



Community Health Needs Assessment

Mercy Hospital

Tishomingo

Fiscal Year 2019



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Introduction

New requirements for nonprofit, 501 (c)(3), hospitals were enacted under the Patient Protection and Affordable Care Act (ACA), passed on March 23, 2010. One of the most significant of the new requirements is the Community Health Needs Assessment (CHNA) that must be conducted during taxable years after March 23, 2012 and submitted with IRS form 990. A CHNA must then be completed every three years following.

While the requirements are fairly new, the IRS has made strides in defining hospitals that must complete the CHNA as well as details of what is expected in the CHNA report to be submitted. At this time the only entities that must complete the CHNA are hospital organizations defined as:

- An organization that operates a State-licensed hospital facility
- Any other organization that the Secretary determines has the provision of hospital care as its principal function or purpose constituting the basis for its exemption under section 501 (c)(3).

The general goal behind the requirement is to gather community input that leads to recommendations on how the local hospital can better meet and serve residents' needs. The community input is typically derived from a community survey and a series of open meetings. Local health data are presented. Community members then identify and prioritize their top health needs.

After listening to community input, the hospital defines an implementation strategy for their specific facility. The implementation strategy is a written plan that addresses each of the health needs identified in the community meetings. To meet Treasury and IRS guidelines an implementation strategy must:

- Describe how the hospital facility plans to meet the health need, or
- Identify the health need as one the hospital facility does not intend to meet and explain why the hospital facility does not intend to meet the health need¹

After the needs are identified that the hospital can address, the implementation strategy must take into account specific programs, resources, and priorities for that particular facility. This can include existing programs, new programs, or intended collaboration with governmental, nonprofit, or other health care entities within the community.²

¹ Internal Revenue Service. 2011. Notice and Requests for Comments Regarding the Community Health Needs Assessment Requirements for Tax-Exempt Hospitals. Internal Revenue Bulletin: 2011-30.

² Ibid

The facility must make the recommendations and implementation strategy widely available to community members. The facility must adopt the implementation strategy in that same taxable year.

Oklahoma Office of Rural Health Partnership

The Oklahoma Office of Rural Health makes this program available to all rural facilities in Oklahoma free of charge. The Oklahoma Office of Rural Health works closely with the hospital and community members to develop an economic impact of the local health sector, develop and analyze a local health services survey, and gather and analyze local health data. The community meetings are facilitated by a resource team that includes Corie Kaiser and Lara Brooks of the Oklahoma Office of Rural Health.

After the meetings conclude, the resource team assists the hospital in developing their implementation strategy. After implementation, the resource team will assist in evaluation of the strategies implemented and provide continued assistance with data and resources.

This document discusses the steps taken to conduct a CHNA for Mercy Hospital Tishomingo in 2018. It begins with a description of the hospital's medical service area, including a demographic analysis, and then summarizes each meeting that took place during the CHNA process. The report concludes by listing the recommendations that came out of the process and presenting the hospital's implementation strategy and marketing plan.

Previous Community Health Needs Assessment- Priorities, Implementation, and Evaluation

Mercy Hospital Tishomingo worked with the Oklahoma Office in 2015 to complete their second Community Health Needs Assessment. During that time, health concerns were identified by community members and then prioritized by community members in focus group-style meetings. The following identifies each priority, implementation taken, and an evaluation or impact of the implementation.

Priority: Health eating/Youth Development: CPR Training

Activities Completed: Mercy Hospital Tishomingo staff provide training for Tishomingo, Mill Creek, Ravia, and Milburn High School seniors. This reaches around 220-290 seniors each year for area schools.

Priority: Health eating/Youth Development: Johnston County Kids Health Fair

Activities Completed: Mercy Hospital Tishomingo collaborated to have a health fair for Johnston County youth. This was offered during FY2018 and reached 600 local children. Typical health fair services were offered. This was a partnership with the local coalition and health department.

Priority: Health eating/Youth Development: Back pack program

Activities Completed: Mercy Hospital Tishomingo has previously housed and filled backpacks for the local backpack program. The backpacks and after school program served 954 children during FY2017. In FY2018, this program served 5,140 children. This increase includes expanded services and expanded schools to include Mannsville Public Schools, a food pantry and a school supply drive.

This then prompted a local collaboration, Johnston County Kids, with the local development coalition, and in collaboration with the public schools in Tishomingo, Ravia, Mannsville, Mill Creek, Milburn, Coleman, and Wapanucka. This resulted in the move of the local backpack program to be housed at the Methodist Church, and Mercy Hospital Tishomingo collaborates to fill the back packs. Johnston County Kids includes an after school program, back pack program, school supplies, school pantries which include food and personal hygiene items.

Priority: Suicide prevention/Mental health focus:

Activities Completed: This is a continued concern. This is beyond the expertise and services of the hospital. However, the hospital continues to build local partnerships with providers and makes local referrals.

In 2017, the hospital did begin a partnership with Lighthouse Mental Health Services to provide emergency orders of detention via telemedicine. This provides quicker responses for patients in need and allows patients to receive appropriate care in a timely manner.

Priority: Need for specialist services: Telemedicine Services

Activities Completed: Telemedicine services were added in July 2017 at Mercy Hospital Tishomingo. Hospitalist care is covered via telemedicine and mental health EODs are completed via telemedicine. Therefore, the infrastructure is in place to expand these offerings to include specialist visits via telemedicine in the future.

Awareness of Community Outreach

A question was included on the community survey (complete methodology detailed on page 21) to gauge survey respondents' awareness of current community programs offered by the hospital. Ten individuals or 12.7 percent of the total indicated they were aware of community programs. Survey respondents were then asked to list which programs they knew. The most commonly responded programs were the back pack programs for kids (3 responses), blood drive (2 responses), and CPR training (2 responses). The table below outlines all programs listed by the survey respondents.

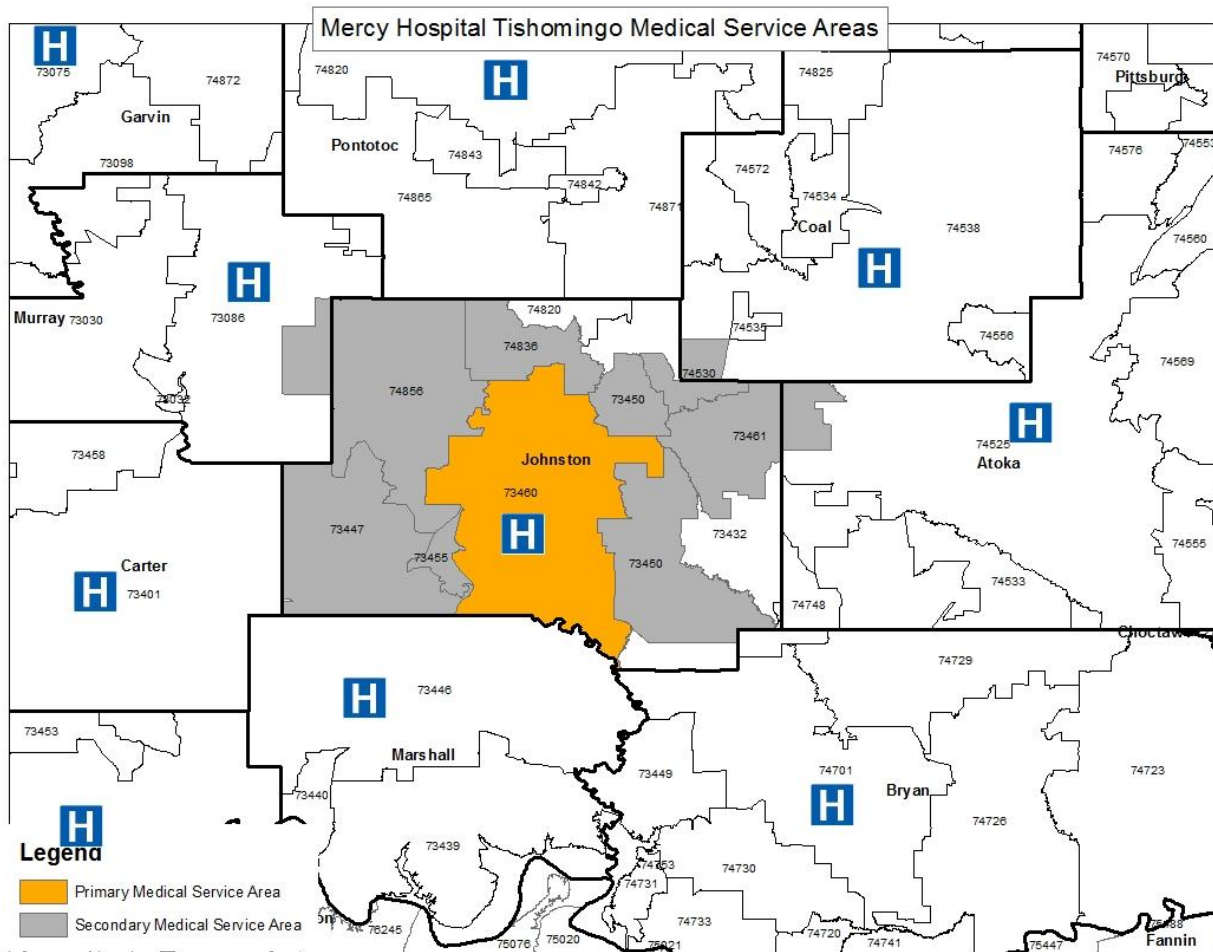
Please list community programs:

Response Category	No.	%
Back pack program for kids	3	21.4%
Blood drive	2	14.3%
CPR training	2	14.3%
Grant programs/After school kids program	2	14.3%
Annual diabetes conference	1	7.1%
School nutrition program	1	7.1%
Flu shots	1	7.1%
Insurance assistance	1	7.1%
School supply assistance	1	7.1%
Total	14	100.0%

Mercy Hospital Tishomingo Medical Services Area Demographics

Figure 1 displays the Mercy Hospital Tishomingo medical services area. Mercy Hospital Tishomingo and all area hospitals are delineated in the figure. The surrounding hospitals are identified in the table below by county along with their respective bed count.

Figure 1. Mercy Hospital Tishomingo Medical Service Areas



City	County	Hospital	No. of Beds
<i>Tishomingo</i>	<i>Johnston</i>	<i>Mercy Hospital Tishomingo</i>	25
Atoka	Atoka	Atoka County Medical Center	25
Durant	Bryan	AllianceHealth Durant	148
Healdton	Carter	Mercy Hospital Healdton	22
Coalgate	Coal	Coal County General Hospital	20
Madill	Marshall	AllianceHealth Madill	25
Sulphur	Murray	Arbuckle Memorial Hospital	25
Ada	Pontotoc	Mercy Hospital Ada	156

As delineated in Figure 1, the primary medical service area of Mercy Hospital Tishomingo includes the zip code area of Tishomingo. The primary medical service area experienced a population increase of 3.0 percent from the 2000 Census to the 2010 Census (Table 1). This same service area experienced a population decrease of 1.9 percent from the 2010 Census to the latest available, 2012-2016 American Community Survey.

The secondary medical services area is comprised of the zip code areas of Mill Creek, Connerville, Milburn, Bromide, Ravia, Mannsville, and Madill. The secondary medical service area experienced an increase in population of 13 percent from 2000 to 2010 followed by a population increase of 2.5 percent from 2010 to the 2012-2016 American Community Survey.

Table 1. Population of Mercy Hospital Tishomingo Medical Service Areas

Population by Zip Code	2000 Population	2010 Population	2012-2016 Population	% Change 2000- 2010	% Change 2010-12- 16
<i>Primary Medical Service Area</i>					
73460 Tishomingo	4,609	4,747	4,656	3.0%	-1.9%
Total	4,609	4,747	4,656	3.0%	-1.9%
<i>Secondary Medical Service Area</i>					
74856 Mill Creek	771	782	779	1.4%	-0.4%
74836 Connerville	208	171	204	-17.8%	19.3%
73450 Milburn	1,108	1,248	1,362	12.6%	9.1%
74530 Bromide	210	214	185	1.9%	-13.6%
73461 Wapanucka	762	795	743	4.3%	-6.5%
73455 Ravia	626	673	588	7.5%	-12.6%
73447 Mannsville	1,184	1,205	1,349	1.8%	12.0%
73446 Madill	6,750	8,042	8,254	19.1%	2.6%
Total	11,619	13,130	13,464	13.0%	2.5%

SOURCE: Population data from the U.S. Bureau of Census, Decennial Census 2000, 2010 and American Community Survey 2012-2016 (August 2018)

Table 2 displays the current existing medical services in the primary service area of the Mercy Hospital Tishomingo medical services area. Most of these services would be expected in a service area of Tishomingo’s size: six physician and provider clinics, four dental offices, one optometry office, and two chiropractic offices, one nursing home, one adult day service, three home health and hospice providers, Johnston County Health Department, one EMS provider, two outpatient rehabilitation providers, seven mental health and/or substance abuse providers, four durable medical equipment providers, and two pharmacies. Mercy Hospital Tishomingo is a 25 bed critical access hospital located in Johnston County. The hospital provides acute and swing bed inpatient services, 24-hour emergency department, diagnostic radiology (X-ray, CT, Ultrasound), and home health/hospice services. A complete list of hospital services and community involvement activities can be found in Appendix A.

Table 2. Existing Medical Services in the Mercy Hospital Tishomingo Medical Services Area

Count	Service
1	Hospital: Mercy Hospital Tishomingo
6	Physician and provider offices and clinics
4	Dental offices
1	Optometry office
2	Chiropractic offices
1	Nursing Home
1	Adult Day Service
3	Home health and hospice providers
2	Outpatient rehabilitation providers
1	County Health Department: Johnston County
2	EMS providers
7	Mental health and/or substance abuse providers
4	Durable medical equipment provider
2	Pharmacies

In addition to examining the total population trends of the medical service areas, it is important to understand the demographics of those populations. Table 3 displays trends in age groups for the primary and secondary medical service areas as well as Johnston County in comparison to the state of Oklahoma. Overall, the over 65 age group has experienced an increase in population across all geographies from the 2010 Census to the latest, 2012-2016 American Community Survey. This cohort accounted for 14.5 percent of the total population at the state level. In terms of the medical service areas, this age group accounted for 16.9 percent of the primary medical service area, 16.5 percent of the secondary medical service area, and 17.9 percent of the population of Johnston County. The 45-64 age group accounts for the largest share of the population in the primary (26.4%) and secondary (26%) service areas and Johnston County (26.9%). This is compared to the state share of 24.9 percent of the total population.

Table 3. Percent of Total Population by Age Group for Mercy Hospital Tishomingo Medical Service Areas, Johnston County and Oklahoma

Age Groups	Primary Medical Service Area	Secondary Medical Service Area	Johnston County	Oklahoma
2010 Census				
0-14	20.6%	21.8%	20.2%	20.7%
15-19	7.9%	7.2%	7.5%	7.1%
20-24	7.8%	5.5%	6.3%	7.2%
25-44	22.1%	23.3%	22.6%	25.8%
45-64	24.9%	26.6%	26.9%	25.7%
65+	<u>16.7%</u>	<u>15.7%</u>	<u>16.6%</u>	<u>13.5%</u>
Totals	100.0%	100.0%	100.0%	100.0%
Total Population	4,747	13,130	10,957	3,751,351
12-16 ACS				
0-14	18.9%	21.1%	19.7%	20.6%
15-19	7.3%	6.9%	6.8%	6.7%
20-24	7.6%	6.3%	5.8%	7.3%
25-44	22.8%	23.2%	22.8%	26.0%
45-64	26.4%	26.0%	26.9%	24.9%
65+	<u>16.9%</u>	<u>16.5%</u>	<u>17.9%</u>	<u>14.5%</u>
Totals	100.0%	100.0%	100.0%	100.0%
Total Population	4,656	13,464	11,027	3,875,589

SOURCE: U.S. Census Bureau, Decennial Census data for 2010 and American Community Survey data for 2012-2016 (www.census.gov [September 2018]).

Changes in racial and ethnic groups can impact the delivery of healthcare services, largely due to language barriers and dramatically different prevalence rates for specific diseases, such as diabetes. A noticeable trend in Oklahoma is the growth in the Hispanic origin population. In 2010, those of Hispanic origin accounted for 8.9 percent of the total state population. The latest American Community Survey data of 2012-2016 suggest that this population group has experienced an increase to 9.8 percent of the total population. This trend is

not as evident in Johnston County and both medical service areas. Rather, the medical service areas and Johnston County have a larger share of Native American population residents with 13.8 percent of the total of the primary medical service area, 11.5 percent of the secondary, and 15.5 percent of Johnston County in 2010. When reviewing the data and comparing it to the latest, 2012-2016 American Community Survey, it appears this population group has experienced a loss; however, it must be noted the two or more races category has experienced an increase during this time. Therefore, it could be assumed that this population group is largely being accounted for in the two or more category.

Table 4. Percent of Total Population by Race and Ethnicity for Mercy Hospital Tishomingo Medical Service Areas, Johnston County and Oklahoma

Race/Ethnic Groups	Primary Medical Service Area	Secondary Medical Service Area	Johnston County	Oklahoma
2010 Census				
White	72.0%	68.8%	73.1%	72.2%
Black	3.6%	2.0%	1.9%	7.4%
Native American ¹	13.8%	11.5%	15.5%	8.6%
Other ²	1.4%	10.8%	1.4%	5.9%
Two or more Races ³	9.2%	6.8%	7.9%	5.9%
Hispanic Origin ⁴	3.8%	16.3%	3.9%	<u>8.9%</u>
Total Population	4,747	13,130	10,957	3,751,351
12-16 ACS				
White	73.9%	65.3%	71.8%	72.9%
Black	2.6%	2.1%	1.9%	7.3%
Native American ¹	4.3%	7.3%	6.2%	7.3%
Other ²	1.8%	11.4%	1.4%	8.7%
Two or more Races ³	17.4%	14.0%	18.7%	7.7%
Hispanic Origin ⁴	<u>6.4%</u>	<u>18.7%</u>	<u>4.7%</u>	<u>9.8%</u>
Total Population	4,656	13,464	11,027	3,875,589

SOURCE: U.S. Census Bureau, Decennial Census data for 2010 and American Community Survey data for 2012-2016 (www.census.gov [September 2018]).

Summary of Community Meetings

Mercy Hospital Tishomingo hosted three community meetings between October 9 and November 6, 2018. The Oklahoma Office of Rural Health facilitated these meetings. Summaries of the information presented at each meeting are included below in chronological order.

Community members in attendance at these meetings included:

- Mercy Hospital Tishomingo representatives
- Family Health Center of Southern Oklahoma representatives
- Johnston County Health Department
- State Senator
- Murray State College representative
- Retired individuals
- Local EMS
- Local mental health provider
- Juvenile Affairs
- Chickasaw Nation
- Local business owners
- City Council representative

Average attendance at the community meetings was 15-25 community members. Community members were invited to participate through emails and phone calls made from representatives from Mercy Hospital Tishomingo. Individuals were selected based on their knowledge and expertise of the local community. Community leaders, service providers, schools, and public health representatives were included as invitees. A representative from the hospital went door to door at local businesses to invite individuals to the community meetings. The hospital made significant efforts to reach a diverse and representative population of the medical service area and patients served including low income and racially diverse populations. Representatives from the public health sector were included to provide insight into what they see from a public health and underserved population perspective of community needs.

Economic Impact and Community Health Needs Assessment Overview, October 9, 2018

A meeting was held to discuss the economic impact of the health sector and explain the process and need for the Community Health Needs Assessment. The economic impact of the health sector was reviewed at this meeting (and is summarized below).

Table 5 below summarizes the overall economic impact of the health sector on the Johnston County, Oklahoma economy. A form requesting information was sent to all health care providers in the medical service area. Local providers were asked to share their employment levels and of those employees how many were physicians/optometrists/dentists/pharmacists/etc.

When available, payroll information was also collected from the establishments. When payroll information was not available, payroll was estimated using state level averages from the Bureau of Labor Statistics.

The health sector in the Mercy Hospital Tishomingo medical service area employs 554 FTE individuals. After applying a county-specific employment multiplier to each respective sector, there is a total employment impact of 674 FTE employees. The same methodology is applied to income. The local health sector has a direct income impact of over \$32 million. When the appropriate income multiplier is applied, the total income impact is over \$35 million. The last two columns examine the impact this has on the retail sector of the local community. Recent data suggest that just 29.5% of personal income in Oklahoma will be spent on taxable goods and services locally. Therefore, if we just examine the impact made on retail from those employed in the health sector, this would account for over \$10.4 million spent locally, generating \$104,292 on a 1% tax. A copy of the meeting materials that were distributed can be found in Appendix C.

At the conclusion of the meeting, community members were asked to identify their top health concerns based on the demographic information presented and their local expertise. The following concerns were identified:

- Access to specialists (2)- Cardiologist comes to clinic once per month
- Quality housing (3)- Difficult to attract and recruit physicians
- Eye care- optometry
- Attracting and keeping primary care physicians
- Service lines at hospital
- EMS transport- keeping as many patients local as possible, so they do not have to be transferred to OKC or other location
- High Medicaid share of payers- few physicians could have impact on those receiving care in a clinic setting and would force patients to seek care in the ED

Table 5. Mercy Hospital Tishomingo Medical Service Area Health Sector Impact on Employment and Income, and Retail Sales and Sales Tax

Health Sectors	Employment			Income			Retail	1 Cent
	Direct	Multiplier	Impact	Direct	Multiplier	Impact	Sales	Sales Tax
Hospitals	57	1.42	81	\$5,324,712	1.15	\$6,141,981	\$1,811,884	\$18,119
Physicians, Dentists & Other Medical Professionals	132	1.28	169	\$9,065,679	1.13	\$10,230,512	\$3,018,001	\$30,180
Nursing Home & Home Health	284	1.17	332	\$12,738,029	1.10	\$14,004,712	\$4,131,390	\$41,314
Other Medical & Health Services & Pharmacies	<u>81</u>	1.15	<u>93</u>	<u>\$4,103,892</u>	1.21	<u>\$4,976,079</u>	<u>\$1,467,943</u>	<u>\$14,679</u>
Total	554		674	\$31,232,312		\$35,353,283	\$10,429,219	\$104,292

SOURCE: 2016 IMPLAN database, Minnesota IMPLAN Group, Inc.; Local data for employment, employee compensation and proprietor's income; income estimated based on state average incomes if local data not available; employment data from local survey.

* Based on the ratio between Oklahoma taxable sales and income (29.5%) – from 2017 Sales Tax Data and 2016 Personal Income Estimates from the Bureau of Economic Analysis.

Health Data, October 23, 2018

A community meeting was held October 23, 2018, to examine various sources of local health data. Various sources of health data were examined including data from the County Health Rankings and Roadmaps Program through the University of Wisconsin Population Health Institute, and the Robert Wood Johnson Foundation. The County Health Rankings program evaluates and ranks counties based on two distinct areas: Health Factors and Health Outcomes. Along with these two areas counties receive an overall rank within their state; therefore 1=best and 77=worst.

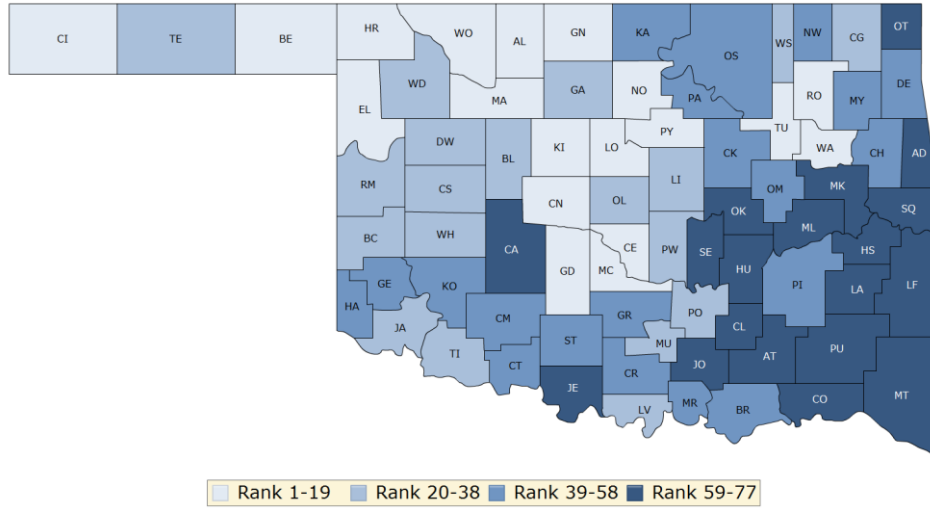
Health factors, considered tomorrow's health, are comprised of health behaviors (rank: 54), clinical care (rank: 64), social and economic factors (rank: 59), and physical environment (rank: 24). Johnston County's overall health factors rank is 59. This suggests, in general, the health status of Johnston County residents is somewhat comparable to that of neighboring counties. Areas of concern include Johnston County's smoking rate, adult obesity rate, food environment index, rate of uninsured, county population to primary care physician ratio, preventable hospital stays, and the rate of diabetic and mammography screenings of the Medicare populations are all less desirable than the top U.S. performers. The high school graduation rate, those with some college, children in single-parent households, rate of injury deaths and drinking water violations are all areas of concern in Johnston County. All health factors variables are presented in Table 6 along with Johnston County specific data, the top U.S. performers, and the state average. The yellow highlighted categories are the areas identified by the County Health Rankings and Roadmaps as areas to explore (generally where Johnston County ranks very poorly compared to the national benchmark). The green highlighted categories are identified by the County Health Rankings and Roadmaps as areas of strength.

Table 6. Health Factors (Overall Rank 59)

Category (Rank)	Johnston County	Error Margin	Top U.S. Performers	Oklahoma
Health Behaviors (54)				
Adult Smoking	20%	20-21%	14%	20%
Adult Obesity	37%	30-44%	26%	33%
Food Environment Index	6.2		8.6	5.9
Physical Inactivity	32%	26-40%	20%	30%
Access to Exercise Opportunities	43%		91%	74%
Excessive Drinking	12%	12-13%	13%	13%
Alcohol-Impaired Driving Deaths	21%	8-37%	13%	28%
Sexually Transmitted Infections	360		146	542
Teen Birth Rate	45	38-53	15	42
Clinical Care (64)				
Uninsured	19%	17-21%	6%	16%
Primary Care Physicians	3,660:1		1,030:1	1,590:1
Dentists	1,110:1		1,280:1	1,700:1
Mental Health Providers	140:1		330:1	260:1
Preventable Hospital Stays	86	69-103	35	60
Diabetic Monitoring	67%	57-78%	91%	78%
Mammography Screening	40%	30-50%	71%	56%
Social & Economic Factors (59)				
High School Graduation	84%		95%	83%
Some College	47%	42-53%	72%	59%
Unemployment	5.9%		3.2%	4.9%
Children in Poverty	30%	23-36%	12%	23%
Income Inequality	4.8	4.1-5.5	3.7	4.6
Children in Single-Parent Household	42%	33-52%	20%	34%
Social Associations	16.4		22.1	11.5
Violent Crime Rate	232		62	439
Injury Deaths	136	107-170	55	92
Physical Environment (24)				
Air-Pollution- Particulate Matter	9.2		6.7	9.2
Drinking Water Violations	Yes			
Severe Housing Problems	12%	10-14%	9%	15%
Driving Alone to Work	77%	75-79%	72%	83%
Long Commute- Driving Alone	35%	30-40%	15%	26%

Source: County Health Rankings & Roadmaps; University of Wisconsin Population Health Institute; Robert Wood Johnson Foundation

The following figure depicts each county’s rank by shade. Johnston County’s ranking is comparable to Coal and Atoka Counties and is less favorable than all of the other surrounding counties.



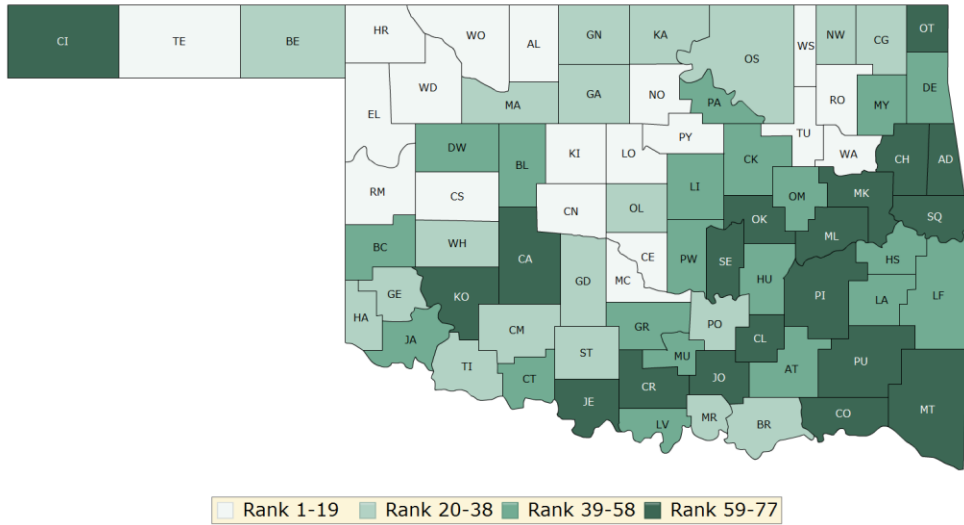
In terms of health outcomes, considered, today’s health, Johnston County’s ranking is 68th in the state. Health outcomes are comprised of two areas: length of life and quality of life. The variables for each of these sections are presented in Table 7.

Table 7. Health Outcomes (Overall Rank 68)

Category (Rank)	Johnston County	Error Margin	Top U.S. Performers	Oklahoma
Length of Life (68)				
Premature Death	12,400	10,000-14,700	5,300	9,300
Quality of Life (66)				
Poor or Fair Health	22%	22-23%	12%	20%
Poor Physical Health Days	4.9	4.7-5.1	3.0	4.5
Poor Mental Health Days	4.9	4.7-5.1	3.1	4.5
Low Birth Weight	9%	7-10%	6%	8%

Source: County Health Rankings & Roadmaps; University of Wisconsin Population Health Institute; Robert Wood Johnson Foundation

The following figure shows county health outcomes rankings by shades. Johnston County's ranking is comparable to Coal and Carter Counties, and is less favorable than Atoka, Marshall, Bryan, Pontotoc, and Murray Counties. All meeting materials distributed at this meeting can be found in Appendix D.



Internal Mercy Hospital Tishomingo data were also reviewed. This includes both emergency department data and inpatient. The data were gathered by Mercy Ministry Office and presented by the Mercy Hospital Tishomingo CEO.

Mercy Hospital Tishomingo Emergency Department Statistics

Race	Visits
Caucasian	3618
Native American	476
Hispanic	132
African American	120
Multi-Racial	66
Other	46
Unknown/Refused	29
Asian	5
Total	4492

Age Group	Visits
0-10	755
11-19	512
20-29	559
30-39	543
40-49	560
50-59	542
60-69	525
70-79	295
80-89	165
90 and over	36
Total	4,492

Co-Occuring Diagnoses

Principal/Secondary Diagnoses	Visits
Diabetes	639
Behavioral Health	2226
Cardiovascular Disease	587
Lung Disease	1132

Top 10 Diagnosis

ICD10 Primary Diag	Primary ICD10 Diag Desc	Visits
J10.1	Influenza due to other identified influenza virus with other respiratory manifestations	102
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation	97
R07.89	Other chest pain	96
J02.9	Acute pharyngitis, unspecified	94
N30.00	Acute cystitis without hematuria	75
R51	Headache	72
J02.0	Streptococcal pharyngitis	68
J06.9	Acute upper respiratory infection, unspecified	67
N39.0	Urinary tract infection, site not specified	52
M54.5	Low back pain	52

Mercy Hospital Tishomingo Inpatient Data

Race	Visits
Caucasian	193
Native American	21
Hispanic	5
African American	3
Other	2
Total	224

Age Group	Visits
20-29	1
30-39	2
40-49	20
50-59	35
60-69	55
70-79	58
80-89	38
90 and over	15
Total	224

Co-Occurring Diagnoses

Principal/Secondary Diagnoses	Visits
Diabetes	85
Behavioral Health	158
Cardiovascular Disease	86
Lung Disease	147

Top 10 Diagnosis

DRG	DRG Descriptions	Visits
190	CHRONIC OBSTRUCTIVE PULMONARY DISEASE W MCC	30
192	CHRONIC OBSTRUCTIVE PULMONARY DISEASE W/O CC/MCC	11
690	KIDNEY URINARY TRACT INFECTIONS W/O MCC	11
291	HEART FAILURE SHOCK W MCC	9
560	AFTERCARE, MUSCULOSKELETAL SYSTEM CONNECTIVE TISSUE W CC	7
641	MISC DISORDERS OF NUTRITION,METABOLISM,FLUIDS/ELECTROLYTES W/O MCC	7
948	SIGNS SYMPTOMS W/O MCC	7
561	AFTERCARE, MUSCULOSKELETAL SYSTEM CONNECTIVE TISSUE W/O CC/MCC	7
194	SIMPLE PNEUMONIA PLEURISY W CC	6
872	SEPTICEMIA OR SEVERE SEPSIS W/O MV >96 HOURS W/O MCC	6
947	SIGNS SYMPTOMS W MCC	6
193	SIMPLE PNEUMONIA PLEURISY W MCC	6

At the conclusion of the meeting, community members were once asked to identify what health concerns stand out in the data the presented and their local expertise. The health concerns identified include:

- Food insecurity
- Food needs and reaching those in the rural areas
- Quality of care provided by mental health and behavioral health providers
- Beds for those in crisis and inpatient mental health services

Community Survey Methodology and Results, October 9- November 6, 2018

A survey was designed to gauge hospital usage, satisfaction, and community health needs. The survey was available in both paper and web format. The hard copy version of the survey was distributed at local businesses, schools, senior centers, churches, and Murray State College. The survey link was also placed on the hospital's website and Facebook page. A hospital representative also created a kiosk with a hospital laptop to take around town, including convenience stores to encourage local individuals to take the survey. Surveys were also distributed at the first community meeting on October 9, 2018. Community members in attendance also received a follow-up email with a PDF copy of the survey and the electronic

survey link. A copy of the survey form and results can be found in Appendix E. Community members were asked to return their completed surveys to Mercy Hospital Tishomingo.

The survey ran from October 9, 2018 to October 23, 2018. A total of 79 surveys from the Mercy Hospital Tishomingo medical service area were completed. Of the surveys returned, 24 were electronic responses. The survey results were presented at the November 6, community meeting.

Table 8 below shows the survey respondent representation by zip code. The largest share of respondents was from the Tishomingo (73460) zip code with 46 responses or 58.2 percent of the total. Milburn followed with 11 responses, and Ravia and Mill Creek each had 5.

Table 8. Zip Code of Residence

Response Category	No.	%
73460- Tishomingo	46	58.2%
73450- Milburn	11	13.9%
73455- Ravia	5	6.3%
74856- Mill Creek	5	6.3%
73461- Wapanucka	2	2.5%
73401- Ardmore	2	2.5%
74820- Ada	1	1.3%
75407- Princeton, TX	1	1.3%
74729- Caddo	1	1.3%
74533- Caney	1	1.3%
74525- Atoka	1	1.3%
73446- Madill	1	1.3%
73086- Sulphur	1	1.3%
72927- Booneville, AR	1	1.3%
Total	79	100.0%

The survey focused on several health topics of interest to the community. Highlights of the results include:

Primary Care Physician Visits

- 55.7% of respondents had used a primary care physician in the Tishomingo service area during the past 24 months
- 86.4% of those responded being satisfied
- Only 18 respondents or 22.8% believe there are enough primary care physicians practicing in Tishomingo
- 70.9% of the respondents would consider seeing a midlevel provider for their healthcare needs

- 54.4% responded they were able to get an appointment with their primary care physician when they needed one

Specialist Visits

Summary highlights include:

- 58.2% of all respondents report some specialist visit in past 24 months
- Most common specialty visited are displayed in Table 9
- No specialist visits occurred in Tishomingo

Table 9. Type of Specialist Visits

Type of Specialist	No.	Percent
Top 5 Responses		
Cardiologist <i>(0 visits in Tishomingo)</i>	10	16.4%
Orthopedist/Orthopedic Surg. <i>(0 visits in Tishomingo)</i>	8	13.1%
Neurologist/Neurosurg. <i>(0 visits in Tishomingo)</i>	6	9.8%
Surgeon <i>(0 visits in Tishomingo)</i>	4	6.6%
Gastroenterologist <i>(0 visits in Tishomingo)</i>	4	6.6%
All others <i>(0 visits in Tishomingo)</i>	<u>29</u>	<u>47.5%</u>
Total	<u>61</u>	<u>100.0%</u>

Some respondents answered more than once.

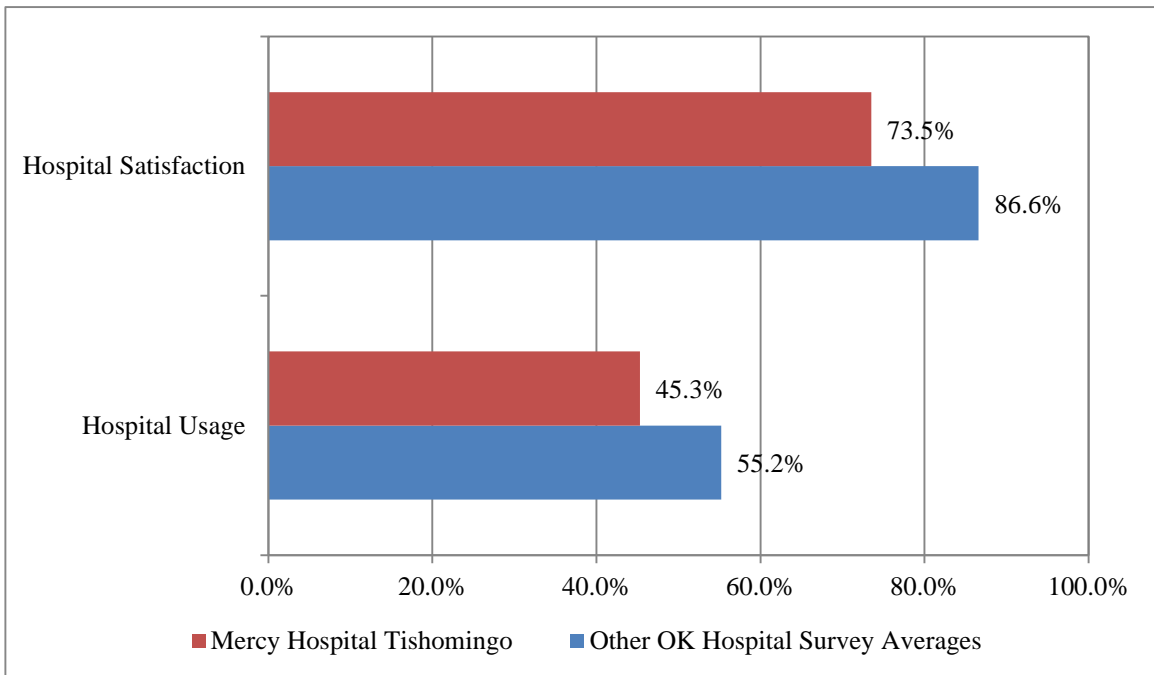
Hospital Usage and Satisfaction

Survey highlights include:

- 45.3% of survey respondents that have used hospital services in the past 24 months used services at Mercy Hospital Tishomingo
 - o Mercy Hospital Ardmore (12%) and Mercy Hospital Ada (6.7%) followed
 - o The most common response for using a hospital other than Mercy Hospital Tishomingo was availability of specialty care (including surgery and labor and delivery) (36.4%) followed by physician referral (18.2%)
 - o The usage rate of 45.3% was lower than the state average of 55.2% for usage of other rural Oklahoma hospitals surveyed

- 73.5% of survey respondents were satisfied with the services received at Mercy Hospital Tishomingo
 - o This is below the state average for other hospitals (86.6%)
- Most common services used at Mercy Hospital Tishomingo:
 - o Emergency Room (46.6%)
 - o Diagnostic Imaging (25.9%)
 - o Laboratory (13.8%)

Figure 2. Summary of Hospital Usage and Satisfaction Rates



Local Healthcare Concerns and Additional Services

Survey respondents were asked what concerns them most about healthcare in their community. The most common response was No concerns/Receive good care/Don't know with 17.5 percent of the total followed by access to specialists with 12.5 percent. Table 10 displays all responses and the frequencies.

Table 10. Top Health Care Concerns in the Tishomingo Area

	No.	%
No Concerns/ Receive good care/Don't Know	14	17.5%
Access to specialists	10	12.5%
Lack of physicians/Difficult to see provider/Long wait for appointment	9	11.3%
Quality of care/Compassion for patient	8	10.0%
Level of care/Limited services available/Distance to services	7	8.8%
Improved emergency care/EMS	4	5.0%
Prescribing of opioids/Care for pain	2	2.5%
Cost of care/Care for low income/uninsured	2	2.5%
Availability of a pediatrician	1	1.3%
Keeping the hospital open and profitable	1	1.3%
No trauma care for emergencies	1	1.3%
No response	21	26.3%
Total	80	100.0%

Survey respondents also had the opportunity to identify what additional services they would like to see offered at Mercy Hospital Tishomingo. The most common response was No additional services/Satisfied with what is available/Don't know with 14.8 percent followed by specialists including specialists in general with 3 responses, cardiologist with one response, ophthalmologist with one response, OB/GYN with one response, and gastroenterologist with one response. Table 11 displays the full listing of responses.

**Table 11. Additional Services Respondents Would Like to See Offered at Mercy Hospital
Tishomingo**

Response Category	No.	%
No additional services/Satisfied with what is available/Don't know what is available	13	14.8%
Specialists: Specialists in general (3); Cardiologist (1); Ophthalmologist (1); OB/GYN (1); Gastroenterologist (1)	7	8.0%
Diagnostic imaging: Mammography (5). MRI (2)	7	8.0%
Outpatient physical therapy	7	8.0%
Clinic/Primary care providers	6	6.8%
After hours care/Urgent care	4	4.5%
Improved/Increased emergency care/EMS	3	3.4%
Improved quality of care	3	3.4%
Pediatrician/Well Baby Visits	2	2.3%
Surgery/Outpatient surgery: colonoscopies	2	2.3%
Wound care	2	2.3%
More services/Fewer transfers	1	1.1%
More physician coverage	1	1.1%
Labor and delivery	1	1.1%
More customers	1	1.1%
Women's care	1	1.1%
Assistance for low-income patients	1	1.1%
Whatever is not currently offered	1	1.1%
No response	25	28.4%
Total	88	100.0%

Primary Care Physician Demand Analysis, November 6, 2018

A demand analysis of primary care physicians was completed for the zip codes that comprise the Tishomingo primary and secondary medical services areas. This analysis examined average primary care physician visit rates by gender and by age groups. Once age- and gender-specific coefficients were applied, total primary care physician visit numbers were calculated by service area. Table 12 displays potential primary care physician rates by shares of service area. For example, if 90% of residents in the primary medical services area and 10% of residents in the secondary medical services area utilize services of primary care physicians in the Tishomingo medical services area, a total of 9,362 annual visits would occur. This would suggest that the Tishomingo medical services area would need 2.2 FTE primary care physicians to meet the needs of their existing population. Table 12 displays the estimated number of visits by share of medical services area.

Table 3. Primary Care Physician Office Visits Given Usage by Local Residents in the Tishomingo, Oklahoma Medical Service Area

		Usage by Residents of Primary Service Area						
		70%	75%	80%	85%	90%	95%	100%
Usage by Residents of Secondary Service Area	5%	6,609	6,995	7,380	7,766	8,151	8,537	8,923
	10%	7,819	8,205	8,591	8,976	9,362	9,747	10,133
	15%	9,030	9,416	9,801	10,187	10,572	10,958	11,344
	20%	10,240	10,626	11,012	11,397	11,783	12,168	12,554
	25%	11,451	11,837	12,222	12,608	12,993	13,379	13,765
	30%	12,661	13,047	13,433	13,818	14,204	14,589	14,975
	35%	13,872	14,258	14,643	15,029	15,414	15,800	16,186
	40%	15,082	15,468	15,854	16,239	16,625	17,010	17,396
	45%	16,293	16,678	17,064	17,450	17,835	18,221	18,607
	50%	17,503	17,889	18,275	18,660	19,046	19,431	19,817

If 90% primary medical service area and 10 to 15% secondary medical service area, then the usage would be: 9,362 to 10,572 total primary care physician office visits in the Tishomingo area for an estimated 2.2 to 2.5 Total Primary Care Physicians.
 (Based on 83.7 average weekly primary care physician visits with a 50 week year)

At the conclusion of the meeting, community members were once again asked what stood out to them from the survey results and physician demand analysis as health concerns. The following concerns were identified:

- Child nutrition, food, hunger, senior hunger- Plans to continue program and serving children, continuing to add children and meals, recommendations from children to receive meals at the church in the summer time rather than the park, and they will market to other children. Program from Chickasaw Nation to sign up for delivered food. There are plans for partners to go to the schools to sign children up for this service.
 - There is also a need for food and meals for the elderly population in the area. Meals on Wheels does deliver meals in the area. Blessing box model could be implemented (successfully offered in Marshall County). Several food pantries available in town (monthly offerings) (4 offered). OK Regional Food Bank does provide sacked food items for elderly population. Need follow up with group (EMS, ministerial alliance, and others)
- Mental health and substance abuse (2)- More crisis beds (Ardmore is the closest, and their beds are full). Legislative session is looking to increase substance abuse counseling

reimbursement rate. Need for screening of depression, designated area in hospital for individuals to speak to a nurse in hospital

- Johnston County has a successful drug court program- difficult for those with prior felonies to find housing and jobs
- Specialists: Endocrinologist (either on-site or telemedicine)
- Attracting and keeping primary care physicians in this area
 - Amenities including adequate housing

Community Health Needs Implementation Strategy

The following lists the concerns along with steps the hospital and community plan to take to remedy the situation.

- Child nutrition, food, hunger, senior hunger-
 - Seniors- Mercy Hospital Tishomingo is piloting a program at the Mill Creek Senior Center to provide blood pressure and blood sugar checks and balance assessments. This will be a partnership with the local health department to cover nutrition education. This will be the first step to building a rapport with the local senior population to gauge additional needs including food insecurity.
 - Mercy Hospital Tishomingo will continue to participate in the existing collaboration with the local coalition to fill back packs and provide support for area youth. This collaboration recently received a substantial grant from the Sisters of Mercy Health System. The plans for expansion of the program include summer and holiday food coverage for area youth.
 - There are plans to expand the curriculum and topic coverage of the after school program. These topics include health, hygiene, and nutrition.
- Mental health and substance abuse- The hospital is anticipating to partner through the local coalition to create a mental health resource guide to include a list of providers, specialties/expertise, and payer sources accepted. This would be made available to ED patients.
- Specialists: Endocrinologist (either on-site or telemedicine)- With the current space limitation, all specialist visits would be for inpatients since there is not clinic space available to provide outpatient specialist visits. This would be something to be covered through a new facility.
 - Mercy Hospital Tishomingo is planning to continue to collaborate with the Johnston County Diabetes Coalition. This group provides a one-day diabetes seminar including a trade show. This covers youth and adults. Nutrition is included on healthy snacks, eating, management, etc.

- Attracting and keeping primary care physicians in this area
 - This is a continual concern and priority of the hospital. The hospital has a good partnership with the local FQHC. Both administrators are looking to partner with OSU CHS to see about student rotations.

Community Health Needs Assessment Marketing Plan

The hospital will make the Community Health Needs Assessment Summary and Implementation Strategy Plan available upon request at Mercy Hospital Tishomingo, and a copy will be available to be downloaded from the hospital's website (<https://www.mercy.net/practice/mercy-hospital-tishomingo>). This document will also be available on the OSU Center for Rural Health blog site: (<http://osururalhealth.blogspot.com/p/chna.html>).

Appendix A- Hospital Services/Community Benefits

Mercy Hospital Tishomingo Hospital Services and Community Benefits

Inpatient Services

Acute Beds*
Swing Beds*
Laboratory
Health Information Management - Electronic Health Record
Physical Therapy
Speech Therapy
Radiology – X-ray, CT, Ultrasound
Drug Room
Dietary
Specialist Referral
Occupational therapy

Outpatient Services

Emergency Department
Infusion Services
Laboratory
Radiology—X-ray, CT, Ultrasound
Bilingual Services

Community Activities

Diabetes Coalition
Johnston County Chamber of Commerce
Johnston County Kids
Tishomingo Development Team
Charitable Care for Uninsured
United Way of South-Central Oklahoma
Oklahoma Blood Institute
Johnston County Health Care Coalition
County Health Fair
Relay for Life
Partner of Johnston County E911
Partner of Johnston County EMS
Sooner Care/Medicaid Enroller
Johnston County Health and Wellness Committee Chickasaw Festival Parade
Partner with Tishomingo and Ravia Public Schools for weekend backpack program

Accreditation

Certified by Medicare/Medicaid as Critical Access Hospital.

Hospital Advisory Board 2018

Kristie Cannon
Jason Clary
Joy McDaniel
Dr. Wellie Adlaon, Hospital Chief of Staff
Clint Spence
Lori McMillin, PT, Hospital Administrator

The hospital opened in 1960.

- * All 25 beds of Mercy Hospital Tishomingo are “swing” beds that may be used in any combination for hospital “acute care” or “skilled nursing care.” Acute care means the patient is a bed patient in the hospital because of a serious illness or injury that require frequent monitoring by medical professionals but is expected to be temporary. Under terms of our licensure, after 96 hours, inpatients requiring further acute care must be transferred to a larger hospital. Skilled nursing is care by registered nurses or licensed practical nurses for a patient whose condition does not rise to the level of “acute care” but still needs 24-hour medical or nursing care or rehabilitative services. Skilled nursing stays may extend beyond 96 hours. A skilled nursing patient generally is receiving care either before or after a stay in a larger hospital.

Appendix B Community Meeting Attendees

Mercy Hospital Tishomingo Community Health Needs Assessment

Meeting 1: Economic Impact Presentation

Oct. 9, 2018

Name	Title	Organization
Laura Wood	TSET Healthy Living	Johnston County Health Department
Janie Cagle	Health Educator	Johnston County Health Department
Elisabeth Cates	Volunteer	Mercy Hospital Tishomingo
Oma Dell Burns	Business Owner	Heartfelt Flowers and Gifts
Jordyn Frazier	Executive Director	Johnston Co. Chamber
Alicia O'Donnell	Superintendent	Tishomingo Public Schools
LaVon Ladua	Vice President	BancFirst
Cindy Matheny	Tishomingo Bank President	Landmark Bank
Kenneth Power	Director	Johnston County EMS
Tammie Wavada	Director, Outpatient Clinic	Lighthouse Behavioral Wellness Centers
Steve Kelly	City Manager	City of Tishomingo
Jerry Romines	Superintendent	Wapanucka School
Dustin Rowe	Attorney	Rowe Law Firm
Fran Morrell	Retired	TDT Board Member- FHOSO
Becky Henthorn	VPAA and IE	Murray State College
Lisa Shephard	Customer Relations Coor	Chickasaw Nation
Woody Jumper	City Council	City of Tishomingo
Lys Hulse	Juv. Justice Specialist	State of OK, OJA
Gaylene Stiles	Director	Mercy
Frank Simpson	State Senator	OK Senate
Lori McMillin	CEO	Mercy Hospital Tishomingo
Brittany Sheffey		Mercy Hospital Tishomingo

**Mercy Hospital Tishomingo Community Health Needs Assessment
Meeting 2: Health Data Presentation**

Oct. 23, 2018

Name	Title	Organization
Gaylene Stiles	Director	Mercy
Frank Simpson	State Senator	OK Senate
Lori McMillin	CEO	Mercy Hospital Tishomingo
Brittany Sheffey		Mercy Hospital Tishomingo
Dustin Rowe	Attorney	Rowe Law Firm
LaVon Ladua	Vice President	BancFirst
Lys Hulse	Juv. Justice Specialist	State of OK, OJA
Tammie Wavada	Director, Outpatient Clinic	Lighthouse Behavioral Wellness Centers
Kenneth Power	Director	Johnston County EMS
Jordyn Frazier	Executive Director	Johnston Co. Chamber
Becky Henthorn	VPAA and IE	Murray State College
Cindy Matheny	Tishomingo Bank President	Landmark Bank
Amita Hummelke	Volunteer	Mercy Me Gift Shop
Marsha Purtell	Pastor	1st UMC
Woody Jumper	City Council	City of Tishomingo
Lisa Shephard	Customer Relations Coor	Chickasaw Nation

**Mercy Hospital Tishomingo Community Health Needs Assessment
Meeting 3: Survey Results and Primary Care Physician Demand Analysis
6-Nov-18**

Name	Title	Organization
Gaylene Stiles	Director	Mercy
Frank Simpson	State Senator	OK Senate
Lori McMillin	CEO	Mercy Hospital Tishomingo
Brittany Sheffey		Mercy Hospital Tishomingo
Dustin Rowe	Attorney	Rowe Law Firm
Lys Hulse	Juv. Justice Specialist	State of OK, OJA
Woody Jumper	City Council	City of Tishomingo
Becky Henthorn	VPAA and IE	Murray State College
LaVon Ladua	Vice President	BancFirst
Kenneth Power	Director	Johnston County EMS
Elisabeth Cates	Volunteer	Mercy Hospital Tishomingo
Oma Dell Burns	Business Owner	Heartfelt Flowers and Gifts
Amita Hummelke	Volunteer	Mercy Me Gift Shop
Marsha Purtell	Pastor	1st UMC
Cynthia Revels	Owner	Revels Insurance
Lisa Shephard	Customer Relations Coor	Chickasaw Nation
Tammie Wavada	Director, Outpatient Clinic	Lighthouse Behavioral Wellness Centers

Appendix C- Meeting 1 Materials, October 9, 2018

The Economic and Demographic Analysis of the Mercy Hospital Tishomingo Medical Service Area *As part of the Community Health Needs Assessment*

Economic Data

2016 Per Capita Income ¹	\$31,731 (62nd highest in state)
Employment (July 2018, preliminary) ²	5,319 (11.2% from 2017)
Unemployment (July 2018, preliminary) ²	175 (-13.4% from 2017)
Unemployment rate (July 2018, preliminary) ²	3.2% (23rd lowest in state)
2016 Poverty rate ³	21.9% (64th lowest in state)
2016 Child poverty rate ³	29.5% (60th lowest in state)
2016 Transfer Payments ¹	\$118,403,000 (33.7% of total personal income, 68th lowest in state)
2016 Medical Benefits as a share of Transfer Payments ¹	44.2% (61st lowest in state)

¹Bureau of Economic Analysis, Regional Data, 2018, ²Bureau of Labor Statistics 2016-2017, ³U.S. Census Bureau, Small Area Income and Poverty, 2018

Education Data

At Least High School Diploma ¹	81.9% (68th highest in state)
Some College ¹	44.3% (59th highest in state)
At Least Bachelor's Degree ¹	15.8% (53rd highest in state)
2015-2016 Free and Reduced Lunch Eligible ²	72.5% (55th lowest in state)

¹U.S. Census Bureau, American Community Survey, 2012-2016, ²National Center for Education Statistics, 2015-2016.

Payer Source Data

2016 Uninsured Rate (under 65) ¹	17.7% (48th lowest in state)
2016 Uninsured Rate (under 19) ¹	11.0% (65th lowest in state)
2016 Medicare share of total population ²	21.1% (45th lowest in state)
2017 Medicaid share of total population ³	36.0% (66th lowest in state)

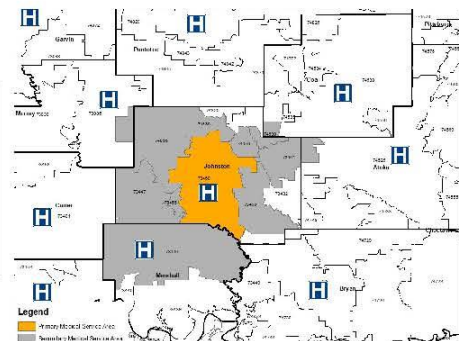
¹ U.S. Census Bureau, Small Area Health Insurance Estimates, 2015, ² Centers for Medicare & Medicaid Services, Medicare Aged and Disabled by State and County, 2016

³ Oklahoma Health Care Authority, Total Enrollment by County, 2017

Population (2012-2016)

Johnston County	11,027 (0.6% from 2010)
Primary Medical Service Area	4,656 (-1.9% from 2010)
Secondary Medical Service Area	13,464 (2.5% from 2010)
Oklahoma	3,8775,589 (3.3% from 2010)

U.S. Census Bureau, 2012-2016 American Community Survey 2010 Decennial Census



**Percent of Total Population by Age Group for Mercy Hospital Tishomingo Medical Service Areas,
Johnston County and Oklahoma**

Age Groups	Primary Medical Service Area	Secondary Medical Service Area	Johnston County	Oklahoma
12-16 ACS				
0-14	18.9%	21.1%	19.7%	20.6%
15-19	7.3%	6.9%	6.8%	6.7%
20-24	7.6%	6.3%	5.8%	7.3%
25-44	22.8%	23.2%	22.8%	26.0%
45-64	26.4%	26.0%	26.9%	24.9%
65+	16.9%	16.5%	17.9%	14.5%
Totals	100.0%	100.0%	100.0%	100.0%
Total Population	4,656	13,464	11,027	3,875,589

SOURCE: U.S. Census Bureau, 2012-2016 American Community Survey

Percent of Total Population by Race and Ethnicity for Mercy Hospital Tishomingo Medical Service Areas, Johnston County and Oklahoma

Race/Ethnic Groups	Primary Medical Service Area	Secondary Medical Service Area	Johnston County	Oklahoma
12-16 ACS				
White	73.9%	65.3%	71.8%	72.9%
Black	2.6%	2.1%	1.9%	7.3%
Native American ¹	4.3%	7.3%	6.2%	7.3%
Other ²	1.8%	11.4%	1.4%	8.7%
Two or more Races ³	17.4%	14.0%	18.7%	7.7%
Hispanic Origin ⁴	6.4%	18.7%	4.7%	9.8%
Total Population	4,656	13,464	11,027	3,875,589

SOURCE: U.S. Census Bureau, 2012-2016 American Community Survey

For additional information, please contact:

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Oklahoma Office of Rural Health

Phone: 405.945.8609



This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number H54RH00058 and title: Medicare Rural Hospital Flexibility Grant Program for \$568,040, 0% financed with nongovernmental sources. This information and content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.



Mercy Hospital Tishomingo Economic Impact



Healthcare, especially a hospital, plays a vital role in local economies.

Mercy Hospital Tishomingo **directly** employs **57** people with an annual payroll of over **\$5.3 million** including benefits

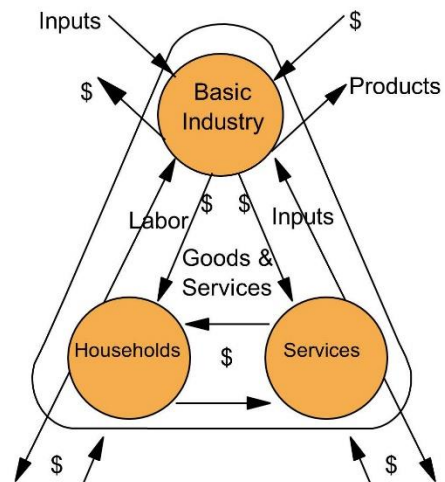
- These employees and income create an additional **24** jobs and over **\$817,000** in income as they interact with other sectors of the local economy
- **Total impacts= 81 jobs and over \$6.1 million**
- Other segments of the healthcare sector (Doctors, Nurses, Pharmacies, etc.) provide another **497 jobs** and an additional **\$25.9 million** in wages
- Their interactions and transactions within the local economy create:
- **Total health sector impacts= 674 jobs and \$35.3 million (Including the hospital)**
- Over **\$10.4 million** in retail sales generated from income received by healthcare sector employees

Healthcare and Your Local Economy:

- Attracts retirees and families
- Appeals to businesses looking to establish and/or relocate
- High-quality healthcare services and infrastructure foster community development
- Positive impact on retail sales of local economy

Consider what could be lost without the hospital:

- Pharmacies
- Physicians/Specialists
- Potential Retail Sales



Source: Doeksen, G.A., T. Johnson, and C. Willoughby. 1997. Measuring the Economic Importance of the Health Sector on a Local Economy: A Brief Literature Review and Procedures to Measure Local Impacts

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Appendix D- Meeting 2 Materials, October 23, 2018

Health Indicators and Outcomes for Johnston County As part of the Community Health Needs Assessment

Table 1. Health Factors (Overall Rank 59)

Category (Rank)	Johnston County	Error Margin	Top U.S. Performers	Oklahoma
Health Behaviors (54)				
Adult Smoking	20%	20-21%	14%	20%
Adult Obesity	37%	30-44%	26%	33%
Food Environment Index	6.2		8.6	5.9
Physical Inactivity	32%	26-40%	20%	30%
Access to Exercise Opportunities	43%		91%	74%
Excessive Drinking	12%	12-13%	13%	13%
Alcohol-Impaired Driving Deaths	21%	8-37%	13%	28%
Sexually Transmitted Infections	360		146	542
Teen Birth Rate	45	38-53	15	42
Clinical Care (64)				
Uninsured	19%	17-21%	6%	16%
Primary Care Physicians	3,660:1		1,030:1	1,590:1
Dentists	1,110:1		1,280:1	1,700:1
Mental Health Providers	140:1		330:1	260:1
Preventable Hospital Stays	86	69-103	35	60
Diabetic Monitoring	67%	57-78%	91%	78%
Mammography Screening	40%	30-50%	71%	56%
Social & Economic Factors (59)				
High School Graduation	84%		95%	83%
Some College	47%	42-53%	72%	59%
Unemployment	5.9%		3.2%	4.9%
Children in Poverty	30%	23-36%	12%	23%
Income Inequality	4.8	4.1-5.5	3.7	4.6
Children in Single-Parent Household	42%	33-52%	20%	34%
Social Associations	16.4		22.1	11.5
Violent Crime Rate	232		62	439
Injury Deaths	136	107-170	55	92
Physical Environment (24)				
Air-Pollution- Particulate Matter	9.2		6.7	9.2
Drinking Water Violations	Yes			
Severe Housing Problems	12%	10-14%	9%	15%
Driving Alone to Work	77%	75-79%	72%	83%
Long Commute- Driving Alone	35%	30-40%	15%	26%

Source: County Health Rankings & Roadmaps; University of Wisconsin Population Health Institute; Robert Wood Johnson Foundation

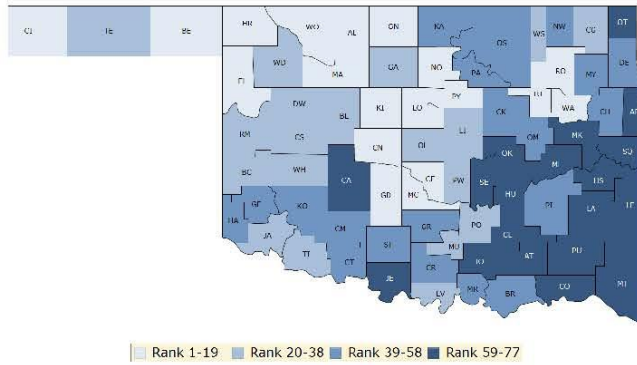
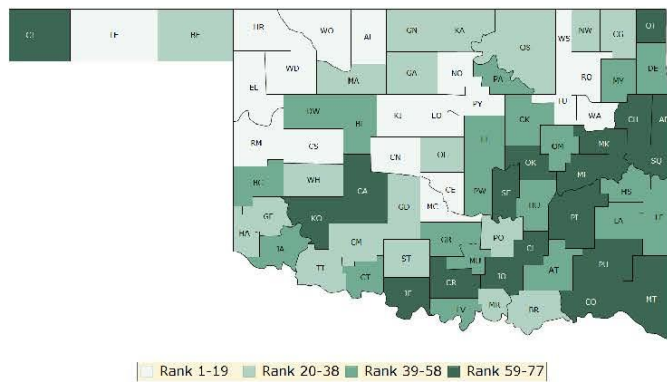


Table 2. Health Outcomes (Overall Rank 68)

Category (Rank)	Johnston County	Error Margin	Top U.S. Performers	Oklahoma
Length of Life (68)				
Premature Death	12,400	10,000-14,700	5,300	9,300
Quality of Life (66)				
Poor or Fair Health	22%	22-23%	12%	20%
Poor Physical Health Days	4.9	4.7-5.1	3.0	4.5
Poor Mental Health Days	4.9	4.7-5.1	3.1	4.5
Low Birth Weight	9%	7-10%	6%	8%

Source: County Health Rankings & Roadmaps; University of Wisconsin Population Health Institute; Robert Wood Johnson Foundation



For additional information, please contact
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Appendix E- Survey Form and Meeting 3 Materials, November 6, 2018

Mercy Hospital Tishomingo Local Health Services Survey

Please return completed survey by October 23, 2018



The zip code of my residence is: _____

What is your current age: _____ What is your gender: _____

1. Has your household used the services of a hospital in the past 24 months?
 - Yes (*Go to Q2*)
 - No (*Skip to Q7*)
 - Don't know (*Skip to Q7*)
2. At which hospital(s) were services received? (*please check/list all that apply*)
 - Mercy Hospital Tishomingo (Skip to Q4)
 - Other (*Please specify Hospital and City, then go to Q3*)

If you responded in Q2 that your household received care at a hospital other than Mercy Hospital Tishomingo,

3. why did you or your family member choose that hospital? (Please answer then skip to Q7)
 - Physician referral
 - Closer, more convenient location
 - Insurance reasons
 - Quality of care/Lack of confidence
 - Availability of specialty care
 - Other (*Please list below*)

If you responded in Q2 that your household received care at Mercy Hospital Tishomingo, what hospital

4. service(s) were used?
 - Diagnostic imaging (X-ray, CT, Ultrasound)
 - Laboratory
 - Outpatient infusion/Shots
 - Physician services
 - Physical or speech therapy
 - Hospital Inpatient
 - Skilled nursing (swing bed)
 - Emergency room (ER)
 - Other (*Please list below*)

5. How satisfied was your household with the services you received at Mercy Hospital Tishomingo?
 - Satisfied
 - Dissatisfied
 - Don't know

6. Why were you satisfied/dissatisfied with services received at Mercy Hospital Tishomingo?

7. Has your household been to a specialist in the past 24 months?
 - Yes
 - No (*Skip to Q11*)
 - Don't know (*Skip to Q11*)

What type of specialist has your household been to in the past 24 months and in which city were they located?

8.

Type of Specialist	City

9. Did the specialist request further testing, laboratory work and/or x-rays?
 - Yes
 - No
 - Don't know

10. If yes, in which city were the tests or laboratory work performed?

Continue on reverse side...

11. Do you use a primary care physician for most of your routine health care?
 Yes (*Skip to Q13*) No (*Go to Q12*) Don't know (*Skip to Q13*)

12. If no, then what kind of medical provider do you use for routine care?
 Tribal Health Center Emergency Room/Hospital
 Income Based Health Center Specialist
 Mid-Level Clinic (Nurse Practitioner or PA) Other (*Please list below*)
 Health Department

13. Has your household been to a primary care physician in the Tishomingo area?
 Yes (*Go to Q14*) No (*Skip to Q16*) Don't know (*Skip to Q16*)

14. How satisfied was your household with the quality of care received in the Tishomingo area?
 Satisfied Dissatisfied Don't know

15. Why were you satisfied/dissatisfied with the care received in the Tishomingo area?

16. Do you think there are enough primary care physician doctors practicing in the Tishomingo area?
 Yes No Don't know

17. Would you consider seeing a nurse practitioner or physician assistant for your routine healthcare needs?
 Yes No Don't know

18. Are you able to get an appointment, within 48 hours, with your primary care physician when you need one?
 Yes No Don't know

19. What concerns you most about health care in the Tishomingo area?

20. What other services would you like to see offered at Mercy Hospital Tishomingo?

21. Are you aware of any community programs offered by the hospital?
 Yes No Don't know

Please list the community program(s)

22. How are you currently informed of community events? (*Please check all that apply with the outlet*)

<u>Outlet</u>	<u>Source</u>
<input type="checkbox"/> Newspaper	_____
<input type="checkbox"/> Radio	_____
<input type="checkbox"/> Email	_____
<input type="checkbox"/> Website	_____
<input type="checkbox"/> Social Media (Facebook and Twitter)	_____
<input type="checkbox"/> Other	_____

Please mail completed survey to:
Mercy Hospital Tishomingo
1000 S Byrd St.
Tishomingo, OK 73460

Or, return to hospital administration

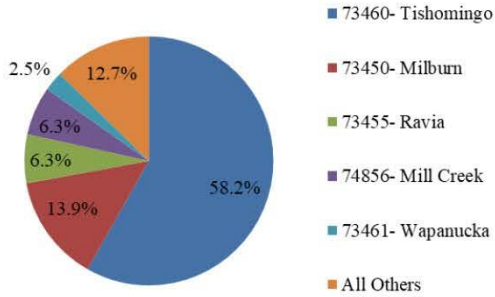
23. How would you prefer to be notified of community events?
(*Please rank your choices with 1=most preferred and 5=least preferred*)

____ Newspaper	____ Email	____ Social Media
____ Radio	____ Website	

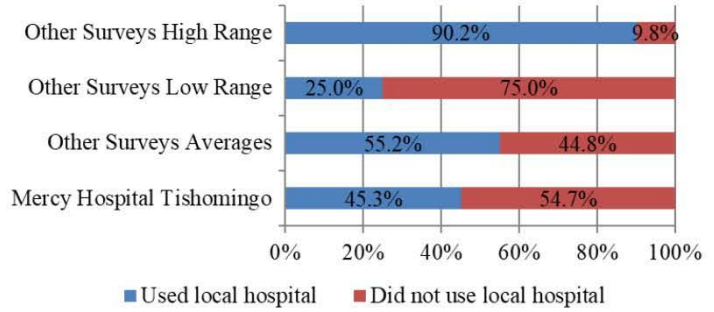
Mercy Hospital Tishomingo Community Survey Results

As part of the Community Health Needs Assessment

Zip Code of Residence



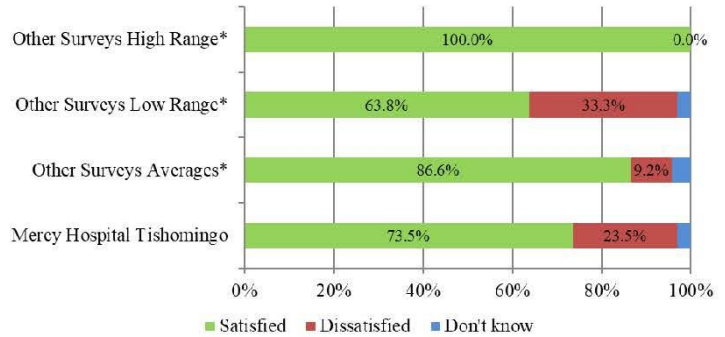
Hospital Utilization Comparison



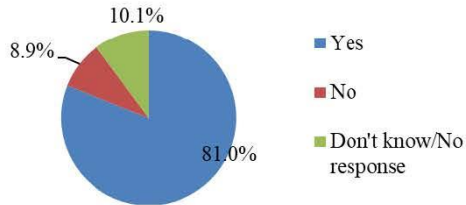
Type of Specialist Visits

Specialist	No.	Percent
Top 5 Responses		
Cardiologist (0 visits in Tishomingo)	10	16.4%
Orthopedist/Ortho Surg. (0 visits in Tishomingo)	8	13.1%
Neurologist/Neurosurg. (0 visits in Tishomingo)	6	9.8%
Surgeon (0 visits in Tishomingo)	4	6.6%
Gastroenterologist (0 visits in Tishomingo)	4	6.6%
All others (0 visits in Tishomingo)	29	47.5%
Total	61	100.0%

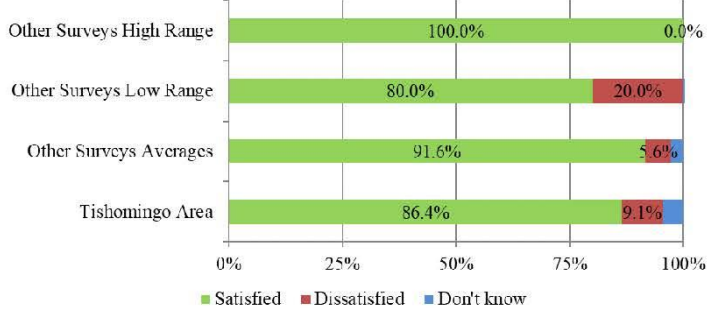
Satisfaction with Mercy Hospital Tishomingo



Use Family Doctor for Routine Health Care



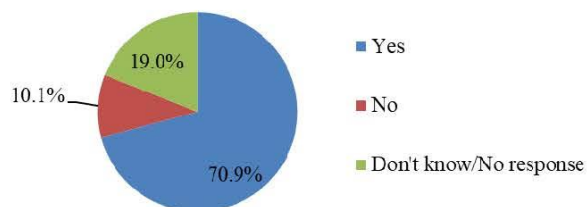
Satisfaction with Tishomingo Area Primary Care Doctor



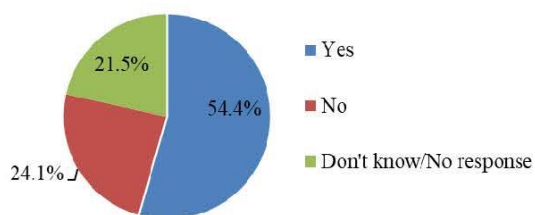
Do you think there are enough primary care doctors practicing in the Tishomingo area?



Would you see a midlevel provider for routine healthcare needs?



Are you able to get an appointment, within 48 hours, with your primary care doctor when needed?



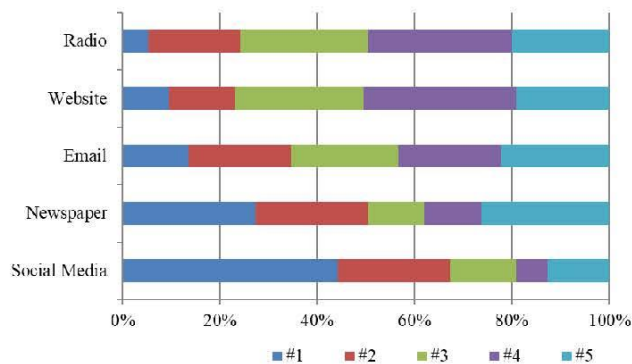
Healthcare concerns- Top 3 Responses

Concern	No.	Percent
No Concerns/ Receive good care/Don't Know	14	17.5%
Access to specialists	10	12.5%
Lack of physicians/Difficult to see provider/ Long wait for appointment	9	11.3%
All others	47	58.7%
Total	80	100.0%

Additional Services to Offer- Top 3 Responses

Services	No.	Percent
No additional services/Satisfied with what is available/Don't know	13	14.8%
Specialists: Specialists in general (3); Cardiologist (1); Ophthalmologist (1); OB/GYN (1); Gastroenterologist (1)	7	8.0%
Diagnostic imaging: Mammography (5);MRI (2)	7	6.3%
All others	61	69.3%
Total	88	100.0%

Preference of Notification of Community Events



For additional information, please contact
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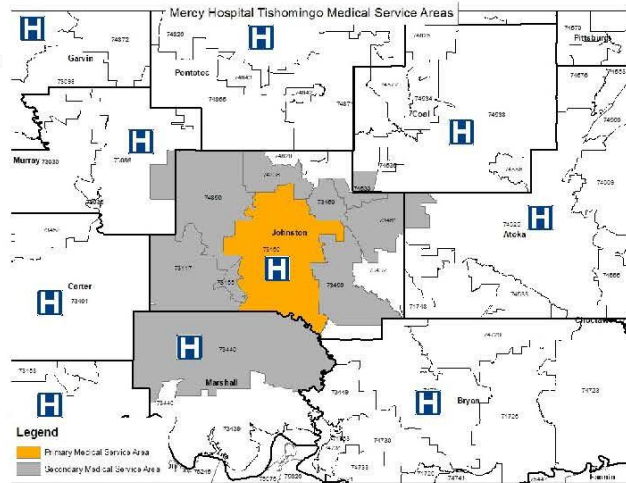


Primary Care Physician Demand Analysis for the Tishomingo Medical Service Area

As part of the Community Health Needs Assessment

Table 1. Mercy Hospital Tishomingo Medical Service Areas

Zip Code	City	2012-2016 ACS Population
<i>Primary Medical Service Area</i>		
73460	Tishomingo	4,656
Totals		<u>4,656</u>
<i>Secondary Medical Service Area</i>		
74856	Mill Creek	779
74836	Connerville	204
73450	Milburn	1,362
74530	Bromide	185
73461	Wapanucka	743
73455	Ravia	588
73447	Mannsville	1,349
73446	Madill	8,254
Totals		<u>13,464</u>



SOURCE: Population data from the U.S. Bureau of Census, 2012-2016 American Community Survey

Table 2a. Annual Primary Care Physician Office Visits Generated in the Tishomingo, Oklahoma, Medical Service Areas

Age	PRIMARY MEDICAL SERVICE AREA						Total Visits
	Male			Female			
	12-16 Population	Visit Rate ^[3]	Visits	12-16 Population	Visit Rate ^[3]	Visits	
Under 15	518	2.0	1,036	361	2.1	758	1,794
15-24	336	2.4	806	360	1.2	432	1,238
25-44	517	3.0	1,551	544	1.3	707	2,258
45-64	542	4.2	2,276	689	3.1	2,136	4,412
65-74	223	6.1	1,360	195	5.6	1,092	2,452
75+	<u>150</u>	7.4	<u>1,110</u>	<u>221</u>	8.0	<u>1,768</u>	<u>2,878</u>
Total	2,286		8,140	2,370		6,893	15,033

Primary Medical Service Area - Local Primary Care Physician office visits per year: 7,712



Table 2b. Annual Primary Care Physician Office Visits Generated in the Tishomingo, Oklahoma, Medical Service Areas

SECONDARY MEDICAL SERVICE AREA							
Age	Male			Female			Total Visits
	12-16 Population	Visit Rate ^[3]	Visits	12-16 Population	Visit Rate ^[3]	Visits	
Under 15	1,404	2.0	2,808	1,434	2.1	3,011	5,819
15-24	886	2.4	2,126	892	1.9	1,695	3,821
25-44	1,601	3.0	4,803	1,520	2.9	4,408	9,211
45-64	1,763	4.2	7,405	1,739	3.8	6,608	14,013
65-74	599	6.1	3,654	722	6.0	4,332	7,986
75+	408	7.4	3,019	496	6.7	3,323	6,342
Total	6,661		23,815	6,803		23,378	47,193

Secondary Medical Service Area - Local Primary Care Physician office visits per year: 24,210

Source: U. S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center of Health Statistics, "National Ambulatory Medical Care Survey: 2015 Summary.

Table 3. Primary Care Physician Office Visits Given Usage by Local Residents in the Tishomingo, Oklahoma Medical Service Area

		Usage by Residents of Primary Service Area						
		70%	75%	80%	85%	90%	95%	100%
Usage by Residents of Secondary Service Area	5%	6,609	6,995	7,380	7,766	8,151	8,537	8,923
	10%	7,819	8,205	8,591	8,976	9,362	9,747	10,133
	15%	9,030	9,416	9,801	10,187	10,572	10,958	11,344
	20%	10,240	10,626	11,012	11,397	11,783	12,168	12,554
	25%	11,451	11,837	12,222	12,608	12,993	13,379	13,765
	30%	12,661	13,047	13,433	13,818	14,204	14,589	14,975
	35%	13,872	14,258	14,643	15,029	15,414	15,800	16,186
	40%	15,082	15,468	15,854	16,239	16,625	17,010	17,396
	45%	16,293	16,678	17,064	17,450	17,835	18,221	18,607
	50%	17,503	17,889	18,275	18,660	19,046	19,431	19,817

If 90% primary medical service area and 10 to 15% secondary medical service area, then the usage would be: 9,362 to 10,572 total primary care physician office visits in the Tishomingo area for an estimated 2.2 to 2.5 Total Primary Care Physicians.

(Based on 83.7 average weekly primary care physician visits with a 50 week year)

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