

Mercy Hospital Logan County Community Health Needs Assessment Summary and Implementation Strategy



Oklahoma Office of Rural Health
OSU Center for Rural Health

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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 Logan County in 2021. It begins with a description of the hospital's steps to addressing priorities identified during the 2018 CHNA along with the impacts, followed by a description of the 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.

This report along with the implementation strategy was presented and approved by the governing board on January 28, 2022.

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

Mercy Hospital Logan County worked with the Oklahoma Office of Rural Health in 2018 to complete their third Community Health Needs Assessment. The previous assessments were completed in 2015 and 2013. 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.

It must be noted that the Covid-19 pandemic greatly impacted the implementation of some of the priorities and outreach opportunities during 2020 to present.

Area of concern: Mental health-

Activity 1: Emergency Department Screenings/Assessments- Mercy Hospital Logan County administers a screening questionnaire to all patients seen through the emergency department to determine mental health needs. From there, patients who are identified as needing services or care are then referred to the appropriate provider or facility. Mercy Hospital Logan County averages 4,000 patients seen through the emergency department on an annual basis. Therefore, roughly 12,000 were seen and assessed during this 3-year period with the possibility of duplicate patients.

Activity 2: Rural Health Clinic/Outpatient Screenings/Assessments- Mercy Hospital Logan County operates two rural health clinics. Similar to the ED setting, these clinics also offer and provide mental health screenings. It is estimated roughly 4,500 patients per year are screened/assessed for the need for mental health services. When patients are then identified, referrals are made.

Area of concern: Preventative education (Obesity, physical activity, smoking), diabetes, importance of hygiene (entire body hygiene), foot care, and eye care

Activity 1: Diabetic education: This priority was addressed through increased consultations with hospital dietitians. In 2019, 120 patient consults were completed. This number increased to 150-180 through 2020, and 180 total consults were completed in 2021.

Activity 2: Middle school health and nutrition education- This program was led by the hospital dietitian as a presentation and program for middle school students at Guthrie Public Schools. Topics covered include healthy eating, making good lifestyle choices, etc. The program was implemented in 2019, but it was cancelled in 2020 and postponed in 2021 due to Covid 19. In 2019, it is estimated this program offering impacted 400 students.

Activity 3: Community Covid-19 vaccination clinics: In 2021, Mercy Hospital Logan County staff worked with community leaders to host two Covid-19 vaccination clinics that specifically targeted vulnerable populations including low income and elderly populations in Guthrie. It is estimated that 100 benefited from these offerings that included both vaccine doses.

Mercy Hospital Logan County Medical Services Area Demographics

Figure 1 displays the Mercy Hospital Logan County medical services area. Mercy Hospital Logan County 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 Logan County Medical Service Areas

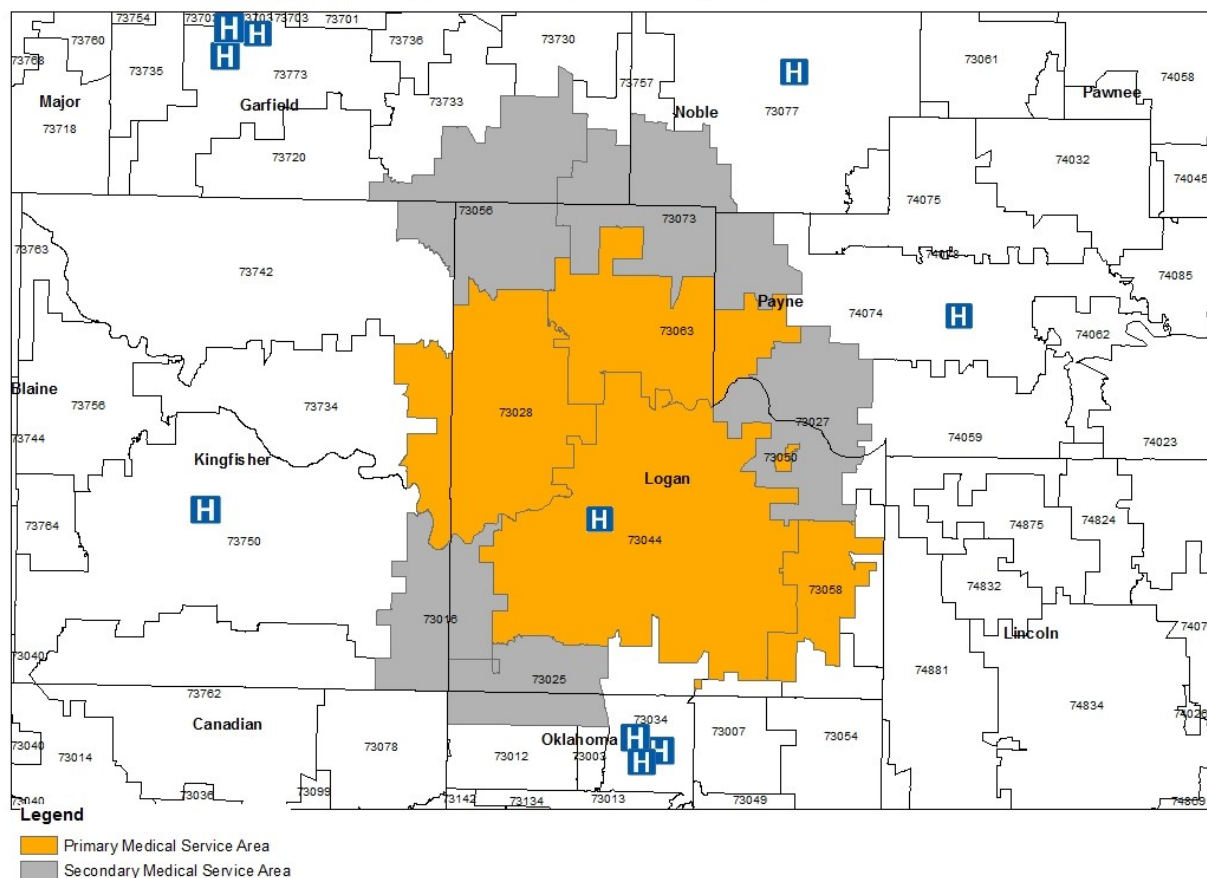


Figure 1. Mercy Hospital Logan County Medical Service Areas

City	County	Hospital	No. of Beds
Enid	Garfield	St. Mary's Regional Medical Center	245
Enid	Garfield	INTEGRIS Bass Baptist Health Center	182
Enid	Garfield	INTEGRIS Bass Pavilion	24
Kingfisher	Kingfisher	Mercy Hospital Kingfisher	25
Guthrie	Logan	Mercy Hospital Logan County	25
Perry	Noble	Perry Memorial Hospital	26
Edmond	Oklahoma	INTEGRIS Health Edmond	40
Edmond	Oklahoma	Edmond- AMG Specialty Hospital	37
Edmond	Oklahoma	Summit Medical Center	9
Stillwater	Payne	Stillwater Medical Center	117

As delineated in Figure 1, the primary medical service area of Mercy Hospital Logan County includes the zip code areas of Guthrie, Crescent, Langston, Meridian, and Mulhall. The primary medical service area experienced a population increase of 7.7 percent from the 2000 Census to the 2010 Census (Table 1). This same service area experienced another population increase of 9.4 percent from the 2010 Census to the latest available, 2015-2019, American Community Survey.

The secondary medical services area is comprised of the zip code Cashion, Coyle, Edmond, Marshall, and Orlando. The secondary medical service area experienced an increase in population of 366 percent from 2000 to 2010 followed by a population increase of 10.7 percent from 2010 to the 2015-2019 American Community Survey. The large increase in population from the 2000 to the 2010 decennial Census was due to the addition of the Edmond, 73025, zip code. This area was not present during the 2000 Census.

Table 1. Population of Mercy Hospital Logan County Medical Service Area

Population by Zip Code	2000 Population	2010 Population	2015-2019 Population	% Change 2000-2010	% Change 2010-15-19
<i>Primary Medical Service Area</i>					
73044 Guthrie	18,391	20,226	22,935	10.0%	13.4%
73028 Crescent	3,199	3,454	3,735	8.0%	8.1%
73050 Langston	1,688	1,370	1,022	-18.8%	-25.4%
73058 Meridian	256	332	168	29.7%	-49.4%
73063 Mulhall	685	691	663	0.9%	-4.1%
Total	24,219	26,073	28,523	7.7%	9.4%
<i>Secondary Medical Service Area</i>					
73016 Cashion	1,367	1,850	1,848	35.3%	-0.1%
73027 Coyle	1,059	1,493	1,446	41.0%	-3.1%
73025 Edmond	n/a	11,579	13,475	n/a	16.4%
73056 Marshall	436	441	425	1.1%	-3.6%
73073 Orlando	551	541	417	-1.8%	-22.9%
Total	3,413	15,904	17,611	366.0%	10.7%

SOURCE: Population data from the U.S. Bureau of Census, Decennial Census 2000, 2010 and American Community Survey 2015-2019 (June 2021)

Table 2 displays the current existing medical services in the primary service area of the Mercy Hospital Logan County medical services area. Most of these services would be expected in a service area of Guthrie's size: three physician offices, five dental offices, two optometry

offices, and three chiropractic offices. Mercy Hospital Logan County is a 25 bed critical access hospital located in Logan County. The hospital provides acute and swing bed inpatient services, 24-hour emergency department, MRI, CT, Ultrasound, outpatient services including infusion and laboratory. The hospital also has two provider based rural health clinics. 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 Logan County Medical Services Area

Count	Service
1	Hospital: Mercy Hospital Logan County
3	Physician offices and clinics
5	Dental offices
2	Optometry offices
3	Chiropractic offices
2	Nursing homes
1	Assisted living facility
1	Disabled living center
2	Home health providers
1	Hospice provider
2	EMS providers
1	County Health Department: Logan County
2	Physical therapy/Rehab providers
2	Mental health and/or behavioral health providers
1	DME provider
4	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 Logan 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, 2015-2019 American Community Survey. This cohort accounted for 16.1 percent of the total population at the state level. This is compared to 17.3 percent of the population of the primary medical service area, 12.8 percent of the secondary medical service area, and 15.1 percent of Logan County.

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

Age Groups	Primary Medical Service Area	Secondary Medical Service Area	Logan County	Oklahoma
2010 Census				
0-14	18.9%	24.1%	20.7%	20.7%
15-19	9.9%	8.1%	8.6%	7.1%
20-24	7.9%	3.4%	6.5%	7.2%
25-44	21.9%	23.9%	23.8%	25.8%
45-64	27.0%	30.2%	27.7%	25.7%
65+	<u>14.3%</u>	<u>10.2%</u>	<u>12.6%</u>	<u>13.5%</u>
Totals	100.0%	100.0%	100.0%	100.0%
Total Population	26,073	15,904	41,848	3,751,351
15-19 ACS				
0-14	17.0%	22.8%	19.1%	20.1%
15-19	8.0%	9.3%	7.7%	6.9%
20-24	9.0%	4.2%	7.3%	6.8%
25-44	23.0%	22.4%	24.2%	26.2%
45-64	25.8%	28.5%	26.7%	23.9%
65+	<u>17.3%</u>	<u>12.8%</u>	<u>15.1%</u>	<u>16.1%</u>
Totals	100.0%	100.0%	100.0%	100.0%
Total Population	28,523	17,611	46,683	3,956,971

SOURCE: U.S. Census Bureau, Decennial Census data for 2010 and American Community Survey data for 2015-2019 (www.census.gov [June 2021]).

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 2015-2019 suggest that this population group has experienced an increase to 11.1 percent of the total population. This trend

is somewhat evident in Logan County and both medical service areas. The share of the population identified as of Hispanic Origin accounted for 6.2 percent of the primary medical service area's population in 2015-2019 and 4.8 percent of the secondary medical service area during the same time period.

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

Race/Ethnic Groups	Primary Medical Service Area	Secondary Medical Service Area	Logan County	Oklahoma
2010 Census				
White	78.5%	89.1%	81.0%	72.2%
Black	12.1%	3.3%	9.1%	7.4%
Native American ¹	3.2%	2.7%	3.3%	8.6%
Other ²	1.8%	1.8%	2.5%	5.9%
Two or more Races ³	4.4%	3.0%	4.1%	5.9%
Hispanic Origin ⁴	<u>4.2%</u>	<u>6.3%</u>	<u>5.2%</u>	<u>8.9%</u>
Total Population	26,073	15,904	41,848	3,751,351
15-19 ACS				
White	80.1%	89.3%	83.0%	72.4%
Black	11.8%	2.3%	8.2%	7.3%
Native American ¹	3.5%	1.9%	3.6%	8.0%
Other ²	0.4%	1.3%	0.7%	4.7%
Two or more Races ³	4.1%	5.1%	4.5%	7.6%
Hispanic Origin ⁴	<u>6.2%</u>	<u>4.8%</u>	<u>6.2%</u>	<u>11.1%</u>
Total Population	28,523	17,611	46,683	3,956,971

SOURCE: U.S. Census Bureau, Decennial Census data for 2010 and American Community Survey data for 2015-2019 (www.census.gov [June 2021]).

Summary of Community Input for CHNA

Due to the unprecedented Covid-19 pandemic, Mercy Hospital Logan County was not able to host three community meetings to seek feedback from key stakeholders. In an effort to promote social distancing and following recommendations outlined the CDC's website, the hospital hosted one community listening session via Zoom. Key stakeholders that were unable to attend this session on October 27, 2021, received individual follow up calls that were completed similar to key informant interviews. All stakeholders received all of the typical primary and secondary data prior to their respective meetings. The meeting presentations and handouts can be found in Appendices C-E. The Oklahoma Office of Rural Health facilitated the gathering of the secondary data, the completion of the survey, and the Zoom meeting and follow up interviews. Data summaries are provided in the following sections.

Community members who were included to provide input:

- Mercy Hospital Logan County representatives
- Proud Dental
- Langston University
- Logan County Health Department
- Meridian Technology Center
- Guthrie Public Schools
- Job Corps
- Guthrie News Page

Key stakeholders were identified due to their expertise of health conditions and concerns in the Guthrie area along with the respective populations they represent. In particular, Logan County Health Department was included for their expertise of public health in Logan County. Significant efforts were made to include those who represented low-income and racially diverse populations.

Economic Conditions of Logan County and Economic Impact of Health Sector

Economic indicators for Logan County in comparison to Oklahoma and the United States are outlined in Table 5. Logan County tends to lag Oklahoma and the United States in terms of per capita income, or the total income divided by the population. Oklahoma as a state tends to lag the national average. In terms of employment and unemployment, there have been many changes during 2020. The 2020 annual unemployment rate for Logan County was 5.1 percent. This rate is lower than the state (6.1%) and the national (8.1%). All of these rates are non-seasonally adjusted. The most recent monthly estimates show Logan County to be lower than 2020 with a 2.4 percent rate. This is lower than both the state (2.8%) and the national (5.3%) rates.

The share of individual captured below the poverty threshold for income and household size is calculated by the U.S. Census Bureau. In 2019, the poverty rate for all ages in Logan County was 12.4 percent. This is lower than the state but slightly higher than the national rates. The share of children, or those under the age of 18, followed a different trend of being lower than both the state and national rate. All economic indicators can be found in Table 5.

Table 5. Economic Indicators for Logan County, the State of Oklahoma and the Nation

Indicator	County	State	U.S.
Total Personal Income (2019)	\$2,105,810,000	\$187,327,489,000	\$18,542,262,000,000
Per Capita Income (2019)	\$43,861	\$47,341	\$56,490
Employment (2020)	21,068	1,734,924	147,785,000
Unemployment (2020)	1,139	113,561	12,947,000
Unemployment Rate (2020)	5.1%	6.1%	8.1%
Employment (August 2021)*	22,101	1,800,273	153,232,000
Unemployment (August 2021)*	539	51,570	8,556,000
Unemployment Rate (August 2021)*	2.4%	2.8%	5.3%
Percentage of People in Poverty (2019)	12.4%	15.1%	12.3%
Percentage of Under 18 in Poverty (2019)	14.3%	19.7%	16.8%
Transfer Dollars (2019)	\$384,292,000	\$36,444,712,000	\$3,125,174,000,000
Transfer Dollars as Percentage of Total Personal Income (2019)	18.2%	19.5%	16.9%
Medical Benefits as a share of Transfer Payments (2019)	38.3%	35.1%	39.8%

*County and state estimates are considered preliminary

SOURCES: 2021 Bureau of Labor Statistics; 2021 Bureau of Economic Analysis; 2021 U.S. Census Bureau.

Table 6 displays various education variables for Logan County. The first three lines are education attainment percentages for the population aged 25 years and greater. In Logan County, 90.1 percent of the population has at least their high school diploma, 57.7 percent has at least some college, and 27.7 percent of the population has at least a bachelor's degree. The far-right handed column provides a ranking within the state based on the highest, or most favorable percentages. The free and reduced lunch rate is the share of children in Logan County who are enrolled in public school and eligible for free and reduced lunches. Logan County's rate is 58.2 percent. This is lower than the state average of 60.2 percent. This is the 23rd lowest rate in the state.

Table 6. Education Data for Logan County and the State of Oklahoma

Indicator	County	State	Logan County Ranking
At Least High School Diploma	90.1%	88.0%	10th Highest
Some College	57.7%	56.7%	9th Highest
At Least Bachelor's Degree	27.7%	25.5%	8th Highest
Free and Reduced Lunch Rate	58.2%	60.2%	23rd Lowest

Sources: U.S. Census Bureau, American Community Survey, 2015-2019, National Center for Education Statistics 2018-2019.

Table 7 includes payer source data for Logan County residents in comparison to the state. A ranking is also provided with the lowest percentages as the more favorable ranking. In 2019, 15.0 percent of individuals under the age of 65 were categorized as uninsured. This is lower than the state rate of 16.6 percent. In terms of children, or those under the age of 19, this rate was 7.8 percent. This was also lower than the state rate of 8.3 percent. In 2019, 18.0 percent of the population had Medicare as a payer for healthcare. This includes Medicare parts A, B and Advantage. In terms of Medicaid, 16 percent of the population in Logan County had Medicaid as a payer source. The Medicare and Medicaid data were gathered from different sources, and duplicates have not been removed.

Table 7. Payer Source Data for Logan County and the State of Oklahoma

Indicator	County	State	Logan County Ranking
2019 Uninsured rate (under 65)	15.0%	16.6%	9th Lowest
2019 Uninsured rate (under 19)	7.8%	8.3%	8th Lowest
2019 Medicare share of total population	18.0%	18.7%	13th Lowest
2019 Medicaid share of total population	16.0%	26.8%	4th Lowest

Sources: U.S. Census Bureau Small Area Health Insurance Estimates, 2019; Centers for Medicare and Medicaid Services, Medicare Parts A, B and Advantage Recipients by State and County, 2019; Oklahoma Health Care Authority, Total Enrollment by County, 2019

Table 8 below summarizes the overall economic impact of the health sector on the Logan 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 Logan County medical service area employs 737 FTE individuals. After applying a county-specific employment multiplier to each respective sector, there is a total employment impact of 939 FTE employees. The same methodology is applied to income. The local health sector has a direct income impact of over \$38.2 million. When the appropriate income multiplier is applied, the total income impact is over \$45.1 million. The last two columns examine the impact this has on the retail sector of the local community. Recent data suggest that just 18.2% of personal income in Logan County 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 \$8.2 million spent locally, generating \$82,211 on a 1% tax. A copy of the meeting materials that were distributed can be found in Appendix C.

Table 8. Mercy Hospital Logan County 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	150	1.44	216	\$10,977,828	1.26	\$13,819,680	\$2,515,182	\$25,152
Physicians, Dentists & Other Medical Professionals	67	1.23	82	\$5,553,647	1.11	\$6,154,639	\$1,120,144	\$11,201
Nursing Homes & Home Health	366	1.24	453	\$15,625,353	1.16	\$18,094,564	\$3,293,211	\$32,932
Other Medical & Health Services	117	1.23	144	\$5,711,389	1.17	\$6,678,881	\$1,215,556	\$12,156
Pharmacies	<u>37</u>	1.20	<u>44</u>	<u>\$360,000</u>	1.18	<u>\$423,361</u>	<u>\$77,052</u>	<u>\$771</u>
Total	737		939	\$38,228,216		\$45,171,125	\$8,221,145	\$82,211

SOURCE: 2019 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 Logan County taxable sales and income (18.2%) – from 2020 Sales Tax Data and 2019 Personal Income Estimates from the Bureau of Economic Analysis.

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: 15), clinical care (rank: 22), social and economic factors (rank: 13), and physical environment (rank: 23). Logan County's overall health factors rank is 13. This suggests, in general, the health status of Logan County residents is somewhat comparable to that of neighboring counties. Areas of concern include Logan County's smoking rate, obesity rate, access to exercise opportunities, and alcohol impaired driving deaths all less desirable than the top U.S. performers. Also, the ratio of primary care physicians and dentist in comparison to the county populations are all areas of concern in Logan County. All health factors variables are presented in Table 9 along with Logan 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 Logan County ranks very poorly compared to the national benchmark). The green highlighted areas are identified by County Health Rankings and Roadmaps as areas of strength for Logan County.

Table 9. Health Factors (Overall Rank 13)

Category (Rank)	Logan County	Error Margin	Top U.S. Performers	Oklahoma
Health Behaviors (15)				
Adult Smoking	20%	17-22%	16%	20%
Adult Obesity	34%	29-40%	26%	35%
Food Environment Index	7.6		8.7	5.8
Physical Inactivity	26%	21-32%	19%	28%
Access to Exercise Opportunities	37%		91%	71%
Excessive Drinking	15%	15-16%	15%	15%
Alcohol-Impaired Driving Deaths	38%	28-46%	11%	27%
Sexually Transmitted Infections	633		161	559
Teen Births	14	12-16	12	33
Clinical Care (22)				
Uninsured	15%	13-17%	6%	17%
Primary Care Physicians	23,650:1		1,030:1	1,640:1
Dentists	6,860:1		1,210:1	1,610:1
Mental Health Providers	620:1		270:1	240:1
Preventable Hospital Stays	3,445		2,565	4,781
Mammography Screening	42%		51%	38%
Flu Vaccinations	46%		55%	49%
Social & Economic Factors (13)				
High School Graduation	90%	88-92%	94%	88%
Some College	62%	56-67%	73%	60%
Unemployment	2.9%		2.6%	3.3%
Children in Poverty	14%	10-19%	10%	20%
Income Inequality	5.2	4.6-5.8	3.7	4.6
Children in Single-Parent Household	21%	16-25%	14%	27%
Social Associations	9.1		18.2	11.5
Violent Crime Rate	173		63	428
Injury Deaths	78	67-89	59	94
Physical Environment (23)				
Air-Pollution- Particulate Matter	8.3		5.2	8.2
Drinking Water Violations	No			
Severe Housing Problems	13%	10-15%	9%	14%
Driving Alone to Work	81%	78-84%	72%	82%
Long Commute- Driving Alone	50%	46-55%	16%	27%

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

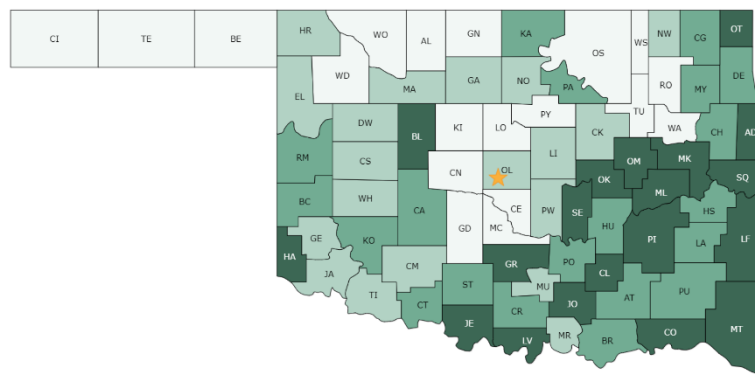
Table 10. Health Outcomes (Overall Rank 4)

Category (Rank)	Logan County	Error Margin	Top U.S. Performers	Oklahoma
Length of Life (3)				
Premature Death	7,000	6,100-7,800	5,400	9,100
Quality of Life (11)				
Poor or Fair Health	19%	17-21%	14%	21%
Poor Physical Health Days	4.5	4.1-4.9	3.4	4.5
Poor Mental Health Days	4.8	4.5-5.2	3.8	4.8
Low Birth Weight	7%	6-8%	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. Logan County's ranking is comparable to Kingfisher, Canadian, and Payne Counties. Logan County's ranking is more favorable than Noble, Garfield, and Oklahoma Counties. All meeting materials related to the health indicators and outcomes can be found in Appendix D.

2021 Health Outcomes - Oklahoma



Health Outcome Ranks 1 to 19 20 to 38 39 to 58 59 to 77

County Health
Rankings & Roadmaps
Building a Culture of Health, County by County

Community Survey Methodology and Results

A survey was designed to gauge hospital usage, satisfaction, and community health needs. The survey was available in both paper and web format. The survey link was posted the hospital's Facebook page. The survey link was also shared through local civic organizations including the Guthrie Chamber of Commerce and Langston University. Guthrie Chamber of Commerce members each received a link to the survey and were encouraged to share it. Hard copy surveys were available at the hospital and clinics. 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 Logan County.

The survey ran from June 3 through July 31, 2021. A total of 127 surveys from the Mercy Hospital Logan County medical service area were completed. Of the surveys returned, 125 were electronic surveys completed via Survey Monkey.

Table 11 below shows the survey respondent representation by zip code. The largest share of respondents was from the Guthrie (73044) zip code with 95 responses or 74.8 percent of the total. Two separate Edmond zip codes followed with 6 responses (73034) and 3 responses (73013).

Table 11. Zip Code of Residence

Response Category	No.	%
73044_ Guthrie	95	74.8%
73034- Edmond	6	4.7%
73013- Edmond	3	2.4%
73016- Cashion	3	2.4%
73025- Edmond	2	1.6%
73028- Crescent	2	1.6%
73099- Yukon	2	1.6%
74044- Mannford	2	1.6%
74832- Carney	2	1.6%
73045- Harrah	1	0.8%
73054- Luther	1	0.8%
73056- Marshall	1	0.8%
73073- Orlando	1	0.8%
73078- Piedmont	1	0.8%
73107- Oklahoma City	1	0.8%
73120- Oklahoma City	1	0.8%
73132- Oklahoma City	1	0.8%
73750- Kingfisher	1	0.8%
74059- Perkins	1	0.8%
Total	127	100.0%

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

Primary Care Physician Visits

- 55.1% of respondents had used a primary care physician in the Guthrie service area during the past 24 months
- 93% of those responded being satisfied
- Only 30 respondents or 23.6% of the survey respondents believe there are enough primary care physicians practicing in the Guthrie area
- 62.2% responded they were able to get an appointment with their primary care physician when they needed one

- 52% of respondents indicated that they have used the services of an urgent care in the past 12 months
- 64.6% responded that they would utilize urgent care or after hours services offered in Guthrie

Specialist Visits

Summary highlights include:

- 74% of all respondents report some specialist visit in past 24 months
- Most common specialty visited are displayed in Table 12
- No specialist visits occurred in Guthrie

Table 12. Type of Specialist Visits

Type of Specialist	No.	Percent
<i>Top 5 Responses</i>		
Orthopedist/Orthopedic Surg. (0 visits in Guthrie)	26	19.8%
Cardiologist (0 visits in Guthrie)	20	15.3%
Dermatologist (0 visits in Guthrie)	17	13.0%
Neurologist (0 visits in Guthrie)	9	6.9%
OB/GYN (0 visits in Guthrie)	8	6.1%
All others (0 visits in Guthrie)	<u>51</u>	<u>38.9%</u>
Total	<u>131</u>	<u>100.0%</u>

Some respondents answered more than once.

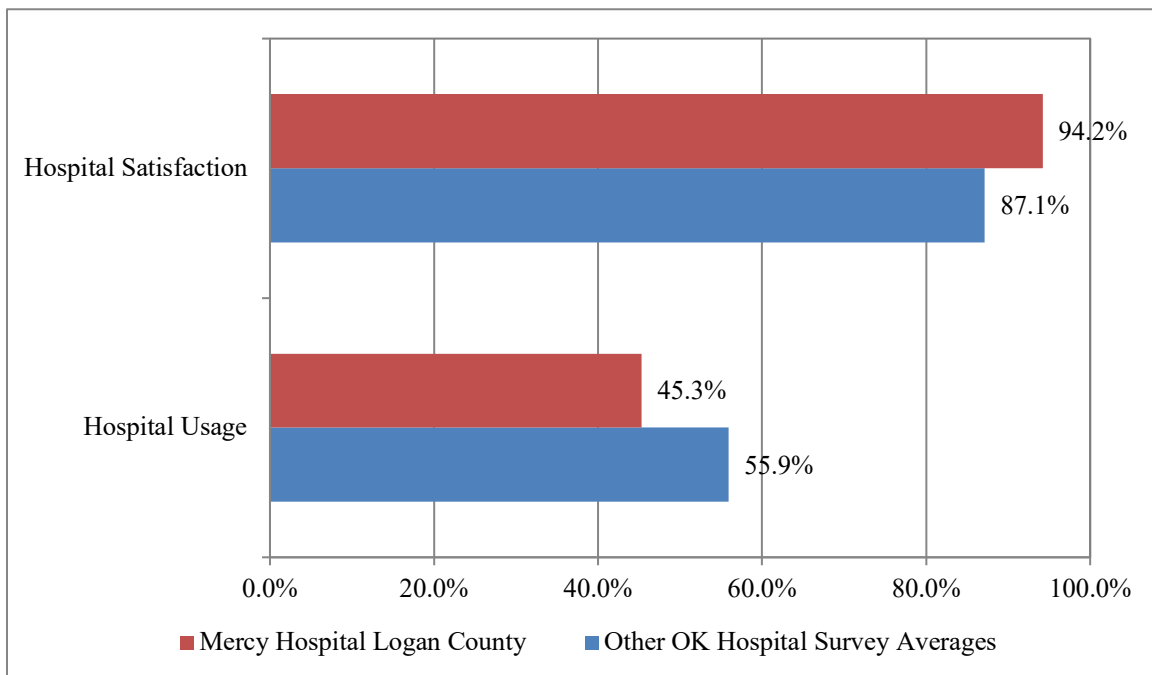
Hospital Usage and Satisfaction

Survey highlights include:

- 45.3% of survey respondents that have used hospital services in the past 24 months used services at Mercy Hospital Logan County
 - o Mercy Hospital Oklahoma City (12.8%) and Mercy Outpatient Surgery Center (I-35), Edmond (11.1%) followed

- The most common response for using a hospital other than Mercy Hospital Logan County was availability of specialty care (including surgery and labor and delivery) (33.8%) and physician referral (25.7%)
- The usage rate of 45.3% was lower than the state average of 55.9% for usage of other rural Oklahoma hospitals surveyed
- 94.2% of survey respondents were satisfied with the services received at Mercy Hospital Logan County
 - This is above the state average for other hospitals (87.1%)
- Most common services used at Mercy Hospital Logan County:
 - Diagnostic Imaging (X-ray, CT, Ultrasound, MRI) (29.2%)
 - Emergency Room (25.7%)
 - Laboratory (25.7%)

Figure 2. Summary of Hospital Usage and Satisfaction Rates



Local Healthcare Concerns and Additional Services

Survey respondents were asked what concerns them most about health in their community. The most common response was accessing specialty services (14.2%) followed by mental health (13%) and obesity (12.5%). Table 13 displays all responses and the frequencies.

Table 13. Top Health Concerns in the Guthrie Area

	No.	%
Accessing specialty services	49	14.2%
Mental health	45	13.0%
Obesity	43	12.5%
Substance abuse	34	9.9%
Heart disease	31	9.0%
Diabetes	31	9.0%
Cancers	23	6.7%
Dental	23	6.7%
Suicide	19	5.5%
Motor vehicle crashes	16	4.6%
Teen pregnancy	9	2.6%
Caregiver support	1	0.3%
None, good services available in less than 25 miles	1	0.3%
Quality of care	1	0.3%
Lack of procedures or surgeries	1	0.3%
Don't know/No response	18	5.2%
Total	345	100.0%

Survey respondents also had the opportunity to identify what additional health and wellness services they would like to see offered in their community. The most common response was specialists with a collective response of 24.5 percent. Don't know/no additional services followed with 19 percent, and mental health/substance abuse/Autism services, care/After hours care/Psychologist/Pediatric psychiatrist/more mental health services utilizing insurance followed with 10.9 percent of the total. Table 14 displays the full listing of responses.

Table 14. Additional Health and Wellness Services Respondents Would Like to See Offered in the Guthrie Area

Response Category	No.	%
Specialists: Specialists in genera (7); Dermatologist (5); OB/GYN (5); Pediatrician (4); Surgeon (3); Orthopedist (3); Cardiologist (1); Oncologist (1); Gastroenterologist (1); Oncologist (1); Urologist (1); Nephrologist (1); Podiatrist (1); Endocrinologist (1); Pulmonologist (1)	36	24.5%
Don't know/No additional services	28	19.0%
Mental health/Substance abuse/Autism services, care/ After hours care/Psychologist/Pediatric psychiatrist/More mental health services utilizing insurance	16	10.9%
Nutrition education/Diet/Weight loss assistance covered by insurance	5	3.4%
More physicians/Primary care	4	2.7%
Fitness classes/Swimming pools for exercise/Senior access to exercise equipment	4	2.7%
Laboratory/Local laboratory services	3	2.0%
All/Anything	2	1.4%
Affordable transportation services for specialists in OKC	2	1.4%
Colonoscopies/Colon care	2	1.4%
Urgent care/After hours care/Longer convenient care hours	1	0.7%
Telemedicine services	1	0.7%
Functional medicine	1	0.7%
Holistic medicine	1	0.7%
Labor and delivery	1	0.7%
Imaging	1	0.7%
Assistance for homeless population	1	0.7%
Pediatric occupational therapy	1	0.7%
Caregiver support	1	0.7%
Quality of care	1	0.7%
Dental	1	0.7%
Services for/related to obesity	1	0.7%
Vision services	1	0.7%
No response	32	21.8%
Total	147	100.0%

Primary Care Physician Demand Analysis

A demand analysis of primary care physicians was completed for the zip codes that comprise the Guthrie 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 15 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 Guthrie medical services area, a total of 42,480 annual visits would occur. This would suggest that the Guthrie medical services area would need 10.2 FTE primary care physicians to meet the needs of their existing population. Table 15 displays the estimated number of visits by share of medical services area.

Table 15. Primary Care Physician Office Visits Given Usage by Local Residents in the Guthrie, Oklahoma Medical Service Area

Usage by Residents of Secondary Service Area	Usage by Residents of Primary Service Area						
	70%	75%	80%	85%	90%	95%	100%
5%	32,141	34,321	36,501	38,681	40,861	43,041	45,221
10%	33,759	35,939	38,120	40,300	42,480	44,660	46,840
15%	35,378	37,558	39,738	41,919	44,099	46,279	48,459
20%	36,997	39,177	41,357	43,537	45,717	47,898	50,078
25%	38,616	40,796	42,976	45,156	47,336	49,516	51,696
30%	40,234	42,415	44,595	46,775	48,955	51,135	53,315
35%	41,853	44,033	46,213	48,394	50,574	52,754	54,934
40%	43,472	45,652	47,832	50,012	52,193	54,373	56,553
45%	45,091	47,271	49,451	51,631	53,811	55,991	58,172
50%	46,710	48,890	51,070	53,250	55,430	57,610	59,790

If 90% primary medical service area and 10 to 15% secondary medical service area, then the usage would be: 42,480 to 44,099 total primary care physician office visits in the Guthrie area for an estimated 10.2 to 10.5 Total Primary Care Physicians.

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

Community Health Needs- Identification of Priorities

As mentioned previously, due to COVID-19, community meetings were not able to be held to present data and gather data in a town-hall style meeting. Instead Zoom meetings and individual interviews were held. A meeting of community stakeholders was held on October 27. The OK Office of Rural Health presented and facilitated the meeting. A complete listing of individuals who participated is included in Appendix B.

During the community meeting process, participants were asked the following three questions:

- What are the top health needs of the patients/clients I serve?

- What are the top health needs of the greater community (outside of the hospital or clinic setting)?
- What am I most proud of in the Guthrie community?

The concerns listed were:

- Mental health- consider increasing relationships- already working on relationship to offer services on campus
- Transportation- Lack of access to the trolley- they are down drivers and Covid had an impact.
- Special initiative with Langston to access care in Guthrie for primary care- Making the connection for services and what is available
- Access to specialists- Working to add specialists via telemedicine (pulmonologist)

Guthrie does have many strengths. Some of the sources of pride noted by community members include:

- Ability to serve community in crisis recently- care for those in need. Mercy Logan County- was pilot for telemedicine services- well ahead when Covid-19 hit.
- Convenience center- great source of primary care
- School, city, hospital- everyone in town works together- everyone helps to address needs- agencies, providers. Etc.- also highlight a positive action
- Creating safer places for people to walk- additional sidewalks on main streets
- Specialists available in the clinic setting in Guthrie- accessible and do not have to take off entire day of work to see a provider

Mercy Hospital Logan County Administration utilized these responses to generate the list of priorities based on the frequencies of responses, potential impact the hospital can have on these items, and the opportunity to collaborate with existing organizations and providers in the community. The following items were identified as priorities:

- Mental health- consider increasing relationships- already working on relationship to offer services on campus
 - The hospital is currently working to add mental health services to the emergency department.
 - The hospital will also lease space on the hospital's campus to Northcare who will provide a 24/hr. mental health urgent care. This will greatly enhance services to county residents.
 - It is planned to add in the future a mobile unit to service all of Logan County.

- Transportation- Lack of access to the trolley- they are down drivers and Covid had an impact.
 - The hospital will continue to provide transportation tokens for the trolley to those who need transportation assistance to and from their medical appointments.
 - The clinic has increased and has plans to continue to increase video and tele visits for patients to help alleviate travel outside of Guthrie.
- Access to specialists- Working to add specialists via telemedicine (pulmonologist)
 - This is in progress to add a pulmonologist in an outpatient setting via telemedicine to help alleviate the transportation burden faced by patients.

Community Health Needs Assessment Marketing Plan

The hospital will make the Community Health Needs Assessment Summary available upon request at Mercy Hospital Logan County, and a copy will be available to be downloaded from the hospital's website (<https://www.mercy.net/practice/mercy-hospital-logan-county/>). 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 Logan County Hospital Services

Inpatient Services:

Acute Inpatient
Observation
Swing Bed
Physical Therapy
Occupational Therapy
Speech Therapy
Laboratory
Radiology- CT, MRI, Ultrasound, Mammography
EKG
Pharmacy
Wound Care
Case Management
Social Services
Dietary
Chaplain Service
Respiratory Therapy

Outpatient Services:

Laboratory
Radiology
Emergency Department
Blood Transfusions
Sleep Lab
Physical Therapy
Occupational Therapy
Wound Care
Speech Therapy
Holter Monitor

Clinics:

2 Mercy Primary Care Physician Clinics located in Logan County (Guthrie & Edmond)
2 Mercy Rural Health Clinics located in Logan County (Guthrie & Crescent)
Lab & Radiology offered at Mercy Clinic South Division (Guthrie RHC)
Specialty Clinic – podiatry, cardiology

Appendix B Community Input Participants

Mercy Hospital Logan County

Zoom Community Meeting Attendees- Oct. 27, 2021

Name	Organization
Blair Coughlan	Health Educator, Logan County Health Department
LeAnn Ramsey	Mercy Hospital Logan County
Dustin Yowell	Mercy Hospital Logan County
Cheryl Downs	Mercy Hospital Logan County
Dawn Shoulders	Mercy Hospital Logan County
Joshua Snider	Logan County Health Department
Amy Cronin	Mercy Hospital Logan County
Terry Moore	Jop Corps
Chris Evans	Guthrie News Page
Daniel Calvert	Mercy Hospital Logan County
Courtney McLemore	Meridian Technology
Donnita Rogers	Langston University
Nathan Proud	Proud Dental
Bobby Stitt	Mercy Hospital Logan County
Mike Simpson	Guthrie Public Schools

Appendix C- Demographic and Economic Data

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

Economic Data

2019 Per Capita Income ¹	\$43,831 (21st highest in state)
Employment (August 2021, preliminary) ²	22,101 (4.9% from 2020)
Unemployment (August 2021, preliminary) ²	539 (-52.7% from 2020)
Unemployment rate (August 2021, preliminary) ²	2.4% (21st lowest in state)
2019 Poverty rate ³	12.4% (14th lowest in state)
2019 Child poverty rate ³	14.3% (7th lowest in state)
2019 Transfer Payments ¹	\$384,292,000 (18.2% of total personal income, 13th lowest in state)
2019 Medical Benefits as a share of Transfer Payments ¹	38.3% (13th lowest in state)

¹Bureau of Economic Analysis, Regional Data, 2021, ²Bureau of Labor Statistics 2019-2021, ³U.S. Census Bureau, Small Area Income and Poverty, 2021

Education Data

At Least High School Diploma ¹	90.1% (10th highest in state)
Some College ¹	57.7% (9th highest in state)
At Least Bachelor's Degree ¹	27.7% (8th highest in state)
2018-2019 Free and Reduced Lunch Eligible ²	58.2% (23rd lowest in state)

¹U.S. Census Bureau, American Community Survey, 2015-2019, ²National Center for Education Statistics, 2018-2019.

Payer Source Data

2019 Uninsured Rate (under 65) ¹	15.0% (9th lowest in state)
2019 Uninsured Rate (under 19) ¹	7.8% (8th lowest in state)
2019 Medicare share of total population ²	18.0% (13th lowest in state)
2019 Medicaid share of total population ³	16.0% (4th lowest in state)

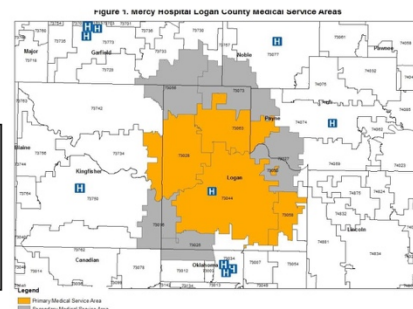
¹U.S. Census Bureau, Small Area Health Insurance Estimates, 2019, ²Centers for Medicare & Medicaid Services, Medicare Aged and Disabled by State and County, 2019

³Oklahoma Health Care Authority, Total Enrollment by County, 2019

Population (2015-2019)

Logan County	46,683 (11.6% from 2010)
Oklahoma	3,956,971 (5.5% from 2010)
Primary Medical Service Area	28,523 (9.4% from 2010)
Secondary Medical Service Area	17,611 (10.7% from 2010)

U.S. Census Bureau, 2015-2019 American Community Survey 2010 Decennial Census



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

Age Groups	Primary Medical Service Area	Secondary Medical Service Area	Logan County	Oklahoma
15-19 ACS				
0-14	17.0%	22.8%	19.1%	20.1%
15-19	8.0%	9.3%	7.7%	6.9%
20-24	9.0%	4.2%	7.3%	6.8%
25-44	23.0%	22.4%	24.2%	26.2%
45-64	25.8%	28.5%	26.7%	23.9%
65+	<u>17.3%</u>	<u>12.8%</u>	<u>15.1%</u>	<u>16.1%</u>
Totals	100.0%	100.0%	100.0%	100.0%
 Total Population	 28,523	 17,611	 46,683	 3,956,971

SOURCE: U.S. Census Bureau, Decennial Census data for 2010 and American Community Survey data for 2015-2019 (www.census.gov [June 2021]).

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

Race/Ethnic Groups	Primary Medical Service Area	Secondary Medical Service Area	Logan County	Oklahoma
15-19 ACS				
White	80.1%	89.3%	83.0%	72.4%
Black	11.8%	2.3%	8.2%	7.3%
Native American ¹	3.5%	1.9%	3.6%	8.0%
Other ²	0.4%	1.3%	0.7%	4.7%
Two or more Races ³	4.1%	5.1%	4.5%	7.6%
Hispanic Origin ⁴	<u>6.2%</u>	<u>4.8%</u>	<u>6.2%</u>	<u>11.1%</u>
Total Population	28,523	17,611	46,683	3,956,971

SOURCE: U.S. Census Bureau, Decennial Census data for 2010 and American Community Survey data for 2015-2019 (www.census.gov [June 2021]).

For additional information, please contact:
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Oklahoma Office of Rural Health

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 U2WRH33319 and title: Medicare Rural Hospital Flexibility Grant Program for \$673,496, 0% financed with nongovernmental sources. This information or 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.



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Mercy Hospital Logan County Economic Impact



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

Mercy Hospital Logan County, including the clinics **directly** employs **150** individuals with an annual payroll of over **\$10.9 million** including benefits

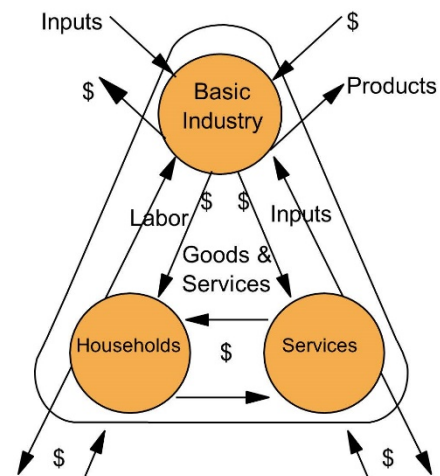
- These employees and income create an additional **66** jobs and over **\$2.8 million** in income as they interact with other sectors of the local economy
- **Total impacts= 216 jobs and over \$13.8 million**
- Other segments of the healthcare sector (Pharmacies, EMS, etc.) provide another **587 jobs** and an additional **\$27.2 million** in wages
- Their interactions and transactions within the local economy including the hospital's impact create:
- **Total health sector impacts= 939 jobs and \$45.0 million**
- Over **\$8.2 million** in retail sales generated from the presence of the health sector

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
- Other Healthcare Providers and Services
- 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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Multipliers were derived from IMPLAN 2019, sales tax data were derived from County FY2020 Oklahoma Tax Commission data, and 2019 personal income estimates from Bureau of Economic Analysis.

Appendix D- Logan County Health Indicators and Outcomes

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

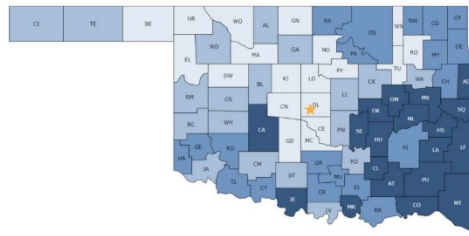
Table 1. Health Factors (Overall Rank 13)

Category (Rank)	Logan County	Error Margin	Top U.S. Performers	Oklahoma
Health Behaviors (15)				
Adult Smoking	20%	17-22%	16%	20%
Adult Obesity	34%	29-40%	26%	35%
Food Environment Index	7.6		8.7	5.8
Physical Inactivity	26%	21-32%	19%	28%
Access to Exercise Opportunities	37%		91%	71%
Excessive Drinking	15%	15-16%	15%	15%
Alcohol-Impaired Driving Deaths	38%	28-46%	11%	27%
Sexually Transmitted Infections	633		161	559
Teen Births	14	12-16	12	33
Clinical Care (22)				
Uninsured	15%	13-17%	6%	17%
Primary Care Physicians	23,650:1		1,030:1	1,640:1
Dentists	6,860:1		1,210:1	1,610:1
Mental Health Providers	620:1		270:1	240:1
Preventable Hospital Stays	3,445		2,565	4,781
Mammography Screening	42%		51%	38%
Flu Vaccinations	46%		55%	49%
Social & Economic Factors (13)				
High School Graduation	90%	88-92%	94%	88%
Some College	62%	56-67%	73%	60%
Unemployment	2.9%		2.6%	3.3%
Children in Poverty	14%	10-19%	10%	20%
Income Inequality	5.2	4.6-5.8	3.7	4.6
Children in Single-Parent Household	21%	16-25%	14%	27%
Social Associations	9.1		18.2	11.5
Violent Crime Rate	173		63	428
Injury Deaths	78	67-89	59	94
Physical Environment (23)				
Air-Pollution- Particulate Matter	8.3		5.2	8.2
Drinking Water Violations	No			
Severe Housing Problems	13%	10-15%	9%	14%
Driving Alone to Work	81%	78-84%	72%	82%
Long Commute- Driving Alone	50%	46-55%	16%	27%

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



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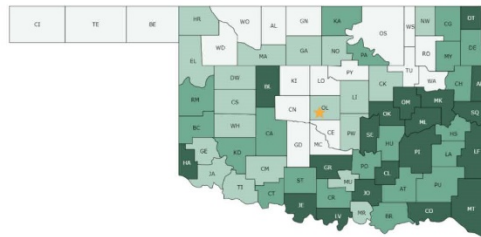


Health Factor Ranks 1 to 19 20 to 38 39 to 58 59 to 77

Table 2. Health Outcomes (Overall Rank 4)

Category (Rank)	Logan County	Error Margin	Top U.S. Performers	Oklahoma
Length of Life (3)				
Premature Death	7,000	6,100-7,800	5,400	9,100
Quality of Life (11)				
Poor or Fair Health	19%	17-21%	14%	21%
Poor Physical Health Days	4.5	4.1-4.9	3.4	4.5
Poor Mental Health Days	4.8	4.5-5.2	3.8	4.8
Low Birth Weight	7%	6-8%	6%	8%

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



Health Outcome Ranks 1 to 19 20 to 38 39 to 58 59 to 77

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Appendix E- Survey Form and Survey Results

Mercy Hospital Logan County Local Health Services Survey

Please return completed survey by July 31, 2021



The zip code of my residence is: _____

What is your current age: _____

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 Logan County (*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 Logan County,

3. why did you or your family member choose that hospital? (*Please answer then skip to Q6*)
☐ Physician referral ☐ Quality of care/Lack of confidence
☐ Closer, more convenient location ☐ Availability of specialty care
☐ Insurance reasons ☐ Other (*Please list below*)

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

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

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

6. Has your household been to a specialist in the past 24 months?
☐ Yes ☐ No (*Skip to Q10*) ☐ Don't know (*Skip to Q10*)

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

7.	
Type of Specialist	City

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

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

Continue on reverse side...

10. What kind of medical provider do you use for routine care *(Please select all that apply)* ?

- | | |
|---|--|
| ☐ Primary Care physician | ☐ Mid-Level Clinic (Nurse Practitioner or PA) |
| ☐ Tribal Health Center | ☐ Emergency Room/Hospital |
| ☐ Income Based Health Center | ☐ Specialist |
| ☐ Urgent care/Walk in clinic | ☐ Other <i>(Please list below)</i> |
| ☐ Health Department | |
-

11. Has your household been to a primary care (family) doctor in the Guthrie area?

- ☐ Yes *(Go to Q12)* ☐ No *(Skip to Q13)* ☐ Don't know *(Skip to Q13)*

12. How satisfied was your household with the quality of care received in the Guthrie area?

- ☐ Satisfied ☐ Dissatisfied ☐ Don't know

13. Do you think there are enough primary care (family) doctors practicing in the Guthrie area?

- ☐ Yes ☐ No ☐ Don't know

Are you able to get an appointment, within 48 hours, with your primary care (family) doctor when you need

14. one?

- ☐ Yes ☐ No ☐ Don't know

15. Have you used the services of a walk-in, urgent care or after hours clinic in the past 24 months?

- ☐ Yes ☐ No ☐ Don't know

16. Would you utilize a walk in and/or after hours clinic if offered in Guthrie?

- ☐ Yes ☐ No ☐ Don't know

17. What concerns you most about health in the Guthrie area *(Please select all that apply)* ?

- | | |
|---|---|
| ☐ Heart disease | ☐ Substance abuse |
| ☐ Cancers | ☐ Obesity |
| ☐ Diabetes | ☐ Accessing primary care |
| ☐ Dental | ☐ Accessing specialty services |
| ☐ Teen Pregnancy | ☐ Motor vehicle crashes |
| ☐ Suicide | ☐ Other |
| ☐ Mental health | |
-

18. What additional health and wellness services would you like to see offered in the Guthrie area?

Has your household used telemedicine services, a visit either by telephone or video with your provider, in the

19. past year?

- ☐ Yes ☐ No *(Skip to Q21)* ☐ Don't know *(Skip to Q21)*

20. How satisfied was your household with the quality of care received via telemedicine?

- ☐ Satisfied ☐ Dissatisfied ☐ Don't know

21. How would you prefer to be notified of community events?

(Please select all that apply)

- | | | |
|------------------------------------|----------------------------------|---------------------------------------|
| ☐ Newspaper | ☐ Email | ☐ Social Media |
| ☐ Radio | ☐ Website | |

*Please mail completed survey
to:*

*Mercy Hospital Logan County
200 Academy Rd.
Guthrie, OK 73044*

*Or, return to hospital
administration*

Mercy Hospital Logan County Survey Results and Primary Care Physician Demand Analysis

Corie Kaiser, Director
Lara Brooks, Rural Health Analyst

Oklahoma Office of Rural Health



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RURAL HEALTH
OSU Center for Health Sciences

Photo Courtesy of David Waters

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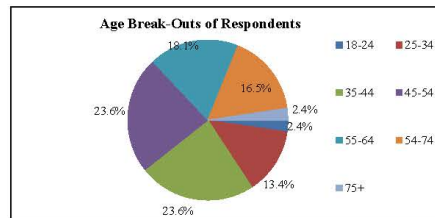
1

Zip Code of Residence		
Response Category	No.	%
73044- Guthrie	95	74.8%
73034- Edmond	6	4.7%
73013- Edmond	3	2.4%
73016- Cashion	3	2.4%
73025- Edmond	2	1.6%
73028- Crescent	2	1.6%
73099- Yukon	2	1.6%
74044- Mannford	2	1.6%
74832- Carney	2	1.6%
73045- Harrah	1	0.8%
73054- Luther	1	0.8%
73056- Marshall	1	0.8%
73073- Orlando	1	0.8%
73078- Piedmont	1	0.8%
73107- Oklahoma City	1	0.8%
73120- Oklahoma City	1	0.8%
73132- Oklahoma City	1	0.8%
73750- Kingfisher	1	0.8%
74059- Perkins	1	0.8%
Total	127	100.0%

*123 Responses in 2018

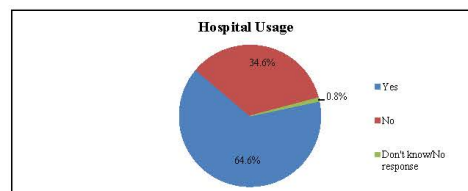
2

What is your Age?		
Response Category	No.	%
18-24	3	2.4%
25-34	17	13.4%
35-44	30	23.6%
45-54	30	23.6%
55-64	23	18.1%
54-74	21	16.5%
75+	3	2.4%
Total	127	100.0%



3

Has your household used the services of a hospital in the past 24 months?		
Response Category	No.	%
Yes	82	64.6%
No	44	34.6%
Don't know/No response	1	0.8%
Total	127	100.0%

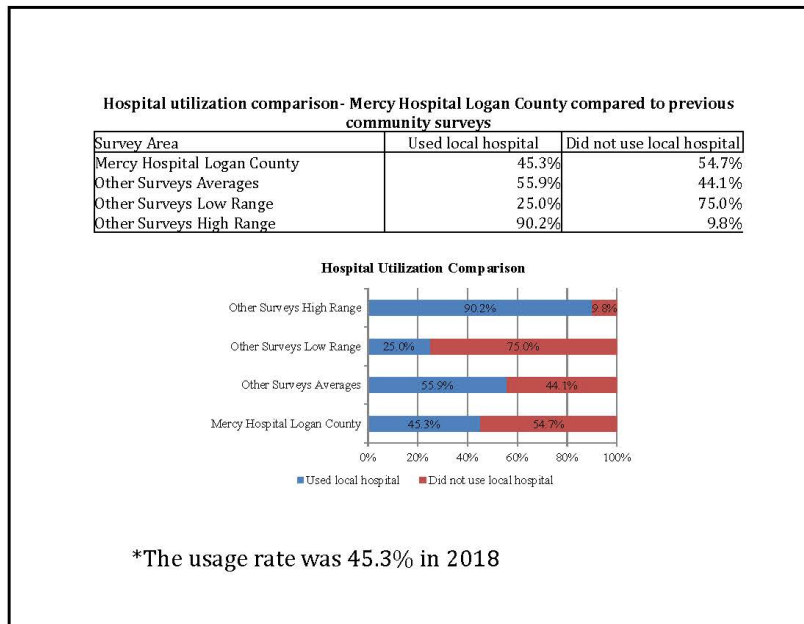


4

Where did you receive hospital services?		
Response Category	No.	%
Mercy Hospital Logan County, Guthrie	53	45.3%
Mercy Hospital Oklahoma City	15	12.8%
Mercy Outpatient Surgery Center (I-35), Edmond	13	11.1%
Integrus Health Edmond Hospital	10	8.5%
Integrus Baptist Medical Center, Oklahoma City	8	6.8%
Oklahoma Heart Hospital, Oklahoma City	5	4.3%
Community Hospital, Oklahoma City	2	1.7%
Stillwater Medical Center, Stillwater	2	1.7%
OU Medical Center, Edmond	2	1.7%
McBride Orthopedic Hospital, Oklahoma City	1	0.9%
Oklahoma Sports Science and Orthopedics, Oklahoma City	1	0.9%
OU Medical Center, Oklahoma City	1	0.9%
St. Anthony Hospital, Oklahoma City	1	0.9%
Oklahoma City VA Health Care System Oklahoma City	1	0.9%
Mercy Clinic Orthopedic Associates, Oklahoma City	1	0.9%
No response	1	0.9%
Total*	117	100.0%

*Some respondents answered more than once. Average hospitals visited per respondent = 1.43

5



6

If you responded in question 2 that your household received care at a hospital other than Mercy Hospital Logan County, why did you or your family member choose that hospital?

Response Category	No.	%
Availability of specialty care (Including surgery, labor and delivery)	25	33.8%
Physician referral	19	25.7%
Quality of care/Lack of confidence	12	16.2%
Closer, more convenient location	9	12.2%
Insurance reasons/Va	5	6.8%
Emergency care	2	2.7%
Specific tests were not available	1	1.4%
No response	1	1.4%
Total*	74	100.0%

*Some respondents selected more than one category.

7

What hospital services were used at Mercy Hospital Logan County?

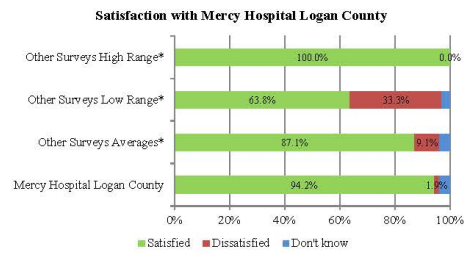
Response Category	No.	%
Diagnostic imaging (X-ray, CT, MRI, Ultrasound)	33	29.2%
Emergency room	29	25.7%
Laboratory	29	25.7%
Physical, speech or occupational therapy	13	11.5%
Physician services	5	4.4%
Outpatient services	2	1.8%
Hospital inpatient	2	1.8%
Total*	113	100.0%

*Some respondents selected more than one category. Average number of services used per respondent = 2.13

8

How satisfied were you or someone in your household with the services you received at Mercy Hospital Logan County?

Survey Area	Satisfied	Dissatisfied	Don't know
Mercy Hospital Logan County	94.2%	1.9%	3.8%
Other Surveys Averages*	87.1%	9.1%	3.8%
Other Surveys Low Range*	63.8%	33.3%	2.9%
Other Surveys High Range*	100.0%	0.0%	0.0%

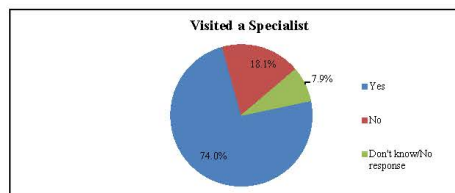


*Hospital satisfaction rate= 94.4% in 2018

9

Has your household been to a specialist in the past 24 months?

Response Category	No.	%
Yes	94	74.0%
No	23	18.1%
Don't know/No response	10	7.9%
Total	127	100.0%



10

What type of specialist has your household been to and in which city did you receive that care?

Type of Specialist	City	No.	%
Orthopedist/Ortho Surg.	No location (12); Oklahoma City (9); Edmond (5)	26	19.8%
Cardiologist	Oklahoma City (12); No location (6); Edmond (2)	20	15.3%
Dermatologist	Oklahoma City (9); No location (6); Edmond (2)	17	13.0%
Neurologist	No location (6); Oklahoma City (3)	9	6.9%
OB/GYN	No location (5); Oklahoma City (3)	8	6.1%
Rheumatologist	Oklahoma City (3); Edmond (2); No location (2)	7	5.3%
Podiatrist	No location (4); Oklahoma City (2)	6	4.6%
Surgeon	No location (3); Oklahoma City (2)	5	3.8%
Oncologist	Oklahoma City (3); No location (1)	4	3.1%
Otolaryngologist	No location (2); Oklahoma City (1)	3	2.3%
Endocrinologist	Oklahoma City (2); No location (1)	3	2.3%
Pulmonologist	Oklahoma City (2); No location (1)	3	2.3%
Urologist	Oklahoma City (2)	2	1.5%
Internal Medicine	Oklahoma City (2)	2	1.5%

*Top 3 Specialists in 2018: Cardiologist (21); Orthopedist/Ortho Surg. (17); OB/GYN (12)

11

What type of specialist has your household been to and in which city did you receive that care?

Type of Specialist	City	No.	%
Gastroenterologist	Oklahoma City (1)	1	0.8%
Audiologist	Oklahoma City (1)	1	0.8%
Chiropractor	Edmond (1)	1	0.8%
Colon	No location (1)	1	0.8%
Electro cardiologist	No location (1)	1	0.8%
Psychiatrist	No location (1)	1	0.8%
Wound Care	No location (1)	1	0.8%
Ophthalmologist	Oklahoma City (1)	1	0.8%
Pain Management	Oklahoma City (1)	1	0.8%
Pediatrician	No location (1)	1	0.8%
Vein	No location (1)	1	0.8%
Genetic	Oklahoma City (1)	1	0.8%
Hematologist	No location (1)	1	0.8%
Immunologist	No location (1)	1	0.8%
Nephrologist	Oklahoma City (1)	1	0.8%
Plastic Surgeon	No location (1)	1	0.8%
Total*		131	100.0%

*Some respondents answered more than once. 94 respondents had seen a specialist. Those 94 respondents reported visiting an average of 1.39 specialists.

12

Did the specialist request further testing, laboratory work and/or x-rays?

Response Category	No.	%
Yes	72	76.6%
No	22	23.4%
Total	94	100.0%

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

Response Category	No.	%
Oklahoma city	43	50.6%
Edmond	21	24.7%
Guthrie	18	21.2%
Yukon	2	2.4%
Stillwater	1	1.2%
Total*	85	100.0%

*Some respondents answered more than once. Average responses equal 1.18

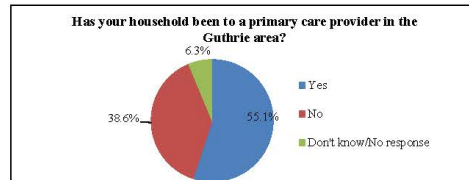
13

What type of medical provider do you use for routine care?

Response Category	No.	%
Primary care physician	105	66.0%
Urgent care/Walk in clinic	17	10.7%
Mid-level clinic (nurse practitioner or PA)	16	10.1%
Specialist (including OB/GYN)	10	6.3%
Tribal health center	1	0.6%
No routine care	1	0.6%
No response	9	5.7%
Total	159	100.0%

14

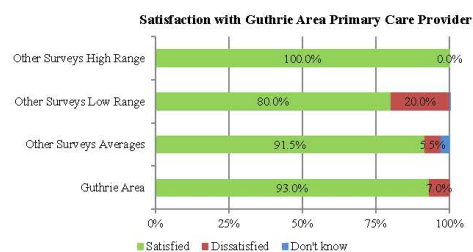
Has your household been to a primary care doctor in the Guthrie area?		
Response Category	No.	%
Yes	70	55.1%
No	49	38.6%
Don't know/No response	8	6.3%
Total	127	100.0%



15

How satisfied were you or someone in your household with the quality of care received in the Guthrie area?

Response Category	Satisfied	Dissatisfied	Don't know
Guthrie Area	93.0%	7.0%	0.0%
Other Surveys Averages	91.5%	5.5%	3.0%
Other Surveys Low Range	80.0%	20.0%	0.6%
Other Surveys High Range	100.0%	0.0%	0.0%



*Primary Care satisfaction rate= 93.4% in 2018

16

Do you think there are enough primary care (family) doctors practicing in the Guthrie area?

Response Category	No.	%
Yes	30	23.6%
No	49	38.6%
Don't know/No response	48	37.8%
Total	127	100.0%

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

Response Category	No.	%
Yes	79	62.2%
No	18	14.2%
Don't know/No response	30	23.6%
Total	127	100.0%

17

Have you used the services of a walk-in, urgent care or after hours clinic in the past 24 months?

Response Category	No.	%
Yes	66	52.0%
No	49	38.6%
Don't know/No response	12	9.4%
Total	127	100.0%

Would you utilize a walk in and/or after hours clinic if offered in Guthrie?

Response Category	No.	%
Yes	82	64.6%
No	12	9.4%
Don't know/No response	33	26.0%
Total	127	100.0%

18

What concerns you most about health in the Guthrie area?		
	No.	%
Accessing specialty services	49	14.2%
Mental health	45	13.0%
Obesity	43	12.5%
Substance abuse	34	9.9%
Heart disease	31	9.0%
Diabetes	31	9.0%
Cancers	23	6.7%
Dental	23	6.7%
Suicide	19	5.5%
Motor vehicle crashes	16	4.6%
Teen pregnancy	9	2.6%
Caregiver support	1	0.3%
None, good services available in less than 25 miles	1	0.3%
Quality of care	1	0.3%
Lack of procedures or surgeries	1	0.3%
Don't know/No response	18	5.2%
Total	345	100.0%

19

What additional health and wellness services would you like to see offered in the Guthrie area?		
Response Category	No.	%
Specialists: Specialists in general (7); Dermatologist (5); OB/GYN (5); Pediatrician (4); Surgeon (3); Orthopedist (3); Cardiologist (1); Oncologist (1); Gastroenterologist (1); Oncologist (1); Urologist (1); Nephrologist (1); Podiatrist (1); Endocrinologist (1); Pulmonologist (1)	36	24.5%
Don't know/No additional services	28	19.0%
Mental health/Substance abuse/Autism services, care/ After hours care/Psychologist/Pediatric psychiatrist/More mental health services utilizing insurance	16	10.9%
Nutrition education/Diet/Weight loss assistance covered by insurance	5	3.4%
More physicians/Primary care	4	2.7%
Fitness classes/Swimming pools for exercise/Senior access to exercise equipment	4	2.7%
Laboratory/Local laboratory services	3	2.0%
All/Anything	2	1.4%
Affordable transportation services for specialists in OKC	2	1.4%
Colonoscopies/Colon care	2	1.4%
Urgent care/After hours care/Longer convenient care hours	1	0.7%
Telemedicine services	1	0.7%
Functional medicine	1	0.7%
Holistic medicine	1	0.7%
Labor and delivery	1	0.7%
Imaging	1	0.7%
Assistance for homeless population	1	0.7%
Pediatric occupational therapy	1	0.7%
Caregiver support	1	0.7%
Quality of care	1	0.7%
Dental	1	0.7%
Services for/related to obesity	1	0.7%
Vision services	1	0.7%
No response	32	21.8%
Total	147	100.0%

20

Has your household used telemedicine services, a visit either by telephone or video with your provider, in the past year?

Response Category	No.	%
Yes	76	59.8%
No	37	29.1%
Don't know/No response	14	11.0%
Total	127	100.0%

How satisfied was your household with the quality of care received via telemedicine?

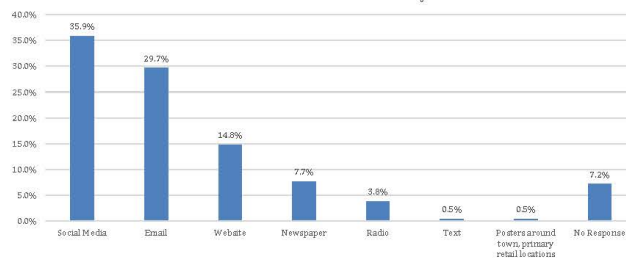
Response Category	No.	%
Satisfied	68	89.5%
Dissatisfied	6	7.9%
Don't know/No response	2	2.6%
Total	76	100.0%

21

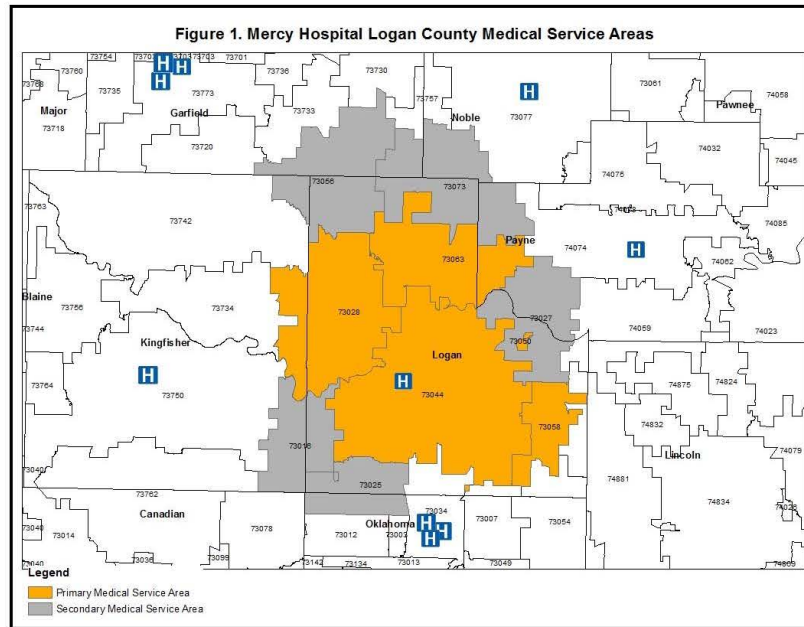
How would you prefer to be notified of community events?

Outlet	No.	%
Social Media	75	35.9%
Email	62	29.7%
Website	31	14.8%
Newspaper	16	7.7%
Radio	8	3.8%
Text	1	0.5%
Posters around town, primary retail locations	1	0.5%
No Response	15	7.2%
Total	209	100.0%

Preference of Notification of Community Events



22



23

Table 1. Mercy Hospital Logan County Medical Service Areas

Zip Code	City	2015-2019 ACS Population
<i>Primary Medical Service Area</i>		
73044	Guthrie	22,935
73028	Crescent	3,735
73050	Langston	1,022
73058	Meridian	168
73063	Mulhall	663
Totals		<u>28,523</u>
<i>Secondary Medical Service Area</i>		
73016	Cashion	1,848
73027	Coyle	1,446
73025	Edmond	13,475
73056	Marshall	425
73073	Orlando	417
Totals		<u>17,611</u>

SOURCE: Population data from the U.S. Bureau of Census, 2015-2019 American Community Survey

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

PRIMARY MEDICAL SERVICE AREA							
Age	Male			Female			Total Visits
	15-19 Population	Visit Rate ^[3]	Visits	15-19 Population	Visit Rate ^[3]	Visits	
Under 15	2,596	2.7	7,009	2,258	2.5	5,645	12,654
15-24	2,379	1.1	2,617	2,457	1.9	4,668	7,285
25-44	3,310	1.3	4,303	3,246	2.8	9,089	13,392
45-64	3,618	2.6	9,407	3,737	3.4	12,706	22,113
65-74	1,318	4.6	6,063	1,544	4.7	7,257	13,320
75+	887	5.4	4,790	1,173	5.5	6,452	11,241
Total	14,108		34,189	14,415		45,816	80,005
<i>Primary Medical Service Area - Local Primary Care Physician office visits per year: 43,603</i>							

25

SECONDARY MEDICAL SERVICE AREA							
Age	Male			Female			Total Visits
	15-19 Population	Visit Rate ^[3]	Visits	15-19 Population	Visit Rate ^[3]	Visits	
Under 15	2,012	2.0	4,024	1,996	2.1	4,192	8,216
15-24	1,452	2.4	3,485	928	1.9	1,763	5,248
25-44	1,875	3.0	5,625	2,076	2.9	6,020	11,645
45-64	2,394	4.2	10,055	2,626	3.8	9,979	20,034
65-74	857	6.1	5,228	765	6.0	4,590	9,818
75+	319	7.4	2,361	311	6.7	2,084	4,444
Total	8,909		30,777	8,702		28,628	59,405

Secondary Medical Service Area - Local Primary Care Physician office visits per year: 32,376
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: 2016 Summary."

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

		Usage by Residents of Primary Service Area						
Usage by Residents of Secondary Service Area		70%	75%	80%	85%	90%	95%	100%
	5%	32,141	34,321	36,501	38,681	40,861	43,041	45,221
	10%	33,759	35,939	38,120	40,300	42,480	44,660	46,840
	15%	35,378	37,558	39,738	41,919	44,099	46,279	48,459
	20%	36,997	39,177	41,357	43,537	45,717	47,898	50,078
	25%	38,616	40,796	42,976	45,156	47,336	49,516	51,696
	30%	40,234	42,415	44,595	46,775	48,955	51,135	53,315
	35%	41,853	44,033	46,213	48,394	50,574	52,754	54,934
	40%	43,472	45,652	47,832	50,012	52,193	54,373	56,553
	45%	45,091	47,271	49,451	51,631	53,811	55,991	58,172
	50%	46,710	48,890	51,070	53,250	55,430	57,610	59,790

If 90% primary medical service area and 10 to 15% secondary medical service area, then the usage would be: 42,480 to 44,099 total primary care physician office visits in the Guthrie area for an estimated 10.2 to 10.5 Total Primary Care Physicians.
(Based on 83.7 average weekly primary care physician visits with a 50 week year)