chronic diseases. Fewer than 1 in 3 adults, and an even lower proportion of adolescents, eat the recommended amount of vegetables each day.

As the Socioecological Model describes, there are multiple levels of influence that affect a person’s behavior. Interventions targeting the individual level include raising awareness about the harms of obesity, proper nutrition and the importance of regular physical activity. Exercise and nutrition classes may also serve as an interpersonal intervention because of the social support offered in a group setting. Organizational interventions may include healthy food policies, such as vending machine policies. At the community level, successful strategies include changing cultural norms through a pedestrian-friendly community that encourages walking and biking to essential resources and addressing food access concerns. Finally, policy level interventions have the greatest impact. Policy advocacy at the local, states and national levels may include increasing sugary beverage tax, nutrition labeling, regulating food advertisement, regulating nutrition and physical activity policies in schools and implementing complete streets ordinances or bicycle and pedestrian friendly policies.

Mental Health

Mental health is inextricably linked to physical health. Poor mental health can have an impact on behaviors that result in poor physical health.

The linkages between mental health conditions and physical health are still not totally understood. It is tempting to make clear distinctions between the body and the mind, but evidence continues to emerge that we should not ignore this interconnectedness and that we must acknowledge that the two cannot be thought of as separate. We
must also acknowledge that there is not a simple model that explains this relationship. Metaphorically, we cannot answer which comes first, the chicken or the egg. Poor physical health can lead to poor mental health. Conversely, poor mental health can contribute to behaviors that increase one’s risk for chronic health conditions.

Mental health is a common thread in many chronic health conditions. Depression has been linked to higher rates of cardiovascular disease and diabetes. Additionally, persons with depression tend to engage in more risk behaviors for these diseases—such as smoking, poor diet or lack of exercise—than persons without depression. A 2006 study suggests that 80% of those diagnosed with schizophrenia use tobacco products. A growing body of evidence suggests that the lack of social connectedness, particularly in older adults, contributes to poor health outcomes.

While the relationship between mental health and physical health is becoming clearer, those connections remain murky and solutions to treating the mind and body together remain elusive. But what is becoming clear is that we can no longer largely rely on providing treatment for mental health issues through our emergency departments and our criminal justice system. Mental health issues need to be addressed before crisis is reached. Community leaders need to evaluate the causes of mental illness and take preventive measures to ensure that people live in an environment that contributes to stability of body and mind.

In the case of mental health, the Socioecological Model can serve as a framework for assessment. Because many of the factors that lead to mental health issues, and vice versa, are not well understood, a thorough community mental health needs assessment should be completed. The assessment may evaluate needs or gaps that exist at the individual, interpersonal, organizational, community, and policy levels. The assessment should also study how the levels affect one another. A thorough assessment will keep organizations from assuming needs, but provide sound basis for interventions.

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2. Community Defined

For a complete list of zip codes in each county, please see Appendix A.
Demographics

<table>
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<th>Demographic Characteristics</th>
<th>Report Area</th>
<th>Total population</th>
<th>Per-capita income</th>
<th>High school graduation rate</th>
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<td></td>
<td>Christian County</td>
<td>78,724</td>
<td>$25,133</td>
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<td></td>
<td>Greene County</td>
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<td>Webster County</td>
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<td>$25,649</td>
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<td>US</td>
<td>311,536,591</td>
<td>$28,154</td>
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* Federal Poverty Line
### Population by Gender

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### Population by Age (Percent)

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<th>Report Area</th>
<th>Age 0-4</th>
<th>Age 5-17</th>
<th>Age 18-24</th>
<th>Age 25-34</th>
<th>Age 35-44</th>
<th>Age 45-54</th>
<th>Age 55-64</th>
<th>Age 65+</th>
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<tbody>
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<td>6.46%</td>
<td>16.44%</td>
<td>12.06%</td>
<td>13.71%</td>
<td>12.32%</td>
<td>13.35%</td>
<td>11.65%</td>
<td>14.00%</td>
</tr>
<tr>
<td>Christian County</td>
<td>7.19%</td>
<td>19.76%</td>
<td>7.57%</td>
<td>13.08%</td>
<td>14.00%</td>
<td>14.07%</td>
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<td>12.87%</td>
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<tr>
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<td>14.95%</td>
<td>13.91%</td>
<td>14.17%</td>
<td>11.77%</td>
<td>12.97%</td>
<td>11.65%</td>
<td>14.37%</td>
</tr>
<tr>
<td>Webster County</td>
<td>6.93%</td>
<td>20.68%</td>
<td>7.63%</td>
<td>11.48%</td>
<td>12.92%</td>
<td>14.70%</td>
<td>12.01%</td>
<td>13.65%</td>
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<tr>
<td>Missouri</td>
<td>6.38%</td>
<td>17.15%</td>
<td>9.85%</td>
<td>13.05%</td>
<td>12.34%</td>
<td>14.47%</td>
<td>12.42%</td>
<td>14.35%</td>
</tr>
<tr>
<td>US</td>
<td>6.44%</td>
<td>17.28%</td>
<td>9.97%</td>
<td>13.39%</td>
<td>13.12%</td>
<td>14.29%</td>
<td>12.08%</td>
<td>13.43%</td>
</tr>
</tbody>
</table>

### Population by Race Alone (Percent)

<table>
<thead>
<tr>
<th>Report Area</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Native American / Alaska Native</th>
<th>Native Hawaiian / Pacific Islander</th>
<th>Some Other Race</th>
<th>Multiple Races</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>92.66%</td>
<td>2.21%</td>
<td>1.24%</td>
<td>0.48%</td>
<td>0.09%</td>
<td>0.70%</td>
<td>2.60%</td>
</tr>
<tr>
<td>Christian County</td>
<td>95.95%</td>
<td>0.58%</td>
<td>0.43%</td>
<td>0.41%</td>
<td>0.00%</td>
<td>0.46%</td>
<td>2.16%</td>
</tr>
<tr>
<td>Greene County</td>
<td>91.31%</td>
<td>2.80%</td>
<td>1.61%</td>
<td>0.51%</td>
<td>0.13%</td>
<td>0.77%</td>
<td>2.87%</td>
</tr>
<tr>
<td>Webster County</td>
<td>95.91%</td>
<td>1.19%</td>
<td>0.23%</td>
<td>0.44%</td>
<td>0.02%</td>
<td>0.68%</td>
<td>1.54%</td>
</tr>
<tr>
<td>Missouri</td>
<td>82.98%</td>
<td>11.51%</td>
<td>1.65%</td>
<td>0.38%</td>
<td>0.10%</td>
<td>1.07%</td>
<td>2.32%</td>
</tr>
<tr>
<td>US</td>
<td>74.02%</td>
<td>12.57%</td>
<td>4.89%</td>
<td>0.82%</td>
<td>0.17%</td>
<td>4.73%</td>
<td>2.80%</td>
</tr>
</tbody>
</table>

### Percent Population Change by Race (2000-2010)

<table>
<thead>
<tr>
<th>Report Area</th>
<th>White</th>
<th>Black</th>
<th>American Indian / Alaska Native</th>
<th>Asian</th>
<th>Native Hawaiian / Pacific Islander</th>
<th>Other Race</th>
<th>Multiple Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>17.00%</td>
<td>46.16%</td>
<td>24.09%</td>
<td>69.10%</td>
<td>115.98%</td>
<td>65.93%</td>
<td>79.11%</td>
</tr>
<tr>
<td>Christian County</td>
<td>40.32%</td>
<td>209.66%</td>
<td>62.58%</td>
<td>150.32%</td>
<td>231.25%</td>
<td>135.65%</td>
<td>124.55%</td>
</tr>
<tr>
<td>Greene County</td>
<td>11.57%</td>
<td>45.45%</td>
<td>17.25%</td>
<td>66.73%</td>
<td>109.66%</td>
<td>57.45%</td>
<td>77.56%</td>
</tr>
<tr>
<td>Webster County</td>
<td>16.70%</td>
<td>-9.19%</td>
<td>20.20%</td>
<td>-8.64%</td>
<td>0.00%</td>
<td>41.67%</td>
<td>29.40%</td>
</tr>
<tr>
<td>Missouri</td>
<td>4.44%</td>
<td>10.17%</td>
<td>9.17%</td>
<td>59.24%</td>
<td>97.01%</td>
<td>75.57%</td>
<td>51.82%</td>
</tr>
<tr>
<td>US</td>
<td>4.89%</td>
<td>15.27%</td>
<td>21.65%</td>
<td>43.27%</td>
<td>47.12%</td>
<td>24.03%</td>
<td>32.16%</td>
</tr>
</tbody>
</table>
### Population by Ethnicity Alone

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>393,229</td>
<td>11,345</td>
<td>2.89%</td>
<td>381,884</td>
<td>97.11%</td>
<td>93.17%</td>
<td>18.09%</td>
</tr>
<tr>
<td>Christian County</td>
<td>78,724</td>
<td>2,042</td>
<td>2.59%</td>
<td>76,682</td>
<td>97.41%</td>
<td>165.83%</td>
<td>40.98%</td>
</tr>
<tr>
<td>Greene County</td>
<td>278,231</td>
<td>8,676</td>
<td>3.12%</td>
<td>269,555</td>
<td>96.88%</td>
<td>85.09%</td>
<td>13.14%</td>
</tr>
<tr>
<td>Webster County</td>
<td>36,274</td>
<td>627</td>
<td>1.73%</td>
<td>35,647</td>
<td>98.27%</td>
<td>53.00%</td>
<td>16.14%</td>
</tr>
<tr>
<td>Missouri</td>
<td>6,007,182</td>
<td>219,705</td>
<td>3.66%</td>
<td>5,787,477</td>
<td>96.34%</td>
<td>79.16%</td>
<td>5.47%</td>
</tr>
<tr>
<td>US</td>
<td>311,536,608</td>
<td>51,786,592</td>
<td>16.62%</td>
<td>259,750,000</td>
<td>83.38%</td>
<td>42.70%</td>
<td>4.09%</td>
</tr>
</tbody>
</table>

### Families with Children

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Households</th>
<th>Total Family Households</th>
<th>Families with Children (Under Age 18)</th>
<th>Families with Children (Under Age 18), Percent of Total Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>157,894</td>
<td>101,574</td>
<td>48,859</td>
<td>30.94%</td>
</tr>
<tr>
<td>Christian County</td>
<td>29,652</td>
<td>22,601</td>
<td>11,405</td>
<td>38.46%</td>
</tr>
<tr>
<td>Greene County</td>
<td>115,574</td>
<td>69,461</td>
<td>32,696</td>
<td>28.29%</td>
</tr>
<tr>
<td>Webster County</td>
<td>12,668</td>
<td>9,512</td>
<td>4,758</td>
<td>37.56%</td>
</tr>
<tr>
<td>Missouri</td>
<td>2,360,131</td>
<td>1,540,854</td>
<td>731,384</td>
<td>30.99%</td>
</tr>
<tr>
<td>US</td>
<td>115,610,216</td>
<td>76,744,360</td>
<td>37,741,108</td>
<td>32.65%</td>
</tr>
</tbody>
</table>

### Children Eligible for Free/Reduced Price Lunch

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Students</th>
<th>Number Free / Reduced Price Lunch Eligible</th>
<th>Percent Free / Reduced Price Lunch Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>59,678</td>
<td>27,088</td>
<td>45.85%</td>
</tr>
<tr>
<td>Christian County</td>
<td>14,645</td>
<td>5,245</td>
<td>37.34%</td>
</tr>
<tr>
<td>Greene County</td>
<td>39,792</td>
<td>19,206</td>
<td>48.27%</td>
</tr>
<tr>
<td>Webster County</td>
<td>5,241</td>
<td>2,637</td>
<td>50.31%</td>
</tr>
<tr>
<td>Missouri</td>
<td>913,399</td>
<td>408,726</td>
<td>45.49%</td>
</tr>
<tr>
<td>US</td>
<td>49,936,793</td>
<td>25,615,437</td>
<td>51.70%</td>
</tr>
</tbody>
</table>

### Uninsured Children

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>92,318</td>
<td>85,242</td>
<td>92.34%</td>
<td>7,076</td>
<td>7.66%</td>
</tr>
<tr>
<td>Christian County</td>
<td>21,799</td>
<td>20,222</td>
<td>92.80%</td>
<td>1,577</td>
<td>7.20%</td>
</tr>
<tr>
<td>Greene County</td>
<td>60,404</td>
<td>56,057</td>
<td>92.80%</td>
<td>4,347</td>
<td>7.20%</td>
</tr>
<tr>
<td>Webster County</td>
<td>10,115</td>
<td>8,963</td>
<td>88.60%</td>
<td>1,152</td>
<td>11.40%</td>
</tr>
<tr>
<td>Missouri</td>
<td>1,444,067</td>
<td>1,337,602</td>
<td>92.63%</td>
<td>106,464</td>
<td>7.37%</td>
</tr>
<tr>
<td>US</td>
<td>76,468,844</td>
<td>70,705,585</td>
<td>92.46%</td>
<td>5,763,259</td>
<td>7.54%</td>
</tr>
</tbody>
</table>
### Uninsured Population

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (For Whom Insurance Status is Determined)</th>
<th>Total Uninsured Population</th>
<th>Percent Uninsured Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>387,855</td>
<td>60,034</td>
<td>15.48%</td>
</tr>
<tr>
<td>Christian County</td>
<td>78,180</td>
<td>10,202</td>
<td>13.05%</td>
</tr>
<tr>
<td>Greene County</td>
<td>274,162</td>
<td>42,366</td>
<td>15.45%</td>
</tr>
<tr>
<td>Webster County</td>
<td>35,351</td>
<td>7,466</td>
<td>21.02%</td>
</tr>
<tr>
<td>Missouri</td>
<td>5,892,726</td>
<td>776,915</td>
<td>13.18%</td>
</tr>
<tr>
<td>US</td>
<td>306,448,480</td>
<td>45,569,668</td>
<td>14.87%</td>
</tr>
</tbody>
</table>

### Health Services Available

#### At-Risk Populations

At-risk populations include those population groups that experience more difficulties, on average, with healthcare access or experience a higher disease burden as compared to the larger population. At-risk populations tend to have issues that are related to communication, healthcare access, independence, supervision or transportation services. For the purpose of this assessment, data for at-risk population groups such as race, ethnicity, poverty, age, disability and health insurance status are reviewed for the Report area of Christian, Greene and Webster Counties in Missouri. All data is pulled from the Community Health Needs Assessment Report prepared by Community Commons. See Appendix H.

#### Race

Health disparities are defined by the United States Department of Health and Human Services (USDHSS) as “differences in health outcomes that are closely linked with social, economic and environmental disadvantage.”¹ These differences are often caused by unfavorable environmental, political and social conditions that create an environment that fosters inequities. In general, racially and ethnically diverse populations are more likely to struggle with poverty, lack of access to healthcare and low socioeconomic status which leads to poorer health outcomes.² The Demographic Tables starting on page 2-2 reflect the racial and ethnic diversity of the Springfield Community.

---

**Poverty**

Low-income residents often postpone seeking medical attention until health problems become aggravated, creating a greater demand on a given community’s medical resources. This includes reliance upon emergency department services for otherwise routine primary care. Often uninsured, the low-income demographics’ inability to pay for services further strains the medical network. Low-income residents are also less mobile, requiring medical services in localized population centers, placing additional pressure on those providers already in high demand. Understanding the extent of poverty within the population, therefore, helps determine an accurate picture of demand. As seen on page 2-7, the poverty rates for the Springfield Community ranked unfavorably when compared to Missouri’s and national averages.

**Vulnerable Footprint**

Below is a Vulnerable Populations Footprint of the Springfield Community created by Community Commons. The orange highlighted areas indicate areas where at least 20% of the population lives below the federal poverty level. The dark orange highlighted areas are those where at least 20% of the population lives below the federal poverty level and at least 20% of the population has completed education less than high school. The purple area, which falls outside of the Springfield Community report area, indicates a region where at least 20% of the population has completed education less than high school.
Number of People living below 100% of FPL 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population</th>
<th>Population in Poverty</th>
<th>Percent Population in Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>378,784</td>
<td>64,506</td>
<td>17.03%</td>
</tr>
<tr>
<td>Christian County</td>
<td>77,781</td>
<td>8,229</td>
<td>10.58%</td>
</tr>
<tr>
<td>Greene County</td>
<td>265,575</td>
<td>49,571</td>
<td>18.67%</td>
</tr>
<tr>
<td>Webster County</td>
<td>35,428</td>
<td>6,706</td>
<td>18.93%</td>
</tr>
<tr>
<td>Missouri</td>
<td>5,826,484</td>
<td>900,929</td>
<td>15.46%</td>
</tr>
<tr>
<td>US</td>
<td>303,692,064</td>
<td>46,663,432</td>
<td>15.37%</td>
</tr>
</tbody>
</table>

Percent Living in Poverty by Gender, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Male</th>
<th>Total Female</th>
<th>Percent Male</th>
<th>Percent Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>28,762</td>
<td>35,744</td>
<td>15.56%</td>
<td>18.43%</td>
</tr>
<tr>
<td>Christian County</td>
<td>3,594</td>
<td>4,635</td>
<td>9.5%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Greene County</td>
<td>21,969</td>
<td>27,602</td>
<td>17%</td>
<td>20.25%</td>
</tr>
<tr>
<td>Webster County</td>
<td>3,199</td>
<td>3,507</td>
<td>17.97%</td>
<td>19.89%</td>
</tr>
<tr>
<td>Missouri</td>
<td>403,935</td>
<td>496,994</td>
<td>14.22%</td>
<td>16.64%</td>
</tr>
<tr>
<td>US</td>
<td>20,955,836</td>
<td>25,707,598</td>
<td>14.11%</td>
<td>16.57%</td>
</tr>
</tbody>
</table>

Population in Poverty by Ethnicity, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Hispanic / Latino</th>
<th>Total Not Hispanic / Latino</th>
<th>Percent Hispanic / Latino</th>
<th>Percent Not Hispanic / Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>3,302</td>
<td>61,204</td>
<td>30.32%</td>
<td>16.64%</td>
</tr>
<tr>
<td>Christian County</td>
<td>258</td>
<td>7,971</td>
<td>12.69%</td>
<td>10.52%</td>
</tr>
<tr>
<td>Greene County</td>
<td>2,920</td>
<td>46,651</td>
<td>35.39%</td>
<td>18.13%</td>
</tr>
<tr>
<td>Webster County</td>
<td>124</td>
<td>6,582</td>
<td>20.53%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Missouri</td>
<td>57,625</td>
<td>843,304</td>
<td>27.1%</td>
<td>15.02%</td>
</tr>
<tr>
<td>US</td>
<td>12,507,866</td>
<td>34,155,568</td>
<td>24.66%</td>
<td>13.5%</td>
</tr>
</tbody>
</table>

Percent of Population in Poverty by Race, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>White</th>
<th>Black or African American</th>
<th>Native American / Alaska Native</th>
<th>Asian</th>
<th>Native Hawaiian / Pacific Islander</th>
<th>Some Other Race</th>
<th>Multiple Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>16.06%</td>
<td>34.65%</td>
<td>20.05%</td>
<td>23.78%</td>
<td>24.72%</td>
<td>34.59%</td>
<td>29.56%</td>
</tr>
<tr>
<td>Christian County</td>
<td>9.97%</td>
<td>26.41%</td>
<td>32.3%</td>
<td>0%</td>
<td>No data</td>
<td>5.92%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Greene County</td>
<td>17.63%</td>
<td>34.85%</td>
<td>18.71%</td>
<td>26.13%</td>
<td>23.21%</td>
<td>39.49%</td>
<td>27.32%</td>
</tr>
<tr>
<td>Webster County</td>
<td>18.26%</td>
<td>44.08%</td>
<td>5.77%</td>
<td>0%</td>
<td>100%</td>
<td>35.92%</td>
<td>49.63%</td>
</tr>
<tr>
<td>Missouri</td>
<td>13.09%</td>
<td>29.17%</td>
<td>23.94%</td>
<td>15.94%</td>
<td>24.02%</td>
<td>30.25%</td>
<td>25.14%</td>
</tr>
<tr>
<td>US</td>
<td>12.53%</td>
<td>27.13%</td>
<td>28.56%</td>
<td>12.53%</td>
<td>19.58%</td>
<td>26.82%</td>
<td>20.06%</td>
</tr>
</tbody>
</table>

Number and Percent of Children Living Below 100% of the FPL, 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>378,784</td>
<td>87,477</td>
<td>19,976</td>
<td>22.84%</td>
</tr>
<tr>
<td>Christian County</td>
<td>77,781</td>
<td>20,709</td>
<td>3,002</td>
<td>14.5%</td>
</tr>
<tr>
<td>Greene County</td>
<td>265,575</td>
<td>56,871</td>
<td>14,071</td>
<td>24.74%</td>
</tr>
<tr>
<td>Webster County</td>
<td>35,428</td>
<td>9,897</td>
<td>2,903</td>
<td>29.33%</td>
</tr>
<tr>
<td>Missouri</td>
<td>5,826,484</td>
<td>1,383,754</td>
<td>299,285</td>
<td>21.63%</td>
</tr>
<tr>
<td>US</td>
<td>303,692,064</td>
<td>72,748,616</td>
<td>15,701,799</td>
<td>21.58%</td>
</tr>
</tbody>
</table>
Percent of Children Living in Poverty by Race, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>White</th>
<th>Black or African American</th>
<th>Native American / Alaska Native</th>
<th>Asian</th>
<th>Native Hawaiian / Pacific Islander</th>
<th>Some Other Race</th>
<th>Multiple Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>20.78%</td>
<td>43.61%</td>
<td>29.13%</td>
<td>10.6%</td>
<td>46.81%</td>
<td>50.21%</td>
<td>36.48%</td>
</tr>
<tr>
<td>Christian County</td>
<td>13.36%</td>
<td>0%</td>
<td>78.57%</td>
<td>0%</td>
<td>No data</td>
<td>0%</td>
<td>42.86%</td>
</tr>
<tr>
<td>Greene County</td>
<td>22.3%</td>
<td>44.96%</td>
<td>21.66%</td>
<td>11.26%</td>
<td>44.03%</td>
<td>56.94%</td>
<td>33.52%</td>
</tr>
<tr>
<td>Webster County</td>
<td>28.09%</td>
<td>77.78%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>69.9%</td>
<td>57.14%</td>
</tr>
<tr>
<td>Missouri</td>
<td>16.7%</td>
<td>41.58%</td>
<td>33.86%</td>
<td>13.73%</td>
<td>37.62%</td>
<td>36.89%</td>
<td>29.09%</td>
</tr>
<tr>
<td>US</td>
<td>12.96%</td>
<td>38.18%</td>
<td>36.27%</td>
<td>13.14%</td>
<td>25.94%</td>
<td>35.8%</td>
<td>22.63%</td>
</tr>
</tbody>
</table>

Percent of Children Living in Poverty by Ethnicity, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Hispanic / Latino</th>
<th>Total Not Hispanic / Latino</th>
<th>Percent Hispanic / Latino</th>
<th>Percent Not Hispanic or Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>1,495</td>
<td>18,481</td>
<td>36.24%</td>
<td>22.17%</td>
</tr>
<tr>
<td>Christian County</td>
<td>105</td>
<td>2,897</td>
<td>12.24%</td>
<td>14.59%</td>
</tr>
<tr>
<td>Greene County</td>
<td>1,295</td>
<td>12,776</td>
<td>43.14%</td>
<td>23.72%</td>
</tr>
<tr>
<td>Webster County</td>
<td>95</td>
<td>2,808</td>
<td>35.85%</td>
<td>29.15%</td>
</tr>
<tr>
<td>Missouri</td>
<td>27,213</td>
<td>272,072</td>
<td>33.55%</td>
<td>20.89%</td>
</tr>
<tr>
<td>US</td>
<td>5,526,724</td>
<td>10,175,075</td>
<td>32.39%</td>
<td>18.27%</td>
</tr>
</tbody>
</table>

**Elderly and Disabled Populations**

The elderly and disabled are considered medically vulnerable because they are often unable to care for themselves due to age, illness or physical or mental disability. It is possible that an individual may develop health issues and become unable to function normally, or increasing age or lack of function may lead to new health issues. Therefore, it is important to understand where these populations exist so strategies can be developed to support and meet the needs of these individuals and their families to prevent the exacerbation of existing health issues or new health issues from developing. As indicated in the tables below, the population of people 65 years of age and older in the Springfield Community is higher than that of the nation, but lower than the OHC Region. Additionally, the percent of people living with a disability in the Springfield Community is higher than the nation, but lower than the OHC Region.

Population with Any Disability

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (For Whom Disability Status is Determined)</th>
<th>Total Population with a Disability</th>
<th>Percent Population with a Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>387,855</td>
<td>50,641</td>
<td>13.06%</td>
</tr>
<tr>
<td>Christian County</td>
<td>78,180</td>
<td>8,565</td>
<td>10.96%</td>
</tr>
<tr>
<td>Greene County</td>
<td>274,162</td>
<td>36,896</td>
<td>13.46%</td>
</tr>
<tr>
<td>Webster County</td>
<td>35,513</td>
<td>5,180</td>
<td>14.59%</td>
</tr>
<tr>
<td>Missouri</td>
<td>5,892,726</td>
<td>825,674</td>
<td>14.01%</td>
</tr>
<tr>
<td>US</td>
<td>306,448,480</td>
<td>37,168,876</td>
<td>12.13%</td>
</tr>
</tbody>
</table>

OZARKS HEALTH COMMISSION
Uninsured Populations

The lack of health insurance is a primary barrier to healthcare access, including primary care, specialty care and other health services. The lack of employment offered health insurance or limited finances often prevent people from obtaining health insurance. Health insurance coverage status for each county in the Springfield Community versus the state of Missouri and the United States is demonstrated below. It is clear that the proportion of uninsured population in the Springfield Community is higher than the national and state averages.

### Number and Percent of Uninsured Population, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (For Whom Insurance Status is Determined)</th>
<th>Total Uninsured Population</th>
<th>Percent Uninsured Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>387,855</td>
<td>60,034</td>
<td>15.48%</td>
</tr>
<tr>
<td>Christian County</td>
<td>78,180</td>
<td>10,202</td>
<td>13.05%</td>
</tr>
<tr>
<td>Greene County</td>
<td>274,162</td>
<td>42,366</td>
<td>15.45%</td>
</tr>
<tr>
<td>Webster County</td>
<td>35,513</td>
<td>7,466</td>
<td>21.02%</td>
</tr>
<tr>
<td>Missouri</td>
<td>5,892,726</td>
<td>776,915</td>
<td>13.18%</td>
</tr>
<tr>
<td>US</td>
<td>306,448,480</td>
<td>45,569,668</td>
<td>14.87%</td>
</tr>
</tbody>
</table>

### Percentage of Uninsured Population by Age Group, 2014

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Under Age 18</th>
<th>Age 18 – 64</th>
<th>Age 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>9.21%</td>
<td>21.06%</td>
<td>0.16%</td>
</tr>
<tr>
<td>Christian County</td>
<td>6.3%</td>
<td>18.72%</td>
<td>0.44%</td>
</tr>
<tr>
<td>Greene County</td>
<td>8.28%</td>
<td>21.11%</td>
<td>0.11%</td>
</tr>
<tr>
<td>Webster County</td>
<td>20.81%</td>
<td>25.96%</td>
<td>0%</td>
</tr>
<tr>
<td>Missouri</td>
<td>6.73%</td>
<td>18.54%</td>
<td>0.42%</td>
</tr>
<tr>
<td>US</td>
<td>7.61%</td>
<td>20.59%</td>
<td>0.97%</td>
</tr>
</tbody>
</table>

### Uninsured Population by Race Alone, Percent

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Non-Hispanic White</th>
<th>Black or African American</th>
<th>Native American / Alaska Native</th>
<th>Asian</th>
<th>Native Hawaiian / Pacific Islander</th>
<th>Some Other Race</th>
<th>Multiple Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield Community</td>
<td>14.77%</td>
<td>21.48%</td>
<td>20.38%</td>
<td>22.66%</td>
<td>31.79%</td>
<td>33.33%</td>
<td>16.81%</td>
</tr>
<tr>
<td>Christian County</td>
<td>12.53%</td>
<td>11.44%</td>
<td>13.04%</td>
<td>0%</td>
<td>No data</td>
<td>9.3%</td>
<td>19.42%</td>
</tr>
<tr>
<td>Greene County</td>
<td>14.48%</td>
<td>22.66%</td>
<td>24.5%</td>
<td>24.8%</td>
<td>32.49%</td>
<td>39.11%</td>
<td>16.96%</td>
</tr>
<tr>
<td>Webster County</td>
<td>21.68%</td>
<td>1.36%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>18.78%</td>
<td>6.46%</td>
</tr>
<tr>
<td>Missouri</td>
<td>11.51%</td>
<td>19.49%</td>
<td>21.7%</td>
<td>14.99%</td>
<td>21.13%</td>
<td>27.32%</td>
<td>14.3%</td>
</tr>
<tr>
<td>US</td>
<td>10.42%</td>
<td>17.52%</td>
<td>27.92%</td>
<td>14.95%</td>
<td>17.6%</td>
<td>33.22%</td>
<td>14.07%</td>
</tr>
</tbody>
</table>
Health Professional Shortage Areas

Medically Underserved Areas/Populations are areas or populations designated by the Health Resources and Services Administration (HRSA) as having too few primary care providers, high infant mortality, high poverty or a high elderly population. Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of primary medical care, dental or mental health providers and may be geographic (a county or service area), population (e.g. low income or Medicaid eligible) or facilities (e.g. federally qualified health center or other state or federal prisons). All three counties in the Springfield Community are designated as Medically Underserved Areas by HRSA.

### Designated Health Professional Shortage Area (HPSA) By County and Type, 2016

<table>
<thead>
<tr>
<th>County</th>
<th>Designated HPSA?</th>
<th>HPSA Score*</th>
<th>Designated HPSA?</th>
<th>HPSA Score*</th>
<th>Designated HPSA?</th>
<th>HPSA Score*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian County</td>
<td>No</td>
<td>-</td>
<td>Yes</td>
<td>11</td>
<td>Yes</td>
<td>15</td>
</tr>
<tr>
<td>Greene County</td>
<td>Yes</td>
<td>17</td>
<td>Yes</td>
<td>15</td>
<td>Yes</td>
<td>15</td>
</tr>
<tr>
<td>Webster County</td>
<td>Yes</td>
<td>16</td>
<td>Yes</td>
<td>17</td>
<td>Yes</td>
<td>15</td>
</tr>
</tbody>
</table>

* HPSA score is developed by the National Health Service Corps (NHSC) in determining priorities for assignment of clinicians. The scores range from 1 to 26, where the higher the score, the greater the priority.

### Health Professionals Rate Per 100,000 By County and Type- 2013

<table>
<thead>
<tr>
<th>County</th>
<th>Physician Assistants</th>
<th>Total Physicians</th>
<th>Primary Care Physicians</th>
<th>Nurse Practitioners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian County</td>
<td>22.2</td>
<td>121.1</td>
<td>40.8</td>
<td>19.5</td>
</tr>
<tr>
<td>Greene County</td>
<td>41.2</td>
<td>317.4</td>
<td>103.9</td>
<td>85.4</td>
</tr>
<tr>
<td>Webster County</td>
<td>11</td>
<td>19.2</td>
<td>16.5</td>
<td>35.2</td>
</tr>
</tbody>
</table>

### Physician Rate Per 100,000 By County and Specialty- 2013

<table>
<thead>
<tr>
<th>County</th>
<th>Total Physicians</th>
<th>General/Family Practice</th>
<th>Internal Medicine</th>
<th>Pediatrics</th>
<th>OB GYN</th>
<th>General Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian County</td>
<td>121.1</td>
<td>26</td>
<td>6.2</td>
<td>30.3</td>
<td>9.7</td>
<td>4.9</td>
</tr>
<tr>
<td>Greene County</td>
<td>317.4</td>
<td>49.7</td>
<td>39.1</td>
<td>62.2</td>
<td>24.8</td>
<td>13.4</td>
</tr>
<tr>
<td>Webster County</td>
<td>19.2</td>
<td>16.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Missouri</td>
<td>211.4</td>
<td>30.5</td>
<td>25.3</td>
<td>57.3</td>
<td>19.9</td>
<td>9</td>
</tr>
</tbody>
</table>

---

4 Health Resources and Services Administration, [http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx](http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx)
5 Health Resources and Services Administration, [http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx](http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx)
Facilities to Meet the Needs of At-Risk Populations

Hospital and Specialty Providers

There are four acute care hospitals in the Springfield Community that provide a wide range of services to meet the health needs of area residents. Each facility provides inpatient, outpatient and emergency care services. Below is a list of facilities in the Springfield Community. A more comprehensive list of hospital and specialty providers is provided in Appendix B.

<table>
<thead>
<tr>
<th>County</th>
<th>Name</th>
<th>City</th>
<th>Number of Beds</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greene</td>
<td>Cox Medical Center South</td>
<td>Springfield</td>
<td>644</td>
<td>Acute Care</td>
</tr>
<tr>
<td>Greene</td>
<td>Cox North Hospital</td>
<td>Springfield</td>
<td>75</td>
<td>Acute Care</td>
</tr>
<tr>
<td>Greene</td>
<td>Mercy Hospital Springfield</td>
<td>Springfield</td>
<td>886</td>
<td>Acute Care</td>
</tr>
<tr>
<td>Greene</td>
<td>Ozarks Community Hospital</td>
<td>Springfield</td>
<td>35</td>
<td>Acute Care</td>
</tr>
</tbody>
</table>

Long-Term Care Facilities

Characteristics of long-term care facilities in the area are shown in the following tables. Residential Care Facilities are licensed to provide services 24 hours a day to adults who are not capable of independent living and who require assistance and supervision. To be eligible, individuals must be independently mobile, capable of responding to reminders and guidance from staff, and capable of self-administering medication. Skilled Nursing Facilities (SNFs) provide skilled nursing care and treatment services commonly performed by or under the supervision of a registered professional nurse. Individuals living in an SNF require twenty-four hour care and other nursing functions requiring specialized judgment and skill. Assisted Living Facilities provide services to residents 24 hours a day in performing all activities of daily living. They also provide limited nursing care.

<table>
<thead>
<tr>
<th>Characteristics of Long Term Care Facilities By Type, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Facility</strong></td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Skilled Nursing Facility</td>
</tr>
<tr>
<td>Residential Care Facility I</td>
</tr>
<tr>
<td>Residential Care Facility II</td>
</tr>
<tr>
<td>Assisted Living Facility, Level 1</td>
</tr>
<tr>
<td>Assisted Living Facility, Level 2</td>
</tr>
<tr>
<td>Intermediate Care Facility</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Federally Qualified Health Centers

There are different levels of community-based health centers that serve at-risk populations. Community health centers that received federal designation from HRSA are Federally Qualified Health Centers (FQHCs) and are eligible for federal funding to support operations and specific reimbursements under Medicare and Medicaid programs. FQHCs are nonprofit or public organizations that provide comprehensive primary care services to medically underserved areas or populations. FQHCs are required to offer services to all people regardless of their ability to pay and offer a sliding scale program to reduce costs for those with limited finances\(^8\).

Other types of community health centers that do not have FQHC designation are FQHC Look-Alikes which meet all Health Center Program requirements set by the federal government but do not receive federal funding. Community Health Centers encompass a wide range of facility-types that offer a variety of health services to the community. Below is a list of FQHCs in the Springfield Community:

<table>
<thead>
<tr>
<th>County</th>
<th>Name</th>
<th>City</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greene</td>
<td>Jordan Valley Community Health Center</td>
<td>Springfield</td>
<td>(417)831-0150</td>
</tr>
<tr>
<td>Greene</td>
<td>Jordan Valley Community Health Center</td>
<td>Republic</td>
<td>(417)851-1565</td>
</tr>
<tr>
<td>Webster</td>
<td>Fordland Clinic, Inc.*</td>
<td>Fordland</td>
<td>(417)767-2273</td>
</tr>
<tr>
<td>Webster</td>
<td>Jordan Valley Community Health Center</td>
<td>Marshfield</td>
<td>(417)831-0150</td>
</tr>
</tbody>
</table>

\(^*\)Federally Qualified Health Center Look-A-Like

Public Health Departments

Public health departments operate to promote and protect the health of people and the communities where they live, work and play. Most local public health agencies offer preventive screenings, health education, immunizations, family planning and many other health services at a free or reduced cost to prevent poor health outcomes. Below is a list of all public health facilities in the Springfield Community:

<table>
<thead>
<tr>
<th>County</th>
<th>Name</th>
<th>City</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian</td>
<td>Christian County Health Department</td>
<td>Ozark</td>
<td>(417)581-7285</td>
</tr>
<tr>
<td>Greene</td>
<td>Springfield-Greene County Health Department</td>
<td>Springfield</td>
<td>(417)864-1658</td>
</tr>
<tr>
<td>Webster</td>
<td>Webster County Health Unit</td>
<td>Marshfield</td>
<td>(417)859-2532</td>
</tr>
</tbody>
</table>

\(^8\) Rural Health Information Hub, [https://www.ruralhealthinfo.org/topics/federally-qualified-health-centers](https://www.ruralhealthinfo.org/topics/federally-qualified-health-centers)

\(^9\) Health Resources and Services Administration, [http://datawarehouse.hrsa.gov/tools/analyzers/HpsaFindResults.aspx](http://datawarehouse.hrsa.gov/tools/analyzers/HpsaFindResults.aspx)
Mental Health Providers

The Missouri Department of Mental Health’s Division of Behavioral Health contracts with and certifies mental health providers across the state to provide prevention, education, evaluation, intervention, treatment and rehabilitation. All programs are required to meet federal and state requirements to provide mental health and substance abuse treatment services. A comprehensive list of designated mental health providers in the Springfield Community is provided in the Resource Inventory in Appendix B.

Resource Inventory

A complete resource inventory can be found in Appendix B.

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10 Missouri Department of Mental Health, [http://dmh.mo.gov/mentalinllness/about.html](http://dmh.mo.gov/mentalinllness/about.html)
3. Input from Community

Beyond just the numbers, Ozark Health Commission (OHC) members wanted input and buy-in from citizens in each Community. To this end, a survey was administered covering the entire OHC Region. Preliminary results from that survey informed the themes of the focus groups, which specifically targeted at-risk members of each Community—medically underserved and low-income populations. The steering committee of the OHC was also composed of a variety of organizations representing multiple diverse perspectives. More detail on survey responses and focus group participants and findings can be found in the Methodology section of this report.

Ozarks Health Commission Steering Committee Membership

**Danielle Dingman**  
*Community Wellness Coordinator*  
CoxHealth

**Clay Goddard**  
*Assistant Director of Health*  
Springfield-Greene County Health Department

**Aaron Lewis**  
*Manager – Community Benefit*  
Mercy

**Carmen Parker-Bradshaw**  
*Director – Community Benefit*  
Mercy

**Tony Moehr**  
*Administrator*  
Jasper County Health Department

**Jon Mooney**  
*Administrator of Chronic Disease Prevention*  
Springfield-Greene County Health Department

**Lisa Nelson**  
*Grant Program Supervisor*  
Freeman Health System

**Robert Niezgoda**  
*Director of Health*  
Taney County Health Department

**Dan Pekarek**  
*Director of Health*  
Joplin City Health Department

**Paul Thomlinson**  
*Vice President of Research & Quality Assurance*  
Burrell Behavioral Health
For a full list of organizations represented in the survey as well as a full list of OHC contributors, please see Appendices C and D.
4. Methodology

Introduction

The partners of the Ozark Health Commission developed a multi-faceted approach to collect data and complete the assessment. Throughout the process research was conducted to find evidence-based methods to help guide the committee. When evidence-based resources were not available, the committee used logic and rationale to create methods that would not inhibit progress of the assessment. The committee began the discussion of data collection and analysis with the end in mind—determining what data was needed to best understand and, subsequently, improve health in the community. The group decided to use a comprehensive approach to provide greater breadth and depth of information. The core of the data to be used in the assessment was secondary community health indicators, as the data is already available across various health categories. Secondly, the committee determined that having primary hospital data was a key component of the assessment. Not only does the data provide a unique and timely examination of a community’s health, but it also provides the collaborative process to pilot this type of collection and use of hospital data. Third, to garner the perspective of partners and individuals within each of the Communities, it was decided that both a survey and focus groups would be conducted to provide first-hand information and feedback on health issues.

Throughout the primary and secondary data collection, the steering committee provided direction, feedback and guidance; whereas, the detailed research and efforts took place within subcommittees or with third-party contractors. The majority of the research and development of the methods was completed by four subcommittees. The subcommittees completed work on community health secondary data indicators, survey development and linkages to focus groups, primary hospital data indicators, and health issues and prioritization. The following sections within this section provide additional information on the work of the four subcommittees. Much of the work completed by the subcommittees happened concurrently, with the majority of the work occurring between May 2015 and February 2016.
Assessment Process

The assessment includes a two-step logic model to drive health outcomes. A logic model is composed of inputs, activities, outputs, and outcomes. Model 1 walks through the process of completing the assessment, whereas Model 2 looks forward to the implementation of health improvement strategies. In Model 1, the majority of the work includes developing methods and collecting information needed to identify and prioritize health needs, which are detailed in this chapter of the report. The inputs in Model 1 provide all the information and resources needed to conduct activities, which then assembles it into a usable format for the Communities. The activities focus on developing the ranking to identify health needs. The outputs represent the health priorities that have been determined for each Community. The outcome represents the subsequent Community Health Implementation Plans that will be developed in response to the needs identified in the assessment. The process within Model 1 leads into Model 2, which ultimately leads to improved health outcomes.

Model 1: Assessment

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community health data, Primary hospital data, Survey, &amp; Focus group</td>
<td>Health issues &amp; Ranking system</td>
<td>Health priorities</td>
<td>Strategies to improve health priorities</td>
</tr>
</tbody>
</table>

Model 2 looks more like a traditional logic model. Partners bring together resources, time, and collaborative efforts to develop and implement programs, policies, and system change. These activities result in changes to individuals, families, businesses, and the community at-large. The effect of these activities is demonstrated in improved health outcomes. The two-step logic model allows our lengthy and complicated process to be quickly explained and understood.

Model 2: Implementation

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time, Resources, Collaboration</td>
<td>Programs, Policy, &amp; System Change</td>
<td>People impacted, policies implemented</td>
<td>Improved health indicators</td>
</tr>
</tbody>
</table>
Secondary Data

Secondary Data Process

A committee on community health secondary data indicators was formed to identify indicators, collect and compile relevant data, and conduct an initial assessment of the findings. The committee was comprised of public health partners from the steering committee. The committee began their work to develop the methods and data collection in March 2015. The committee first completed research on health needs assessments conducted by other healthcare and public health throughout the nation. This research helped develop the set of indicators the committee would examine. The examination focused on recommendations of the CDC and several assessments identified as high quality by the National Association of City and County Health Officials¹. The following category of indicators were identified: demographics, social determinants of health, nutrition, quality of life, environmental quality, access to health services, clinical preventive services, physical activity and obesity, tobacco, maternal, infant and child health, substance abuse, behavioral health, oral health, reproductive health and sexual health, communicable and chronic disease, hospitalizations, death and mortality, and injury and violence. As indicators were selected, they were also defined and sources were identified. The committee determined the indicators would be collected at the county-level and then combined into the Community-level for comparison. County-level data is available for individual Communities, health systems, public health agencies, and partners to examine the data on a more granular level.

To collect the secondary data, a graduate-level student was hired as an intern. The student collected and compiled more than 150 indicators from May 2015 through August 2015, which can be located in Appendix E. The primary collection point of data was Community Commons, through the Community Health Needs Assessment portion of the website.² Data was also collected from County Health Rankings³ and the U.S. Census Bureau.⁴ These sources provide a comprehensive dataset that are available for all counties within the OHC Region. While the data was collected from the online tools mentioned above, the sources of the data are from the following 27 datasets: U.S. Census Bureau, American Community Survey, 2009-2013 & 2008-2012⁵, U.S. Census

¹ National Association of City and County Health Officials, http://archived.naccho.org/topics/infrastructure/accreditation/exemplary-sets-of-prereqs.cfm
² Community Commons, http://www.communitycommons.org/maps-data/
³ County Health Rankings & Roadmaps, http://www.countyhealthrankings.org/
⁴ U.S. Census Bureau, http://www.census.gov/
⁵ U.S. Census Bureau, http://www.census.gov/programs-surveys/acs/

\textsuperscript{6} U.S. Census Bureau, \url{http://www.census.gov/prod/www/decennial.html}
\textsuperscript{7} U.S. Department of Labor, \url{http://www.bls.gov/}
\textsuperscript{8} National Center for Education Statistics, \url{http://nces.ed.gov/ccd/}
\textsuperscript{9} U.S. Census Bureau, \url{http://www.census.gov/geo/maps-data/data/tiger.html}
\textsuperscript{10} Feeding America, \url{http://www.feedingamerica.org/}
\textsuperscript{11} U.S. Department of Housing and Urban Development, \url{http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing}
\textsuperscript{12} U.S. Census Bureau, \url{http://www.census.gov/econ/cbp/index.html}
\textsuperscript{13} Federal Bureau of Investigation, \url{https://www.fbi.gov/about-us/cjis/ucr/ucr}
\textsuperscript{14} Centers for Disease Control and Prevention, \url{http://www.cdc.gov/brfss/index.html}
\textsuperscript{15} Centers for Disease Control and Prevention, \url{http://www.cdc.gov/nceh/}
\textsuperscript{16} U.S. Environmental Protection Agency, \url{http://www3.epa.gov/enviro/facts/sdwis/search.html}
\textsuperscript{17} Centers for Disease Control and Prevention, \url{http://www.cdc.gov/obesity/strategies/healthy-food-env.html}
\textsuperscript{19} Nielsen, \url{http://www.claritas.com/sitereports/default.jsp}
\textsuperscript{20} Centers for Disease Control and Prevention, \url{http://www.cdc.gov/chronicdisease/index.htm}
\textsuperscript{21} U.S. Census Bureau, \url{http://www.census.gov/did/www/sahie/}
\textsuperscript{22} The Dartmouth Institute for Health Policy & Clinical Practice, \url{http://tdi.dartmouth.edu/}
\textsuperscript{23} U.S. Department of Health & Human Services, \url{http://ahrf.hrsa.gov/}
\textsuperscript{24} Centers for Medicare & Medicaid Services, \url{https://www.cms.gov/Regulations-and-Guidance/HIPAA-Administrative-Simplification/NationalProvIdentStand/index.html}
\textsuperscript{25} Centers for Medicare & Medicaid Services, \url{https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/NonIdentifiableDataFiles/ProviderofServicesFile.html}
As the secondary data was collected and compiled, it was also aggregated into selected Communities and placed into comparison tables to allow for a side-by-side examination of the data between Communities, the OHC Region, states and the nation. The committee then took the data and began to put some context with the indicators, which occurred in September and October 2015. The committee first reviewed each indicator to determine the relevance of the data based on the definition and significance of the dataset. Subsequently, the committee made observations about the indicators and how the OHC Region and Communities performed in comparison to the nation, states and the OHC Region. After the data was reviewed, the committee provided their findings to the steering committee. The following are the key findings of the collection of the community health indicators. Key findings within each category are provided. For a comprehensive list of comparison tables refer to Appendix F. For the county-level information that was used to create comparison tables, refer to Appendix G for the OHC Regional breakdown and Appendix H for the Community-specific breakdown. Appendix I includes data collected from sources other than Community Commons.

**OHC Region Secondary Data Findings**

**Demographics**

**Population**

The OHC Region is comprised of both rural and urban settings. Most of the Communities are less dense than the nation, but overall the OHC Region is growing more quickly the remainder of the nation.

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27 Centers for Disease Control and Prevention, [http://www.cdc.gov/nchhstp/](http://www.cdc.gov/nchhstp/)
28 Centers for Disease Control and Prevention, [http://www.cdc.gov/nchs/nvss.htm](http://www.cdc.gov/nchs/nvss.htm)
29 Centers for Medicare & Medicaid Services, [https://www.cms.gov/](https://www.cms.gov/)
• Region: 2.3 million; ranges from Rogers: 514,842 to Monett: 96,994
• Density: 65.23 people per square mile (US average: 88.23); ranges from Springfield: 214.87 to Boonville: 25.09
• Metropolitan Statistical Areas (MSA): Fayetteville-Springdale-Rogers, Fort Smith, Joplin, Springfield-Branson
• Population Growth: 15.08% (US: 9.74%) growth from 2000-2010; ranges from Rogers: 31.5% to Boonville: 4.45%
• Variance in Age Groups: Bolivar: 21.75% of population age 65 or older (Region: 15.35%, US: 13.43%)

Racial, Ethnic and Linguistic Diversity

In general, the OHC Region lacks racial, ethnic and linguistic diversity. White is the overwhelming majority in most of the Communities. Some Communities have greater amounts of racial and ethnic diversity, but still fall short of the national average. Additionally, there is less linguistic diversity throughout the OHC Region.

- White/Caucasian: 87.95% (US 74.02%); ranges from Bolivar: 96.51% to Rogers: 80.44%
- Native American/Alaska Native: 2.43% (US: 0.82%); ranges from Fort Smith: 4.84% to Bolivar: 0.31%
- Black/African American: 1.95% (US: 12.57%); ranges from Fort Smith: 3.24% to Branson: 0.38%
- Asian: 1.46% (US: 4.89%); ranges from Rogers: 2.49% to Bolivar: 0.38%
- Some Other Race: 2.31% (US: 4.73%); ranges from Rogers: 5.99% to Bolivar: 0.41%
- Hispanic Latino: 7.06% (US: 16.62%); ranges from Rogers: 13.88% to Bolivar: 1.86%

• Foreign Born: 4.83% (US: 12.95%); ranges from Rogers: 9.89% to Bolivar: 1.27%
• Linguistically Isolated Population: 2.05% (US: 4.76%); ranges from Rogers: 4.34% to Lebanon: 0.49%
• Limited English Proficiency: 3.64% (US: 8.63%); ranges from Rogers: 7.54% to Lebanon: 1.22%

Social Determinants of Health

Income and Poverty

The OHC Region as whole is more economically depressed than the United States. Income is less than the nation and poverty is higher than the nation. Medicaid rates are
higher than the nation which is likely due, in part, to Arkansas’s expansion of Medicaid in 2013.

- **Unemployment**: 5.4% (US: 5.9%); ranges from Springfield: 4.6% to Branson: 10.1%
- **Per Capita Income**: $21,597 (US: $28,154); ranges from Boonville: $18,683 to Rogers: $24,123
- **Children Below 100% Federal Poverty Level**: 26.68% (US: 21.58%); ranges from Springfield: 22.84% to Bolivar: 33.7%
- **Children Below 200% Federal Poverty Level**: 55.06% (US: 43.81%); ranges from Springfield: 49.69% to Boonville: 62.46%
- **Population Below 100% Federal Poverty Level**: 18.61% (US: 15.37%); ranges from Springfield: 17.03% to Fort Smith: 20.87%
- **Population Below 200% Federal Poverty Level**: 43.37% (US: 34.23%); ranges from Springfield: 39.33% to Boonville: 50.29%
- **Population Enrolled in Medicaid**: 22.15% (US: 20.21%); ranges from Springfield: 17.16% to Boonville: 28.93%
- **Children Eligible for Free/Reduced Price Lunch Program**: 57.63% (US: 51.7%); ranges from Springfield: 45.85% to Boonville: 72.01%

**Vulnerable Populations**

The OHC Region has a greater percent of the population with a disability, but a lesser percent of single female households compared to the nation.

- **Population with Any Disability**: 15.97% (US: 12.13%); ranges from Rogers: 12.23% to Boonville: 21.02%
- **Female Householder, No Husband Present**: 10.24% (US: 13.1%); ranges from Booneville: 8.3% to Fort Smith: 11.8%

**Education**

The OHC Region tends to be less educated than the nation; however the current high school graduation rate for the OHC Region is higher.

- **Population with Associate’s Level Degree or Higher**: 26.88% (US: 36.65%); ranges from Springfield: 33.77% to Boonville: 17.06%
- **Population with No High School Diploma**: 15.30% (US: 13.98%); ranges from Springfield: 10.08% to Boonville: 20.91%
- **High School Graduation Rate**: 83.10% (US: 75.5%); ranges from Springfield: 87.20% to Fort Smith: 78.40%
Nutrition

The OHC Region performs similarly to the nation and includes indicators both above and below the national average. Overall, the OHC Region appears to have access to the Supplemental Nutrition Assistance Program (SNAP) and Women, Infants, and Children (WIC) stores, less access to fast food, but tends to not have high access to healthy food. There is limited data on dietary behaviors and some of the data that is available is dated.

• *Population in Tracts with High Healthy Food Access:* 3.59% (US: 5.02%); ranges from Lebanon: 10.56% to Springfield: 0%
• *Population in Tracts with No Healthy Food Outlet:* 27.42% (US: 18.63%); ranges from Rogers: 19.45% to Joplin: 41.42%
• *Fast Food Restaurant Access:* 63.34 establishments per 100,000 (US: 72.74); ranges from Monett: 40.08 to Springfield: 84.36
• *SNAP- Authorized Food Store Access:* 86.27 establishments per 100,000 (US: 78.44); ranges from Monett: 101.73 to Springfield: 75.62
• *WIC- Authorized Food Store Access:* 15.2 establishments per 100,000 (US: 15.6); ranges from Monett: 19.6 to Springfield: 11.9
• *Ate Fruits and Vegetables Less Than 5 Times per Day:* 80.48% (US: 75.67%); ranges from Rogers: 78.92% to Lebanon: 82.63% (data is from 2005-2009)

Quality of Life

Quality of life greatly affects health. There is considerable variation from the top performing to bottom performing Communities, and in all of the measures 1 or more Community performs better than the nation.

• *Food Insecurity Rate:* 15.99% (US: 15.94%); ranges from Monett 14.56% to Fort Smith: 17.65%
• *Substandard Housing Environment:* 29.05% (US: 36.11%); ranges from Monett: 27.22% to Springfield: 30.93%
• *Vacancy Rate:* 16.25% (US: 12.45%); ranges from Springfield: 8.43% to Bolivar: 37.9%
• *Violent Crime Rate:* 354.6 per 100,000 residents (US: 395.5); ranges from Boonville: 235.4 to Springfield: 466.4
• *Lack of Social Support:* 18.75% (US: 20.68%); ranges from Springfield: 16.07% to Monett: 28.72%
• *Number of Poor Mental Health Days:* 3.61 in the last 30 days; ranges from Fort Smith: 3.37 to Bolivar: 4.67
Environmental Quality

The environmental quality of the OHC Region is generally healthier than the nation with better air quality rates; however, the use of public transportation is significantly lower than the nation.

- **Air Quality – Particulate Matter 2.5**: 0.25% (US: 1.19%); ranges from Springfield: 0.05% to Booneville: 0.75%
- **Air Quality Index – Ozone**: 0% (US: 0.47%)
- **Water Quality – Drinking Water Violations**: 5.49%; ranges from Springfield: 2.88% to Booneville: 23.59%
- **Use of Public Transportation**: 0.37% (US: 5.01%); ranges from Rogers: 0.49% to Joplin: 0.2%

Access to Health Services

In general the OHC Region has a greater population of uninsured adults and children. All races and ethnicities in the OHC Region, besides the Hispanic population, perform poorly compared to the nation. The OHC Region also has less access to care, providers and resources.

- **Uninsured adults**: 25.19% (US: 20.76%); ranges from Springfield: 20.93% to Booneville: 30.18%
  - White/Caucasian: 15.49%; (US: 10.42%) ranges from Rogers: 13.74% to Branson: 18.37%
  - Native American/Alaska Native: 28.26% (US: 27.92%); ranges from Joplin: 11.02% to Branson: 41.55%
  - Black/African American: 20.72% (US: 17.52%); ranges from Lebanon: 12.83% to Branson: 55.83%
  - Asian: 22.18% (US: 14.95%); ranges from Lebanon: 18.21% to Joplin: 57.32%
  - Some Other Race: 33.22% (US: 33.22%); ranges from Rogers: 30.12% to Joplin: 81.25%
  - Hispanic Latino: 32.3% (US: 29.62%); ranges from Lebanon: 21.39% to Fort Smith: 37.86%
- **Uninsured Children**: 8.83% (US: 7.54%); ranges from Springfield: 7.66% to Monett: 11.39%
- **Access to Primary Care**: 63.6/100,000 (US: 74.5); ranges from Springfield: 83.17 to Monett: 43.35
- **Access to dentists**: 42.96/100,000 (US: 63.18); ranges from Springfield: 56.58 to Booneville: 28.66
• *Mental health providers*: 564.72; ranges from Springfield: 420.58 to Branson: 1631.30

• *Federally Qualified Health Centers*: 2.28 (US: 1.92); ranges from Monett: 5.14 to Springfield: 1.29

• *Population Living in a Health Professional Shortage Area*: 60.54% (US: 34.07%); ranges from Rogers: 20.04% to Joplin and Monett: 100%

• *Lack of a Consistent Source of Primary Care*: 24.32% (US: 22.07%); ranges from Monett: 12.42% to Fort Smith: 29.28%

**Clinical Preventive Services**

The OHC Region has lower clinical preventive screenings and services compared to the nation; however, some Communities performed better than the nation.

• *Mammography screening*: 58.2% (US: 62.98%); ranges from Springfield: 63.84% to Booneville: 50%

• *Hemoglobin A1c Test*: 81.58% (US: 84.57%); ranges from Springfield: 89.49% to Fort Smith: 75.49%

• *Cervical Screening (Pap smear)*: 70.91% (US: 78.48%); ranges from Rogers: 75.22% to Joplin: 66.35%

• *Colon Cancer Screenings*: 53.4% (US: 61.34%); ranges from Springfield: 64.71% to Booneville: 43.53%

**Physical Activity and Obesity**

Obesity affects the entire OHC Region, which has a higher rate than the nation. The OHC Region also performs poorly on physical activity with the majority of the population being sedentary.

• *Obesity*: 31.81% (US: 27.14%); ranges from Springfield: 29.3% to Fort Smith: 36.65%

• *Physical Inactivity*: 27.61% (US: 22.64%); ranges from Springfield: 22.46% to Booneville: 33.79%

• *Access to Exercise Opportunities*: 64.59%; ranges from Springfield: 77.54% to Bolivar: 50.50%

**Tobacco**

The rate of tobacco use in the OHC Region is higher than the nation, with all Communities above the national rate.

• *Tobacco Usage*: 23.49% (US: 18.08%); Healthy People 2020 Target: 12.0%; ranges from Rogers: 20.12% to Monett: 30.77%
Maternal, Infant and Child Health

The OHC Region has a higher teen pregnancy rate compared to the nation but performs better in low birth weight rates.

- **Teen Births**: 50.25/1,000 (US: 36.6); ranges from Springfield: 35.26 to Booneville: 68.63
- **Low Birth Weight**: 7.32% (US: 8.2%); Healthy People 2020 Target: 7.8%; ranges from Bolivar: 6.58% to Fort Smith: 7.97%

Substance Abuse

The majority of the OHC Region has a lower rate of alcohol abuse compared to the nation.

- **Alcohol Consumption**: 12.94% (US: 16.94%); ranges from Branson: 4.9% to Monett: 17.4%

Behavioral Health

The OHC Region performs poorly in behavioral health, with higher rates of suicide and depression than the nation.

- **Suicide**: 16.42/100,000 (US: 11.82); Healthy People 2020 Target: 10.2; ranges from Springfield: 14.14 to Lebanon: 22.13
- **Depression (Medicare Population)**: 17.51% (US: 15.45%); ranges from Booneville 14.54% to Springfield: 20.45%

Oral Health

The oral health of the OHC Region is worse than the nation. All Communities in the OHC Region have a higher percentage of under-utilizing dental care and poor dental health.

- **Dental Care Utilization**: 39.19% (US: 30.15%); ranges from Lebanon: 36.02% to Monett: 65.21%
- **Poor Dental Health**: 22.16% (US: 15.65%); ranges from Rogers: 18.12% to Monett: 31.47%
Reproductive Health and Sexual Health

The OHC Region performs well compared to national rates in sexual health. In general, the rates are higher in more urban settings, such as Rogers and Springfield.

- **Chlamydia Incidence**: 340.73/100,000 (US: 456.7); ranges from Bolivar: 199.03 to Springfield: 412.01
- **Gonorrhea Incidence**: 51.3/100,000 (US: 107.5); ranges from Branson: 17.38 to Springfield: 97.65
- **HIV/AIDS Prevalence**: 106.94/100,000 (US: 340.37); ranges from Bolivar: 31.41 to Springfield 167.36

Communicable and Chronic Disease

The chronic disease morbidity rates for the OHC Region are higher than the national rates. The OHC Region also has higher incidence rates for cervical and lung cancer than the nation.

- **Poor General Health**: 18.3% (US: 15.74%); ranges from Springfield: 15.1% to Booneville: 22.43%
- **Breast Cancer Incidence**: 108.6/100,000 (US: 122.7); Healthy People 2020 Target: 40.9; ranges from Joplin: 95.7 to Springfield: 123.5
- **Cervical Cancer Incidence**: 8.61/100,000 (US: 7.8); Healthy People 2020 Target: 7.1; ranges from Springfield: 6.4 to Branson: 14.5
- **Colon and Rectum Cancer Incidence**: 42.3/100,000 (US: 43.3); Healthy People 2020 Target: 38.7; ranges from Branson: 37.24 to Lebanon: 45.62
- **Lung Cancer Incidence**: 71.96/100,000 (US: 64.9); ranges from Rogers: 63.28 to Booneville: 83.32
- **Prostate Cancer Incidence**: 115.03/100,000 (US: 142.3); ranges from Joplin: 86.46 to Rogers: 134.29
- **Heart Disease Morbidity**: 5.68% (US: 4.40%); ranges from Branson: 3.87% to Lebanon: 7.77%
- **Cerebrovascular Disease/Stroke Morbidity**: 47.55/100,000 (US: 40.39); ranges from Branson: 40.85 to Monett: 55.76
- **High Blood Pressure Morbidity**: 30.05% (US: 28.16%); ranges from Branson: 26.62% to Booneville: 34.23%
- **High Cholesterol Morbidity**: 40.57% (US: 38.52%); ranges from Rogers: 33.65% to Fort Smith: 51.52%
- **Diabetes Morbidity**: 9.93% (US: 9.11%); ranges from Springfield: 8.41% to Fort Smith: 11.69%
- **Asthma Prevalence**: 13.37% (US: 13.36%); ranges from Lebanon: 10.69% to Joplin: 15.9%
Hospitalizations

In general, the OHC Region has a higher preventable hospitalization rate than the nation; however, three of the nine Communities have a lower rate than the nation.

- Preventable Hospital Events: 67.69/1,000 (US: 59.24); ranges from Springfield: 49.53 to Booneville: 92.14

Death and Mortality

The OHC Region performs more poorly in all listed mortality rates then the nation. The OHC Region has more than 1,500 premature deaths than the national average.

- Premature Death: 8,442/100,000 (US: 6,851); ranges from Rogers: 7,239 to Fort Smith: 9,921
- Stroke Mortality: 47.55/100,000 (US: 40.39); ranges from Branson: 40.85 to Monett: 55.76
- Ischaemic Heart Disease Mortality: 150.45/100,000 (US: 118.96); ranges from Springfield: 126.88 to Fort Smith: 186.58
- Heart Disease Mortality: 220.91/100,000 (US: 184.55); ranges from Springfield: 197.39 to Booneville: 265.36
- Cancer Mortality: 186.72/100,000 (US: 174.08); ranges from Springfield: 172.44 to Fort Smith: 205.6
- Lung Disease Mortality: 56.61/100,000 (US: 42.67); ranges from Branson: 48.38 to Booneville: 67.46
- Unintentional Injury Mortality: 54.38/100,000 (US: 38.85); Healthy People 2020: 36.0; ranges from Rogers: 41.91 to Bolivar: 66.93
- Motor Vehicle Accident: 11.55/100,000 (US: 7.55); ranges from Rogers: 8.31 to Bolivar: 18.63
- Pedestrian Accident: 0.8 (US: 1.38); Healthy People 2020 Target: 1.3; ranges from Branson: 0.2 to Fort Smith 1.4
- Homicide: 4.23/100,000 (US: 5.63); Healthy People 2020: 5.5; ranges from Rogers and Springfield 3.35 to Lebanon: 7.35
- Infant Mortality: 6.56/1,000 (US: 6.52); ranges from Monett: 5.82 to Lebanon: 7.44

Injury and Violence

In general, the OHC Region performs well compared to the nation in violent crime rates.

- Violent Crime: 354.6/100,000 (US: 395.5); ranges from Lebanon: 274.1 to Springfield: 466.4
Primary Hospital Data

Another key component of the assessment was the collection of the partnering hospitals’ Emergency Department (ED) data. The steering committee determined that this data was essential for the assessment process, because it provided current information about the specific Communities and populations that are being assessed. It also helps in identifying community specific needs, therefore assisting in the creation of the strategic implementation plans. The combination of individual hospital data to this extent had not been attempted in the OHC Region. As such, the committee felt that it was essential to identify key indicators that would provide valuable information, but not overwhelm either the individual organizations or the collaborative process. To develop a process to determine the indicators and collection methods, a Primary Hospital Data Committee was created. The committee was comprised of hospital representatives from three of the four partnering systems and public health representatives. The committee began meeting in September of 2015 and completed its work by February 2016.

The Hospital Data Committee chose to focus on patients that enter the health systems through the ED, because the ED captures patients with all insurance types, including those without insurance. This approach provides the opportunity to assess potential health disparities across patient groups. Also, the Hospital Data Committee wanted to assess the impact of mental health illness in the OHC Region. Therefore, the data collected emphasized patients with a primary and/or secondary mental health diagnosis. The list below includes all data sets collected by each hospital partner:

- ED Only vs ED Admitted
- ED by Top 20 Patient Home Zip Codes
- ED by Emergency Severity Index
- ED by Principal Diagnosis Group
- ED by Age Groups
- ED by Principal Diagnosis Group, Age 0-17
- ED by Principal Diagnosis Group, Age 18-64
- ED by Principal Diagnosis Group, Age 65+
- ED by Payer Group
- ED by Payer Group, by Principal Diagnosis Group
- ED by Patient Race
- ED by Patient Race (Top 5 Race Groups by Volume), by Principal Diagnosis
- ED Visits with a Behavioral Health (BH) Principal Diagnosis by Top 20 Coded Diagnosis
- ED Visits with a BH Secondary Diagnosis (non BH Principal) by Principal Diagnosis Group
Each facility utilized their respective organization’s analytics team. Also, each facility used their previous fiscal year; therefore, the date ranges varied. ICD-9 diagnosis groups (first three digits only) were used to ensure consistent data collection across facilities. In order to identify behavioral health diagnoses, analytics teams used The American Academy of Professional Coders (AAPC) Top 50 Behavioral Health Codes. When each hospital finished analysis, the Hospital Data Committee combined ED data sets in Communities with more than 1 ED. This approach maintained the collaborative nature of the Regional Health Assessment and provided a holistic perspective of community health needs.

**Primary Hospital Data—Springfield Findings**

**ED by Top 20 Patient Home Zip Codes**

There are three EDs in the Springfield Community. All facilities are located in Springfield, Missouri. The majority (59%) of ED patients in the Springfield Community reside in the Springfield area, as well as surrounding cities such as Nixa, Ozark and Republic. The table below indicates there is a fairly even distribution of the top 20 zip codes of ED patients that visited all EDs, with 65803 and 65802 accounting for 28% of patients.

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<td>Ava</td>
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<td>Ava</td>
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<td>All Other Zip Codes</td>
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<td>All Cases</td>
<td>100.00%</td>
<td>All Cases</td>
<td>100.00%</td>
<td></td>
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</tbody>
</table>
However, over 58% of ED patients that visited the northern facility reside in 65803 and 65802, which is in north Springfield. It is important to note this variation because, as the data will show, there is a higher rate of mental health diagnoses and uninsured and underinsured patients, as well as differing demographics than the patients that visit the other EDs. In order to capture the needs of those in north Springfield, the data presented in this narrative will compare All EDs, EDs excluding the Northern ED, and the Northern ED.

**ED by Payer Group**

Of all ED patients, 29% had Medicare, 27% had Commercial insurance, 25% had Medicaid, and 19% did not have health insurance. When comparing the patient population that visits the Northern ED to that of the other facilities, there is a 52% increase in the number of patients with Medicaid and 46% increase in those without health insurance.
ED Only vs ED Admitted

Approximately 21% of patients presenting to all EDs were admitted to a hospital and 79% were discharged after being treated. Of those that visit the Northern ED, 91% were treated and released.

ED by Emergency Severity Index

Emergency Severity Index (ESI) is a score assigned to a patient after being evaluated by a nurse shortly after entering the ED. A score of 1 indicates the highest acuity level, whereas a score of 5 indicates the lowest acuity level. For example, a minor, non-life threatening laceration requiring stitches may receive an ESI of 5, whereas a patient experiencing cardiac arrest may receive an ESI of 1. Approximately, 1% of patients presenting to any ED received an ESI of 1, 25% received ESI of 2, 45% received an ESI of 3, 24% received an ESI of 4, and 2% received an ESI of 5. Two percent were unassigned. At the Northern ED, there is a 62% increase in the number of patients that received an ESI of 4 compared to the other facilities.

ED by Age Groups

Overall, 65% of ED patients are between the ages of 18 to 64. Fourteen percent are children 0-17, and 21% are over the age of 65. At the northern facility over 21% of patients are children. Considering nearly 43% of patients at this facility have Medicaid, and Medicaid patients between 6 to 17 years of age live at or below 150% of the federal poverty line, it is likely that the majority children at this facility have Medicaid.

ED by Patient Race

In all EDs, 91% of patients are Caucasian, 4% are Black or African American, and 3% are Hispanic or multiracial. There is slightly more variation at the Northern ED: 86% are Caucasian, 9% are Black or African American, and 5% are Hispanic or multiracial.

ED by Principal Diagnosis Group

For the purposes of the assessment, the committee analyzed Principal Diagnoses Groups that specifically related to six assessed health issues: Cardiovascular Disease, Lung Disease, Mental Health, Maternal and Infant Health, Cancer and Diabetes. Oral Health is not easily segmented in the primary data due to grouping diagnoses into the first three digits of ICD-9 coding. In this section of the narrative, we will discuss the hospital primary data findings of these specific health issues. Also, for clarification, the

group of issues assessed for this report will be referred to as Assessed Health Issues [AHI].

Of all ED visits, 27% are related to AHI. The chart below indicates the percent of ED visits for all AHI. Lung disease accounts for 37% of visits for the total of these conditions.

ED by Principal Diagnosis Group, By Age Group

The primary hospital data reveals that health needs vary by age group. The chart below illustrates how the rate of visits due to all health issues changes across age groups:

ED by Principal Diagnosis by Age Group (AHI only)
In children age 0-17, the most pressing health issue is Lung Disease which accounts for 77% of visits for all AHI and Mental Health accounts for 17%. In adults age 18-64, Cardiovascular Disease accounts for 34% of AHI, Mental Health accounts for 23% and Lung Disease accounts for 17%.

In adults age 65 and older, Cardiovascular Disease accounts for the overwhelming majority of visits for all AHI at 54%. Lung Disease counts for 16% and Diabetes accounts for 15%.

**ED by Payer Group, by Principal Diagnosis Group**

The chart below illustrates ED by payer for all AHI.

![ED by Payer for Health Assessment Issues](image)

Lung Disease accounts for 45% of visits for those with Medicaid and 40% of visits for those without health insurance. To note, mental health disorders account for 42% of AHI for the uninsured. For patients with Medicare, 33% of all AHI visits are due to Cardiovascular Disease, 30% due to Lung Disease, and 27% due to Mental Health needs. For patients with commercial health insurance, 37% are due to Lung Disease and 32% due to Mental Health issues.

---

ED Visits with a Behavioral Health Principal Diagnosis by Top 20 Coded Diagnosis Group

To gain an understanding of the type of mental issues affecting area residents, hospitals collected information about ED visits with a behavioral health primary diagnosis. The data reveals that 24% of all ED visits are due to episodic mood disorders, 19% due to anxiety, dissociative and somatoform disorders, 14% due to nondependent abuse of drugs, and 11% due to depressive disorder and issues not classified in other coding groups. To note, there is a 73% increase in the number of patients that present to the Northern ED that received an episodic mood disorder diagnosis as compared to the other EDs in the Springfield Community.

ED Visits with a BH Secondary Diagnosis (non BH Principal) by Principal Diagnosis Group

It is possible that when a person presents to the ED for a health issue, such as cardiovascular needs, they may also have an underlying mental health issue which is identified in the ED. The provider in the ED may give this patient a primary diagnosis related to the cardiovascular issue and a secondary mental health diagnosis. The chart below compares patients that received a primary diagnosis of 1 of the AHI, but did not have a secondary mental health diagnosis to those that had both the primary diagnosis and the secondary mental health diagnosis.

Comparison of all visits to visits with mental health secondary diagnosis

- Percent of visits with both primary diagnosis and secondary mental health diagnosis
- Percent of visits with primary diagnosis only

<table>
<thead>
<tr>
<th>Condition</th>
<th>Both Diagnoses</th>
<th>Primary Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung Disease</td>
<td>35.2%</td>
<td>37.3%</td>
</tr>
<tr>
<td>Cardiovascular Disease</td>
<td>33.1%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Mental Disorders</td>
<td>24.1%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>10.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Maternal and Child Health</td>
<td>6.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Cancer</td>
<td>3.0%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>
Community Survey

A committee was formed to create and implement the survey used in the assessment. The committee also used the initial findings of the survey to help develop the questions for the focus groups. The committee began meeting in June 2015 and was comprised of hospital, academic and public health partners.

The committee met regularly over a two-month period to develop the survey. As the goals were determined, the committee decided that, although the survey could provide useful information, a full-scale scientific process including question validation would not be used. With that in mind, the survey committee performed a scan of other community surveys that had been conducted throughout the nation to guide and inform the process. As the committee reviewed other surveys, themes and approaches to guide the questioning emerged. In particular, the focus became to garner feedback from residents in the OHC Region on prioritizing issues that are barriers to improved health. In addition, the committee determined that there was significant value in obtaining perspectives on health from both individuals and organizations that provide services to the community. As a result, an additional survey that had minor adjustments made for the organizational perspective was also administered. After the survey was developed, it was approved through the Intuitional Review Board through the Office of Research Administration at Missouri State University and translated into Spanish. The full survey can be found in the Appendix J of this report.

Survey Process

As is common with many surveys, basic demographic information was collected. On the individual survey it included: age, gender, race/ethnicity, educational attainment, the presence of children in the home and geography (zip code). On the organizational side, it included: the type and size of organization and geography (county). The survey included three Likert-based matrices. The matrices focused on ability to access care, severity and impact of health issues, and the severity and impact of social issues on health. A four-point Likert scale was used for one of the questions and the other two used a different five-point Likert scale. Each included options for not having enough information to answer the question and for the question not applying to the respondent. Three ranking questions were focused on placing priorities on health issues, social issues and health improvement opportunities. In one of the questions, respondents were asked to identify the top issue of concern. In the other two, they were asked to rank the top 3 items. In addition, 7 other questions were asked, primarily...
focusing on their perception of the community (e.g. Is the community a good place to raise children?).

Survey Monkey was used to streamline the data collection, compilation and analysis. The survey included four potential paths based on 2 links (English and Spanish) and the first question (Individual or Organization). The announcement of the survey was made through a joint effort of all participating partners with a coordinated press release. Individual organizations promoted the completion of the survey through email, networking, social media and promotion at point of service within facilities. Incentives were not offered to participants at any point of survey collection. To maximize the response rate, the survey was kept open and promoted from August 2015 until December 2015. Preliminary results were collected at the beginning of November 2015 to inform the line of questioning developed for the focus groups. Final results were then tabulated in December 2015 and January 2016. The following are the key findings of the survey, which were then used to help develop a line of questioning to be used in the focus groups and to provide the committee with some feedback, albeit not validated, on the concerns of both individuals and organizations in the OHC Region.

**Survey Findings**

The survey had a total of 2,542 responses. Of these responses, 2,521 (99%) were in English and 21 (1%) were in Spanish. There were 1,586 individual responses, which was 62.4% of the total, and 956 organizational responses, representing 37.6% of total responses. Responses for both the organizational (county) and individual (zip code) surveys were generally focused in the more dense populations—Branson, Fort Smith, Joplin, Lebanon, Rogers and Springfield. The following heat maps illustrate the distribution of responses.
Figure 1. Individual survey responses, represented by Zip Code

Figure 2. Organizational survey responses, represented by County
Organizational Responses

There are several key findings from the organizational survey. The following is a brief review of the findings. A full set of findings from the survey can be found in Appendix K of the report. Participants were asked to respond for the population served by their organization. The majority of participating partners (72%) identified themselves as working in health care.

- In evaluating access to care, the greatest perceived difficulty was accessing behavioral health services (33% had great difficulty access care or were not able to access care), followed closely by dental care (27%). Specialist (18%) and primary care (15%) presented some challenge, with the Emergency Department having limited challenges to access.
- Respondents' top five concerns with regards to health issues (rated very serious or serious) were the cost of health (60% of respondents), unhealthy lifestyles (54%), mental health (51%), chronic disease (44%) and alcohol and substance abuse (43%).
- When ranking the top three barriers to improved health, the same three issues arose (500 people completed the question). The top three barriers, based on total responses, were unhealthy lifestyles (306 responses), cost of health care (296) and mental health (207). When examining only the top barrier to health, the same three are present, in a slightly different order: cost of health (147), unhealthy lifestyle (116) and mental health (59).
- The top three concerns were not feeling connected (18%), domestic violence (20%) and not having adequate housing (27%). Additionally, housing was seen as the number 1 barrier to health (52% of 405 respondents).

Individual Responses

The individual portion of the survey also provided some interesting findings, but did not align as expected with the organizational responses. Of the respondents, 78% were female; 3% identified themselves as Hispanic, 92% identified themselves as white; 36% had children living in the home; and overall the group was highly educated with 54% having a Bachelor's degree or higher, 35% with some college and 11% with a high school diploma or less.

- In terms of accessing care, only 1 of the items, primary care, was as high as 10% in having great difficulties or were unable to get the care.
- Only two issues were above the threshold of 10% when rating health concerns as serious or very serious: chronic disease (10%) and cost of health (24%).
- Out of 1,238 responses identifying the top three barriers to improve health, the same three issues rose to the top for both total responses and the number 1
Cost of health care was the number 1 issue (482 top concern, 843 total votes), followed by unhealthy lifestyles (227, 655) and aging problems (172, 502).

• When examining the most pressing social issues, none of the items were viewed to be serious or very serious (no item was at or above 5%); however when asked to rank the top barrier to improved health, not feeling connected received the overwhelming majority of votes with 68% of respondents (629 responses) identifying it as the top barrier.

Focus Groups

Focus Group Process

A researcher from Missouri State University’s Sociology Department was contracted to complete the focus groups. The researcher has experience with healthcare and focus groups. The researcher also served on the survey committee and was an integral part of the process. After the topics of focus were identified in August 2015, the researcher developed the focus group questions and submitted them to the survey committee and the steering committee to review and provide feedback. The survey committee also helped determine the number of focus groups and the target audience for the focus groups. The committee determined that residents were the most important group from which to receive in-depth feedback. Additionally, the committee determined that it was necessary to conduct focus groups in each of the nine Communities due to variances in local perceptions and barriers. Focus group facilitator trainings were conducted in September and October 2015, with focus groups occurring in November and December 2015. The following section, which was extracted directly from the researcher’s report, details the methods, recruitment of participants and the instrument used in the focus groups.

“A typical focus group consists of a facilitator, note-taker, and 4-10 participants and is 45-90 minutes in duration. The aim of a focus group is to collect qualitative information (perceptions, opinions, experiences, and details that help explain, for example, closed-ended survey responses). Focus group findings, like all interview findings, are not expected to be able to be generalized to a larger population; rather, focus group findings are a snapshot of the dynamics of a few people, each with their own perspectives and experiences, at a particular point in time. A local facilitator and a local note-taker were identified and then trained to conduct the Ozarks Health Commission Focus Group Interview. Next, eligible participants were recruited for the focus group event.
“From the survey, we realized that older adults and women were overrepresented respondents in the initial electronic survey, while Medicaid recipients and those with no health insurance were underrepresented respondents; therefore, we attempted, when recruiting for the focus group interview, to achieve a balanced variety of health and healthcare experiences. Our goal was to compose a focus group of not less than 6 people with the following characteristics:

Age: A maximum of 3 older adults

Gender: A minimum of 2 men

Insurance:
- A minimum of 1 individual without insurance
- A minimum of 1 Medicaid recipient
- A maximum of 2 Medicare recipients
- A maximum of 2 private insurance recipients

Behavioral Health: a minimum of 2 individuals

“The goal of our focus group interview was to better understand citizens’ perceived connections to health information and services in their community. The theme of connection arose from the preliminary findings of the 2015 Citizen Survey, in which “lack of social connection” was identified by many citizens to be a reason for poor health. Literature abounds in the social sciences, in epidemiology and more recently, in medicine that supports the correlation between strong social connections and positive health status and outcomes. For these reasons, citizens’ perceptions of their connections to health information and services in their communities was the main theme of the focus group interview.
“The key terms used in the focus group interview were health, community, and connection. They were defined as follows:

Health: the physical, mental, and social aspects of health across the life course (inclusive of behavioral or mental health and aging related matters)

Community: family, friends, acquaintances, and all the people you see on a day to day basis – the mailman, your pastor, a grocery clerk, your physician, elected officials and more.

Connection: who you know, how comfortable you feel with them, whether you know about services and programs in your area and how important those things are to you.”
Focus Group Findings

As each focus group was conducted, data was sent to the researcher for analysis and interpretation. Results were returned to the full committee, which focused on three areas of findings: health issues, connection and community, and emergent themes. The most commons themes that emerged during the health issues discussion were chronic disease concerns (9 of 9 focus groups discussed), aging (8 of 9), mental health (5 of 9), infant health (5 of 9), unhealthy lifestyles (5 of 9), and the cost of healthcare (5 of 9).

Each of the nine focus groups highlighted concerns with connections within their community and ranged from indentifying specific subsets of the population to the entire Community. Lastly, each of the nine focus groups came to the conclusion that there were significant health and related social issues that could be addressed within the Community. The following tables present the summary of these findings. For findings specific to the Community, refer to Appendix K.

### Health Issues and Wellness Concerns

<table>
<thead>
<tr>
<th></th>
<th>Bolivar</th>
<th>Booneville</th>
<th>Branson</th>
<th>Fort Smith</th>
<th>Lebanon</th>
<th>Monett</th>
<th>Rogers</th>
<th>Joplin</th>
<th>Springfield</th>
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<tbody>
<tr>
<td>Aging</td>
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<td>Infant Health</td>
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<tr>
<td>Unhealthy lifestyles</td>
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</table>

### Connection and Community

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<th>Monett</th>
<th>Rogers</th>
<th>Joplin</th>
<th>Springfield</th>
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</thead>
<tbody>
<tr>
<td>Pros: positive experience with older community, health clinic</td>
<td>PTSD is misunderstood</td>
<td>Did not feel connected</td>
<td>Variety of concerns on connectedness</td>
<td>Church and school connections important</td>
<td>Reliant on churches</td>
<td>Housing</td>
<td>Difficulty with appointments</td>
<td>barriers lead to isolation, hopelessness</td>
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</tr>
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<td>Suggestions: more support</td>
<td>Elderly lack meaning</td>
<td>need for more personal connection</td>
<td>Disconnected from healthcare</td>
<td>limited services</td>
<td>Challenge with connection</td>
<td>behavioral health</td>
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</table>
Identifying and Prioritizing Health Issues

Lastly, a committee was formed to develop the process of identifying and prioritizing the health issues for the OHC Region and Communities. This committee included representation from both healthcare and public health. The committee began meeting in October 2015 and concluded their work by March 2016. The process began with narrowing the roughly 150 secondary indicators by focusing on indicators in which the OHC Region and Communities performed poorly, compared to the nation. This process revealed that the OHC Region was under-performing in 34 indicators. In the individual Communities, the process revealed that between 35 indicators (Springfield) to 51 indicators (Fort Smith) were under-performing compared to the nation. These indicators highlighted the areas of health and risk factors that the OHC Region experiences more challenges to improved health than the rest of the nation.

In the OHC Region, 34 indicators were examined and placed into similar groupings to create health issues. This process identified seven groupings that are considered Assessed Health Issues (AHI) and several other groups of social determinants of health. The committee then identified associated indicators and grouped them within the AHI. For example, high blood pressure and cholesterol, as well as other health issues related to the cardiovascular system, were collapsed into “cardiovascular disease”. If relevant, an indicator was used in multiple groupings. For instance, tobacco use was used in both lung disease and cancer. In addition, the list of poor-performing indicators for each Community was examined to ensure that additional health issues were not present. This process did not present any additional health issues. The AHI identified were: Cancer, Cardiovascular Disease, Lung Disease, Oral Health, Mental Health, Maternal and Child Health, and Diabetes. The social determinants of health were poverty and access to health services. The committee then developed an objective review process for scoring the AHI. The scoring system included both key data points.
and community perspective providing a more thorough examination of the AHI. The following sections outline the AHI and the scoring system that was developed.

**Assessed Health Issues Defined**

The seven defined AHI that emerged from the process described above are detailed in this section. AHI were broadly defined to help Communities and partners coalesce around a topic and allow for varying pathways for health improvement. Indicators used to represent each AHI do not represent all of the available indicators available for a particular AHI; however, they are indicators in which the OHC Region scored more poorly than the nation.

**Cancer**

Cancer is a disease in which individuals suffer from an uncontrolled growth of cells derived from normal tissues. Cancers considered in this study included breast, colorectal, lung and prostate. The conditions and behavior factors listed below were identified as those that contribute to cancer.

- Incidence-lung
- Mortality-cancer
- Tobacco use
- Cancer screenings: mammograms, cervical, sigmoidoscopy or colonoscopy

Since morbidity data is not available for cancer, incidence of cancer was used and was calculated with the combined incidence rates for breast, colorectal, lung and prostate cancers. This data was collected from Community Commons. Cancer death rates were used for mortality, using data from Centers for Disease Control and Prevention, National Vital Statistics System by the UPC to indicate the severity of the disease.

**Cardiovascular Disease**

Cardiovascular disease is a disease of heart and blood vessels. This can include conditions such as stroke, hypertension, heart valve problems, and numerous other related conditions. The conditions and behavior factors listed below were identified as those that contribute to cardiovascular disease and the OHC Region performed more poorly than the nation.

- Heart disease mortality
- Elevated blood pressure

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• Elevated cholesterol levels
• Ischemic, valve, hypertension, etc.
• Heart disease morbidity
• Alcohol abuse
• Obesity
• Physical inactivity
• Fruit/veggie consumption
• Tobacco use

Heart disease morbidity was chosen to indicate the morbidity of the disease as reported from Behavioral Risk Factor Surveillance Survey (BRFSS). For the purposes of scoring cardiovascular disease, heart disease mortality incidence data from Centers for Disease Control and Prevention, National Vital Statistics System by the UPC was selected to indicate the mortality of the disease.

**Diabetes**

Diabetes and related conditions result from the body’s inability to adequately process sugar.\(^{36}\) The conditions and behavior factors listed below were identified as those that contribute to diabetes and are those that the OHC Region performed poorly.

- Diabetes prevalence
- Screening
- A1c Test
- Obesity
- Fruit/vegetable consumption
- Inactivity

To represent diabetes, morbidity was evaluated using diabetes prevalence from BRFSS. No mortality data was available for the OHC Region.

**Lung Disease**

Lung disease is a broad category of conditions affecting the lungs including: bronchitis, emphysema, asthma, pneumonia, and COPD.\(^{37}\) The conditions and behavior factors listed below were identified as those that contribute to lung disease, and the OHC Region performs poorly in comparison to the nation.

- Asthma prevalence
- Tobacco use

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• Inactivity
• Mortality—lung disease

Asthma percentage data from BRFSS was chosen to represent the morbidity of the disease. Lung disease mortality data from Centers for Disease Control and Prevention, National Vital Statistics System by the UPC was selected to indicate death associated with the disease.

**Maternal and Infant Health**

Maternal and infant health refers to the health of women and infants during pregnancy, childbirth and postpartum period. The two indicators below represent the areas that the OHC Region performs poorly when compared to national rates.

• Teenage pregnancies
• Infant mortality

The percent of births to mothers ages 15-19 was used to indicate morbidity. The infant mortality rate was used to score mortality. The source for data was Centers for Disease Control and Prevention, National Vital Statistics System by the UPC.

**Mental Health**

Mental health includes emotional, behavioral, psychological and social well-being. Mental health includes diseases and conditions such as: depression, anxiety, other mood disorders and substance abuse. The following indicators represent the areas of mental health that the OHC Region performs poorly when compared to national rates.

• Suicide
• Depression
• Alcohol abuse

The data for morbidity was obtained from Medicare fee-for-service population with depression. The data for mortality was from suicide rates, and the source of data was Centers for Disease Control and Prevention, National Vital Statistics System by the UPC.

**Oral Health**

Oral health broadly defines health-related issues associated with the mouth and associated organs and includes issues such as: tooth decay, gum disease and

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38 Centers for Disease Control and Prevention, [http://www.cdc.gov/mentalhealth/basics.htm](http://www.cdc.gov/mentalhealth/basics.htm)
infection. The indicators below represent those oral health indicators that the OHC Region performs poorly on when compared to the nation.

- Dental care utilization
- Poor dental health
- Access to dentists

The percentage of individuals who reported poor dental health through BRFSS was used to determine morbidity. Oral health mortality data was not available throughout the entire OHC Region.

**Health Indicator Scoring**

Information from Kaiser Permanente and the National Association of County and City Health Officials (NACCHO) were used as guides in the process. These resources provided guidance for a “Prioritization Matrix” to be used to identify AHI. A prioritization matrix is a commonly used tool for prioritization and is ideal when health issues are considered against multiple criteria. Decision matrices provide a visual method for prioritizing and accounting for criteria with varying degrees of importance. Ideas for the criteria were based on the Hanlon Method. The committee modified Hanlon’s criteria (seriousness, magnitude and effectiveness) to better fit the data and Communities within the OHC Region. The Hanlon Method also incorporates the ‘PEARL’ Test, which screens for propriety, economics, acceptability, resources and legality. The actual test was not performed in this process, but some of the concepts were used as criteria for the matrix (i.e. community readiness). This modification was required due to condensed timeline, the diversity within the Communities and consistent partner engagement throughout the OHC Region.

The scoring system used two key components—evidence from the data and evidence from the community. The data used in the scoring system includes morbidity and mortality for each of the AHI, comparisons of these indicators to national performance, and the pervasiveness of health issues presented in the primary hospital data. The data used to provide community evidence of momentum around the health issue were feasibility to change the health issue and the readiness of the Community. With the data elements, the committee decided to use a best-fit approach. For each AHI, a key indicator was selected to represent the entire issue. While this provides a more focused examination of each AHI, it also provides a more clear and objective examination of

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each AHI. In addition, to help inform the process of ranking and prioritization, the committee decided to include whether or not AHI were identified in the focus groups. The committee did not feel that the initial process to coordinate and integrate the focus groups and the survey results was compatible enough to include them with a scoring mechanism. The committee did feel it was important to include them to inform the prioritization process, but not provide a score. Additionally, the results of the survey were not given a score in the prioritization matrix. The terms in the survey were too general (e.g. chronic disease) and would not allow for individual AHI to be identified. The following provides detailed information about the scoring criteria used to complete the ranking for health issues.

Morbidity

Morbidity (also referred to as prevalence) evaluates how common the health issue is in a population. Typically it is represented as a percentage of the population with the health issue. For AHI without available prevalence data, the incidence rate was used. There are multiple indicators that are within the defined AHI. For the process, the committee identified the indicator that was the best fit with the AHI to use a single indicator. The morbidity data is based on the NACCHO health assessment information.\textsuperscript{41} Incidence data thresholds were created by the committee, which based the top category on an incidence rate that would create a prevalence of 5% within a 10 year period.

<table>
<thead>
<tr>
<th>Score</th>
<th>Prevalence</th>
<th>Incidence (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>&gt;10%</td>
<td>&gt; 500</td>
</tr>
<tr>
<td>3</td>
<td>1% - 9.9%</td>
<td>250-499</td>
</tr>
<tr>
<td>2</td>
<td>.1% - .9%</td>
<td>100-249</td>
</tr>
<tr>
<td>1</td>
<td>&lt;.1%</td>
<td>&lt; 100</td>
</tr>
</tbody>
</table>

Mortality

Death rates (mortality) are used to evaluate long-term impact and severity of a health issue to a community. As with prevalence, the best fit indicator was used to represent the AHI. The score was based on the rank of each AHI’s rate of death, compared to other AHI. To illustrate, heart disease is commonly a top 2 cause of death and would therefore receive a score of 4, whereas an issue such as suicide may be the fifth leading cause of death on the list and would therefore receive a score of 2.

\textsuperscript{41} National Association of County & City Health Officials, \url{http://archived.naccho.org/topics/infrastructure/CHAIP/upload/Final-Issue-Prioritization-Resource-Sheet.pdf}
Score | Severity/Seriousness
--- | ---
4 | Uses the geographic areas top causes for death and provides categorical ranking. The 2 issues with the highest mortality rate.
3 | Mortality rates that rank 3 – 4.
2 | Mortality rates that rank 5 – 6.
1 | Mortality rates that rank 7 and below or data is not available.

Morbidity and Mortality Comparison to National Rate

In addition to knowing the morbidity and mortality rate in a community, further comparing the rate to the nation provides additional information on whether an AHI should be prioritized. Percent difference \[\frac{(\text{Community rate} - \text{national rate})}{\text{national rate}}\] is used to understand how the Community rates differ from the national rates. Applying percent difference instead of simply relying on the difference between Community and national rates provides more consistent and accurate comparisons across categories. The committee developed the 4 thresholds and used a consensus approach to develop the thresholds.

<table>
<thead>
<tr>
<th>Score</th>
<th>Percent Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>&gt;25% higher than national rates</td>
</tr>
<tr>
<td>3</td>
<td>11% - 24% higher than national rates</td>
</tr>
<tr>
<td>2</td>
<td>1% - 10% higher than national rates</td>
</tr>
<tr>
<td>1</td>
<td>&lt;= national rates</td>
</tr>
</tbody>
</table>

Primary Hospital Data:

Secondary data provides a robust look at health indicators and AHI in a Community, but there are certain limitations to exclusively using secondary data to determine health priorities. Most notably, secondary data typically lags 3 to 5 years, raising concerns whether the data is too dated to fully represent the AHI. Layered primary data from hospital systems helps to provide greater confidence in the process and final conclusions/health priorities. The primary data used in this process comes from hospital Emergency Departments from throughout the OHC Region. Visits to the Emergency Department were classified by the Principal Diagnosis Group (using ICD-9 coding). The visits based on Principal Diagnosis Group were tabulated for each Community. The Principal Diagnosis Groups were then associated with AHI (e.g. Diseases of the Respiratory System and Lung Disease). The primary data score was based on the percent of Emergency Department visits associated with identified AHI.
Feasibility to Change the Issue

Feasibility to change the issue evaluates both the simplicity of the issue and the control a community has over the issue. Issues with a clear, evidence-based approach and those which can be solved by addressing a single issue are viewed as more feasible to change, whereas ones that are multi-faceted or with no clear approach to change are viewed as less feasible. To illustrate, mental health is a multi-faceted health issue with no clearly defined path to make significant improvements in a limited time frame. Issues that can be addressed at a local level are viewed to be more feasible to change, whereas issues that are not controlled by the community are viewed as less feasible to change. To further illustrate, access to care is largely impacted by whether or not a community has expanded Medicaid, which is not feasible for an individual community to change. Contradictory to the first 2 ranking criteria, “Feasibility to Change the Issue” and “Community Readiness to Change” are a more broad and inclusive examination of the AHI in the Community, rather than focusing on a single indicator. The committee based the categories on information found within the NACCHO Guide to Prioritization Techniques and used community experience of committee members to determine definitions and thresholds for the categories.

<table>
<thead>
<tr>
<th>Score</th>
<th>Percent of Visits Associated with Health Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>&gt;25% of visits</td>
</tr>
<tr>
<td>3</td>
<td>11% - 24% of visits</td>
</tr>
<tr>
<td>2</td>
<td>1% - 10% of visits</td>
</tr>
<tr>
<td>1</td>
<td>&lt; 1% of visits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Feasibility to Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>High Feasibility: Single issue and high level of control within the community; Implementation plans are easier</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Feasibility: Multi-faceted issue and high level of control within the community;</td>
</tr>
<tr>
<td>2</td>
<td>Limited Feasibility: Single issue and low level of control within the community;</td>
</tr>
<tr>
<td>1</td>
<td>Low Feasibility: Multi-faceted issue and low level of control within the community; Implementation plans are challenging</td>
</tr>
</tbody>
</table>

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Community Readiness to Change

The community readiness to change evaluates both the Community, and organizations within the Community’s, readiness to impact the issue. A Community with collaborative efforts already underway is more likely to adopt health priorities and impact change. Organizations that have efforts or funding already in place to address an issue are more ready to impact change. Priority was placed on having community collaboration already in place due to the fact that this component of change can take longer and be more challenging to put into place than an organization’s focus. Communities that have both key organizations serving as a backbone for AHI and community collaboration that is moving in parallel and coordinated fashion are more closely following the Collective Impact Model, which provides an effective approach to advance progress around community issues. This approach was developed by the committee, which based the standard on the Collective Impact Model and used a consensus approach to determine the breakpoints for scoring.

<table>
<thead>
<tr>
<th>Score</th>
<th>Community Readiness to Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Both community collaboration and organization focus on the issue are in place.</td>
</tr>
<tr>
<td>3</td>
<td>A community collaborative is in place, but there is no specific organizational focus on the issue.</td>
</tr>
<tr>
<td>2</td>
<td>One or more organizations have specific focus or projects to address the issue, but efforts are not coordinated.</td>
</tr>
<tr>
<td>1</td>
<td>There are no community collaborative efforts or organizational efforts in place.</td>
</tr>
</tbody>
</table>

These criteria provide the scores for each AHI.

To complete the ranking for each of the Communities, prevalence, mortality, their associated comparison to national rates and primary data were completed by the OHC committee. For the final two criteria, Communities completed Feasibility to Change and Community Readiness to Change, which generated the final score.

This score was then used by Communities to have conversations around which, and how many, AHI to select as the priorities for the Community. In addition, Communities can also add other health issues that were not identified in the process outlined herein. Priority AHI ranged from 3 to 5. The priority AHI will then be the basis for developing Community Health Improvement Plans.

Lung Disease

Lung disease is a term that describes many different health conditions. In children, the most common occurrence of lung disease is asthma. While many forms of lung disease are genetic, tobacco use is an important risk factor to these serious conditions that can be addressed.

National Perspective

Lung disease is a broad category of conditions affecting the lungs including: asthma, bronchitis, Chronic Obstructive Pulmonary Disorder [COPD], emphysema and pneumonia.¹ These diseases result in a significant negative impact to an individual in both quality of life and lives lost. According to the Centers for Disease Control and Prevention (CDC), chronic lower respiratory disease (CLRD) accounted for approximately 6% of all deaths and was the third leading cause of death in 2013 behind diseases of the heart and malignant neoplasms, respectively.²

Lung disease also negatively impacts quality of life either through a single condition or a co-occurring condition. Approximately 9% of children under the age of 18 have asthma³ and 13% of adults have asthma. Often times, lung diseases cause an inadequate supply of oxygen to be sent to other organ systems, thus creating a co-occurring condition, or comorbidity. For example, it is common for people with COPD to develop pulmonary hypertension and cor pulmonale (heart failure resulting from lung disease). Because of

² Centers for Disease Control and Prevention, http://www.cdc.gov/nchs/data/hus/hus14.pdf#020
³ Centers for Disease Control and Prevention, http://www.cdc.gov/nchs/data/hus/hus14.pdf#020
the severity of these conditions, it is important to understand what causes lung disease in an effort to prevent illness.

Factors that cause lung disease range from causes that cannot be controlled, such as genetics, to those that can be modified, such as tobacco use. Occupational and environmental factors are also factors that contribute to lung disease, such as asthma. These include dust, mold and second- and third-hand smoke. While these can primarily be addressed through prevention efforts, tobacco use is the single most important and modifiable risk factor, especially because of the cost of tobacco-related disease.

In the United States in 2009, lung diseases (excluding lung cancer) resulted in $117 billion in direct costs, and $69 billion in indirect costs, making it the fifth most costly illness.\(^4\) The total cost of tobacco related disease is $300 billion a year.\(^5\) Tobacco is also impacting employers with an annual additional burden estimated at $5,800 by each tobacco user due to increased medical claims and lost productivity.\(^6\)

\(^5\) Centers for Disease Control and Prevention, http://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/
\(^6\) Berman, Micah; et al, “Estimating the cost of a smoking employee,” http://tobaccocontrol.bmj.com/content/early/2013/05/25/tobaccocontrol-2012-050888
Because of the high societal cost of tobacco use, the United States Department of Health and Human Services has placed tobacco use as a key priority within Healthy People 2020. Overall, Healthy People 2020 aims to reduce the use of both tobacco and smokeless tobacco products across all age ranges and through a wide-range of strategies. As the country works towards achieving these objectives, the OHC Region must also work collaboratively to improve the health of the area through targeted tobacco-prevention efforts.

Justification for Health Issue

Through the application of the Logic Model and associated priority ranking process described in the Methodology section, health issues were compared side-by-side. In the Springfield Community, Lung Disease was one of the prioritized health issues. This is the result of supporting evidence from secondary data, primary data from the hospitals, the feasibility to change the issue and the community readiness to change the issues.

Secondary Data

In the OHC Region, 23% of people smoke and 21% smoke within the Springfield Community; rates that are higher than the national average of 18% and well above the 12% goal of Healthy People 2020. In the Springfield Community, nearly 14% adults have asthma, which is higher than the national rate of 13%. Approximately 52,000 children throughout the OHC Region have asthma. Additionally, 6% of the population is living with COPD. Lung cancer also occurs more commonly here than in the rest of the nation with
an incidence rate of 72 per 100,000 people compared to 65 per 100,000 people. The age-adjusted rate of death (per 100,000 people) due to lung disease across the nation is 43; yet, in the OHC Region it is 57, and within the Springfield Community it is 51.

**Primary Data**

Throughout the OHC Region, lung diseases account for 49% of all visits to the Emergency Department (ED) for health assessment issues. In the Springfield Community, 10% of all ED visits, and 18% of all pediatric ED visits are due to respiratory illness. Of the seven health issues evaluated in the health assessment, 37% of all visits to the ED in the Springfield Community are due to respiratory illness.

Overall, children between the ages 0-17 present to the ED with significantly more respiratory needs than adults, representing 77% of the visits. Also to note nearly 13% of all Medicaid visits are due to respiratory illness in the Springfield Community, which is higher than other payer types. Approximately 73% of patients that visit the Northern ED either have Medicaid or are uninsured, and 13% of all visits are due to respiratory illness (the rationale for separating the Northern ED for this assessment is discussed at length in the Methodology section of this report). This data reveals a relationship between poverty and increased visits due to respiratory illness. This relationship is significant when viewed in light of 2015 CDC findings that people living below the poverty level have a higher prevalence of smoking (26.3%) compared to people at or above this level (15.2%).

**What Can We Do?**

Although the evidence against tobacco use is strong, the OHC Region and the Springfield Community still face significant cultural and societal barriers to the reduction of tobacco use. Currently, Missouri has the lowest excise tax per pack of cigarettes in

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7 Centers for Disease Control and Prevention, [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6444a2.htm?_s_cid=mm6444a2_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6444a2.htm?_s_cid=mm6444a2_w)
the nation at 17 cents per pack—compared to New York’s at $4.35. A significant raise would motivate current smokers to quit and prevent kids from starting. Within the three-county Springfield Community, only two towns have smoke-free ordinances in place: Nixa and Springfield. Policy changes are needed at the city, county and state level to create sustainable benefits to the Springfield Community’s rates of lung disease and other chronic conditions.

Several health and social service organizations in the Springfield Community recognize the deleterious effects of tobacco use. Many of these organizations have come together to address the issues. For example, the Healthy Living Alliance has placed a specific focus on improving systems around the reduction of tobacco use in the Springfield Community and surrounding area. Efforts include advocacy for smoke-free policy, support for businesses to adopt strong policies and practices to reduce tobacco use and promotion of tobacco cessation programs. These organizations must continue working together to make meaningful progress for community health. The Healthy Living Alliance engages community partners at both the executive level and at the program level to create positive change. Individuals, businesses, organizations, neighborhoods and community leaders are needed to create a culture that supports a healthy movement to reduce tobacco use.

**Future Economic and Society Impact**

The Springfield Community, along with the OHC Region, is faced with a compelling case of the health impacts to the community as a result of lung disease. There is clear evidence that changing one behavior, tobacco use, can spur meaningful change to prevent diminished of quality of life and loss of life. The failure to act impacts far more than just those with lung disease. It impacts everyone, especially businesses. According to the Bureau of Labor Statistics in 2014, the Springfield Community had a workforce of 182,540. In 2013 the smoking rate for the Springfield Community was 21%. This means an estimated 38,333 people are employed and smoking. Based on the national figure of an annual expense to employers of $5,800, smoking is costing Springfield Community employers $222,331,400 each year. Changing the percent of people who smoke just 2%, which happened from 2011 to 2013, saves employers an estimated $44 million. Making changes now not only helps reduce lung disease and death, it helps break the impact of the disease to future generations.

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Cardiovascular disease is the leading cause of death for both men and women in the United States. It can be caused by and leads to many other serious health conditions. Lifestyle changes can make a huge impact in improving heart health and leading to a better quality of life.

National Perspective

Cardiovascular disease (CVD) is a disease of the heart and blood vessels. This includes conditions such as arrhythmias, congestive heart failure, hypertension, stroke and numerous other related conditions. CVD is the leading cause of death in the United States and is responsible for approximately 24% of all deaths.

Key risk factors for developing CVD include preexisting health conditions (high blood pressure, high cholesterol and diabetes), unhealthy lifestyles (poor diet, physical inactivity, obesity, alcohol abuse and tobacco use) and a family history of CVD. Three key risk factors: high blood pressure, high cholesterol and smoking, are present in nearly half (47%) of Americans. High blood pressure, or hypertension, occurs when the force in the blood vessels is too high. Approximately, one in three adults has hypertension, and 48% have hypertension that is not controlled. It is often known as the “silent killer” because many people are not aware of their elevated blood pressure until they have a more serious health issue, such as a heart attack. Likewise, there are no signs or symptoms of high cholesterol and it must be measured by a simple blood test. Approximately 39% of U.S. residents have elevated cholesterol levels. This occurs when cholesterol, a waxy-substance made by the liver and found in certain foods, builds up in the walls of the arteries. The buildup of cholesterol can narrow arteries and restrict blood flow to the heart, brain, and other areas of the body. If a clot forms,

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10 Centers for Disease Control and Prevention, [http://www.cdc.gov/heartdisease/risk_factors.htm](http://www.cdc.gov/heartdisease/risk_factors.htm)
11 National Center for Health Statistics, [www.cdc.gov/nchs/data/databriefs/db103.pdf](http://www.cdc.gov/nchs/data/databriefs/db103.pdf)
12 National Center for Health Statistics, [www.cdc.gov/nchs/data/databriefs/db133.pdf](http://www.cdc.gov/nchs/data/databriefs/db133.pdf)
blood flow can stop which may cause a heart attack or stroke.\(^\text{13}\) Both hypertension and high cholesterol largely result from unhealthy lifestyles such as a poor diet high in salt, sugar and unhealthy fats and a lack of physical activity. Additionally, a clot is more likely to develop with smoking tobacco. Smoking raises triglycerides (a type of fat in blood) and increases the buildup of plaque causing blood vessels to thicken and reduce blood flow.

Yet, the smoker is not the only person with an increased risk of developing heart disease. Breathing second-hand smoke increases a nonsmoker’s risk of developing coronary heart disease by 25—30\(^\%\).\(^\text{14}\) Nearly 34,000 nonsmokers die each year from coronary heart disease as a result of breathing second-hand smoke. It also increased the risk for stroke by 20—30 \%. Approximately 8,000 nonsmokers die each year from stroke caused by breathing in cigarette smoke\(^\text{15}\).

CVD has negative implications that extend beyond the individual and impact the community at-large. In 2009, the total costs of CVD were $324.1 billion in direct costs and an additional $179.1 billion in indirect costs. With more than $503 billion in total cost, CVD is the most costly disease in the U.S., and represents 16\% of total disease impact.\(^\text{16}\) Annual direct medical costs due to CVD are expected to exceed $818 billion by 2030.\(^\text{17}\) One of the most impactful risk factors to CVD is obesity.

Obesity alone contributes to various other diseases and has a significant impact on the quality of life and the U.S. economy. In 2008, the medical costs of obesity were estimated to be $147 billion, with an additional cost in lost productivity due to obesity-related absenteeism of more than $3 billion.\(^\text{18}\) According to CDC, medical costs for an obese individual are approximately $1,429 more than those for a person of normal weight.\(^\text{19}\) These costs are associated with direct medical costs, the contribution of obesity to the development of chronic conditions, lack of productivity at work,\(^\text{20}\) 

\(^\text{13}\) Mayo Clinic, [http://www.mayoclinic.org/diseases-conditions/high-blood-cholesterol/symptoms-causes/dxc-20181874](http://www.mayoclinic.org/diseases-conditions/high-blood-cholesterol/symptoms-causes/dxc-20181874)
\(^\text{17}\) American Heart Association, [http://circ.ahajournals.org/content/early/2013/12/18/01.cir.0000441139.02102.80.full.pdf](http://circ.ahajournals.org/content/early/2013/12/18/01.cir.0000441139.02102.80.full.pdf)
\(^\text{18}\) Centers for Disease Control and Prevention, [http://www.cdc.gov/obesity/adult/causes.html](http://www.cdc.gov/obesity/adult/causes.html)
\(^\text{20}\) Lloyd-Jones D; et al, American Heart Association Statistical Update – “Heart disease and stroke statistics—2010 update,” [https://circ.ahajournals.org/content/121/7/e46.full.pdf+html](https://circ.ahajournals.org/content/121/7/e46.full.pdf+html)
worker’s compensation$^{21}$ and absenteeism.$^{22}$

**Justification for Health Issue**

Through the application of the Logic Model and associated priority ranking process, described in the Methodology section, health issues were compared side-by-side. In the Springfield Community, Cardiovascular Disease was one of the prioritized health issues. This is the result of supporting evidence from secondary data, primary data from the hospitals, the feasibility to change the issue and the community readiness to change the issues.

**Secondary Data**

In both the OHC Region (220.91) and the Springfield Community (197.39), the rate of death due to coronary heart disease per 100,000 is higher than U.S. (184.55). Both within the OHC Region and the Springfield Community this is the leading cause of death. Additionally, in both the OHC Region (47.55) and the Springfield Community (44.78), the rate of death due stroke per 100,000 is higher than the U.S. (40.39). The rate of death due to coronary heart disease and stroke combined is 40% higher than that of cancer, the second leading cause of death in the Springfield Community. Also in the OHC Region, 5.8% of people have coronary heart disease or angina, which is also higher than that of the Springfield Community (4.13%) and the U.S. (4.40%). Overall, the Springfield Community outperforms or is similar to the OHC Region and the nation on several risk-factor indicators. The graphs below show how the Springfield Community compares to the OHC Region and the nation for blood pressure, cholesterol levels, obesity and tobacco use. The ranking revealed that heart disease morbidity and mortality for the Springfield Community was more favorable than the country. Yet, the primary data, community readiness and feasibility to change indicated there are specific populations suffering from heart disease and the Springfield Community is ready to tackle the issue. The following sections discuss these findings.


Primary Data

In the Springfield Community, CVD accounts for 24% of ED visits due to the Assessment Health Issues (AHI). This is the second highest behind lung disease (37%). As the graph below indicates, the frequency of visits to the ED for cardiovascular disease increases as age increases.

ED by Principal Diagnosis by Age Group
(Assessed health issues only)

Also, variations are seen among various payer types. CVD is highest among those with Medicare (33.4%), followed by patients with commercial insurance (16.7%), those without health insurance (9.4%), and patients with Medicaid (7.0%) (see graph at right). This is consistent with the finding that visits due to CVD increase with age.
Finally, the primary data reveals that over 33% of patients with a secondary diagnosis of mental illness have a primary diagnosis related to the cardiovascular system. This finding is noteworthy because it illustrates the common correlation between CVD and mental illness. Individuals with mental illness, such as depression, are more likely to have CVD and those with CVD, among other chronic diseases, are also more likely to suffer from depression. In one study, depression was associated with a 31% higher rate for cardiovascular events. This is largely explained by unhealthy behavior choices, including lack of physical activity, poor diet, smoking and alcohol abuse.

What can we do

The OHC ranking method evaluated feasibility to change and community readiness. The Springfield Community received a score of three for feasibility to change and four for community readiness. This expresses the Springfield Community’s view that CVD is a multi-faceted issue for which much can be done at the local level. There are already strong efforts underway in the Springfield Community to improve CVD, both through partnership and organizations. A large portion of the collaborative efforts that address risk factors associated with CVD are associated with the Healthy Living Alliance. While much has been done within the Springfield Community to improve systems around risk factors for CVD, such as Springfield’s adoption of Complete Streets and Springfield and Nixa adopting smoke-free ordinances, there are still many steps that can be taken throughout the Springfield Community, from city and county policy to changes made within businesses and neighborhoods throughout towns in the Springfield Community.

Future Economic and Societal Impact

As the leading cause of death and the highest medical cost to society, effective prevention strategies are needed to reduce the increasing burden of CVD on the society, specifically as it relates to obesity. In the OHC Region, 31.81% of adults age 20 and over self-report that they are obese (body mass index >30). Basing estimates on the cost to employers for obesity at $1,429, an estimated $766 million of medical costs fall on the OHC Region due to obesity. In the Springfield Community, these costs are $123 million per year. According to a recent study conducted by the Robert Wood Johnson Foundation (RWJF), obesity rates for adults are expected to climb over the next 20 years such that more than 60% of people could be obese in 13 states by 2030. The OHC Region is included in these 13 states. Thus, action must be taken to reduce obesity rates to lower costs associated to CVD.

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Mental Health

Mental health is powerfully connected to who gets sick and who stays well. It has a tremendous impact on both individuals and families. Failure to adequately address mental health needs results in enormous human, social and financial costs.

National Perspective

According to the U.S. Department of Health and Human Services (HHS), mental health may be defined as a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. Oppositely, mental illness, which also is described by DHSS as all diagnosable mental disorders or health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning.\(^27\)

Often used interchangeably with mental health, behavioral health may be described as a subspecialty that studies the reciprocal relationship between overall well-being of the person and human behavior.\(^28\) The Substance Abuse and Mental Health Services Administration describes behavioral health as promoting mental health, resilience and well-being; the prevention of mental health and substance abuse disorders; and the support of those who are in recovery from their conditions.\(^29\) The relationship between mental health and behavioral health needs to be considered and evaluated as a part of the overall solution to the challenges related to improving overall community mental health.

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\(^{29}\) Substance Abuse and Mental Health Services Administration, [http://www.samhsa.gov/health-care-health-systems-integration](http://www.samhsa.gov/health-care-health-systems-integration)
Deconstructing the challenges that face our nation—as well as the Springfield Community—reveal problems that complicate addressing the mental health hurdles faced by many. It is impossible to separate mental and behavioral health from other health conditions, as the mind and body are physically connected and cannot operate independently. Physical illness such as chronic disease has been linked with mental and behavioral health diagnoses and can work interchangeably to exacerbate either condition. As stated by DHSS, it is estimated that only 17% of US adults are considered to be in a state of optimal mental health. Conversely, 83% of US adults exist in a state that is less than optimal related to their mental health.

Another complexity lies in the fact that access to mental health services is limited. Even when services are accessible, often times they are pricey. Mental Health Professional Shortage Areas demonstrate the great lack of access that exists throughout our nation. It is estimated that 89.3 million Americans live in one of those shortage areas. Where there is access, mental health treatment services are often perceived to be high cost and therefore a barrier to access. Kaiser Family Foundation research indicates that 45% of people not receiving mental health treatment services list cost as a barrier. Each of the challenges discussed complicates the layers of complexity involved with understanding mental health as a health concern for individuals and a public health threat for our communities and nation.

**Justification for Health Issue**

Through the application of the Logic Model and associated priority ranking process, described in the Methodology section, health issues were compared side-by-side. In the Springfield Community, Mental and Behavioral Health was one of the prioritized health issues. This is the result of supporting evidence from secondary data, primary data from the hospitals, the feasibility to change the issue and the community readiness to change the issues.

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30 Centers for Disease Control and Prevention, [http://www.cdc.gov/mentalhealth/basics.htm](http://www.cdc.gov/mentalhealth/basics.htm)
Developmental Disabilities

Developmental disabilities affect approximately 15% of children between the ages of 3 and 17 years. Developmental disorders can include:

- ADHD
- Autism spectrum disorder
- Cerebral palsy
- Hearing loss
- Intellectual disability
- Learning disabilities
- Other developmental delays\(^{32}\)

Substance Abuse

It is estimated that 18% of Americans over the age of 18 have experienced a mental illness and in the past year more than 8% of people have experienced a substance abuse disorder. SAMHSA states that substance abuse disorders occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.\(^{33}\)

Prescription drug misuse is a growing trend throughout the country, and the OHC Region has not escaped that trend. This trend is likely due to increasing ease of access and misperceptions about safety of using these drugs. Opioid drug sales have increased four-fold from 1999 through 2010. During that same time, overdose deaths and substance abuse treatment admissions have increased six-fold.\(^{34}\) Health systems in the OHC Region have experienced a similar trend and have treated many patients with

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\(^{32}\) Centers for Disease Control and Prevention, [http://www.cdc.gov/ncbddd/developmentaldisabilities/facts.html](http://www.cdc.gov/ncbddd/developmentaldisabilities/facts.html)

\(^{33}\) Substance Abuse and Mental Health Services Administration, [http://www.samhsa.gov/disorders](http://www.samhsa.gov/disorders)

\(^{34}\) Substance Abuse and Mental Health Services Administration, [http://www.samhsa.gov/prescription-drug-misuse-abuse](http://www.samhsa.gov/prescription-drug-misuse-abuse)
these types of disorders. More information is needed to fully understand the impact of this trend on our population. Also needed are resources available to treat addiction and the outcomes associated with it in order to appropriately address the situation and reverse this trend.

**Secondary Data**

This assessment provides a limited amount of data related to mental health and mental illness in the Springfield Community.

The data for prevalence was obtained from Medicare fee-for-service population with depression. The data for mortality was from suicide rates, and the source of data was Centers for Disease Control and Prevention, National Vital Statistics System.

![Graph showing statistics: 14.14 suicide deaths each year, 20.5% of Medicare beneficiaries suffer from depression, 12.8% of adults drink excessively.]

**Primary Data**

Of the top six priority health concerns identified for the Springfield Community, mental illness ranked third (nearly 20% of visits) in the amount of emergency department (ED) visits associated with this issue. It is also a common secondary diagnosis for ED visits.

This assessment process has revealed a number of limiting factors to truly understanding the mental health challenges in the Springfield Community. For example, a striking discussion among healthcare provider partners early in the data collection process determined that the path forward to assess data revealed discrepancies in data collection and tracking methods among providers. This is not unique to the OHC Region. Evaluation of mental and behavioral health needs in provider settings varies greatly according to the facility and the individual providing care. The participating healthcare providers were able to determine a data set related to ED use that provides some basis for evaluating the documented need for the purpose of this assessment. This data showed ED visits were due to the following:
What Can We Do?

As mentioned previously, the data that was assessed and discussed for the purposes of this assessment is specific to the emergency department from the healthcare providers in the Springfield Community. But more information is needed to truly understand and determine a path forward to adequately address the mental/behavioral health needs in our Community. Information needed would include:

- Mental/behavioral service providers
- Affordability of mental health services
- Ease of access/barriers to mental/behavioral health services
- Diagnosis rates of mental/behavioral health conditions in the community
- Unmet need of mental/behavioral health concerns
- Costs of mental/behavioral health treatment in the community
- Outcomes of interventions utilized to treat mental/behavioral illness in the community
- Strengths and gaps in mental health services in community
- Societal/community costs incurred by not treating mental health properly

Stigma associated with the diagnosis and care of being treated for mental and behavioral health concerns creates additional barriers for people accessing care. Individual concern for the perceptions associated with personally seeking care along

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with institutional sensitivity to offering and encouraging individuals to seek care permeates this issue and affects actions that can be taken to overcome mental illness. As this issue is explored, the public health and health care communities can assist mental health providers by assisting with overcoming the perceptions and stigma associated.

**Future Economic and Society Impact**

While untreated mental and behavioral health conditions take a significant toll on individuals and their families, there is growing recognition that they also can carry a significant economic and societal burden as well. A 2008 study published in the *American Journal of Psychiatry* found that Serious Mental Illnesses (SMIs), which impact 6% of American adults, cost our society $193.2 billion dollars in lost earnings annually.\(^{36}\)

Lost earnings only scratch the surface of the total costs, however. It is possible to get some sense of the direct costs associated with untreated SMIs. In the same study, associated medical costs and disability benefits totaled $124.4 billion dollars. What is difficult to quantify though, is the indirect costs associated with these conditions. These costs can include reduced educational attainment, a diminished labor pool and greater demand on the criminal justice and social welfare systems. It is estimated that 22% of those in jail have been diagnosed with a mental illness as have one third of homeless adults.\(^{37}\)

**Evaluation Plan**

The plan for evaluating how health outcomes identified in this report are impacted over time will be included in our forthcoming Community Health Improvement Plan, which will also contain a plan of action for addressing the issues discussed above.


6. Dissemination Plan

This report was designed to be a resource for and embraced by the public. Therefore multiple efforts will be made to disseminate these reports to a variety of audiences.

**Websites**

An interactive web-based version of each Community’s report will be available at the Ozarks Health Commission website.

http://www.ozarkshealthcommission.org

PDFs of each report will also be available for corresponding Communities on partner healthcare systems’ websites.

http://www.mercy.net

http://www.coxhealth.com

http://www.freemanhealth.com

http://www.citizensmemorial.com

**Printed Copies**

Printed copies will be available by request through hospital and public health partners or at ozarkshealthcommission.org.

**Process to Share Information with the Broad Community**

A news release will be sent out by key partners including hospitals and public health entities to encourage media coverage, with links to the report and key messages for the public.
7. Appendices

Appendix A: List of Zip Codes

- Bolivar
- Booneville
- Branson
- Fort Smith
- Joplin
- Lebanon
- Monett
- Rogers
- Springfield

Appendix B: Region Resource Inventory

Appendix C: List of Organizations Represented by Survey

Appendix D: List of OHC Contributors

Appendix E: List of Indicators

Appendix F: Secondary Data Comparison Tables

- Demographics
- Social Determinants of Health
- Poverty
- Education Measures
- Quality of Life
Environmental Quality ........................................................................................................F-46
Nutrition ................................................................................................................................F-50
Physical Activity and Obesity ............................................................................................F-60
Clinical Care and Preventative Services ..........................................................................F-74
Reproductive and Sexual Health .......................................................................................F-80
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Appendix G: County-Level Data for Comparison Tables
Appendix H: Community-Specific Breakdown
Appendix I: Sources Other Than Community Commons
Appendix J: Full Survey
Appendix K: Full Findings from Survey
Appendix L: Focus Group Findings
Appendix M: Primary Data Collection Tool