

Community Health Needs Assessment December 2016



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Consultants' Report

Mr. Kerry Noble
Chief Executive Officer
Pemiscot Memorial Health Systems

On behalf of Pemiscot Memorial Health Systems (the "Hospital"), we have assisted in conducting a Community Health Needs Assessment (CHNA) consistent with the scope of services outlined in our engagement letter dated December 5, 2016. The purpose of our engagement was to assist the Hospital in meeting the requirements of Internal Revenue Code §501(r)(3). We relied on the guidance contained in IRS Notice 2011-52 when preparing your report. We also relied on certain information provided by the Hospital, specifically certain utilization data, geographic HPSA information, and existing community health care resources.

Based upon the assessment procedures performed, it appears the Hospital is in compliance with the provisions of §501(r)(3). Please note that, we were not engaged to, and did not, conduct an examination, the objective of which would be the expression of an opinion on compliance with the specified requirements. Accordingly, we do not express such an opinion.

We used and relied upon information furnished by the Hospital, its employees and representatives and on information available from generally recognized public sources. We are not responsible for the accuracy and completeness of the information and are not responsible to investigate or verify it.

These findings and recommendations are based on the facts as stated and existing laws and regulations as of the date of this report. Our assessment could change as a result of changes in the applicable laws and regulations. We are under no obligation to update this report if such changes occur. Regulatory authorities may interpret circumstances differently than we do. Our services do not include interpretation of legal matters.

BKD, LLP

December 31, 2016

Introduction

IRC Section 501(r) requires health care organizations to assess the health needs of their communities and adopt implementation strategies to address identified needs. Per IRC Section 501(r), a byproduct of the *Affordable Care Act*, to comply with federal tax-exemption requirements, a tax-exempt hospital facility must:

- ✓ Conduct a community health needs assessment every three years.
- ✓ Adopt an implementation strategy to meet the community health needs identified through the assessment.
- ✓ Report how it is addressing the needs identified in the community health needs assessment and a description of needs that are not being addressed with the reasons why such needs are not being addressed.

The community health needs assessment must take into account input from persons who represent the broad interest of the community served by the organization, including those with special knowledge of or expertise in public health. The organization must make the community health needs assessment widely available to the public.

This community health needs assessment, which describes both a process and a document, is intended to document Pemiscot Memorial Health System's (Hospital) compliance with IRC Section 501(r). Health needs of the community have been identified and prioritized so that Hospital may adopt an implementation strategy to address specific needs of the community.

The process involved:

- ✓ An evaluation of the prior assessment and needs identified, along with steps taken over recent years to address those needs.
- ✓ Collection and analysis of a large range of data, including demographic, socioeconomic and health statistics and health care resources.
- ✓ Interviews with key informants who represent: a) broad interests of the community, b) populations of need or c) persons with specialized knowledge in public health.

This document is a summary of all the available evidence collected during the initial cycle of community health needs assessments required by the IRS. It will serve as a compliance document as well as a resource until the next assessment cycle. Both the process and document serve as the basis for prioritizing the community's health needs and will aid in planning to meet those needs.

Summary of Community Health Needs Assessment

The purpose of the community health needs assessment is to document compliance with new federal laws outlined above.

The Hospital engaged **BKD, LLP** to conduct a formal community health needs assessment. **BKD, LLP** is one of the largest CPA and advisory firms in the United States, with approximately 2,400 partners and employees in 34 offices. BKD serves more than 1,000 hospitals and health care systems across the country. The community health needs assessment was conducted in November through December 2016.

Based on current literature and other guidance from the treasury and the IRS, the following steps were conducted as part of the Hospital's community health needs assessment:

- ✓ An evaluation of the impact of actions taken to address the significant health needs identified in the prior community health needs assessment was completed and an implementation strategy scorecard was prepared to understand the effectiveness of the Hospital's current strategies and programs.
- ✓ The "community" served by the Hospital was defined by utilizing inpatient data regarding patient origin. This process is further described in Community Served by the Hospital.
- ✓ Population demographics and socioeconomic characteristics of the community were gathered and reported utilizing various third parties (see references in Appendices). The health status of the community was then reviewed. Information on the leading causes of death and morbidity information was analyzed in conjunction with health outcomes and factors reported for the community by CountyHealthrankings.org. Health factors with significant opportunity for improvement were noted.
- ✓ Community input was provided through key informant interviews of three stakeholders. Results and findings are described in the Key Informant section of this report.
- ✓ Information gathered in the steps above was analyzed and reviewed to identify health issues of uninsured persons, low-income persons and minority groups and the community as a whole. Health needs were ranked utilizing a weighting method that weighs: 1) the ability to evaluate and measure the problem, 2) the amount of population affected by the problem, 3) the seriousness of the health problem, 4) the prevalence of common themes and 5) the alignment with the Hospital's goals and resources.
- ✓ An inventory of health care facilities and other community resources potentially available to address the significant health needs identified through the community health needs assessment was prepared and collaborative efforts were identified.

Health needs were then prioritized taking into account the perceived degree of influence the Hospital has to impact the need and the health needs impact on overall health for the community. Information gaps identified during the prioritization process have been reported.

General Description of Hospital

The Hospital is a nonprofit 501(c)(3) hospital located in Hayti, Missouri, and serving Pemiscot, eastern Dunklin and southern New Madrid counties. Licensed for 49 acute care beds and 52 psychiatric inpatient Medicare beds, the Hospital is dedicated to providing the best quality of care. Pemiscot Memorial Health System has been in operation since 1951.

Services provided include inpatient, outpatient, diagnostic and community services. The Hospital provides cardiac and pulmonary rehabilitation, diagnostic imaging, emergency, laboratory, long-term care, rehabilitation, respiratory therapy, sleep lab, senior life services, surgical services, nutrition and dietary services and mental health services for adolescents, adults and seniors.

Diagnostic imaging services include Radiologic imaging, CT, nuclear medicine, mammography, MRI and bone density scans.

The Hospital is involved the community, specifically through working at local health fairs which include blood pressure checks and basic lab work. Employees from the Hospital also administer flu shots.



Mission, Vision and Values**Mission Statement**

Pemiscot Memorial Health System is committed to provide an organized system of healthcare services to all persons within our service area without regard to age, sex, race, color, national origin, creed, financial status, physical or mental challenge.

Demand for expansion of existing or initiation of new programs and services are evaluated on an ongoing basis resulting in incremental improvements in the degree of quality of services rendered in direct response to the changing healthcare needs of the community. Pemiscot Memorial Health System strives to work in collaboration with local, state and federal organizations to ensure access to primary care for all residents with special emphasis on preventative health and wellness. We diligently work to maintain our financial strength in order that we remain a prominent provider of medical services for the region.

Vision Statement

Pemiscot Memorial Health System will be the “Primary Care Health Care Provider of Choice” for the Pemiscot County region and, through its offering of primary and secondary level of medical care programs and services, will serve as the entry point for the provision of a “continuum” of medical care services.

Values

- ✓ Values the life, health and diversity of our communities
- ✓ Fosters an atmosphere of trust and integrity
- ✓ Promotes loyalty and justice
- ✓ Demonstrates stewardship, excellence and innovation
- ✓ Encourages commitment and teamwork
- ✓ Supports personal and professional growth

Significant Community Benefit Programs

- ✓ Community smoke cessation classes
- ✓ Community health fairs
- ✓ Industrial health fairs
- ✓ Weight loss clinic
- ✓ Promotional health screenings
- ✓ County and regional disaster planning/drills
- ✓ Regional site for “Terrorists Chemical Attack” training

Evaluation of Prior CHNA Implementation

| Pemiscot Memorial Health System Prior CHNA Priorities | Actions Taken |
|---|--|
| Preventative Health Education | Started a Medicare Chronic Care Management program in June 2016 for Medicare patients with dual chronic care conditions. This helps the coordination of patient care and insures preventative screening test are being done for the patient. |
| Uninsured | Hired an employee from October 2014 through February 2015 to assist members of the community to sign up for insurance in the federal exchanges. |
| Primary Care Providers | The Hospital added the below primary care providers in 2015 and 2016: <ul style="list-style-type: none"> - 2 full-time nurse practitioners - 1 full-time psychiatrist - 1 part-time physician |

Summary of Findings and Needs

The following health needs were identified based on the information gathered and analyzed through the Community Health Needs Assessment conducted by the Hospital. These needs have been prioritized based on information gathered through the Community Health Needs Assessment.

Identified Community Health Needs
Access to Services and Healthy Living

1. Primary care physicians and pediatricians
2. Mental health providers
3. Low-income and uninsured health care services
4. Transportation and access to care

Chronic Disease Management and Prevention

1. Heart disease
2. Cancer
3. Stroke
4. Lung disease

These identified community health needs are discussed in greater detail later in this report.

Community Served by the Hospital

Defined Community

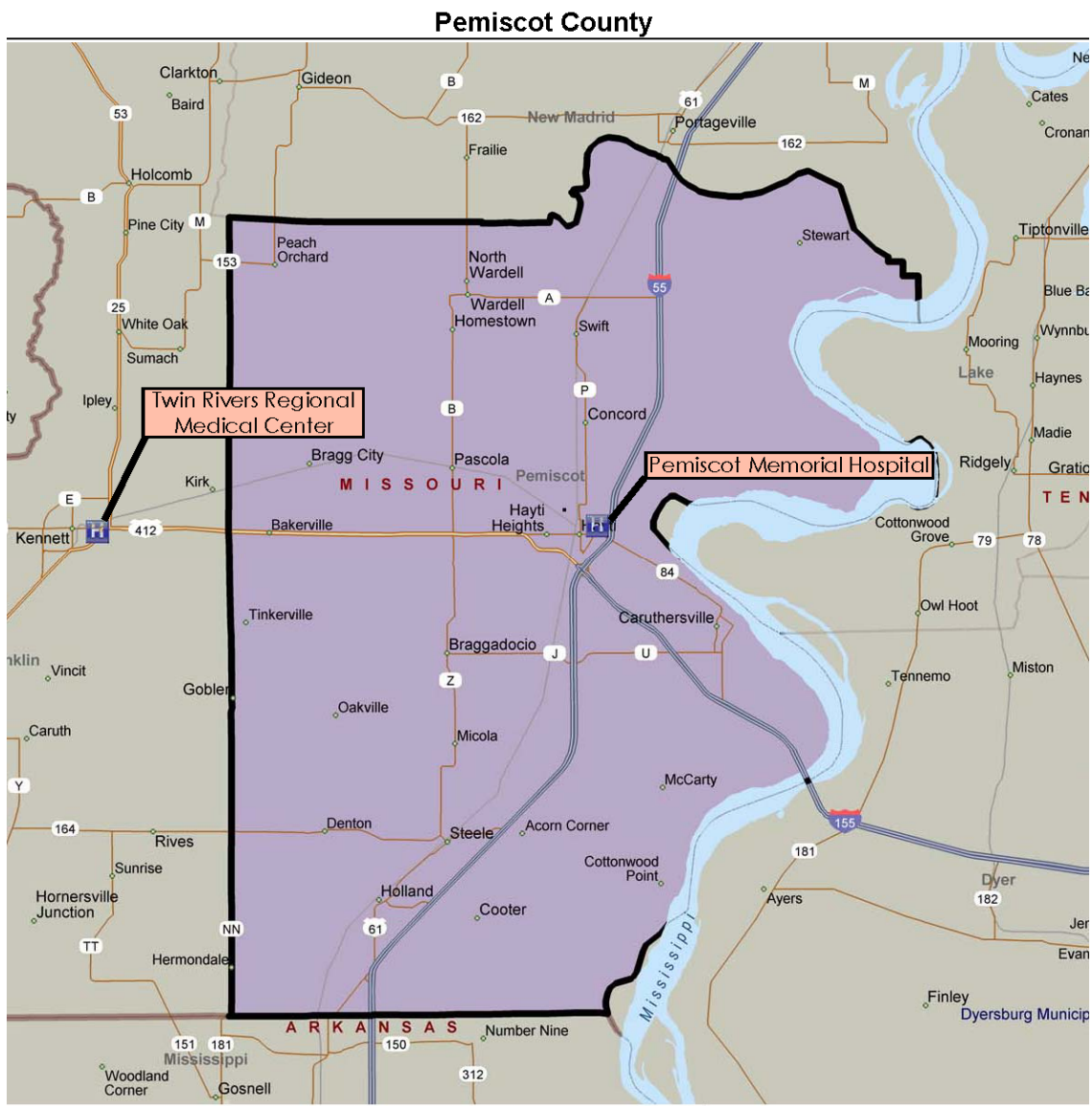
A community is defined as the geographic area from which a significant number of the patients utilizing Hospital services reside. While the community health needs assessment considers other types of health care providers, the Hospital is the single largest provider of acute care services. For this reason, the utilization of the Hospital's services provides the clearest definition of the community.

The Hospital is located in the city of Hayti, Missouri, in Pemiscot County, in the southeastern corner of Missouri, accessible by U.S. highways and other secondary roads. The geographic area of the defined community, based on the patient origin of primary care and hospital discharges from January 1, 2016, through November 30, 2016, indicates the Hospital primarily serves Pemiscot County (Community) residents. This will be used to define the primary service area in the community health needs assessment when gathering demographic, economic and health data. The map, following the Exhibit 1 discharges summary, shows the defined service area for the Community.

| Exhibit 1 Pemiscom Memorial Health System Summary of Discharges and Visits by Zip Code 1/1/2016 to 11/30/2016 | | | |
|--|----------------|---------------------------------------|----------------|
| Zip Code | City | Hospital discharges and visits | Percent |
| Pemiscot County | | | |
| 63851 | Hayti | 4,648 | 30.4% |
| 63830 | Caruthersville | 4,420 | 28.9% |
| 63877 | Steele | 985 | 6.4% |
| 63879 | Wardell | 384 | 2.5% |
| 63827 | Bragg City | 177 | 1.2% |
| 63839 | Cooter | 111 | 0.7% |
| 63853 | Holland | 71 | 0.5% |
| 63826 | Braggadocio | 99 | 0.6% |
| 63840 | Deering | 21 | 0.1% |
| 63849 | Gobler | 31 | 0.2% |
| Total Pemiscot County | | 10,947 | 71.6% |
| All Other Counties | | | |
| Total All Other Counties | | 4,342 | 28.4% |
| Discharges and Visits Total | | 15,289 | 100% |
| <i>*May not total due to rounding</i> | | | |
| <i>Source: Pemiscot Memorial Health System</i> | | | |

Identification and Description of Geographical Community

The geographic area of the defined Community based on the identified zip codes includes only Pemiscot County. The community health needs assessment utilized this county as the defined Community. The following map illustrates the Hospital's location within the Community by showing zip codes and significant highway.



Community Population and Demographics

The United States Bureau of Census has compiled population and demographic data based on the American Community Survey 2010 - 2014 5-year estimates. *Exhibit 2* below shows the total population of the community. It also provides the breakout of the Community between male and female population, age, race and ethnicity.

| Exhibit 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------------|--|--------|----------------------|------------|-------------|--------|-----------|-----------------------|-------------|--------|-------|----------------|--|------|--|----------------|--|-------|--|--------------------|--|-------|--|
| Pemiscot Memorial Health System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Demographic Snapshot | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Population | | | | | Population by Gender | | | | | | | | | | | | | | | | | | | | |
| County | | Population | | | Area | | Male | | % | | Female | | % | | | | | | | | | | | | |
| Pemiscot County | | 18,010 | | | Pemiscot County | | 8,482 | | 47.1% | | 9,528 | | 52.9% | | | | | | | | | | | | |
| Missouri | | 6,028,076 | | | Missouri | | 2,953,719 | | 49.0% | | 3,074,357 | | 51.0% | | | | | | | | | | | | |
| United States | | 314,107,080 | | | United States | | 154,515,152 | | 49.2% | | 159,591,920 | | 50.8% | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Age Distribution | | | | | | | | | | | | | | | | | | | | | | | | | |
| Age Group | | Pemiscot | | % | | Missouri | | % | | United States | | % | | | | | | | | | | | | | |
| 0 -4 | | 1,379 | | 7.7% | | 379,273 | | 6.3% | | 19,973,712 | | 6.4% | | | | | | | | | | | | | |
| 5 - 19 | | 3,510 | | 19.5% | | 1,027,221 | | 17.0% | | 53,803,944 | | 17.1% | | | | | | | | | | | | | |
| 18 - 24 | | 1,661 | | 9.2% | | 592,652 | | 9.8% | | 31,273,296 | | 10.0% | | | | | | | | | | | | | |
| 25 - 34 | | 1,951 | | 10.8% | | 792,560 | | 13.2% | | 42,310,184 | | 13.5% | | | | | | | | | | | | | |
| 35 - 44 | | 2,146 | | 11.9% | | 735,511 | | 12.2% | | 40,723,040 | | 13.0% | | | | | | | | | | | | | |
| 45 - 54 | | 2,432 | | 13.5% | | 854,632 | | 14.2% | | 44,248,184 | | 14.1% | | | | | | | | | | | | | |
| 55 - 64 | | 2,208 | | 12.3% | | 763,675 | | 12.7% | | 38,596,760 | | 12.3% | | | | | | | | | | | | | |
| 65+ | | 2,723 | | 15.1% | | 882,552 | | 14.6% | | 43,177,960 | | 13.8% | | | | | | | | | | | | | |
| Total | | 18,010 | | 100.0% | | 6,028,076 | | 100.0% | | 314,107,080 | | 100.0% | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Race | | | | | | | | | Ethnicity | | | | | | | | | | | | | | | | |
| Area | | White | | % | | Black | | % | | All Other Single Race | | % | | Multiple Races | | % | | Total Hispanic | | % | | Total Non-Hispanic | | % | |
| Pemiscot County | | 12,771 | | 70.9% | | 4,851 | | 26.9% | | 116 | | 0.6% | | 272 | | 1.5% | | 392 | | 2.2% | | 17,618 | | 97.8% | |
| Missouri | | 4,991,914 | | 82.8% | | 695,813 | | 11.5% | | 196,081 | | 3.3% | | 144,268 | | 2.4% | | 226,388 | | 3.8% | | 5,801,688 | | 96.2% | |
| United States | | 231,849,710 | | 73.8% | | 39,564,784 | | 12.6% | | 33,566,835 | | 10.7% | | 9,125,751 | | 2.9% | | 53,070,090 | | 16.9% | | 261,036,990 | | 83.1% | |
| *May not total due to rounding | | | | | | | | | | | | | | | | | | | | | | | | | |
| Source: Community Commons (ACS 2010-2014 data sets) | | | | | | | | | | | | | | | | | | | | | | | | | |

The age category that utilizes health care services the most, 65 years and over, is 15.1% percent of the population in the Community. This compares to 14.6% in Missouri and 13.7% in the United States. The number of persons age 65 or older is relevant because this population has unique health needs, which should be considered separately from other age groups.

While the relative age of the Community population can influence community health needs, so can the ethnicity and race of a population. The population of the Community by race and ethnicity illustrates different categories such as, white, black, other single Race, Multiple Races and Hispanic ethnicity.

Urban/Rural

Exhibit 3 reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban. This table helps to understand how access to care can be limited.

| Exhibit 3 Pemiscot Memorial Health System Urban/Rural Population | | | | |
|---|-------------------------|-------------------------|----------------------|----------------------|
| County | Urban Population | Rural Population | Percent Urban | Percent Rural |
| Pemiscot County | 9,282 | 9,014 | 50.7% | 49.3% |
| Missouri | 4,218,371 | 1,770,556 | 70.4% | 29.6% |
| United States | 252,746,527 | 59,724,800 | 80.9% | 19.1% |

Source: US Census Bureau, Decennial Census. 2010.

Data might not agree to other information in assessment due to different data sources utilized

Socioeconomic Characteristics of the Community

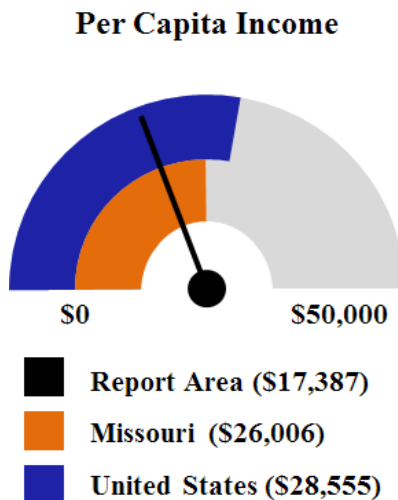
The socioeconomic characteristics of a geographic area influence the way residents access health care services and perceive the need for health care services within society. The economic status of an area may be assessed by examining multiple variables within the community. The following exhibits are a compilation of data that includes household per capita income, poverty status, employment rates, educational attainment and health insurance status for the community served by the Hospital. These standard measures will be used to compare the socioeconomic status of the community to the State of Missouri and the United States.

Income

Exhibit 4 presents the per capita income for the Community. This includes all reported income from wages and salaries as well as income from self-employment, interest or dividends, public assistance, retirement and other sources. The per capita income in this exhibit is the average (mean) income computed for every man, woman and child in the specified area.

| Exhibit 4 Pemiscom Memorial Health System Per Capita Income (In 2014 Inflation Adjusted USD) | | |
|--|-------------------------|-------------------------------|
| | Total Population | Per Capita Income (\$) |
| Pemiscom County | 18,010 | \$ 17,387 |
| Missouri | 6,028,076 | \$ 26,006 |
| United States | 314,107,080 | \$ 28,555 |

Source: Community Commons (ACS 2010-2014 data sets)



Employment

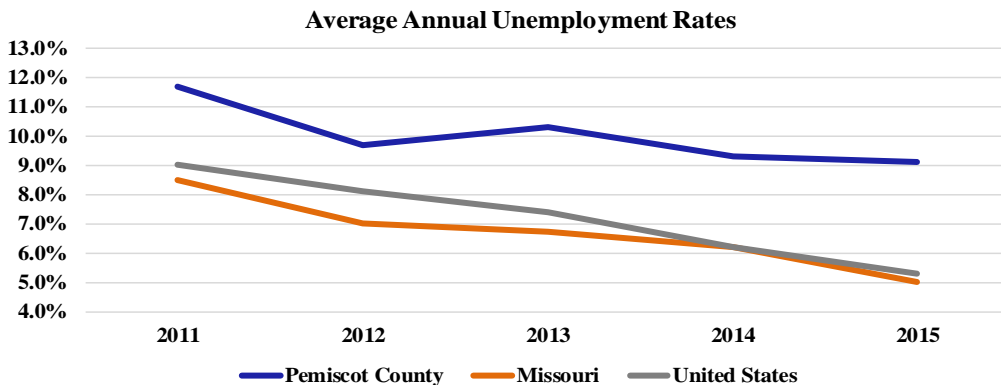
According to research of the community area, Pemiscot County is supported by major industries including healthcare and education. The top job categories in Pemiscot County, Missouri, include production, office and administrative support, management and healthcare. In addition to the Hospital, other major employers in the county include Trinity Marine Products, Lady Luck Casino, Hayti Schools and M-D Building products.

Source: Division of Business and Community Services, 2015, retrieved from locationone.com

Exhibit 5 presents the average annual resident unemployment rates for Pemiscot County, Missouri, and the United States. As the table illustrates, unemployment rates for Pemiscot County has decreased from 2011 (11.7%) through 2015 (9.1%). Pemiscot County ranks unfavorably when compared to Missouri and national rates. Unemployment rates for Missouri have been equal to or lower than national rates since 2011.

| Exhibit 5 Pemisicot Memorial Health System Average Annual Unemployment Rates (%) 2011 - 2015 | | | | | |
|---|-------|------|-------|------|------|
| | 2011 | 2012 | 2013 | 2014 | 2015 |
| Pemisicot County | 11.7% | 9.7% | 10.3% | 9.3% | 9.1% |
| Missouri | 8.5% | 7.0% | 6.7% | 6.2% | 5.0% |
| United States | 9.0% | 8.1% | 7.4% | 6.2% | 5.3% |

Source: Community Commons (ACS 2010-2014 data sets)



Poverty

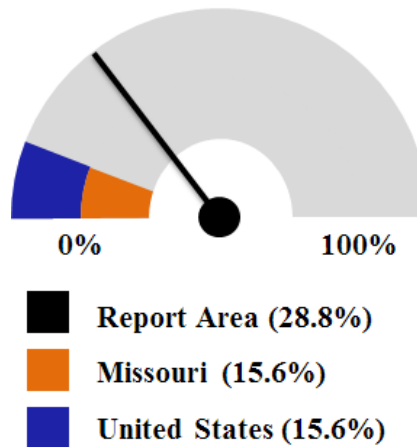
The following *Exhibit 6* shows the percentage of total population in poverty for all persons and for those under the age of 18 in Pemiscot County versus Missouri and the United States. In 2014, a family of four was considered poor if their annual household income fell below \$23,850. Poverty rates for Pemiscot County rank unfavorably when compared to the state and national averages.

| Exhibit 6 Pemiscom Memorial Health System Poverty Estimate: Percentage of Population in Poverty and Median Family Income 2010 - 2014 | | | | | |
|---|------------------------|--------------|------------------------|--------------|----------------------|
| County | All Persons | Under Age 18 | All Persons | Under Age 18 | Median Family Income |
| | Below 100% FPL* | | Below 200% FPL* | | |
| Pemiscot County | 28.8% | 43.8% | 51.5% | 66.2% | \$ 39,964 |
| Missouri | 15.6% | 21.5% | 35.5% | 44.6% | \$ 60,414 |
| United States | 15.6% | 21.9% | 34.5% | 44.2% | \$ 65,443 |

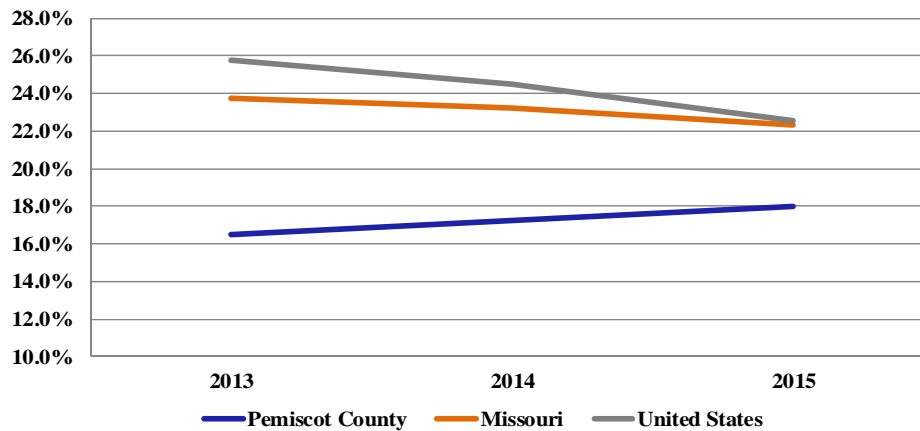
Source: Community Commons (ACS 2010-2014 data sets)

* Federal Poverty Line

Percent Population Below 100% FPL



**Poverty Levels
Below 200% Federal Poverty Line
2013 – 2015**



Uninsured Status

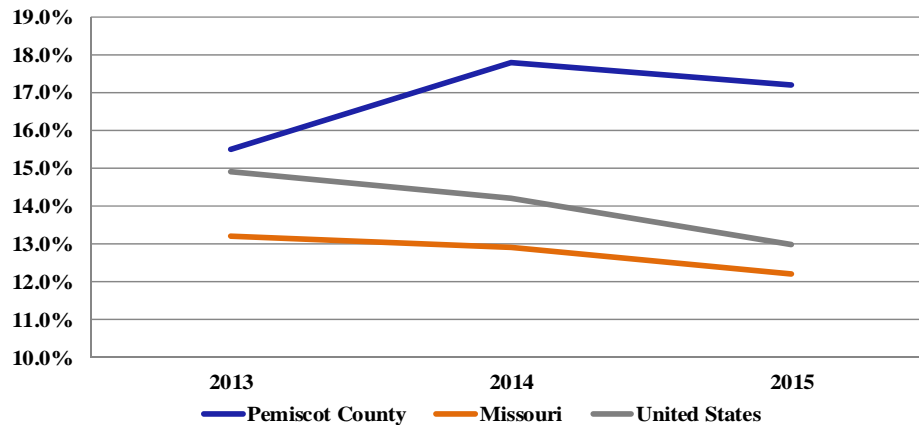
Exhibits 7 below represent health insurance coverage status for Pemiscot County versus Missouri and the United States, including a comparison of those insured at different income levels from 2013 through 2015.

| Exhibit 7 Pemiscot Memorial Health System Health Insurance Coverage Status | | | | |
|--|------------------|---------------|-----------------|-------------------|
| | Total Population | Total Insured | Total Uninsured | Percent Uninsured |
| Pemiscot County | 17,657 | 14,615 | 3,042 | 17.2% |
| Missouri | 5,932,448 | 5,205,916 | 726,533 | 12.2% |
| United States | 311,516,332 | 271,070,101 | 40,446,231 | 13.0% |
| <i>Source: US Census Bureau, American Community Survey. 2011-15.</i> <i>*Data might not agree to other information in assessment due to different data sources utilized</i> | | | | |

Pemiscot County has a higher percentage of uninsured when compared to Missouri and the United States.

Uninsured Population

All Income Levels 2013 – 2015



Education

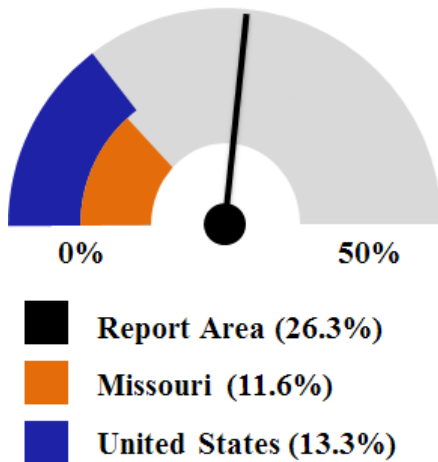
Educational attainment by age cohort for individuals in Pemiscot County versus the State of Missouri can be seen in *Exhibit 8* below.

| Exhibit 8 Pemiscom Memorial Health System Educational Attainment of Population Age 25 and Older | | | | | | | | |
|--|----------------------------------|-------|---|-------|-------------------------------|-------|------------------------------------|-------|
| | No Diploma (or equivalent) | % | High School Diploma (or equivalent) | % | Some college, no degree | % | Associate's Degree or Higher | % |
| Pemiscot County | 3,011 | 26.3% | 4,316 | 37.8% | 2,181 | 19.1% | 1,922 | 16.8% |
| Missouri | 469,817 | 11.6% | 1,266,920 | 31.3% | 917,017 | 22.6% | 1,398,546 | 34.5% |
| United States | 28,229,094 | 13.3% | 58,722,528 | 27.8% | 44,529,161 | 21.1% | 79,981,739 | 37.8% |

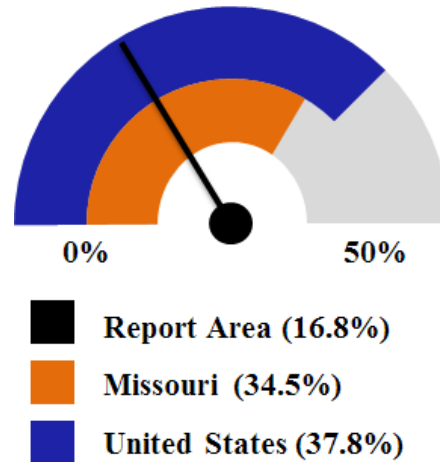
Source: US Census Bureau, American Community Survey, 2011-15.

Education levels obtained by community residents may impact the local economy. Higher levels of education generally lead to higher wages, less unemployment and job stability. These factors may indirectly influence community health. Pemiscot County has a higher percentage of high school completion than the state and national level, but also a higher percentage with no high school diploma or equivalent as well as a lower percentage than the state and national levels for percentage with associate's degrees or higher.

Percent Population Age 25+ with No Diploma (or Equivalent)



Percent Population Age 25+ with Associate's Degree or higher



Health Status of the Community

This section of the assessment reviews the health status of Pemiscot County residents. As in the previous section, comparisons are provided with the state of Missouri and the United States. This assessment of the mortality and morbidity data, health outcomes, health factors and mental health indicators of the county residents that make up the community will enable the Hospital to identify priority health issues related to the health status of its residents.

Good health can be defined as a state of physical, mental and social well-being, rather than the absence of disease or infirmity. According to *Healthy People 2020*, the national health objectives released by the U.S. Department of Health and Human Services, individual health is closely linked to community health. Community health, which includes both the physical and social environment in which individuals live, work and play, is profoundly affected by the collective behaviors, attitudes and beliefs of everyone who lives in the community. Healthy people are among a community's most essential resources.

Numerous factors have a significant impact on an individual's health status: lifestyle and behavior, human biology, environmental and socioeconomic conditions, as well as access to adequate and appropriate health care and medical services. Studies by the American Society of Internal Medicine conclude that up to 70 percent of an individual's health status is directly attributable to personal lifestyle decisions and attitudes. Persons who do not smoke, who drink in moderation (if at all), use automobile seat belts (car seats for infants and small children), maintain a nutritious low-fat, high-fiber diet, reduce excess stress in daily living and exercise regularly have a significantly greater potential of avoiding debilitating diseases, infirmities and premature death.

The interrelationship among lifestyle/behavior, personal health attitude and poor health status is gaining recognition and acceptance by both the general public and health care providers. Some examples of lifestyle/behavior and related health care problems are given below in *Exhibit 9* on the following page.

| Exhibit 9 Pemiscot Memorial Health System | |
|--|--|
| Lifestyle/Behavior | Primary Disease Factor |
| Smoking | Lung cancer Emphysema Chronic bronchitis Cardiovascular disease |
| Alcohol/Drug Abuse | Cirrhosis of liver Malnutrition Mental illness Suicide Motor vehicle crashes Unintentional injuries |
| Poor Nutrition | Obesity Digestive disease Depression |
| Driving at Excessive Speeds | Trauma Motor vehicle crashes |
| Lack of Exercise | Cardiovascular disease Depression |
| Overstressed | Mental illness Alcohol/Drug abuse Cardiovascular disease |

Health problems should be examined in terms of morbidity as well as mortality. Morbidity is defined as the incidence of illness or injury and mortality is defined as the incidence of death. However, law does not require reporting the incidence of a particular disease, except when the public health is potentially endangered.

Due to limited morbidity data, this health status report relies heavily on death and death rate statistics for leading causes in death in Pemiscot County and the state of Missouri. Such information provides useful indicators of health status trends and permits an assessment of the impact of changes in health services on a resident population during an established period of time. Community attention and health care resources may then be directed to those areas of greatest impact and concern.

Leading Causes of Death

Exhibit 10 shows selected causes of death (year 2000 age-adjusted death rates per 100,000 population) for Pemiscot County residents compared to the state of Missouri and the United States. The table also shows the target rate set by Healthy People 2020 (HP 2020).

| Exhibit 10 Pemisnot Memorial Health System Selected Causes of Resident Deaths: Number and Crude Rate (2000 Age-adjusted death rates per 100,000 population) | | | | | | | |
|--|------------------------|-------------|-----------------|-------------|----------------------|-------------|--------------------|
| | Pemisnot County | | Missouri | | United States | | HP 2020 |
| | Number | Rate | Number | Rate | Number | Rate | Target Rate |
| Heart Disease | 78 | 367.3 | 13,965 | 196.3 | 603,698 | 171.8 | - |
| Cancer | 50 | 236.2 | 12,808 | 180.8 | 581,919 | 166.3 | <= 160.6 |
| Drug Overdose | 6 | 36.7 | 999 | 17.1 | 42,432 | 13.4 | <= 10.2 |
| Lung Disease | 19 | 87.8 | 3,652 | 51.8 | 144,125 | 41.7 | - |
| Stroke | 10 | 46.2 | 2,998.0 | 42.2 | 129,754 | 37.3 | <= 33.8 |
| Unintentional Injury | 17 | 102.8 | 3,047.0 | 48.4 | 128,295 | 39.2 | <= 36.0 |
| Motor Vehicle Accident | 5 | 31.7 | 800.0 | 13.1 | 33,977 | 10.6 | - |
| Suicide | 4 | 20.8 | 936.0 | 15.2 | 40,466 | 12.5 | <= 10.2 |
| <i>Source: Community Commons (ACS 2010-2014 data sets)</i> | | | | | | | |

All of the above causes of deaths for Pemiscot County are greater than the state rates, the United States rates, and the Healthy People 2020 target rates.

Health Outcomes and Factors

An analysis of various health outcomes and factors for a particular community can, if improved, help make that community a healthier place to live, learn, work and play. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment. This portion of the community health needs assessment utilizes information from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

The County Health Rankings model is grounded in the belief that programs and policies implemented at the local, state and federal levels have an impact on the variety of factors that, in turn, determine the health outcomes for communities across the nation. The model provides a ranking method that ranks all 50 states and the counties within each state, based on the measurement of two types of health outcomes for each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by programs and policies at the local, state and federal levels.

Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Those having high ranks, *e.g.* 1 or 2, are considered to be the “healthiest.” Counties are ranked relative to the health of other counties in the same state on the following summary measures:

- Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
- Health Factors--rankings are based on weighted scores of four types of factors:
 - ✓ Health behaviors (six measures)
 - ✓ Clinical care (five measures)
 - ✓ Social and economic (seven measures)
 - ✓ Physical environment (four measures)

A more detailed discussion about the ranking system, data sources and measures, data quality and calculating scores and ranks can be found at the website for County Health Rankings (www.countyhealthrankings.org).

Community Commons is an interactive mapping, networking and learning utility which allows members access to public data with easy-to-understand visualizations such as maps, reports and charts, and searchable community profiles. The platform allows for identification of community initiatives and collaborations working towards healthy/sustainable/livable/equitable communities. A more detailed analysis of this initiative is available at the Community Commons website (www.communitycommons.org).

As part of the analysis of the needs assessment for the community, the county that comprises the community will be used to compare the relative health status of each county to the state of Missouri as well as to a national benchmark as seen in *Exhibit 11*. The current year information is compared to the health outcomes reported on the prior community health needs assessment and the change in measures is indicated. A better understanding of the factors that affect the health of the community will assist with how to improve the community’s habits, culture and environment.

Please refer to Appendix C for the full list of health factor findings and analysis and comparisons between prior year information reported and current year information.

| Exhibit 11 | | | | | |
|---|-------------------------|----------------------------|----------------------------------|---------|------------------------------|
| Pemiscom Memorial Health System | | | | | |
| County Health Rankings - Health Outcomes | | | | | |
| | Pemiscom County 2013 | Pemiscom County 2016 | Increase/ Decrease | MO 2015 | Top US Performers 2015 |
| Mortality* | 113 | 115 | ↑ | | |
| Premature death - Years of potential life lost before age 75 per 100,000 population (age-adjusted) | 13,569 | 16,200 | ↑ | 7,700 | 5,200 |
| Morbidity* | 110 | 114 | ↑ | | |
| Poor or fair health - Percent of adults reporting fair or poor health (age-adjusted) | N/A | 24% | — | 16% | 12% |
| Poor physical health days - Average number of physically unhealthy days reported in past 30 days (age-adjusted) | 4.3 | 5.0 | ↑ | 4.1 | 2.9 |
| Poor mental health days - Average number of mentally unhealthy days reported in past 30 days (Age Adjusted) | 4.5 | 4.4 | ↓ | 3.7 | 2.8 |
| Low birth weight - Percent of live births with low birth weight (<2500 grams) | 14.1% | 14.0% | ↓ | 8.0% | 6.0% |
| * Rank out of 115 Missouri counties | | | | | |
| Source: Countyhealthrankings.org | | | Note: N/A Indicates Missing Data | | |

Health Outcomes - rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures. The above table shows Pemiscot County's mortality and morbidity outcomes have mostly increased from the prior community health needs assessment and are higher than the national benchmarks for 2015.

A number of different health factors shape a community's health outcomes. The county Health Rankings model includes four types of health factors: health behaviors, clinical care, social and economic and the physical environment. The following summary shows some of the major improvements from prior year to current year and challenges faced by Pemiscot County in the Hospital's community.

The improvements/challenges shown below in *Exhibits 12 and 13* were determined using a process of comparing the rankings the county's health outcomes in the current year to the rankings in the prior year. If the current year rankings showed an improvement or decline of three percent or three points, they were included in the charts below.

As seen on the following page, Pemiscot County has improved since 2013 compared to the amount of challenges. The ratio of primary care physicians per population in the community, the percentage of children in single parent households, the percentage of people driving alone to work, and the violent crime rates were all challenges over the past few years, while eight different benchmarks were improvements.

| Exhibit 12 Pemiscot Memorial Health System Improvements from 2013 - 2016 | |
|---|---|
| Adult Obesity - decreased by 4% from 38% to 34% | Mental Health Providers - decreased the number of population for every mental health provider by 17,324 people from 18,254 to 930 |
| Sexually Transmitted Infections – decreased by 54 cases from 722 to 668 | Preventable Hospital Stays – decreased rate by 10 from 149 to 139 |
| Teen Birth Rate – decreased rate by 13, from 100 to 87 | High School Graduations - increased by 6% from 75% to 81% |
| Dentists - decreased the number of population for every one dentist by 604 people from 18,254 to 17,650 | Children in Poverty – decreased by 4% from 44% to 40% |

| Exhibit 13 Pemiscot Memorial Health System Challenges from 2013 - 2016 |
|---|
| Primary Care Physicians – increased the number of population for every one primary care physician by 809 people from 3,651 to 4,460 |
| Children in single-parent households – increased 3% from 53% to 56% |
| Violent Crime Rate – increased by 101 from 668 to 769 |
| Driving alone to work – increased by 3% from 82% to 85% |

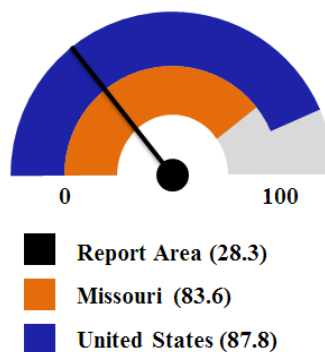
Health Care Resources

The availability of health resources is a critical component to the health of a county's residents and a measure of the soundness of the area's health care delivery system. An adequate number of health care facilities and health care providers are vital for sustaining a community's health status. Fewer health care facilities and health care providers can impact the timely delivery of services. *Exhibits 14 and 15* below and on the following page show a comparison of Pemiscot County to the State of Missouri and the United States in Access to Primary Care and the percentage of the population living in a Health Professional Shortage Area (HPSA).

| Exhibit 14 Pemisicot Memorial Health System Access to Primary Care | | | |
|---|----------------------------------|---|---|
| | Total Population 2014 | Primary Care Physicians 2014 | Primary Care Physicians Rate per 100,000 |
| Pemisicot County | 17,650 | 5 | 28.3 |
| Missouri | 6,063,589 | 5,072 | 83.6 |
| United States | 318,857,056 | 279,871 | 87.8 |

Data Source: US Department of Health Human Services, Health Resources and Services Administration. 2014
 *Data might not agree to other information in assessment due to different data sources utilized

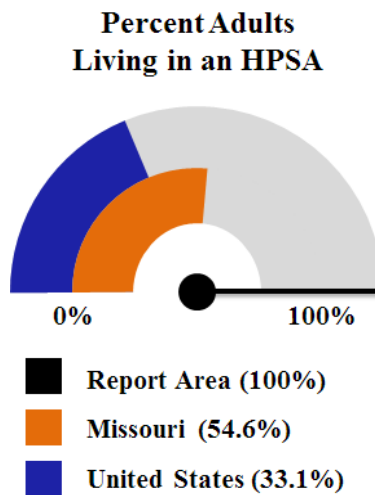
**Number of Primary Care
Physicians (Rate per 100,000
population)**



| Exhibit 15 Pemiscom Memorial Health System Population Living in a Health Professional Shortage Area (HPSA) | | | |
|---|-------------------------|-------------------------------------|----------------------------------|
| | Total Population | Population Living in an HPSA | Percent Living in an HPSA |
| Pemiscom County | 18,296 | 18,296 | 100.0% |
| Missouri | 5,988,927 | 3,266,848 | 54.6% |
| United States | 308,745,538 | 102,289,607 | 33.1% |

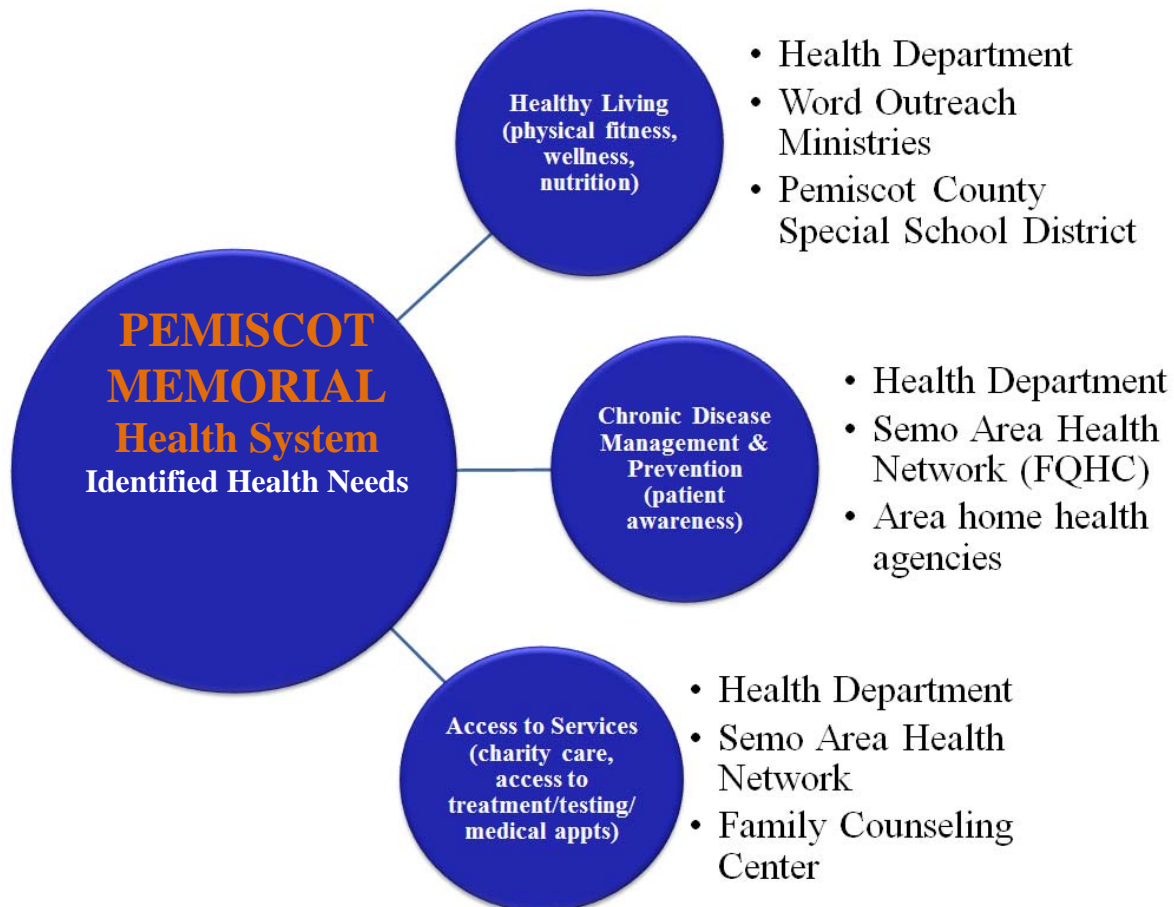
Data Source: US Department of Health & Human Services, Health Resources and Services Administration. 2016

**Data might not agree to other information in assessment due to different data sources utilized*



Pemiscom County ranks lower than the state at both levels. A limited supply of health resources, especially providers, results in the limited capacity of the health care delivery system to absorb charity and indigent care as there are fewer providers upon which to distribute the burden of indigent care. Please refer to the Appendices, which address the availability of health care resources to the residents of Pemiscom County.

Health Care Resources



Key Informant Interviews

Interviewing key informants (community stakeholders) is a technique employed to assess public perceptions of the county's health status and unmet needs. These interviews are intended to ascertain opinions among individuals likely to be knowledgeable about the community and influential over the opinions of others about health concerns in the community.

Methodology

Interviews with four stakeholders were conducted in December 2016 over the phone. Stakeholders were determined based on their: a) specialized knowledge or expertise in public health, b) their affiliation with local government, schools and industry or c) their involvement with underserved and minority populations.

All interviews were conducted using a standard questionnaire. A copy of the interview instrument is included in the Appendices. A summary of their opinions is reported without judging the truthfulness or accuracy of their remarks. Community leaders provided comments on the following issues:

- ✓ Health and quality of life for residents of the primary community in relation to the current strategies implemented.
- ✓ Thoughts on how current programs are improving health and quality of life for residents of the primary community or identifying programs done by others that address similar needs.
- ✓ Opinions regarding and new needs or health issues that affect Pemiscot County residents and the types of services that are important for addressing these new issues.

This technique does not provide a quantitative analysis of the leaders' opinions, but reveals some of the factors affecting the views and sentiments about overall health and quality of life within the community.

Key Informant Profiles

Representatives from the community who were included in the key informant interview process worked for the various types of organizations and agencies (see *Appendix* for a detailed list of participants).

These health care and non-health care professionals provided insight into the health status of the Hospital through a seven-question interview (refer to the *Appendix* for full interview process).

Key Informant Interview/Focus Group Results

Key informants stated the following issues were the greatest needs identified within their Community:

- The community needs more pediatricians and dental care providers. Recently, a new provider in Hayti has helped the situation, but it could still improve. ER utilization is also too high – individuals can't get into a doctor's office when they need to and they use the ER instead.
- Serving the low-income population. Rural population's needs aren't being met since there is a lack of funding. More industry needed to provide good jobs, more money in local economy, provider more employer based insurance coverage.
- Equipment upgrades are needed for the hospital. This could lead to more recruitment and help solve some of the access to care issues.
- Some groups with lower health or quality of life in the area include those with lower educational status, those with travel needs, low-income individuals and those who are uninsured.

A summary of themes and key findings provided by the stakeholders were as follows:

- ✓ Lack of preventative care
- ✓ Health concerns for low-income and uninsured population

- ✓ Access to care
- ✓ Lack of primary care providers, pediatricians and dentists

Health Issues of Vulnerable Populations

According to Dignity Health's Community Need Index (See Appendix F), the Hospital's Community has a relatively high level of need. The CNI score is an average of five different barrier scores that measure socioeconomic indicators of each community (income, cultural, education, insurance and housing) with 1 being the lowest need and 5 being the greatest need. The zip codes in the Community that have the highest need in the community are listed in *Exhibit 16* on the following page. All but one of Pemiscot County's zip codes were given a score of 4.4 or higher, with a mean or average of 4.7 per person in the Community.

| Exhibit 16 Pemiscom Memorial Health System Zip Codes with Highest Community Need Index | | | |
|---|------------|------------|---------------------------|
| Zip Code | CNI Score* | Population | City (in Pemiscot County) |
| 63827 | 4.4 | 742 | Bragg City |
| 63830 | 4.8 | 6,950 | Caruthersville |
| 63849 | 3.4 | 167 | Gobler |
| 63851 | 4.8 | 4,028 | Hayti |
| 63877 | 4.6 | 4,504 | Steele |
| 63879 | 4.4 | 630 | Wardell |

* Scale of 1 (Lowest Need) to 5 (Highest Need)
Source: Dignity Health Community Need Index, 2016

Information Gaps

This assessment was designed to provide a broad picture of the health in the overall community served by the Health System; however, there may be a number of medical conditions that are not specifically addressed in this report due to various factors, including but not limited to, publically available information or limited community input.

In addition, certain population groups might not be identifiable or might not be represented in numbers sufficient for independent analysis. Examples include homeless, institutionalized persons, undocumented residents and members of certain ethnic groups who do not speak English or Spanish. Efforts were made to obtain input from these specific populations through key stakeholder interviews.

Prioritization of Identified Health Needs

Using findings obtained through the community survey and collection of primary and secondary data enabled Pemiscot Memorial Health System to complete an analysis of these inputs (see *Appendices*) to identify community health needs. The following data was analyzed to identify health needs for the community:

Leading Causes of Death

Leading causes of death for the community were reviewed and the death rates for the leading causes of death within the Hospital's Community were compared to the state of Missouri and the U.S. crude rates. Causes of death in which the county rate compared unfavorably to the state rate by greater than 10 percent resulted in a health need for the Community.

Health Outcomes and Factors

An analysis of the County Health Rankings health outcomes and factors data was prepared for each county within the Community. County rates and measurements for health behaviors, clinical care, social and economic factors and the physical environment were compared to the state of Missouri and U.S. crude rates. County rankings in which the county rate compared unfavorably by greater than 10 percent of the state rate resulted in an identified health need.

Primary Data

Health needs identified through key informant interviews were included as health needs. Needs for vulnerable populations were separately reported on the analysis in order to facilitate the prioritization process.

Health Needs of Vulnerable Populations

Health needs of vulnerable populations were included for ranking purposes.

To facilitate prioritization of identified health needs, a ranking and prioritization process was used. Health needs were ranked based on the following five factors. Each factor received a score between 1 and 5.

- 1) **Ability to evaluate and measure outcomes based on data.** For this factor, ratings were based on the objectivity and availability of supporting data. Needs that can be statistically tracked on an annual basis by sources, such as the County Health Ranking organization, were assigned a 5 for high measurability, and subjective means of evaluation such as informant interviews, were ranked a 3 for lower measurability.
- 2) **How many people are affected by the issue or size of the issue?** For this factor, ratings were based on the percentage of deviation from the state average. The following scales was utilized:
 - a. Percentage or value greater than or equal to 25% towards a negative outcome when compared to the State of Missouri = 5
 - b. Percentage or value greater than or equal to 15% , but less than 25% towards a negative outcome when compared to the State of Missouri = 4
 - c. Percentage or value greater than or equal to 5% , but less than 15% towards a negative outcome when compared to the State of Missouri = 3
 - d. Percentage or value greater than or equal to the State of Missouri, but less than 5% towards a negative outcome when compared to the State of Missouri = 2
 - e. Any percentage or value towards a positive outcome when compared to the State of Missouri = 1

- 3) **What are the consequences of not addressing this problem?** Identified health needs which have a high death rate or have a high impact on chronic diseases received a higher rating for this factor.
- 4) **Prevalence of common themes.** The rating for this factor was determined by how many sources of data (Leading Causes of Death, Primary Causes for Inpatient Hospitalization, Health Outcomes and Factors, key informants and Primary Data) identified the needs.
- 5) **Alignment with Hospital's Goals & Resources.** The rating for this factor was determined by Hospital leadership to capture the management's prioritization process. Leadership reviewed needs reported on the prior assessment as well as the results of the study and key informant interviews. The management team then assigned a score based on a combination of the following criteria:
 - a. Current area of Hospital focus.
 - b. Established relationships with community partners to address the health need.
 - c. Organizational capacity and existing infrastructure to address the health need.

Each need was ranked based on the five prioritization metrics above. As a result, the following summary list of needs was identified:

| Exhibit 17 Pemiscom Memorial Health System Ranking of Community Health Needs | | | | | | |
|---|---|---|--|------------------------------------|--|-----------------------|
| Health Problem | Ability to evaluate and measure outcomes based on data | How many people are affected by the issue? | What are the consequences of not addressing this problem? | Prevalence of common themes | Alignment with Hospital's goals and resources | Weighted Score |
| Heart Disease | 5 | 5 | 5 | 1 | 4 | 30 |
| Cancer | 5 | 5 | 5 | 1 | 4 | 30 |
| Stroke | 5 | 5 | 5 | 1 | 4 | 30 |
| Lung Disease | 5 | 5 | 5 | 1 | 4 | 30 |
| Primary Care Physicians / Pediatricians | 5 | 5 | 3 | 3 | 5 | 29 |
| Mental Health Providers | 5 | 5 | 4 | 1 | 5 | 29 |
| Low-Income Population Health Care | 3 | 4 | 5 | 2 | 5 | 28 |
| Transportation / Access to Care | 3 | 4 | 5 | 2 | 5 | 28 |
| Drug Overdose | 5 | 5 | 5 | 1 | 1 | 27 |
| Adult Smoking | 5 | 4 | 4 | 1 | 4 | 26 |
| Children in Poverty | 4 | 5 | 3 | 2 | 3 | 25 |
| Children in Single-Parent Households | 4 | 5 | 3 | 2 | 3 | 25 |
| Adult Obesity | 5 | 3 | 5 | 1 | 3 | 25 |
| Dentists | 5 | 5 | 3 | 2 | 1 | 24 |
| Preventable Hospital Stays | 5 | 5 | 2 | 1 | 4 | 24 |
| Uninsured | 4 | 3 | 4 | 2 | 4 | 24 |
| Teen Birth Rate | 4 | 5 | 2 | 1 | 2 | 21 |
| Sexually Transmitted Infections | 2 | 5 | 2 | 1 | 2 | 19 |
| Mammography Screening | 3 | 4 | 2 | 1 | 3 | 19 |
| Access to Exercise Opportunities | 4 | 5 | 1 | 1 | 1 | 18 |
| Physical Inactivity | 2 | 4 | 3 | 1 | 1 | 18 |
| Violent Crime Rate | 4 | 5 | 1 | 1 | 1 | 18 |
| Food Environment Index | 5 | 4 | 1 | 1 | 1 | 17 |
| Alcohol-impaired driving deaths | 4 | 1 | 3 | 1 | 1 | 14 |
| Diabetic Screen Rate | 3 | 2 | 1 | 1 | 4 | 14 |
| Excessive Drinking | 1 | 1 | 3 | 1 | 1 | 11 |

Hospital leadership reviewed the identified needs reported in the table above. Through discussion and debate, leadership identified priorities the Hospital should focus on for calendar years 2017-2018. As a result of the analysis above the following areas were identified as priority areas on which we will focus.

Access to Services and Healthy Living

1. Primary care physicians and pediatricians
2. Mental health providers
3. Low-income and uninsured health care services
4. Transportation and access to care

Chronic Disease Management and Prevention

1. Heart disease
2. Cancer
3. Stroke
4. Lung disease

The Hospital's next steps include developing an implementation strategy to address these priority areas. The plan will be submitted to the Board of Trustees for adoption and approval. The final version of the community health needs assessment will be available to the public on the Hospital's website.

APPENDICIES

APPENDIX A

ACKNOWLEDGEMENTS

Key Informants

Thank you to the following individuals who participated in our key informant interview process:

Russell Gilmore – *Chairman, Board of Trustees, Pemiscot Memorial Health System*

Mikey Wilkerson, RN – *Health Department*

Steve Watkins – *County Commissioner*

Darlene Blankenship, RN – *Delta C-7 School Nurse*

APPENDIX B

COUNTY HEALTH RANKINGS DETAILS

**Pemisicot Memorial Health System
County Health Rankings - Health Factors**

| | Pemisicot County 2013 | Pemisicot County 2016 | | Missouri 2016 | Top US Performers 2016 |
|--|--------------------------|--------------------------|---|------------------|---------------------------|
| Health Behaviors* | 114 | 113 | | | |
| Adult smoking - Percent of adults that report smoking at least 100 cigarettes and that they currently smoke | N/A | 26.0% | — | 21.0% | 14.0% |
| Adult obesity - Percent of adults that report a BMI >= 30 | 38.0% | 34.0% | ↓ | 31.0% | 25.0% |
| Food environment index [^] - Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best) | N/A | 5.6 | — | 6.9 | 8.3 |
| Physical inactivity - Percent of adults aged 20 and over reporting no leisure time physical activity | 31.0% | 30.0% | ↓ | 26.0% | 20.0% |
| Access to exercise opportunities [^] - Percentage of population with adequate access to locations for physical activity | N/A | 37.0% | — | 76.0% | 91.0% |
| Excessive drinking - Percent of adults that report excessive drinking in the past 30 days | N/A | 13.0% | — | 16.0% | 12.0% |
| Alcohol impaired driving deaths - % of motor vehicle crash deaths involving alcohol | N/A | 24.0% | ↑ | 33.0% | 14.0% |
| Sexually transmitted infections - Chlamydia rate per 100K population | 722 | 668 | ↓ | 453.8 | 134.1 |
| Teen births - female population, ages 15-19 | 100.0 | 87.0 | ↓ | 38.0 | 19.0 |
| Clinical Care* | 106 | 109 | | | |
| Uninsured adults - Percent of population under age 65 without health insurance | 14.0% | 14.0% | — | 15.0% | 11.0% |
| Primary care physicians - Number of population for every one primary care physician | 3,651 | 4,460 | ↑ | 1,420 | 1,040 |
| Dentists - Number of population for every one dentist | 18,254 | 17,650 | ↓ | 1,870 | 1,340 |
| Mental health providers - Number of population for every one mental health provider | 18,254 | 930 | ↓ | 600 | 370 |
| Preventable hospital stays - Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees | 149 | 139 | ↓ | 59.0 | 38.0 |
| Diabetic screening [^] - Percent of diabetic Medicare enrollees that receive HbA1c screening | 83.0% | 83.0% | — | 86.0% | 90.0% |
| Mammography screening [^] - Percent of female Medicare enrollees that receive mammography screening | 47.5% | 49.0% | ↑ | 62.0% | 71.0% |
| Social & Economic Factors* | 114 | 114 | | | |
| High school graduation [^] - Percent of ninth grade cohort that graduates in 4 years | 75.0% | 81.0% | ↑ | 88.0% | 93.0% |
| Some college [^] - Percent of adults aged 25-44 years with some post-secondary education | 40.6% | 42.0% | ↑ | 65.0% | 72.0% |
| Unemployment - Percent of population age 16+ unemployed but seeking work | 10.2% | 9.0% | ↓ | 6.1% | 3.5% |
| Children in poverty - Percent of children under age 18 in poverty | 44.0% | 40.0% | ↓ | 21.0% | 13.0% |
| Income inequality - Ratio of household income at the 80th percentile to income at the 20th percentile | N/A | 5.3 | — | 4.6 | 3.7 |
| Children in single-parent households - Percent of children that live in household headed by single parent | 53.0% | 56.0% | ↑ | 33.0% | 21.0% |
| Social associations [^] - Number of membership associations per 10,000 population | N/A | 15.7 | — | 11.8 | 22.1 |
| Violent Crime Rate - Violent crime rate per 100,000 population (age-adjusted) | 668.0 | 769.0 | ↑ | 452.0 | 59.0 |
| Injury deaths - Number of deaths due to injury per 100,000 population | N/A | 126.0 | — | 74.0 | 51.0 |
| Physical Environment* | 61 | 115 | | | |
| Air pollution-particulate matter days - Average daily measure of fine particulate matter in micrograms per cubic meter | 13.3 | 13.3 | — | 10.2 | 9.5 |
| Drinking Water Violations - Percentage of population exposed to water exceeding a violation limit during the past year | 0.0% | Yes | ↑ | N/A | 0.0% |
| Severe housing problems - Percentage of household with at least 1 of 4 housing problems: overcrowding, high housing costs or lack of kitchen or plumbing facilities | N/A | 19.0% | — | 15.0% | 9.0% |
| Driving alone to work - Percentage of workforce that drives alone to work | 82.0% | 85.0% | ↑ | 82.0% | 71.0% |
| Long commute, driving alone - Among workers who commute in their car alone, the percentage that commute more than 30 minutes | N/A | 14.0% | — | 30.0% | 15.0% |
| Note: N/A Indicates Missing Data | | | | | |
| * Rank out of 115 Missouri counties | | | | | |
| [^] Opposite Indicator signifying that an increase is a positive outcome and a decrease is a negative. | | | | | |

Source: Countyhealthrankings.org

APPENDIX C

ANALYSIS OF HEALTH OUTCOMES AND FACTORS

| Pemiscom Memorial Health System Analysis of Community Health Needs Assessment Data Analysis of Health Status-Leading Causes of Death (2016) | | | | | |
|--|------------------|----------------------|-----------------------|---|--|
| | U.S. Crude Rates | Missouri Crude Rates | (A) County Crude Rate | (B) 20% Increase of Missouri Crude Rate | If County Rate is Greater Than 20% over Missouri Rate, (A) > (B), then "Health Need" |
| Pemiscom County | | | | | |
| Heart Disease | 171.8 | 196.3 | 367.3 | 197.5 | Health Need |
| Cancer | 166.3 | 180.8 | 236.2 | 182.0 | Health Need |
| Drug Overdose | 13.4 | 17.1 | 36.7 | 18.3 | Health Need |
| Lung Disease | 41.7 | 51.8 | 87.8 | 53.0 | Health Need |
| Stroke | 37.3 | 42.2 | 46.2 | 43.4 | Health Need |
| <i>The crude rate is shown as year 2000 Age-adjusted death rates per 100,000 population</i> | | | | | |
| Analysis of Health Outcomes and Factor (2016) | | | | | |
| | U.S. Crude Rates | Missouri Crude Rates | (A) County Crude Rate | (B) 20% Increase/ Decrease of Missouri Crude Rate | If County Rate is Greater Than 20% over Missouri Rate, (A) > (B), then "Health Need" |
| Pemiscom County | | | | | |
| Adult Smoking | 14.0% | 21.0% | 26.0% | 25.2% | Health Need |
| Adult Obesity | 25.0% | 31.0% | 34.0% | 37.2% | |
| Food Environment Index^ (0 worst - 10 best) | 8.3 | 6.9 | 5.6 | 5.5 | |
| Physical Inactivity | 20.0% | 26.0% | 30.0% | 31.2% | |
| Access to Exercise Opportunities^ | 91.0% | 76.0% | 37.0% | 60.8% | Health Need |
| Excessive Drinking | 12.0% | 16.0% | 13.0% | 19.2% | |
| Alcohol-impaired driving deaths | 14 | 33 | 24 | 39.6 | |
| Sexually Transmitted Infections | 134.1 | 453.8 | 668.1 | 544.6 | Health Need |
| Teen Birth Rate | 19.0 | 38.0 | 87.0 | 45.6 | Health Need |
| Uninsured | 11% | 15% | 14% | 18.0% | |
| Primary Care Physicians* | 1,040 | 1,420 | 4,460 | 1,704 | Health Need |
| Dentists* | 1,340 | 1,870 | 17,650 | 2,244 | Health Need |
| Mental Health Providers* | 370.0 | 600.0 | 930.0 | 720.0 | Health Need |
| Preventable Hospital Stays | 38.0 | 59.0 | 139.0 | 70.8 | Health Need |
| Diabetic Screen Rate^ | 90.0% | 86.0% | 83.0% | 68.8% | |
| Mammography Screening^ | 71.0% | 62.0% | 49.0% | 49.6% | Health Need |
| Children in Poverty | 13.0% | 21.0% | 40.0% | 25.200% | Health Need |
| Children in Single-Parent Households | 21.0% | 33.0% | 56.0% | 39.600% | Health Need |
| Violent Crime Rate | 59.0 | 452.0 | 769.0 | 542.4 | Health Need |
| <i>* Ratio displayed as population per every 1 provider</i> | | | | | |
| <i>^ Opposite Indicator signifying that a higher value is a positive outcome and a lower value is a negative.</i> | | | | | |

APPENDIX D

HEALTH RESOURCES

Hospital

The Hospital has 49 acute beds and is the only hospital located in the county. Residents of the community also take advantage of services provided by hospitals in neighboring counties. The exhibit below summarizes PMHS services available to the residents of Pemiscot County:

- | | |
|----------------------------|--------------------------------------|
| ✓ Acute Care | ✓ Resolutions |
| ✓ Radiology | ✓ Rehabilitation |
| ✓ Respiratory Therapy | ✓ Clinical Laboratory |
| ✓ Pulmonary Rehabilitation | ✓ Weight Loss & Nutrition Management |
| ✓ Long-Term Care | ✓ Nutrition & Dietary Services |
| ✓ Surgery | ✓ Pharmacy Services |
| ✓ Cardiac Rehabilitation | |

Other Licensed Facilities

There are licensed facilities other than hospitals in Pemiscot County. These facilities include home health, hospice and private duty nursing providers such as Genesis Home Care, Family Counseling Center, Campbell Home Health, River Oaks Care Center, VNA Home Health, CMV Home Health, Bishop Home Care, Family First Home Care and Extended Home Health.

Health Department

The Pemiscot County Health Department offers a large array of services to patients including assessments and screenings as well as education in order to help them take a proactive approach toward monitoring and developing their health status. Some of these services include well child exams, fluoride varnishing, family planning (birth control), prenatal care (not offered in all counties), WIC (Women, Infants & Children food program), medical nutrition therapy, tuberculosis screenings, HIV and STD screenings, diabetes screening and counseling, immunizations, breast and cervical cancer screenings as well as much more.

These services are provided by trained medical providers such as physicians, ARNPs, RNs, LPNs, registered dietitians, certified nutritionist, etc. These providers adhere to the guidelines set forth by the Department of Public Health's Public Health Practice Reference ensuring your care is provided at the highest possible professional standard.

Many of the services are covered by Medicare, Medicaid and other insurances. The majority of services are offered on a sliding fee scale basis. This means your charge for the service will be in relation to your income versus the federal poverty guidelines. Some services such as childhood immunizations and communicable disease screenings would be offered at a minimal nominal charge set by the Department of Public Health.

Federally Qualified Health Center

Semo Health Network offers services such as general wellness exams, dietary services, lab services, community outreach services, children's vaccines, flu vaccines, women's health services, as well as men's health services. Dental services are provided at Hayti Medical Clinic, which opened September 17, 2014. Hours of operation are Monday-Wednesday 8am to 12pm. Service area includes Dunklin, Mississippi, New Madrid, Pemiscot, Scott and Stoddard counties in Southeast Missouri. Other locations of Semo Health Network offices include Benton, Bernie, Kennett, New Madrid and Sikeston.

APPENDIX E

KEY INFORMANT INTERVIEW GUIDE

KEY INFORMANT INTERVIEW

Community Health Needs Assessment for:

Pemisnot Memorial Health Systems

Interviewer's Initials: _____

Date: _____ Start Time: _____ End Time: _____

Name: _____ Title: _____

Agency/Organization: _____

of years living in _____ County: _____ # of years in current position: _____

E-mail address: _____

Introduction: Good morning/afternoon. Thank you for taking time out of your busy day to speak with me. I'll try to keep our time to approximately 30 minutes, but we may find that we run over – up to 45 minutes total - once we get into the interview.

Pemisnot Memorial Health Systems is gathering local data as part of developing a plan to improve health and quality of life in this county. Community input is essential to this process. A combination of surveys and key informant interviews are being used to engage community members. You have been selected for a key informant interview because of your knowledge, insight and familiarity with the community. The themes that emerge from these interviews will be summarized and made available to the public; however, individual interviews will be kept strictly confidential.

To get us started, can you tell me briefly about the work that you and your organization do in the community?

Next I'll be asking you a series of questions about health and quality of life in the county. As you consider these questions, keep in mind the broad definition of health adopted by the World Health Organization: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity," while sharing the local perspectives you have from your current position and from experiences in this community.

Questions:

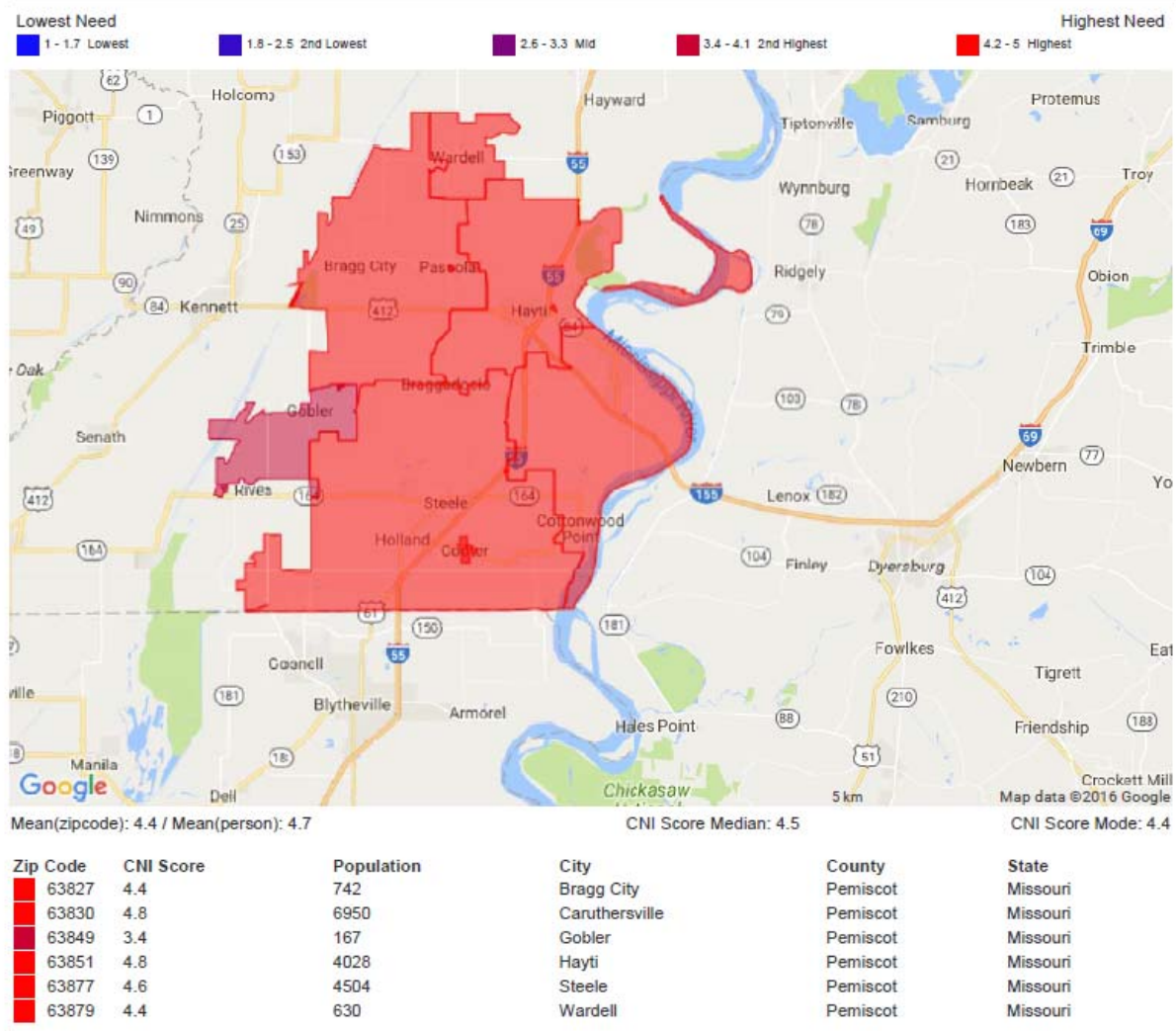
1. In general, How would you rank the overall health and quality of life in Pemiscot County a on a scale of 1-10?
2. Do you agree with prior assessment and findings/identified needs (Preventative Health Education, Uninsured, Primary Care Providers)? How have things changed since prior assessment was performed, especially on the identified needs? Thoughts on overall health?
3. Has the health in the area changed over the past three years (since the last assessment was done)?
4. What are the most critical health issues for the area? And what could be done to address those issues?
5. What are some groups with lower health or quality of life in the area? Any particular barriers to helping these groups?
6. What are your thoughts on the Hospital and how they are responding to needs?
7. Do you have anything else to add or additional key informants that should be considered for the assessment?

Close:

Thanks so much for sharing your concerns and perspectives on these issues. The information you have provided will contribute to develop a better understanding about factors impacting health and quality of life in the county.

As a reminder, summary results will be made available by the Hospital and used to develop a community-wide health improvement plan. Should you have any questions, please feel free to contact the Hospital. Thanks once more for your time.

APPENDIX F DIGNITY HEALTH COMMUNITY NEED INDEX



**APPENDIX G
SOURCES**

| DATA TYPE | SOURCE | YEAR(S) |
|--|--|-----------------------|
| Discharges by Zip Code | Hospital | 1/1/2016 - 11/30/2016 |
| Population Estimates | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Urban / Rural Population | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Demographics - Income & Race/Ethnicity | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Employers | LocationOne Information System http://www.locationone.com | 2016 |
| Employment, Unemployment | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Poverty | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Health Insurance | American FactFinder Via US Census Bureau, American Community Survey https://factfinder.census.gov/ | 2011 - 2015 |
| Education | American FactFinder Via US Census Bureau, American Community Survey https://factfinder.census.gov/ | 2011 - 2015 |
| Leading Causes of Death | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Health Outcomes and Factors | County Health Rankings http://www.countyhealthrankings.org/ | 2013 - 2016 |
| Access to Care & HPSA | Community Commons via American Community Survey http://www.communitycommons.org/ | 2010 - 2014 |
| Community Need Index | Dignity Health Community Need Index http://cni.chw-interactive.org/ | 2016 |
| Health Care Resources | Hospital | 2015 |