

CITIZENS MEMORIAL HOSPITAL
CITIZENS MEMORIAL HEALTH CARE FOUNDATION



**2019 COMMUNITY HEALTH
NEEDS ASSESSMENT**

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Citizens Memorial Hospital District of Polk County, Missouri
Community Health Needs Assessment
Fiscal Year Ended May 31, 2019

Introduction

This Community Health Needs Assessment (CHNA) was conducted by Citizens Memorial Hospital District of Polk County, Missouri, (the District) during its fiscal year ending May 31, 2019, to comply with Section 501(r)(3) of the Internal Revenue Code. Section 501(r)(3) was established under Section 9007 of the Patient Protection and Affordable Care Act (PPACA) enacted March 23, 2010. It requires each tax-exempt hospital to conduct a CHNA during its fiscal year beginning on or after March 23, 2012, or during the two years preceding this year, and every three years thereafter. The District operates an 86-licensed and 72-staffed bed acute care hospital known as Citizens Memorial Hospital (the Hospital). The Hospital's fiscal year began June 1, 2018 and ended May 31, 2019.

The District is exempt from income taxes as a governmental hospital district organized under the laws of the State of Missouri. As a governmental entity, it is exempt from most reporting requirements imposed by the Internal Revenue Service, as most state and local governments are; however, the District is preparing this CHNA as the hospital it operates has been determined to be a tax-exempt hospital under Section 501(c)(3) of the Internal Revenue Code. This CHNA describes the Hospital and its services, provides an overview of the PPACA and the impact of federal and state legislative changes on the Hospital's operations, and summarizes the community health needs identified and the Hospital's plans to help meet those needs.

Description of the Hospital

The Hospital, which opened in 1982, is located in Bolivar, Missouri, in the center of Polk County. The Hospital operates 13 federally-certified rural health clinics in Bolivar and surrounding communities, and also operates a number of specialty physician clinics on the Hospital's campus in Bolivar. In 1986 the District assisted in the organization of Citizens Memorial Health Care Foundation (the Foundation), which operates six long-term care facilities in Bolivar and surrounding communities, as well as home health, hospice, home medical equipment and retail pharmacy services. The Hospital and Foundation share some management personnel, as well as a common board member and a common information system. Collectively, the Hospital and Foundation employ approximately 2,150 people, more than any other employer in Bolivar and Polk County.

The mission of the Hospital and Foundation is: Caring for every generation through exceptional services by leading physicians and a compassionate healthcare team.

The vision of the Hospital and Foundation is: Be the first choice for customer focused healthcare to every generation.

The Hospital's primary service area is Polk County, Missouri, while the secondary service area consists of the surrounding Missouri counties of Cedar, Dade, Dallas, Hickory, St. Clair and the northwest portion of Greene County. The following table shows the 2018 estimated population for counties in the primary and secondary service area, and the Hospital's 2018 market share for discharges in each county.

County	Population		FY2018 Market Share	
	2018 Census	Total Discharges	Citizens Memorial Discharges	Market Share
Primary Service Area				
Polk	<u>32,201</u>	<u>3,772</u>	<u>1,832</u>	48.6%
Secondary Service Area				
Cedar	14,165	1,828	495	27.1%
Dallas	16,762	2,217	454	20.5%
Hickory	9,509	1,083	410	37.9%
St. Clair	9,395	1,245	175	14.1%
Dade	7,569	885	74	8.4%
Greene*	<u>16,289</u>	<u>1,772</u>	<u>70</u>	4.0%
Secondary Area Total	<u>73,689</u>	<u>9,030</u>	<u>1,678</u>	18.6%
Total Service Area	<u>105,890</u>	<u>12,802</u>	<u>3,510</u>	<u>27.4%</u>

Source: Missouri Hospital Association – HIDI Data & 2018 U.S. Census Estimates

* Greene County includes only the towns of Ash Grove, Walnut Grove and Willard

The Hospital's service area residents tend to be older and poorer than the statewide average for the state of Missouri, based on 2018 U.S. Census Data. This data shows 21.0% of service area residents are aged 65 or older compared to 16.9% for the state as a whole. Additionally, 16.8% of service area residents have household income under the federal poverty level compared to 13.4% for the state as a whole. A breakdown of these results by county from the 2018 U.S. Census Estimates is included below.

County	2018 Population	Population 65 & Over		Population Below Poverty Level	
		Population	% of Total	Population	% of Total
Primary Service Area					
Polk	<u>32,201</u>	<u>5,808</u>	18.0%	<u>4,861</u>	15.1%
Secondary Service Area					
Cedar	14,165	3,308	23.4%	2,430	17.2%
Dallas	16,762	3,398	20.3%	3,093	18.5%
Hickory	9,509	3,117	32.8%	1,834	19.3%
St. Clair	9,395	2,538	27.0%	1,913	20.4%
Dade	7,569	1,790	23.6%	1,256	16.6%
Greene*	<u>16,289</u>	<u>2,227</u>	13.7%	<u>2,370</u>	14.6%
Secondary Area Total	<u>73,689</u>	<u>16,378</u>	22.2%	<u>12,896</u>	17.5%
Total Service Area	<u>105,890</u>	<u>22,186</u>	<u>21.0%</u>	<u>17,757</u>	<u>16.8%</u>
State of Missouri	<u>6,107,645</u>	<u>1,033,964</u>	<u>16.9%</u>	<u>816,953</u>	<u>13.4%</u>

* Greene County includes only the towns of Ash Grove, Walnut Grove and Willard

Older, poorer residents tend to have a greater need for health care services, with a lesser ability to pay for such services. Such residents are also more likely to be covered by the Medicare or Medicaid programs, whose payments frequently do not cover the costs of the services rendered. The Hospital’s patient mix reflects the older, poorer population of its service area, as follows:

<u>Payor</u>	<u>% of Patients</u>
Medicare	54%
Commercial/Managed Care	26
Medicaid	14
Uninsured	<u>6</u>
Total	<u>100%</u>

Source: Hospital records, year ended May 31, 2019

Overall, 74% of all Hospital patients are Medicare, Medicaid or uninsured patients. This percentage is even more dramatic in the emergency department, where 78% of patients are Medicare, Medicaid or uninsured patients. Likewise, 87% of ambulance transports are for Medicare, Medicaid or uninsured patients. Thus, the Hospital relies heavily on federal and state health care funding, and is particularly vulnerable to cuts in those funding programs, as described later.

The Hospital has implemented numerous programs over the years to try and meet the needs of the residents in its service area. Those programs are described below.

Primary Care Clinics – The Hospital was one of the first hospitals in Missouri to operate federally-certified rural health clinics, through a special program designed to make primary care services available in geographic areas with a shortage of such services. In addition to five clinics operated in Bolivar, the Hospital operates rural health clinics in:

- Humansville (Polk County)
- Pleasant Hope (Polk County)
- El Dorado Springs (Cedar County)
- Stockton (Cedar County)
- Greenfield (Dade County)
- Buffalo (Dallas County)
- Ash Grove (Greene County)
- Osceola (St. Clair County)

One of the Hospital’s rural health clinics in Bolivar is designated as a Walk-In Clinic to treat patients who do not have an appointment. The Walk-in Clinic provides faster access to care, seven days a week, at a lower cost than going to the emergency department and is therefore especially beneficial for uninsured patients. Walk-in services are also available seven days a week at the clinics in Buffalo, El Dorado Springs and Osceola. The CMH Pediatric Clinic in Bolivar and the Stockton Clinic both offer walk-in services six days a week, while the Pleasant Hope Clinic offers walk-in services two hours each morning, Monday-Friday.

The Hospital also operated a rural health clinic in Hermitage (Hickory County) for many years, but worked with a new organization to convert this location to a federally-qualified health center (FQHC) during the Hospital’s 2013 fiscal year. The FQHC, Ozarks Community Health Center, is receiving grant

funds under the Public Health Service Act. Because only half the residents of the FQHC's service area were receiving health care services prior to the conversion, it is believed more residents will receive services in the coming years. The FQHC offers primary care, OB/GYN, mental health and dental services.

Pediatric Dental Services – Recognizing that dental services are a common need among the uninsured, the Hospital developed a mobile dental clinic in 1999, now operated by Ozarks Community Health Center. The clinic, known as Miles for Smiles, serves 10 counties in and around the Hospital's service area, providing dental care to uninsured and Medicaid-eligible children. More than 40,000 children have been seen in the mobile dental clinic since 1999.

Outpatient Rehabilitation Clinics – The Hospital operates rehabilitation clinics on the Hospital campus in Bolivar and in eight additional communities. These rehabilitation clinics provide physical, occupational and speech therapy services to residents in these communities.

Specialty Clinic Services – To prevent the need for patients to travel an hour or more to receive specialty services in Springfield or other urban areas, the Hospital operates a number of specialty clinics in Bolivar, including:

- Cardiology
- Ear, Nose & Throat
- Endocrinology
- Gastroenterology
- General Surgery
- Infectious Disease
- Neurology
- Obstetrics/Gynecology
- Ophthalmology
- Orthopedics
- Pain Management
- Podiatry
- Psychiatry/Psychology
- Pulmonology
- Rheumatology
- Sports Medicine
- Urology
- Wound and Hyperbaric Treatment

Medical and radiation oncology services are offered on the Hospital campus at the Carrie J. Babb Cancer Center by the Central Care Cancer Center. The Hospital also leases office space to other specialists practicing in Bolivar, and uses telehealth technology to allow clinic patients to access endocrinology services in Columbia and St. Louis, Missouri. In addition, telehealth services are utilized to provide CMH specialists' services to long-term care facilities and to more remote portions of our service area (expanding and enhancing services for persons in these areas, while making more efficient usage of the specialists' time).

Ambulance Services – To ensure timely access to emergency medical transportation, the Hospital operates ground ambulance services from five base stations in Polk, Hickory, Cedar and St. Clair Counties. In addition to emergency medical transportation for medical conditions, the Hospital has seen an increasing need for transportation for acute psychiatric conditions, with 571 such cases in the past year, the majority being transported over 90 miles for care. The Hospital has also partnered with CoxHealth in Springfield to offer air ambulance services, with a helicopter parked on the Hospital’s campus.

Hospital Care – The Hospital provides a full range of medical and surgical services, including invasive/interventional cardiology services with designation as a STEMI center, inpatient surgery plus a separate ambulatory surgical center, and a full range of diagnostic imaging services. A dedicated intensive care unit is available for patients requiring more intensive medical care. At a time when many rural hospitals have discontinued obstetrics care, the Hospital continues offering obstetrics care at the CMH Birth Place, delivering approximately 600 babies annually.

Hospitalists are on staff around the clock to assist with the care of Hospital inpatients, and the emergency department is staffed 24 hours per day with trained emergency physicians. Because of the growing demand for mental health services, the Hospital opened a 10-bed geriatric psychiatry unit in 1990, and completed an expansion in May 2013 to double the capacity of the unit to 20 beds, included in our count of 86 licensed and 72 staffed beds.

Services in Osceola – In late 2014 the hospital in Osceola, Missouri closed. CMH agreed to assume operations of a number of outpatient services so the community would continue to have local health care available. CMH services in Osceola include a rural health clinic providing medical and mental health services, with walk-in services available seven days a week, ambulance services, outpatient rehabilitation services and a retail pharmacy.

Post-Acute Services – The Foundation offers home health, hospice, health transit and homemaker services throughout the Hospital’s service area, and also operates home medical equipment stores in Ash Grove, Bolivar, Buffalo, Hermitage, Stockton and Warsaw. These services allow patients to return home sooner after services at a hospital or long-term care facility and/or remain at home longer before needing institutional care.

Two of the long-term care facilities operated by the Foundation are in Bolivar. The remaining facilities are in:

- Buffalo (Dallas County)
- El Dorado Springs (Cedar County)
- Stockton (Cedar County)
- Ash Grove (Greene County)

The Foundation also operates independent living facilities and a residential care center in conjunction with the long-term care facilities.

Ellett Memorial Hospital – In 2015, the Hospital and Foundation signed an agreement to manage the Community Memorial Hospital District d/b/a Ellett Memorial Hospital (Ellett), located in Appleton City, Missouri, in the northwest corner of St. Clair County. Management services include employment of Ellett’s Chief Executive Officer and Director of Nursing, and providing other personnel as needed. Ellett

contracts with the Hospital for information system services, including access to its electronic health record system. The Hospital has also provided specialists to travel to Appleton City on a regular basis to conduct orthopedics, ophthalmology, urology and OB/GYN clinics. This significantly reduces travel time for the underserved patients in the Appleton City area to access these services. CMH is also working with Ellett to provide telehealth services in order to expand and enhance specialty services in that remote area.

Overview of Health Care Reform

This CHNA is conducted in accordance with provisions of the Patient Protection and Affordable Care Act (PPACA) passed in 2010. The PPACA has among its goals to improve the quality of health care services in the United States, increase access to health care, and reduce the costs of health care.

Several PPACA programs are designed to provide incentives to health care providers to improve quality. The most comprehensive program, known as the value-based purchasing program, includes incentives to follow generally-accepted processes when caring for patients, achieve higher patient satisfaction scores, improve patient outcomes and lower overall Medicare spending per beneficiary. Separate programs are designed to reduce the number of readmissions to hospitals, and reduce the occurrence of adverse events during a patient's stay in the hospital. Hospitals performing poorly under these various programs will generally see a reduction in their Medicare reimbursement, while hospitals performing better will retain more of their Medicare reimbursement, and possibly even see increased reimbursement in selected areas.

Several programs are designed to increase access to health care services, through reducing the number of uninsured. One program encourages states to expand Medicaid eligibility, through an enhanced Federal matching percent. Medicaid is a federal/state program, with the federal government generally funding between 60-65% of Missouri's Medicaid program, with the state responsible for the balance of the funding. The expansion under PPACA would cover individuals with income up to 138% of the federal poverty level. This would result in a large increase in the number of adults eligible for Medicaid in Missouri, where parents are generally only eligible when income is below 18% of the federal poverty level, while other adults are generally not eligible unless they have no income. The enhanced federal matching percent is 90% of the cost of the expansion starting in 2020. However, at the time this CHNA is being prepared, it appears the state of Missouri will forego the opportunity to expand Medicaid coverage, at least until sometime after 2019.

Individuals not eligible for Medicaid may also access third-party coverage through newly-formed health insurance exchanges. Subsidies will be available for low-income individuals. Penalties will be imposed on certain employers that do not offer affordable health insurance coverage to their employees. Penalties initially applied to individuals as well if they did not obtain insurance coverage, but the Tax Cuts and Jobs Act reduced the individual penalties to zero starting in 2019.

The expanded Medicaid coverage and subsidies provided to low-income individuals are largely funded by cuts in Medicare and Medicaid payments to hospitals and other health care providers. These cuts are intended to reduce the cost of health care through encouraging more efficient service delivery in the health care industry. The impact of these cuts on the Hospital is described in the next section.

Impact of Federal & State Legislative Changes on the Hospital

While assessing the health needs of the communities served by Citizens Memorial Hospital, the District has also been evaluating the impact of PPACA and other recent legislation on the Hospital. Medicare reimbursement cuts under PPACA already exceed \$2.7 million annually for the Hospital and increase annually. Regardless of whether Missouri expands Medicaid coverage, federal Medicaid reimbursement to hospitals is scheduled to be cut by \$4 billion beginning in October 1, 2019, doubling to \$8 billion beginning October 1, 2020. The impact on the Hospital is difficult to determine as it depends on actions by the state of Missouri, but the impact on the Hospital will likely exceed \$1,000,000 annually beginning in 2020.

Beyond cuts under PPACA, much of the political debate in Washington centers on reducing the federal deficit, with health care expenditures a frequent target of legislative efforts. The Budget Control Act of 2011 required President Obama to issue a sequester order on March 1, 2013, reducing all Medicare payments to hospitals and other health care providers by 2% on April 1, 2013. Sequestration is estimated to reduce the Hospital's revenue by approximately \$1,000,000 annually.

It is important to understand the context of the current legislative environment as the Hospital assesses the health needs of the community. In light of the unprecedented cuts the Hospital has experienced and will experience in the next few years, the Hospital's first priority is to maintain its core services so service area residents have access to primary care and emergency and other hospital services close to their home. Transportation for health care services out of the area is especially difficult for the poor and elderly. At the same time, the Hospital continues to search for opportunities to provide greater access to health care services and improve the health of the community it serves.

Previous Community Health Needs Assessment

Our previous CHNA was conducted in 2016 and identified three needs:

- Reduction in the adult smoking rate in the service area;
- Reduction in the adult obesity and physical inactivity rates in the service area;
- Increase in the availability of mental health providers in the service area; and

In addition to reevaluating these needs and considering additional needs, there are a number of other factors that influence our assessment of community health needs. The Hospital operates a number of additional programs designed to improve access to health care as well as the overall health of the community the Hospital serves. Those factors are described in the next section.

Other Factors Influencing 2019 Community Health Needs Assessment

The Hospital continually evaluates the health needs of its service area. Providing a full range of health care services -- from primary and specialty clinic services to inpatient and outpatient hospital care, and through the Foundation, home health and long-term care -- provides a wide perspective on the health conditions and health needs of the service area. This section recaps some of the steps the Hospital has taken to monitor and meet the health needs of its service area, and other resources and programs evaluated when conducting this CHNA.

Medical Home Program – The Hospital began participating in the Missouri Medicaid Medical Home Program in 2012, and currently has more than 1,700 Medicaid patients enrolled in the program. RN case managers make monthly contact with patients who have two or more chronic health conditions as defined by the Missouri State Plan Amendment for Primary Care Health Homes. During these monthly contacts, conducted either by telephone or during a routine clinic visit, case managers review medication and self monitoring compliance, provide ongoing education about management of their chronic conditions and work with patients to develop and meet self directed health improvement goals. They provide reminders to patients who are overdue for needed visits, labs or other diagnostics to monitor their chronic health conditions. They also follow-up with patients discharged from the acute care hospital setting who are identified as having an increased risk of potential readmission to address any possible barriers to ongoing outpatient care and to assure early follow-up with their primary care provider.

Licensed clinical social workers act as behavioral health consultants (BHC) and make contact with these patients when little or no improvement is being made in order to discuss behavioral changes and coping strategies to deal with barriers to health improvement. Patients are also screened for depression, which can identify underlying mental health barriers to improvement of medical conditions. With this model, the BHC can complete a brief intervention with the patient while they are in the clinic being seen by their primary care provider for chronic illness rather than having them schedule another appointment when transportation may be difficult for them to find. In addition to chronic care behavior modification, the Medical Home is screening patients for drug and alcohol use with the Screening, Brief Intervention and Referral to Treatment (SBIRT) tool. The BHC provides follow-up for patients with positive screenings. The purpose of SBIRT is to identify patients at risk for drug and/or alcohol dependence and provide interventions early.

A care coordinator makes contact with all patients who are discharged from an inpatient hospitalization to ensure that they have all of the resources necessary to be successful at home. The care coordinator refers back to the hospital discharge instructions and answers any patient questions. Disease specific self monitoring tasks are reinforced. For example, diabetic patients are asked about monitoring their blood glucose. Patients with congestive heart failure are asked about their daily weight monitoring. Medications are reconciled and the patient is asked to verify that they have ordered and/or received their new prescriptions, oxygen or home medical equipment items. The care coordinator validates that a follow-up appointment has been scheduled and the patient has transportation. Patients are asked about other resources they may need, such as referrals for dental or other types of care, assistance with transportation and availability of in-home services. Patients are also educated about continued eligibility for Medicaid, or the availability of other home and community-based services to allow patients to remain in their homes rather than being institutionalized.

While this program has proven very beneficial for the patients participating, it was only funded under the PPACA through December 31, 2013. While the enhanced PPACA funding ended at that time, the State of Missouri has continued to operate the program under the normal federal Medicaid match. The Hospital hopes to continue operating the program as long as state funding is available.

Medicare Chronic Care Management Program – Similar in some respects to the Medicaid Medical Home Program, CMS introduced the Medicare Chronic Care Management (CCM) Program on January 1, 2015. The Hospital began operating the program in 2015 and has gradually enrolled additional Medicare patients, with a current enrollment of over 600 patients. The Hospital must provide at least

20 minutes of care on a monthly basis to each patient, outside of traditional face-to-face visits. The goal is to help Medicare patients manage their chronic conditions, reducing the need for acute or emergency care and improving overall health.

340B Drug Pricing Program – The Hospital is a participant in the 340B drug pricing program, receiving discounts from drug manufacturers for outpatient drugs administered to Hospital outpatients. Those savings help fund the numerous programs mentioned in this report, and make up for the severe cuts in federal funding the Hospital is experiencing. The Hospital also has entered into contracts with area pharmacies to make the federal 340B drug pricing program available to the uninsured. When uninsured patients receive prescriptions from one of our providers, if the retail cost of the prescription represents a significant financial burden to the patient, they may be eligible to receive it at a substantial discount from one of the Hospital’s contracted pharmacies. The Hospital provided over \$2 million in reduced-price prescriptions to uninsured and underinsured patients during the year ended May 31, 2019.

Project InfoCare – The Hospital has utilized a patient-centric electronic health record system since 2002. The system allows patients to enter any Hospital or Foundation facility and receive expedited registration based on patient profile data that is already in the system. Hospital and Foundation staff have immediate access to patient history, lab results, radiology exams and physician documentation to improve the transition of patient care among settings.

In 2018, the Hospital upgraded the electronic health record system to the most current technology platform available. The upgraded platform includes enhanced integration across the continuum of care and includes web-based access for providers in the acute care, long-term care, emergency, surgical and ambulatory settings. Additional features of the upgraded platform include surveillance for quality of care and risk management, mobility for clinicians and additional integration with medical devices.

The American Recovery and Reinvestment Act of 2009 (ARRA) provided funds to incentivize hospitals to upgrade technology to develop and maintain electronic health records. Under the requirements of this funding, the Hospital and medical staff must be able to track various health indicators and use electronic records to enter physician orders, track vital signs and smoking status, report lab and other test results, and provide reminders for preventive and follow-up care to patients. The Hospital and the Hospital’s medical staff have consistently met the objectives of the program and qualified for incentive payments. As the funding from the ARRA program winds down over the coming years, the program’s objectives have been incorporated into the new payment model for professional services known as the Medicare Access & CHIP Reauthorization Act or 2015, or MACRA. The Hospital’s medical staff eligible for participation in MACRA plan to continue to meet the MACRA objectives related to electronic health record use.

A fully-integrated electronic health records system provides information for the Hospital to assess health conditions and respond to needs as they arise. For example, Hospital staff members are required to obtain a flu vaccination each year. For those who do not obtain one for medical or religious reasons, they are required to wear face masks while on Hospital property during periods of high flu activity, with the flu activity tracked through access to the Hospital’s electronic health records.

Free Clinic – On July 1, 2008, the Hospital and the Polk County Health Department began providing a Free Clinic one night per week for the residents of the county who had no insurance, Medicare or Medicaid coverage. In conjunction with three local pharmacies, a discount is provided for any prescriptions needed by the patients. The Hospital schedules physicians, physician assistants, and nurse

practitioners who volunteer their time at the clinic, generally held once or twice per month at this time. If additional tests are needed the Hospital also provides discounted lab tests and X-rays for free clinic patients. Modeled after this clinic, the Hospital partnered with the Dade County Health Department to open a free clinic in Dade County in 2009, generally held once or twice per month at this time.

Area Health Agencies - The Hospital also works with federal, state and local organizations to improve access to care and the health of the community. Locally, the Hospital works with county health departments as they evaluate health needs and work to help meet those needs. The Hospital worked with the Hickory County and Dallas County Health Departments to help establish a federally-qualified health center in Hermitage, Ozarks Community Health Center (OCHC). While transferring the Hermitage rural health clinic to OCHC represented a significant financial loss for the Hospital, it did so with the hopes the new entity would be able to expand medical and dental services in Hickory County as well as Dallas County, ultimately leading to improved health to the residents in this underserved area. OCHC has expanded its services from Hermitage in Hickory County by opening a clinic in Urbana, in northwestern Dallas County. It also recently opened a dental clinic in Bolivar.

Most area health agencies offer resources for residents online and at the health centers. For example, the Polk County Health Center offers a number of online resources at www.polkcountyhealthcenter.org. Examples of the services available at the Health Center include immunizations, nutrition counseling, women's health services and smoking cessation "Quit Kits."

County Health Rankings – The appendix to this report includes 2019 county data profiles for Cedar, Dade, Dallas, Greene, Hickory, Polk and St. Clair Counties. These profiles are from the County Health Rankings & Roadmaps database, which is funded and led by the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation.

The profiles contain a significant amount of data about health, social and economic issues in each county. The first two pages present several rankings of our counties in relation to Missouri's 115 counties. In Health Outcomes, for example, Polk County ranks 36th best in the state out of 115 counties. The remaining two pages present data related to a variety of additional issues. In many cases, the profile for Greene County differs from that of the remaining six counties, due largely to Greene County's size. Greene County is an urban county dominated by the city of Springfield, with a total county population of 289,805, shown near the bottom of the third page of the profiles. The Hospital and Foundation primarily serve the northwest corner of Greene County, with a rural health clinic, rehabilitation clinic, home medical equipment store and long-term care facility in Ash Grove. The population of the towns in northwest Greene County served by the Ash Grove facilities is 16,289, less than 6% of the county's overall population.

When evaluating health in the remaining six counties in the Hospital's service area, there are a number of areas where health indicators compare unfavorably to Missouri averages. The list below shows some of the key health needs evident when reviewing these county profiles. In most cases, the data for Polk County is slightly better than the remaining five rural counties. Key unfavorable health indicators revealed in the county profiles include:

- While adult smoking rates are not significantly different than the Missouri average of 22%, the Missouri average itself is far above the national average of 14%, due in large part to the extremely low cigarette tax rate in Missouri, the lowest in the nation.

- The adult obesity rate is generally at or above the Missouri average of 32% throughout the Hospital's service area, with a high of 36% in Polk County.
- Access to exercise opportunities is well below the Missouri average of 76%, with a low of 6% in Dallas County.
- Drug overdose deaths are only reported for two of our rural counties, Polk County at 22 and Hickory County at 36 per 100,000, both above the Missouri average of 21. And, the rate has increased substantially in recent years, as Polk County's rate was only 13 as recently as 2017.
- The uninsured rate is above the Missouri average of 11% throughout the Hospital's service area, with a high of 16% in Hickory and St. Clair Counties.
- Access to primary care physicians, dentists and mental health providers is generally below the Missouri average in the six rural counties, reflected in the population per provider being higher than the Missouri average. The exceptions are in Polk County, where access to primary care physicians and mental health providers is slightly better than the Missouri average due to the significant investment in physician recruitment by the Hospital.

On a positive note, there are a number of areas where the service area compares favorably to the Missouri average. The performance in Cedar, Dade, Dallas, Hickory and St. Clair Counties is relatively consistent with Polk County. The Polk County profile shows a number of favorable areas, including:

- Low birthweight of 6%, compared to the Missouri average of 8%
- Sexually transmitted infections rate of 352.2 per 100,000, well below the Missouri average of 507.0
- Preventable hospital stays rate per 100,000 Medicare beneficiaries of 3,704, below the Missouri average of 4,743

On another positive note, the Medicare.gov website reports that Medicare spending per beneficiary for the Hospital was only \$18,964 in 2017, compared to a Missouri average of \$20,798 and national average of \$21,155. This reflects the Hospital's ongoing efforts to deliver value-based care to patients.

Community Health Needs Identified and Implementation Plan

Given the health needs identified in the attached county data profiles, confirmed in communication with our own medical staff and medical home case managers, the health needs we have identified for our service area are as follows:

- Reduction in the adult smoking rate in the service area;
- Reduction in mortality rates for substance use disorder/opioid use disorder in the service area;
- Reduction in the adult obesity and physical inactivity rates in the service area; and
- Increase in the availability of mental health providers in the service area.

Each of these needs is evaluated in the following section, along with the Hospital's implementation plan to address each need.

Reduction in Adult Smoking Rate – The Hospital has operated a Smoking Cessation program for a number of years. This is a 6-week program offered at no cost to individuals in the service area.

Participation from the residents in the Hospital's service area has been low in recent years. To reach more individuals, the Hospital is planning several enhancements to the existing smoking cessation efforts, including:

- Offering three primary programs a year involving different Hospital departments in each session, such as behavioral health and carbon monoxide monitoring for participants to see how their health is improving
- Offering an option for one-on-one counseling
- Telehealth counseling at outlying clinics was offered to Hospital and Foundation employees on a test basis but did not prove equivalent to the dynamics of live group sessions.
- Exploring additional ways to offer this service to our Medical Home patients

Reduction in Mortality Rates for Substance Use Disorder/Opioid Use Disorder in the Service Area –

The Hospital operates the CMH Addiction Recovery Program to assist in treatment of Substance Use Disorders (SUD), including Opioid Use Disorder and Alcohol Use Disorder, by offering a highly specialized substance abuse treatment program, including Medication Assisted Treatment (MAT) in conjunction with cognitive behavioral health therapies.

The following are some of the SUD key indicators for Polk County:

- Heavy Alcohol Consumption. The percentage of adults aged 18 and older who self-report heavy alcohol consumption was 18.7% compared to 17.9% for Missouri and 16.9% for the United States.
- Neonatal Abstinence Syndrome Births. In Polk County, the rate of neonatal abstinence syndrome (NAS) is 15.5 per 1,000 births, more than double the state rate of 6.69 and one of the highest rates in the State of Missouri.
- Drug Overdose Deaths. Polk County's age-adjusted death rate per 100,000 population was 20.1 compared to Missouri at 18.67 and the United States at 15.6.
- Health Workforce – Buprenorphine Providers. Buprenorphine is the first medication to treat opioid dependency that is permitted to be prescribed or dispensed in physician offices, significantly increasing treatment access. Qualified physicians are required to acquire and maintain certifications to legally dispense or prescribe opioid dependency medications. In Polk County, there is one provider (rate of 3.15 per 100,000) authorized to treat opioid dependency with buprenorphine as of February 2019 according to data from the Substance Abuse and Mental Health Services Administration (SAMHSA) compared to Missouri at a rate of 3.84. This provider works in the CMH program.

In order to meet the rising demand for SUD treatment services, CMH now has 2 medical providers (a physician double-board-certified in Family Medicine and Addictionology and a Nurse Practitioner), who have both obtained DATA-2000 waiver training and are certified to provide buprenorphine for opioid misuse/abuse. Ongoing community educational and training resources are also provided through the Addiction Recovery Program to raise awareness of the growing addiction epidemic and effectively respond through community collaborations and campaigns. This includes preventative education at local schools and town halls, intervention through updated screenings and collaboration with other local healthcare providers, warm hand-offs and referral processes, outpatient detoxification, evidence-based treatment and motivational support to reduce relapse, and ongoing follow up care including counseling. CMH operates the only MAT program in the service area, and treated 573 unduplicated patients in the past year. The program operates three days per week due to limited exam space. CMH is attempting to obtain funding to expand the program further to meet the increasing need for treatment. The Addiction

Recovery Program has a long term (over 9 months) retention rate of 60%, approximately 10% over national average.

Reduction in Adult Obesity and Physical Inactivity Rates – The Hospital operates the CMH Senior Health Center offering free use of exercise equipment and pool for individuals in the service area aged 55 and over. Since opening in 2004, the CMH Senior Health Center has enrolled over 3,500 people. This number continues to grow with over 500 enrollees in the past three years. The average participation rate is 77 people per day with total visits per month averaging 1,585. In a survey of Senior Health Center members, many health benefits were reported. Some benefits include: improved strength, more energy, decreased blood pressure, improved mood, increased mobility, improved range of motion, weight loss, less joint pain and muscle pain, improved sleep, better balance, improve heart health, less breathing problems, lower cholesterol, lower blood sugar, and more social time.

“Lunch and Learn” sessions are offered monthly where physicians or other providers offer in-depth information on relevant health topics to help individuals in the service area improve their health. Healthy Balance cooking classes are also offered monthly, taught by a registered dietitian. Both the Lunch and Learn and Healthy Balance sessions are well-attended on a monthly basis and are free of charge.

The Hospital partners with the Polk County Health Department and other community organizations to form the Live Well Alliance. Projects have included grants for sidewalks, bike trails, healthy menu options on local menus, community weight-loss challenges and a Senior Health Fair. The Foundation also sponsors an annual community-wide Heroes for Hospice 5K/10K run each spring.

To increase community access to cardiopulmonary exercise and reduce adult obesity and inactivity, participants of the Hospital’s Phase II cardiopulmonary rehab program may bring a loved one to exercise alongside them for the entirety of their rehab treatment for free. This supportive partnership opportunity increases sustained weight management success and lifelong physical activity for both participants. The vast majority of Phase II cardiac rehab graduates achieve optimal blood pressure control and improvement in functional capacity and depression measures. Likewise, the vast majority of Phase II pulmonary rehab graduates achieve improvement in functional capacity, dyspnea and health-related quality of life.

Additionally, once participants graduate from their Phase II prescription, they are encouraged to continue cardiopulmonary exercise in the Hospital’s Phase III program. Phase III operates much like a gym membership, except with the addition of specially trained healthcare staff to assist when needed and to provide accountability and support. Once participants complete Phase II, they are awarded two weeks of a free Phase III trial membership to encourage them to sustain their newly increased physical activity.

The Hospital offers a significant couples discount for those participating in Phase III to further increase access to lifelong cardiopulmonary exercise and sustain habit-forming success. Cardiopulmonary rehab serves as a valuable resource to our community for achieving and maintaining weight management and activity goals – and continues to increase this community access with incentivizing programs and cost-effective opportunities.

Since 1997, the Hospital has conducted School Health Expos for 30 area elementary schools. Each year, Hospital staff work with school nurses to screen more than 12,000 students at 30 schools in seven counties, including Amish and Mennonite communities. Screenings include height, weight, vision, blood pressure, hearing and scoliosis. Without this assistance, school nurses would spend a large portion of their time doing screenings throughout the school year. Providing these health screenings during the fall of each year allows school nurses to concentrate efforts on assisting children with their health needs throughout the school year. CMH also offers complimentary hands-only CPR kits to all area schools.

CMH has a school-based health services program, which supports schools through wellness initiatives and evidence-based intervention health services to students in pre-K through 12th grade. Services include school nurse resources, help at health expos, school-based rehabilitation and behavioral health services, athletic trainers, emergency medical services at school events and more.

Increase in Availability of Mental Health Providers – The Hospital has placed a high priority on mental health care. As mentioned earlier, the Hospital doubled the size of its inpatient geriatric psychiatry unit in May 2013, allowing more patients to stay in Bolivar rather than seeking care in other cities.

The Hospital contracts with psychiatrists and psychologists to offer outpatient mental health services in Bolivar and in all eight rural health clinics in surrounding communities, in addition to the school-based program mentioned in the previous section. In the 12 months ended May 31, 2019, 21,262 mental health visits have been provided. The need for mental health services has been identified with several Medical Home patients, who have been referred for appropriate care.

To better serve patients, the Hospital also operates the Missouri Memory Center, which features a multi-disciplinary team who are experts in diagnosing and treating patients with memory problems related to dementia, Alzheimer’s disease and other neuropsychological issues.

Utilizing HRSA Outreach grant funding and in partnership with Burrell Behavioral Health, the Hospital has been able to increase the availability of mental health services in our clinics and other facilities throughout our service area. Through this program, a Behavioral Health Consultant is incorporated into the Medical Home program as described earlier.

Mental health services are also provided via telehealth to residents of rural communities and to residents of long-term care facilities in the area. The Hospital telehealth network includes telehealth services in the Emergency Room and Geriatric Psychiatry Inpatient unit. Despite cutbacks in federal funding, the Hospital intends to continue offering mental health services throughout its service area.

Conclusion

Citizens Memorial Hospital has been committed to improving the health of its service area since it opened in 1982. While the Hospital is concerned about the inadequate funding of health care services by the federal and state governments, it is committed to continuing to offer high-quality health care in the years to come. It will also continue to work with other stakeholders to improve population health and increase access to health care and health information for residents of its service area.

Compare Counties
2019 Rankings

	Missouri	Cedar (CE), MO X	Dade (DD), MO X	Dallas (DL), MO X	Greene (GE), MO X	Hickory (HK), MO X	Polk (PO), MO X	St. Clair (SI), MO X
Health Outcomes		85	70	87	61	109	36	67
Length of Life		89	66	85	48	109	40	76
Premature death	8,200	10,100	9,000	9,900	8,400	11,900	8,100	9,400
Quality of Life		68	77	78	63	109	35	64
Poor or fair health	19%	21%	21%	21%	20%	21%	19%	20%
Poor physical health days	4.2	5.0	4.8	4.9	4.6	5.0	4.6	4.8
Poor mental health days	4.4	4.8	4.7	4.6	4.6	4.9	4.5	4.6
Low birthweight	8%	6%	7%	8%	7%	11%	6%	7%
Health Factors		76	40	98	32	79	41	97
Health Behaviors		55	31	95	85	49	42	70
Adult smoking	22%	23%	22%	23%	22%	22%	21%	21%
Adult obesity**	32%	33%	33%	35%	36%	32%	36%	35%
Food environment index**	6.8	7.2	7.9	7.3	7.4	7.2	7.8	7.4
Physical inactivity**	25%	30%	27%	26%	24%	31%	23%	29%
Access to exercise opportunities	76%	56%	28%	6%	83%	21%	49%	15%
Excessive drinking	19%	15%	15%	16%	17%	14%	17%	15%
Alcohol-impaired driving deaths	29%	17%	10%	35%	23%	42%	13%	50%
Sexually transmitted infections**	507.0	129.2	144.8	201.3	667.5	250.0	352.2	137.7
Teen births	28	46	28	39	26	32	24	36
Clinical Care		76	48	91	7	78	26	106
Uninsured	11%	14%	15%	15%	11%	16%	13%	16%
Primary care physicians	1,420:1	3,500:1	1,530:1	16,450:1	1,020:1	4,630:1	1,200:1	1,850:1
Dentists	1,760:1	3,520:1	7,590:1	3,330:1	1,390:1	4,740:1	3,530:1	4,680:1
Mental health providers	550:1	1,410:1	1,260:1	2,780:1	300:1	2,370:1	520:1	4,680:1
Preventable hospital stays	4,743	2,866	3,873	3,127	3,746	2,601	3,704	4,805
Mammography screening	43%	32%	37%	36%	45%	40%	43%	29%
Flu vaccinations	44%	28%	44%	24%	51%	26%	28%	21%
Social & Economic Factors		86	44	93	37	91	60	101
High school graduation	88%	89%	95%	95%	91%	98%	92%	96%
Some college	66%	54%	47%	39%	71%	48%	54%	48%
Unemployment	3.8%	4.1%	3.4%	4.7%	3.0%	4.5%	4.0%	5.2%
Children in poverty	19%	30%	27%	28%	21%	37%	22%	31%
Income inequality	4.6	4.3	4.1	4.0	4.5	4.3	4.0	4.6
Children in single-parent households	33%	39%	31%	28%	32%	28%	30%	32%
Social associations	11.6	15.0	17.0	7.3	11.7	12.9	9.9	10.8
Violent crime**	481	370	304	323	770	11	393	375
Injury deaths	83	89	74	81	83	127	79	94

	Missouri	Cedar (CE), MO X	Dade (DD), MO X	Dallas (DL), MO X	Greene (GE), MO X	Hickory (HK), MO X	Polk (PO), MO X	St. Clair (SI), MO X
Physical Environment		40	55	81	92	39	35	28
Air pollution - particulate matter	9.7	9.1	9.2	9.4	10.1	9.2	9.5	9.1
Drinking water violations		No	Yes	Yes	Yes	No	No	No
Severe housing problems	14%	13%	13%	15%	15%	15%	14%	19%
Driving alone to work	82%	86%	77%	77%	82%	80%	78%	74%
Long commute - driving alone	32%	30%	38%	50%	17%	42%	37%	36%

** Compare across states with caution

Note: Blank values reflect unreliable or missing data

County Health Rankings & Roadmaps

Building a Culture of Health, County by County

	Missouri	Cedar (CE), MO X	Dade (DD), MO X	Dallas (DL), MO X	Greene (GE), MO X	Hickory (HK), MO X	Polk (PO), MO X	St. Clair (SI), MO X
Length of Life								
Life expectancy	77.4	75.1	77.1	75.8	77.2	75.0	76.8	76.0
Premature age-adjusted mortality	400	470	420	460	420	490	420	490
Child mortality	60	100		90	60		50	
Infant mortality	6				6			
Quality of Life								
Frequent physical distress	13%	15%	15%	15%	14%	15%	14%	14%
Frequent mental distress	14%	15%	14%	14%	14%	15%	14%	14%
Diabetes prevalence**	12%	13%	14%	13%	11%	15%	13%	13%
HIV prevalence	234			51	222		92	
Health Behaviors								
Food insecurity**	15%	16%	14%	15%	15%	16%	15%	16%
Limited access to healthy foods	7%	6%	3%	9%	7%	7%	3%	5%
Drug overdose deaths	21				28	36	22	
Motor vehicle crash deaths	14	23	21	13	13	26	22	26
Insufficient sleep	34%	32%	33%	33%	31%	32%	33%	32%
Clinical Care								
Uninsured adults	13%	17%	17%	18%	14%	18%	16%	18%
Uninsured children	5%	8%	9%	8%	5%	7%	6%	8%
Other primary care providers	1,154:1	1,564:1	1,897:1	3,335:1	669:1	2,369:1	994:1	1,170:1
Social & Economic Factors								
Disconnected youth	6%				5%			
Median household income	\$53,500	\$38,000	\$39,100	\$38,700	\$45,600	\$35,200	\$44,200	\$35,200
Children eligible for free or reduced price lunch	51%	80%	70%	60%	48%	61%	60%	61%
Residential segregation - Black/White**	71				51			
Residential segregation - non-white/white**	57	31	9	16	30	23	21	33
Homicides	8				5			
Firearm fatalities	18	19		21	14	28	11	23
Physical Environment								
Homeownership	67%	70%	79%	73%	58%	82%	67%	75%
Severe housing cost burden	12%	10%	11%	8%	14%	12%	11%	13%
Demographics								
Population	6,113,532	14,073	7,588	16,673	289,805	9,475	31,794	9,362
% below 18 years of age	22.6%	23.9%	21.2%	23.9%	20.9%	17.0%	22.9%	19.5%
% 65 and older	16.5%	23.1%	23.3%	19.7%	16.1%	33.2%	18.1%	27.1%
% Non-Hispanic African American	11.6%	0.3%	0.3%	0.3%	3.2%	0.5%	0.9%	0.5%
% American Indian and Alaskan Native	0.6%	0.9%	1.0%	0.9%	0.8%	1.0%	0.7%	0.9%
% Asian	2.1%	0.4%	0.5%	0.2%	2.1%	0.2%	0.9%	0.3%

	Missouri	Cedar (CE), MO X	Dade (DD), MO X	Dallas (DL), MO X	Greene (GE), MO X	Hickory (HK), MO X	Polk (PO), MO X	St. Clair (SI), MO X
% Native Hawaiian/Other Pacific Islander	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%
% Hispanic	4.2%	2.2%	2.1%	2.0%	3.8%	1.7%	2.5%	2.4%
% Non-Hispanic white	79.5%	94.8%	93.7%	94.8%	87.6%	94.9%	93.6%	94.3%
% not proficient in English	1%	0%	0%	1%	1%	0%	0%	0%
% Females	50.9%	50.1%	49.1%	50.1%	51.2%	50.7%	51.0%	49.7%
% Rural	29.6%	75.3%	100.0%	81.9%	14.0%	100.0%	68.9%	100.0%

** Compare across states with caution

Note: Blank values reflect unreliable or missing data