



Community Health Needs Assessment

March 2019



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Introduction

Every three years, tax-exempt hospitals are required to assess the health needs of their communities and adopt implementation strategies to address significant identified needs. These requirements are imposed by federal law and include:

- Conducting a community health needs assessment every three years.
- Adopting an implementation strategy to meet the significant community health needs identified through the assessment.
- In each subsequent assessment, evaluating the impact of previous implementation strategies on identified needs.

The community health needs assessment must take into account input from persons who represent the broad interest of the community served by the hospital facility, including at least one state or local public health official and members of medically underserved, low-income and minority populations within the community. The hospital facility must make the community health needs assessment widely available to the public.

This community health needs assessment is intended to document North Arkansas Regional Medical Center's compliance with these requirements. Health needs of the community have been identified and prioritized so that North Arkansas Regional Medical Center (the Medical Center) may adopt an implementation strategy to address specific needs of the community.

The process involved:

- A comprehensive evaluation of the implementation strategy that was developed as a result of the initial community health needs assessment conducted in March 2016.
- Collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, healthcare resources and patient use rates.
- Interviews with key interviewees 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 community health needs assessment required by the IRS during tax year 2019. It will serve as a compliance document as well as a

resource until the next assessment cycle.



Acknowledgements

The community health assessment research team would like to thank all those who contributed to the community health assessment described herein. We are grateful for the many key informants that gave their time and expertise to inform both the direction and outcomes of the study. We greatly appreciate the contribution of their stories.

Summary of Community Health Needs Assessment

The purpose of the community health needs assessment is to understand the unique health needs of the community served by the Medical Center and to document compliance with the federal laws outlined above.

The Medical Center 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 2,700 partners and employees in 38 offices. BKD serves more than 900 hospitals and healthcare systems across the country. The community health needs assessment was conducted from October 2018 through March 2019.

The following steps were conducted as part of the Medical Center's community health needs assessment:

- An evaluation of the impact of actions taken to address the significant health needs identified in the March 2016 community health needs assessment was completed to understand the effectiveness of the Medical Center's current strategies and programs. This evaluation is included at page 19.
- 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.
- An inventory of healthcare facilities and resources was prepared and evaluated for unmet needs.
- Community input was provided through interviews of seven key interviewees, and any comments received providing feedback on the previous assessment and implementation strategy. Results and findings are described in the Key Interviewee and Community Health Input sections of this report.
- Information gathered in the above steps 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 then prioritized taking into account the perceived degree of influence the Medical Center 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 the Medical Center

The Medical Center is an Arkansas nonprofit organization, located in Harrison, Arkansas. A nine-member board of directors governs the Medical Center and ensures that medical services are available to the residents of Harrison and surrounding areas.

The Medical Center is an integrated healthcare provider serving residents of north Arkansas for more than 60 years. The Medical Center proudly offers a wide range of services and specialties to meet the needs of Arkansans close to home. With more than 67 physicians, 11 physician assistants, and 19 APRNs on the medical staff, and approximately 850 employees, the Medical Center is made up of an experienced and dedicated team.

The Medical Center also operates three rural health clinics, located in Lead Hill, Marshall and Jasper, Arkansas. These clinics provide primary care services to the residents of the Medical Center's community who live in more remote areas and might otherwise have difficulty obtaining medical care. The Medical Center also has rural ambulance stations in Lead Hill, Marshall, and Jasper. The Medical Center also owns 13 additional physician clinics located in Harrison and one located in Berryville.

The Medical Center provides healthcare solutions with compassion and respect for the uniqueness of every individual. Guided by a values-based culture to consistently deliver clinical and service excellence to our patients, the Medical Center strives for excellent care, every time.



Mission

Our mission is to provide comprehensive healthcare to north central Arkansas

Vision

Our vision is to be the most trusted and preferred healthcare resource.

Values

SAFETY

It is our collective responsibility to make safety our highest priority by:

- Creating a culture of “First Do No Harm.”
- Taking individual responsibility for providing a clean environment.
- Effectively communicating and handing off critical information.
- Real time reporting and the immediate correction of hazards.
- Ongoing adherence, evaluation and revision of safety policies and procedures.

QUALITY

Performance at the highest level of quality is maintained throughout our organization by:

- Utilizing evidence based guidelines.
- Promoting innovation and creativity.
- Recognizing the human ability to fail and utilizing the performance improvement process to implement positive change.
- Continually educating team members on standards, policies and procedures.

INTEGRITY

We exemplify our integrity with honor and professionalism on an individual and corporate level by:

- Promoting an environment of trust that supports open and honest communication.
- Holding ourselves accountable for our successes and failures and reacting responsibly.

- Respecting the diversity of the community and individual.
- Protecting privacy and confidentiality.

COMMUNITY

We recognize community constitutes the reason for our professions and accept our responsibility to serve the fundamental needs of our community. We fulfill this responsibility by:

- Creating a work environment where the collective energy and intelligence of all team members can flourish.
- Willingly serving all members of our community.
- Providing education and prevention services to improve the overall health of our community.
- Celebrating our successes.

Community Served by the Medical Center

The Medical Center is located in Harrison, Arkansas, in Boone County. Harrison is approximately an hour and a half east of Fayetteville, Arkansas, and an hour and a half south of Springfield, Missouri, the closest metropolitan areas. One divided highway serves the area from the north.

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 healthcare providers, the Medical Center is the single largest provider of acute care services. For this reason, the utilization of hospital services provides the clearest definition of the community. During the initial community health needs assessment process, an analysis of inpatient discharges and outpatient visits was performed to determine where the Medical Center’s patients resided. This analysis showed that the large majority of the Medical Center’s patients were from Boone, Carroll, Newton and Searcy Counties, as well as western Marion County, all located in central northern Arkansas.

In the six years since the initial community health needs assessment was conducted, there has not been significant changes in the population of the area, nor have any new hospitals been opened. Therefore, Medical Center management believes that their community has remained unchanged from the previous community health needs assessment. This report will include data from the five community counties listed above.

County Market Share
2010 - 2014 Discharges

County	Total Number of Discharges	Total Hospital Charges	Average Hospital Charges	County Market Share
Boone	21,105	\$ 465,023,414	\$ 22,034	1.10%
Carroll	14,262	\$ 354,336,513	\$ 24,845	0.75%
Marion	11,169	\$ 243,730,564	\$ 21,822	0.58%
Newton	4,150	\$ 109,716,442	\$ 26,438	0.22%
Searcy	5,249	\$ 118,948,699	\$ 22,661	0.27%
Other AR Counties	1,856,109	\$ 47,748,606,016	\$ 25,725	97.07%
Total	1,912,044	\$ 49,040,361,648	\$ 25,648	100.00%

Source: Arkansas Department of Health

**Summary of Inpatient Discharges and Outpatient Visits by Zip Code
January 1, 2018 to December 31, 2018**

Zip Code	City	County	Acute Inpatient Discharges	Percent of Total Discharges	Outpatient Visits	Percent of Total Visits
72601	Harrison	Boone	1,848	46.9%	52,016	50.5%
72638	Green Forest	Carroll	287	7.3%	4,655	4.5%
72641	Jasper	Newton	186	4.7%	4,721	4.6%
72650	Marshall	Searcy	138	3.5%	4,545	4.4%
72644	Lead Hill	Boone	136	3.4%	3,931	3.8%
72616	Berryville	Carroll	172	4.4%	2,852	2.8%
72662	Omaha	Boone	104	2.6%	2,783	2.7%
72602	Harrison	Boone	57	1.4%	2,352	2.3%
72687	Yellville	Marion	98	2.5%	2,244	2.2%
72611	Alpena	Boone	94	2.4%	2,145	2.1%
72685	Western Grove	Newton	61	1.5%	2,091	2.0%
72633	Everton	Boone	41	1.0%	1,943	1.9%
72675	Saint Joe	Searcy	57	1.4%	1,670	1.6%
72648	Marble Falls	Newton	46	1.2%	1,152	1.1%
72628	Deer	Newton	31	0.8%	957	0.9%
72645	Leslie	Searcy	33	0.8%	787	0.8%
72682	Valley Springs	Boone	39	1.0%	747	0.7%
72655	Mount Judea	Newton	43	1.1%	731	0.7%
72683	Vendor	Newton	32	0.8%	692	0.7%
72640	Hasty	Newton	17	0.4%	686	0.7%
72624	Compton	Newton	20	0.5%	648	0.6%
72668	Peel	Marion	26	0.7%	639	0.6%
72615	Bergman	Boone	20	0.5%	534	0.5%
72672	Pyatt	Marion	20	0.5%	455	0.4%
72634	Flippin	Marion	20	0.5%	450	0.4%
72653	Mountain Home	Baxter	25	0.6%	392	0.4%
72856	Pelsor	Pope	12	0.3%	336	0.3%
	All Other		280	7.1%	5,853	5.7%
	Total		3,943	100.0%	103,007	100.0%

Source: North Arkansas Regional Medical Center and the Arkansas Department of Health

† Inpatient market share was calculated using data from the Arkansas Department of Health showing total discharges for all hospitals by county.

Community Characteristics

Community Population and Demographics

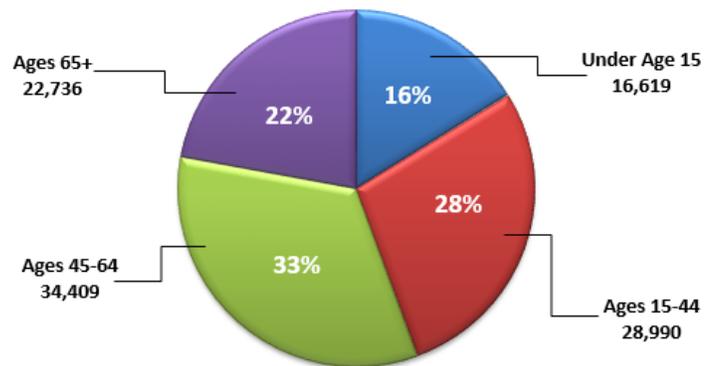
The community served by the Medical Center is a primarily rural area in north central Arkansas. According to 2015 projections based on the most recent U.S. Census Bureau estimates, about 101,000 people live in the five counties included in the community. The Medical Center is located in Harrison, Arkansas, which is the largest town in the community with a population of around 13,000 people.

The population of the community is about 95% white, making it much more racially homogenous than either the state of Arkansas or the United States as a whole. Most of the remaining population is Hispanic or Latino, and about a third of this group has limited English proficiency.

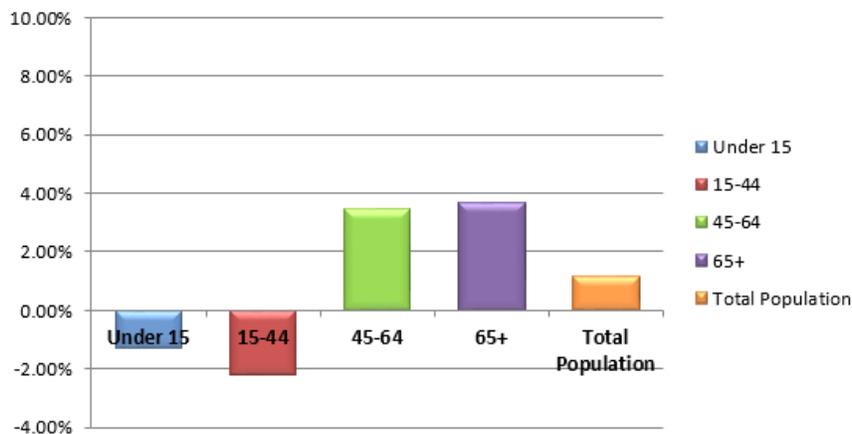
Although this group is small relative to the total populations, they may have unique health needs that should be considered during the preparation of this needs assessment.

A major distinguishing feature of the Medical Center’s community is the age breakdown of this population. The chart to the right shows the breakdown of the community’s population by age group. According to the U.S. Census Bureau, about 22% of the community’s population is over age 65, which is much higher than in Arkansas (16 %) or the United States (15 %) as a whole. Additionally, the percentage of the community population over age 65 is expected to continue increasing over the next two years, as shown on the chart below. This age group uses more health services than any other, so the Medical Center should prepare for increased patient volume in the near future. Additionally, the percentage of the community population aged 44 and below is expected to shrink over the next two years, which could contribute to difficulties in recruiting enough care providers to manage the aging population.

Community Population by Age Group



Projected Change in Population by Age Group, 2018–2020

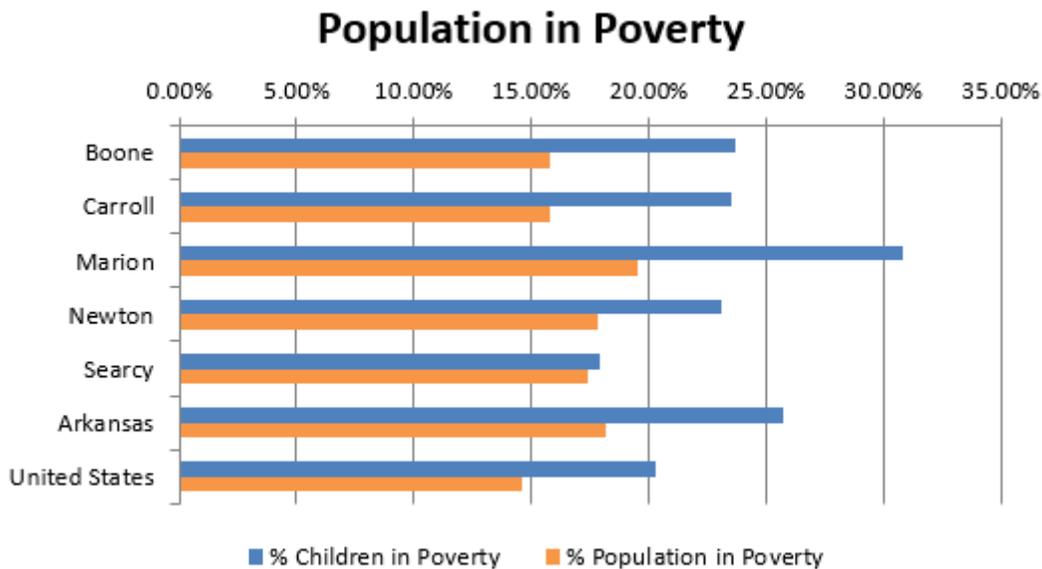


Socioeconomic Characteristics of the Community

The socioeconomic characteristics of a geographic area influence the way residents access healthcare services and perceive the need for healthcare services within society. Factors such as educational attainment, poverty levels, unemployment rates and insurance coverage levels contribute significantly to the health status of a community.

Socioeconomically, the community served by the Medical Center is similar to many other parts of rural Arkansas. About 17% of the population has obtained a Bachelor’s degree or higher, compared to about 31% of the U.S., while about 15% of the population does not have a high school diploma, compared to about 13% in the country as a whole. Lower levels of education have been linked to negative health outcomes, so the educational attainment of the community is relevant to the consideration of the health needs of the community.

The income levels of individuals within the community also have a significant effect on their ability to access health services. The average household income in the Medical Center’s community is \$50,912, compared to \$61,330 for the state of Arkansas and \$81,283 for the United States. Lower-than-average household income suggests that many members of the community may have difficulty obtaining healthcare, especially preventative care. Additionally, in some of the counties in the community, the levels of poverty are significantly higher than the rates in the state of Arkansas and the United States. The chart below shows the percentage of the communities population living below the federal poverty line, with the percentage of children under age 18 shown separately. The specific health needs of low-income members of the community should be considered carefully throughout the preparation of this assessment.



Source: U.S. Census Bureau, American Community Survey

Estimated Income by County 2012 and 2017
Projected Income by County 2022

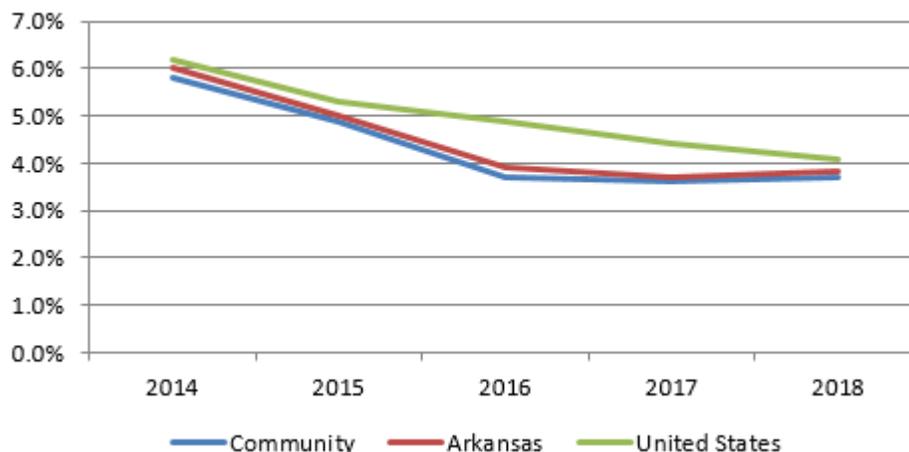
County	Estimated 2012			Estimated 2017			Growth, %			Projected 2022		
	Average Household Income	Median Household Income	Average Per Capita Income	Average Household Income	Median Household Income	Average Per Capita Income	Average Household Income	Median Household Income	Average Per Capita Income	Average Household Income	Median Household Income	Average Per Capita Income
Boone	\$ 53,276	\$ 38,364	\$ 22,333	\$ 54,190	\$ 40,727	\$ 22,333	1.7%	6.2%	-2.6%	\$ 55,120	\$ 43,236	\$ 21,190
Carroll	\$ 47,544	\$ 35,558	\$ 19,964	\$ 53,272	\$ 39,686	\$ 19,964	12.0%	11.6%	11.6%	\$ 59,690	\$ 44,293	\$ 24,883
Marion	\$ 42,748	\$ 33,497	\$ 18,935	\$ 44,328	\$ 36,113	\$ 18,935	3.7%	7.8%	1.4%	\$ 45,966	\$ 38,933	\$ 19,469
Newton	\$ 40,454	\$ 27,790	\$ 17,469	\$ 44,443	\$ 38,134	\$ 17,469	9.9%	37.2%	3.3%	\$ 48,825	\$ 52,328	\$ 18,657
Searcy	\$ 35,779	\$ 30,301	\$ 15,508	\$ 47,884	\$ 36,716	\$ 15,508	33.8%	21.2%	38.5%	\$ 64,084	\$ 44,489	\$ 29,738
Arkansas	\$ 55,158	\$ 40,531	\$ 22,007	\$ 61,330	\$ 43,813	\$ 24,426	11.2%	8.1%	11.0%	\$ 68,193	\$ 47,361	\$ 27,111
United States	\$ 73,034	\$ 53,046	\$ 28,051	\$ 81,283	\$ 57,625	\$ 31,117	11.3%	8.6%	10.9%	\$ 90,464	\$ 62,599	\$ 34,518

Source: U.S. Census Bureau

Some socioeconomic measures in the community have improved significantly since the publication of the 2016 community health needs assessment. One such measure is the percentage of the community that is without health insurance coverage. Effective January 1, 2014, the *Patient Protection and Affordable Care Act* expanded health coverage for many Americans. Arkansas expanded Medicaid eligibility and created a program that allows federal expansion funds to instead be used to subsidize premiums for private commercial insurance policies for low-income Arkansans. This program has had a significant effect on the amount of uninsured patients of the Medical Center. In 2013, before this program went in to effect, approximately 22% of individuals in Boone, Carroll, Marion, Newton, and Searcy counties were uninsured. In 2019, that number dropped to only 10%, which is less than the Arkansas average of about 11%. While the long-term impact of this expansion of insurance coverage on health needs cannot yet be fully appreciated, it has reduced barriers to healthcare, which helps generally reduce health needs.

Another socioeconomic measure that has been improving steadily over the past several years is the unemployment rate. The chart below shows that the unemployment rate of the community has been dropping over the past five years, along with those of the state of Arkansas and the United States. As the economy improves and more people find employment, the socioeconomic status of the community should be strengthened as access to healthcare is improved.

Unemployment Rates, 2014–2017



Source: U.S. Department of Labor, Bureau of Labor Statistics

Health Status of the Community

This section of the assessment reviews the health status of Boone, Carroll, Marion, Newton, and Searcy County residents. As in the previous section, comparisons are provided with the state of Arkansas. This in-depth 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 Medical Center to identify priority health issues related to the health status of its residents.

According to the World Health Organization, 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 healthcare 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 healthcare providers. Some examples of lifestyle/behavior and related healthcare problems include the following:

Lifestyle	Primary Disease Factor
Smoking	Lung cancer Cardiovascular disease Emphysema Chronic bronchitis
Alcohol/drug abuse	Cirrhosis of liver Motor vehicle crashes Unintentional injuries Malnutrition Suicide Homicide Mental illness
Poor nutrition	Obesity Digestive disease Depression
Driving at excessive speeds	Trauma Motor vehicle crashes

Lifestyle	Primary Disease Factor
Lack of exercise	Cardiovascular disease Depression
Overstressed	Mental illness Alcohol/drug abuse Cardiovascular disease

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 (nine measures)
 - Clinical care (seven measures)
 - Social and economic (nine measures)
 - Physical environment (five 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).

As part of the analysis of the needs assessment for the community, the five counties that comprise the majority of the community will be used to compare the relative health status of each county to the state of Arkansas as well as to a national benchmark. 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.

The table below illustrates changes in the county health rankings for health outcomes, length of life, and quality of life.

Changes in County Health Rankings

	Boone	Carroll	Marion	Newton	Searcy
Health Outcomes					
2012 Ranking	9	16	34	13	61
2015 Ranking	3	23	12	51	28
2018 Ranking	5	13	39	9	31
Length of Life					
2012 Ranking	24	20	53	15	58
2015 Ranking	4	38	13	60	33
2018 Ranking	17	18	16	5	45
Quality of Life					
2012 Ranking	4	19	14	10	60
2015 Ranking	2	8	14	32	30
2018 Ranking	5	10	23	21	9

Source: County Rankings & Roadmaps

The table on the following page from County Health Rankings summarizes the 2018 health outcomes for the five counties that comprise the majority of the community for the Medical Center. Measures underperforming the state average are highlighted in red.



Health Outcome/Factor	Boone County Metric	Boone County Rank	Carroll County Metric	Carroll County Rank	Marion County Metric	Marion County Rank	Newton County Metric	Newton County Rank	Searcy County Metric	Searcy County Rank	Arkansas	National Benchmark
Health Outcomes		5	13		39		9		31			
Length of Life		17	18		46		5		45			
Premature death – Years of potential life lost before age 75 per 100,000 population (age-adjusted)	9,000		9,000		10,500		7,900		10,500		9,200	5,300
Quality of Life		5	10		23		21		9			
Poor or fair health – Percent of adults reporting fair or poor health (age-adjusted)	20%		22%		21%		22%		21%		24%	12%
Poor physical health days – Average number of physically unhealthy days reported in past 30 days (age-adjusted)	4.6		4.8		4.9		4.9		4.8		5.0	3.0
Poor mental health days – Average number of mentally unhealthy days reported in past 30 days (age adjusted)	4.6		4.8		5.0		5.0		5.0		5.2	3.1
Low birthweight – Percent of live births with low birthweight (<2500 grams)	6%		7%		7%		7%		6%		9%	6%
Health Factors		6	12		17		15		25			
Health Behaviors		27	6		8		7		26			
Adult smoking – Percentage of adults who are current smokers	20%		19%		20%		21%		20%		24%	14%
Adult obesity – Percent of adults that report a BMI >= 30	38%		34%		33%		32%		36%		35%	26%
Food environment index – Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	6.9		8.0		7.3		5.9		6.1		5.2	8.6
Physical inactivity – Percent of adults age 20 and over reporting no leisure-time physical activity	34%		33%		33%		32%		38%		32%	20%
Access to exercise opportunities – Percentage of population with adequate access to locations for physical activity	63%		50%		52%		59%		23%		66%	91%
Excessive drinking – Percentage of adults reporting binge or heavy drinking	16%		13%		13%		13%		13%		16%	13%
Alcohol-impaired driving deaths – Percentage of driving deaths with alcohol involvement	24%		21%		5%		0%		24%		27%	13%
Sexually transmitted infections – Number of newly diagnosed chlamydia cases per 100,000 population	263.5		155.0		268.8		189.8		164.0		545.0	145.1
Teen birth rate – Number of births per 1,000 female population, ages 15–19	47		53		55		41		44		44	15
Clinical Care		5	42		26		31		30			
Uninsured adults – Percent of population under age 65 without health insurance	10%		17%		11%		11%		13%		11%	6%
Primary care physicians – Ratio of population to primary care physicians	1,380:1		1,540:1		8,090:1		7,910:1		3,930:1		1,520:1	1,030:1
Dentists – Ratio of population to dentists	1,870:1		3,460:1		8,160:1				2,660:1		2,220:1	1,280:1
Mental health providers – Ratio of population to mental health providers	1,040:1		1,260:1		5,440:1		3,970:1		470:1		490:1	330:1
Preventable hospital stays – Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	40		44		55		33		48		62	35
Diabetes monitoring – Percentage of diabetic Medicare enrollees age 65–75 that receive HbA1c screening	85%		87%		87%		89%		88%		84%	91%
Mammography screening – Percent of female Medicare enrollees ages 67–69 that receive mammography screening	60%		58%		65%		46%		58%		58%	71%
Social and Economic Factors		8	24		33		36		43			
High school graduation – Percentage of ninth grade cohort that graduates in 4 years	92%		81%		90%		88%		96%		85%	95%
Some college – Percentage of adults aged 25–44 years with some post-secondary education	58%		45%		45%		45%		48%		57%	72%
Unemployment – Percentage of population ages 16 and older unemployed and seeking work	3.7%		3.6%		4.0%		3.9%		4.5%		4.0%	3.2%
Children in poverty – Percentage of children under age 18 in poverty	24%		28%		32%		33%		37%		24%	12%
Income inequality – Ratio of household income at the 80th percentile to that at the 20th percentile	4.0		4.1		3.9		5.0		5.0		4.8	3.7
Children in single-parent households – Percentage of children that live in household headed by single parent	29%		28%		35%		17%		15%		36%	20%
Social associations – Number of membership associations per 10,000 population	12.6		14.1		9.3		3.8		7.6		12.0	22.1
Violent crime rate – Violent crimes per 100,000 population	371		243		331		275		167		470	62
Injury deaths – Number of deaths due to injury per 100,000 population	83		96		100		75		131		79	55
Physical Environment		18	33		27		19		1			
Air pollution-particulate matter days – Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	9.2		9.2		9.1		8.8		9.1		10.1	6.7
Drinking water violations – Indicator of the presence of health-related drinking water violations. Yes indicates the presence of a violation, No indicates no violation	Yes		Yes		Yes		Yes		No			
Severe housing problems – Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities	12%		17%		16%		17%		12%		15%	9%
Drive alone to work – Percentage of workforce that drives alone to work	84%		81%		80%		76%		75%		83%	72%
Long commute-driving alone – Among workers who commute in their car alone, the percentage that commute more than 30 minutes	21%		23%		33%		47%		33%		26%	15%

2018
Note: Blank values reflect unreliable or missing data.

Population Health Management

A major change currently taking place in the healthcare environment is the shift from fee-for-service based reimbursement to a model that places greater focus on population health management. Effective population health management requires healthcare providers to work together to provide exceptional clinical care in a cost-effective manner. It places a greater focus on a patient's overall wellness rather than on a single episode or visit. The Medical Center has demonstrated its commitment to population health management by joining an Accountable Care Organization, or ACO, along with other area healthcare providers. The ACO, which the Medical Center joined in 2015, places an emphasis on providing excellent patient care with a wellness focus, while improving communication between patients and providers and among the various providers themselves. The Medical Center expects to see significant, measurable improvement in the community's health as a result of the ACO's activities. The Medical Center also has five primary care clinics that are participating in Comprehensive Primary Care Plus, or CPC+. CPC+ is a national advanced primary care medical home model, tested under the authority of the CMS Innovation Center, which aims to strengthen primary care through multi-payer payment reform and care delivery transformation.

Healthcare 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 healthcare delivery system. An adequate number of healthcare facilities and healthcare providers is vital for sustaining a community's health status. Fewer healthcare facilities and healthcare providers can impact the timely delivery of services. A limited supply of health resources, especially providers, results in the limited capacity of the healthcare delivery system to absorb charity and indigent care as there are fewer providers upon which to distribute the burden of indigent care. This section will address the availability of healthcare resources to the residents of Boone, Carroll, Marion, Newton and Searcy Counties.

Hospitals and Health Centers

The Medical Center has 120 acute beds and is the only hospital located in the community with the exception of the critical access hospital in Berryville. Residents of the community also take advantage of services provided by hospitals in neighboring counties. The chart below summarizes hospital services available to the residents of Boone, Carroll, Marion, Newton and Searcy Counties:

Summary of Acute Care Hospitals

Hospital	Location	Facility Type	Miles from NARMC	Bed Size	Annual Discharges	Annual Net Patient Revenue (in Millions)
Mercy Hospital Berryville	Berryville, Arkansas	Critical Access	29	25	364	\$ 17
Cox Medical Center Branson	Branson, Missouri	Short-term Acute Care	34	105	6,301	\$ 178
Eureka Springs Hospital	Eureka Springs, Arkansas	Critical Access	43	15	189	\$ 7
Baxter Regional Medical Center	Mountain Home, Arkansas	Short-term Acute Care	50	147	8,163	\$ 197
Ozark Health, Inc.	Clinton, Arkansas	Critical Access	72	25	553	\$ 26
Mercy Hospital Springfield	Springfield, MO	Short-term Acute Care	72	601	33,712	\$ 992
COXHEALTH	Springfield, MO	Short-term Acute Care	77	594	31,253	\$ 1,028
Washington Regional Medical Center	Fayetteville, Arkansas	Short-term Acute Care	78	340	16,794	\$ 294

Source: *CostReportData.com*

The following is a brief description of the healthcare services available at each of these facilities:

Mercy Hospital Berryville – Located in Berryville, Arkansas, Mercy Hospital Berryville is approximately a 35-minute drive west from Harrison. It offers cancer, diabetes, orthopedic and other health services.

Cox Medical Center Branson – Located in Branson, Missouri, Cox Medical Center is approximately a 40-minute drive from Harrison. It is a large hospital offering a full range of inpatient and outpatient services.

Eureka Springs Hospital – Located in Eureka Springs, Arkansas, Eureka Springs Hospital is approximately a one hour drive west of Harrison. It offers counseling, laboratory, physical therapy, radiology and surgical services.

Baxter Regional Medical Center – Located in Mountain Home, Arkansas, Baxter Regional Medical Center is approximately a one-hour drive east from Harrison. It is a large hospital offering a full range of inpatient and outpatient services.

Ozark Health, Inc. – Located in Clinton, Arkansas, Ozark Health, Inc., is approximately a one and a half hour drive southeast of Harrison. It offers family practice, cardiology, dermatology, nephrology, orthopedic, podiatry, urology and surgical services.

Mercy Hospital Springfield – Located in Springfield, Missouri, Mercy Hospital Springfield is approximately a one-and-a-half hour drive north from Harrison. It is a large hospital offering a full range of inpatient and outpatient services.

COXHEALTH – Located in Springfield, Missouri, COXHEALTH is approximately a one-and-a-half hour drive north from Harrison. It is a large hospital offering a full range of inpatient and outpatient services.

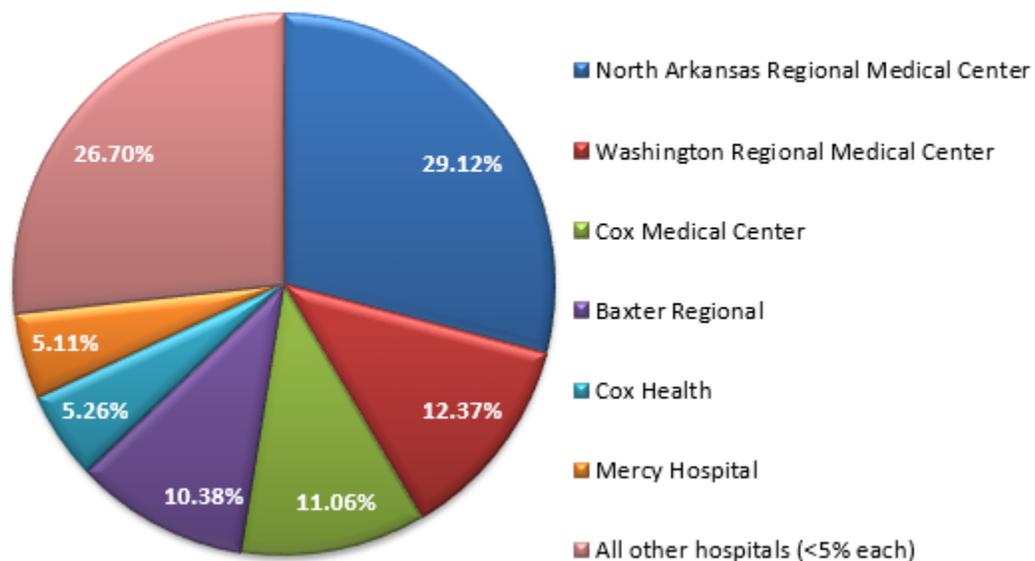
Washington Regional Medical Center – Located in Fayetteville, Arkansas, Washington Regional Medical Center is approximately a one-and-a-half hour drive west from Harrison. It is a large hospital offering a full range of inpatient and outpatient services.



Medical Center Market Share

The market share of a hospital relative to that of its competitors may be based largely on the services required by patients and the availability of those services at each facility. For this study, the market share of the Medical Center was considered based on the type of services required by those patients in the community. The ability to attain a certain relative market share (percentage) of the community varies based on a number of factors, including the services provided, geographical location and accessibility of each competing facility. The chart below presents the relative market share of each hospital that had discharges of residents from the community (Boone, Carroll, western Marion, Newton, and Searcy Counties). This table presents an analysis of data for the most currently available year, showing the percentage of total discharges from each hospital. This information provides an idea of summary market share as well as the outmigration of patients from the community. For 2017, the Medical Center maintained approximately 29 percent of all discharges from the community with Washington Regional Medical Center capturing about 12 percent, Baxter Regional Medical Center capturing around 10 percent and Cox Medical Center capturing about 11 percent of all discharges. Mercy Hospital Springfield and Mercy Hospital Berryville each captured approximately 5 percent of community discharges. The remaining 27 percent of discharges is made up of numerous hospitals, each with less than 5 percent of the total community discharges.

Community Market Share, 2017



Because Arkansas law prohibits the Arkansas Department of Health from providing hospital-specific discharge information, the data in the chart above was estimated based on Medicare discharges by zip code and hospital, which is available from the Centers for Medicare & Medicaid Services.

Other Healthcare Facilities and Providers

Vantage Point – Located in Harrison, Arkansas, Vista Health Services provides day treatment, outpatient and school-based psychiatric care to adults and children.

Health Resources of Arkansas – With several locations throughout Arkansas, this organization provides a wide range of behavioral health services to adults and children. The Harrison, Arkansas, location offers community integration services to adults with chronic psychiatric disabilities.

North Arkansas Partnership for Health Education (NAPHE) – Located in Harrison, Arkansas, NAPHE is a partnership between North Arkansas College and North Arkansas Regional Medical Center. It exists to coordinate continuing education and training for healthcare-related learning and to improve the overall quantity of healthcare by providing a more competent labor pool in healthcare occupations. It also provides community education based on needs identified in the community, as well as teen pregnancy home visiting, prescription drug assistance and substance abuse prevention services.

Area Agency on Aging of Northwest Arkansas – Located in Harrison, Arkansas, the Agency provides various services to senior citizens in the community, including adult day care, emergency response systems, housing, caregiver support programs, medical supply delivery, diabetes self-management education services and in-home care.

Hometown Health Initiative – A community driven initiative facilitated by the Arkansas Department of Health, the Hometown Health Coalition is a volunteer organization made of representatives from all aspects of the community. They identify the community's own unique health issues and work to implement solutions that improve the health of local citizens.

County Health Departments – The Health Departments of Boone, Carroll, Marion, Newton and Searcy Counties exist to prevent, promote and protect the public's health. The local health units provide WIC (Women, Infants and Children), which provides nutritious foods, physical assessments and nutrition counseling for women, infants and children who meet certain nutritional guidelines. Other services include family planning, prenatal care, immunizations, communicable disease follow-up, sexually transmitted disease and HIV testing, tuberculosis testing and treatment, breast care and cervical cytology follow-up, environmental services, home health and personal care services.

Area Nursing Homes – There are nine nursing homes in the area. They provide residential, medical and rehabilitative services to the elderly and disabled in the community.

Harrison House of HOPE – Located in Harrison, Arkansas, House of HOPE opened in July 2012 and is a day center for the homeless in Boone County. The shelter provides services such as transportation, access to other service providers in the area, life skills training, meals and toiletry items.

Key Interviewees

Speaking with key interviewees (community stakeholders that represent the broad interest of the community with knowledge of or expertise in public health) 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

Dialogues with seven key interviewees were conducted in February and March 2019. Interviewees were determined based on their specialized knowledge or expertise in public health or their involvement with underserved and minority populations.

Interviews were conducted via telephone, or the interviewee answered the interview questions via email; whichever was more convenient for the interviewee.

All interviews were conducted by BKD personnel using a standard questionnaire. A copy of the interview instrument is included in the appendix. 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
- Barriers to improving health and quality of life for residents of the primary community
- Opinions regarding the important health issues that affect community residents and the types of services that are important for addressing these issues
- Delineation of the most important healthcare issues or services discussed and actions necessary for addressing those issues

Interview data was initially recorded in narrative form. Themes in the data were identified and representative quotes have been drawn from the data to illustrate the themes. Interviewees were assured that personal identifiers such as name or organizational affiliations would not be connected in any way to the information presented in this report. Therefore, quotes included in the report may have been altered slightly to preserve confidentiality.

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



Key Interviewee Interview Results

As stated earlier, the interview questions for each key interviewee were identical. The questions on the interview instrument are grouped into four major categories for discussion:

1. General opinions regarding health and quality of life in the community
2. Underserved populations and communities of need
3. Barriers
4. Most important health and quality of life issues

While many issues were raised during the interviews, a few items stood out as being mentioned consistently by nearly all of the interviewees. These issues are summarized below:

- More outreach from the Medical Center is still needed in the more remote parts of the community. While Boone County, where the Medical Center is located, has benefitted greatly from new programs at the Medical Center, many individuals in the other community counties are still not aware of what is available to them. Several interviewees recommended that the Medical Center partner with the county health departments to publicize available health services, or utilizing social media platforms such as Facebook more.
- As is common in rural areas, many residents have to commute to more urban areas, such as northwest Arkansas or Springfield, Missouri, to receive specialty care not available at the Medical Center.
- The elderly population continues to grow, and this group often struggles to obtain health services due to lack of reliable transportation or financial barriers. Many of these individuals, especially in rural areas, do not have internet access, which makes it difficult for them to obtain information about available services offered by the Medical Center.
- Access to mental health services in the area has improved slightly, but addiction and illegal drug use continue to be a problem for the community. The area has been negatively impacted by the United States “Opioid Epidemic.”

Other health needs mentioned in the interviews include the following:

- Diabetes and heart disease education
- More support groups in the area
- Smoking cessation services
- Limited access to healthy food options, especially in rural communities
- Obesity reduction programs



Evaluation of Response to 2016 CHNA

The Medical Center prepared an implementation strategy in response to the needs identified in its March 2016 needs assessment. A listing of those needs, along with the steps taken by the Medical Center to address them, is below.

- Mental Health
 - An inpatient geriatric behavioral health service was implemented in April 2013, and an inpatient adult service was implemented in November 2013. A full-time psychiatrist has been employed. Since initiation of these services, over 10,500 patients have been provided mental health services.
- Lack of Health Education
 - The Medical Center will continue to host community health screenings and educational events, including the following:
 - Business Expo & Health Fair – Screenings for blood pressure, glucose, cholesterol, height, weight, body composition and grip strength
 - Cancer screenings for breast, colon, cervical and prostate cancer
 - Red Cross blood drives
 - “Look Good, Feel Better” cancer support groups
 - Grief support groups
 - Diabetes support group is active and meets monthly
 - Partnership with North Arkansas Partnership for Health Education (NAPHE)
 - EMS provided hands-on CPR training for the entire community
- Recruitment of Additional Physicians and Practitioners
 - The Medical Center employed a physician recruiter to help bring more doctors to the community. A psychiatrist, pediatrician, OB/GYN, orthopedic surgeon and two family practice physicians have been hired or recruited.
- Elder Care
- Healthcare Accommodations For Non-English Speakers
 - Translation services for multiple languages are provided in the hospital and by EMS
- Rural Outreach
- Community Health Fairs
- Uninsured Residents
 - The Medical Center has been designated a Certified Application Counselor Organization in order to assist the uninsured and underinsured in the application for coverage under the Affordable Care Act.
 - For the last three years, the Medical Center has held monthly insurance sign-up events during open enrollment.

- The Medical Center is contracted with a vendor that provides assistance identifying patients who may be eligible for financial assistance or Medicaid coverage.

The improvement in chronic illness will take a sustained effort over the long term by the Medical Center and others within the community and especially the willingness on the part of the population to change behavior.

The Medical Center made its 2013 and 2016 community health needs assessments available to the public by posting them on its website. The posting included an email address where feedback on the needs assessment could be provided to the Medical Center. The Medical Center received feedback from other healthcare organizations in the community, which stated that they found the needs assessment helpful in designing programs of their own to better serve the community.

Identification and Prioritization of Health Needs

Based on a review of the data gathered during this assessment, numerous health needs were identified. These needs were prioritized and evaluated to determine which were significant to the community. The criteria included the number of persons affected, the seriousness of the issue, whether the health need particularly affected persons living in poverty or members of an underserved population, and availability of community resources to address the need.



As a result, the following list of significant needs was identified:

- Recruitment of additional physicians and practitioners
 - Primary care practitioners in the more rural parts of the community
 - Mid-level providers to support existing physician practices and population health initiatives
 - General surgeon
 - Family practice and OB/GYN
 - Internal medicine
 - ENT specialist
 - Cardiologist
- Mental health
- Rural outreach
- Elder care

- Healthcare accommodations for non-English speakers
- Health education

Other identified needs include:

- Smoking cessation
- Access to exercise facilities
- Substance abuse
- Dental care
- Mammography screening
- Injury deaths
- Teen pregnancy
- Obesity

The Medical Center will develop an updated implementation strategy to address the needs identified during the community health needs assessment. This assessment will be made publicly available on the Medical Center's website. Public comments on this assessment may be directed to Vincent Leist, Chief Executive Officer, at 620 North Main Street, Harrison, AR 72601.

APPENDICES

KEY INTERVIEWEE INTERVIEW PROTOCOL

KEY INTERVIEWEE INTERVIEW PROTOCOL

Community Health Needs Assessment for:

NARMC

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. My name is [interviewer's name]. Thank you for taking time out of your busy day to speak with me. I'll try to keep our time to approximately 40 minutes, but we may find that we run over – up to 50 minutes total – once we get into the interview. **(Check to see if this is okay).**

[Name of Organization] is gathering local data as part of developing a plan to improve health and quality of life in _____ County. Community input is essential to this process. A combination of surveys and key interviewee interviews are being used to engage community members. You have been selected for a key interviewee 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?

Thank you. Next I'll be asking you a series of questions about health and quality of life in _____ 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 rate health and quality of life in _____ County?
2. In your opinion, has health and quality of life in _____ County improved, stayed the same, or declined over the past few years?

3. Why do you think it has (based on answer from previous question: improved, declined, or stayed the same)?
4. What other factors have contributed to the (based on answer to question 2: improvement, decline **or** to health and quality of life staying the same)?
5. What barriers, if any, exist to improving health and quality of life in _____ County?
6. In your opinion, what are the most critical health and quality of life issues in _____ County?
7. What needs to be done to address these issues?
8. The prior community health needs assessment indicated the following as the most significant health needs. Is there anything that is not on the list that should be?
 - a. Uninsured adults
 - b. Recruitment of additional physicians and practitioners
 - c. Mental health
 - d. Rural outreach
 - e. Elder care
 - f. Healthcare accommodations for non-English speakers
 - g. Health education

What do you think is the most critical health need included on the list above or other of the community?

9. Do you think any of the above have improved over the last 3 years? Why or why not? What needs to be done to continue to improve in these areas?
10. In your opinion, are any the following areas in which the hospital should be addressing? Why or why not?
 - a. Economic development
 - b. Affordable housing
 - c. Poverty
 - d. Education
 - e. Healthy nutrition
 - f. Physical activity

g. Drug and Alcohol Abuse

11. Are you aware of the available health screenings at NARMC? If not, where would you look to obtain information of the available screenings? What can NARMC do to increase awareness?
12. Are there people or groups of people in the _____ County whose health or quality of life may not be as good as others? Who are these persons or groups?
13. Are there people or groups of people who have a more difficult time obtaining necessary/preventive medical services? If so, who are these persons or groups? Why do you think they have a more difficult time? What can be done to improve the situation?
14. How would you rate the hospital's efforts on communicating how they are addressing the identified health needs? How have you received communication regarding the hospital's efforts?
15. What do you think is the hospital's role in addressing the identified health needs of the community?

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 _____ County. Before we conclude the interview,

Is there anything you would like to add?

SOURCES

Sources

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