

COMMUNITY HEALTH 20 NEEDS ASSESSMENT 22

MURPHY MEDICAL CENTER, INCORPORATED D/B/A



COMMUNITY HEALTH NEEDS ASSESSMENT

Murphy Medical Center, Inc.

D/B/A

Erlanger Western Carolina Hospital

Erlanger Western Carolina Hospital 3990 E. U.S. Highway 64 Alternate Murphy, NC 28906



AUGUST 2022

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Section A: Hospital Profile

Overview

Erlanger Health System is a non-profit health system that includes six hospitals, four of them in the Chattanooga area, one in Bledsoe County, Tennessee, and Erlanger Western Carolina Hospital in Murphy, North Carolina. All Erlanger hospitals work in a coordinated fashion to provide comprehensive care to approximately 300,000 adult and pediatric patients annually.

Erlanger Western Carolina Hospital is a critical access, safety-net hospital that provides emergency services and a variety of inpatient and outpatient services to residents of Cherokee County, Clay County, and Graham County, the furthermost western counties of North Carolina.

The hospital service area is largely rural, dominated by the Snowbird Mountains and the Nantahala National Forest. The area consists of several small cities, including Murphy, with a population of 1,855. Other incorporated areas include Andrews (population 1,915), Hayesville (387) and Robbinsville (854). These towns are connected east and west by US Highway 64 and north and south by US 19/129, both of which are mostly two-lanes.

Services provided by Erlanger Western Carolina Hospital include 25 inpatient beds, transitional care (swing-beds), 24/7 emergency services, surgery, imaging, physical therapy, occupational therapy, speech therapy, cardiac rehabilitation, pain management and more. The hospital also offers FitPLUS, a freestanding fitness club that is colocated with outpatient physical therapy and cardiac rehabilitation.

The hospital has a medical staff of 47 physicians, dentists, and advance level practitioners offering hospitalists services, primary care, cardiology, gastroenterology, orthopedics, urology, and women's care. Some specialty services are offered part time by physicians from Erlanger in Chattanooga.

The hospital also operates a freestanding urgent care center in Hayesville.

Erlanger Western Carolina Hospital is supported by LIFEFORCE, Erlanger's fleet of six emergency medical helicopters. The hospital is approximately 70 air-miles from Chattanooga and Erlanger Medical Center, the region's level one trauma center.

Mission, Vision and Values

Erlanger's culture for care and community flow from its statements of Mission, Vision & Values, as follows:

Mission

We compassionately care for people.

Vision

Erlanger is a nationally acclaimed health system anchored by a leading academic medical center. As such, we deliver the highest quality, to diverse populations, at the lowest cost, through personalized patient experiences across all patient access points. Through innovation and growth, we will sustain our success and spark economic development across the Chattanooga region.

Values

Our values define who we are and how we act as stakeholders, individually and collectively. We believe values in action create the culture we desire.

Excellence

We distinguish ourselves and the services we provide by our commitment to excellence, demonstrating our results in measurable ways.

Respect

We pay attention to others, listening carefully, and responding in ways that demonstrate our understanding and concern.

Leadership

We differentiate ourselves by our actions, earning respect from those we lead through innovation and performance.

Accountability

We are responsible for our words and our actions. We strive to fulfill all of our promises and to meet the expectations of those who trust us for their care.

Nurturing

We encourage growth and development for our staff, students, faculty and everyone we serve.

Generosity

We are giving people. We give our time, talent and resources to benefit others.

Ethics

We earn trust by holding ourselves to the highest standards of integrity and professional conduct.

Recognition

We value achievement and acknowledge and celebrate the accomplishments of our team and recognize the contributions of those who support our mission.

It is not by accident that our values form *E.R.L.A.N.G.E.R.* Our values represent who we are, what we do, and our aspirations for the future.

<u>Leadership</u>

Murphy Medical Center, Inc. (d/b/a Erlanger Western Carolina Hospital) is governed by a board of trustees representing the Erlanger Health System board of trustees and leadership.

EWCH Board of Trustees:

Sheila C. Boyington, Erlanger Board Chair Vicky Gregg, Board Secretary Jim Coleman, Jr., Erlanger CEO Lynn DeJaco, Erlanger CFO Rob Maloney, Erlanger COO

The hospital is also supported by a volunteer community advisory board made up of area residents and community leaders.

Section B: CHNA Process, Methods and Information

CHNA Leadership

Development of this 2022 Community Health Needs Assessment was led and supported by a team of Erlanger executives and clinicians. We express appreciation to the following team members.

2022 CHNA Committee:

Amanda Berry, BSN, RN, Quality and Data Analytics Coordinator, Erlanger Western Carolina Hospital

Amanda Dermott, MBA, Administrative Fellow

Andrea Goins, DO, Children's Hospital at Erlanger

Brandon Gibson (*), Strategic Financial Analyst

Brenda Reece, Executive Assistant, Erlanger Bledsoe Hospital

Charles R. Woods, MD, CEO, Chief Medical Officer, Children's Hospital at Erlanger

Julia Friedman, Pharmacy Manager, Erlanger East Hospital

Kelly Ann Woods (*), Chief Operating Officer, Community Health Center

Martin McKay, MSH, MBA, Senior Strategic Planner, CHNA Committee Chair

Monique Matheny, Accreditation Coordinator, Erlanger Western Carolina Hospital Shannon Lamoureux, Administrator Office Supervisor, Erlanger Western Carolina Hospital

Stephanie Boynton, CEO, Erlanger Western Carolina Hospital and Erlanger Bledsoe Hospital

Steve Burkett, Vice President, Planning, Strategy, Business Development, Teresa Bowleg, Director of Operations and Associate Chief Nursing Officer, Erlanger Western Carolina Hospital

Wynne Brady, Executive Assistant, Children's Hospital at Erlanger

(*) Note - Not employed as of August 31, 2022.

To provide research, facilitation, and coordination support for the CHNA effort, Erlanger contracted with The Johnson Group, a Chattanooga-based marketing agency with more than 35 years of experience in health care research and strategic planning, and with extensive community health needs assessment experience.

The staff members primarily responsible for working on the Erlanger project were:

Natalie Allen, Account Manager Tarah Grow, Project Specialist Nikole Lee Saylors, Research Support Bill Stiles, Director of Strategy and Research Erlanger also employed the services of Wilkins Research Services, a Chattanooga-based research and data collection company with 51 years of experience conducting community research for health care organizations and others. WRS is a member of the Market Research Association and is a Certified Women's Business Enterprise.

CHNA Process and Methods

Completion of the 2022 Erlanger Western Carolina Hospital CHNA followed an eightmonth process conducted under the supervision of the CHNA Committee.

The assessment process began with the appointment of a core work team that included representatives of the Erlanger Planning Department and The Johnson Group. The first steps were to review prior Erlanger CHNA documents, processes, and outcomes, and the recruitment of the CHNA committee. Martin McKay, a senior strategic planner for Erlanger served as the leader of the project and committee chair.

The committee reviewed and approved a tentative timeline for the CHNA process, and a proposed outline for the CHNA document.

Research

Members of The Johnson Group began the research effort, collecting current data from Erlanger and from secondary sources (listed below). The research team also drafted a research questionnaire to be fielded in the Erlanger service area. The research questionnaire (included in the appendix) was fielded by Wilkins Research Services among 700 adult residents of the Erlanger service area in April and May 2022.

A total of 67 participants were from the Erlanger Western Carolina service area.

The research included a wide and representative range of ages, counties, living conditions, income levels, races, ethnicities, and educational levels.

Results of the research were summarized and shared with members of the CHNA Committee and with participants in community town hall focus groups.

Community Input

Leaders at Erlanger Western Carolina Hospital and members of the CHNA committee identified and recruited a diverse mix of western Carolina community leaders to participate in a two-hour town hall focus group on May 23, 2022. A list of all participants can be found in the appendix of this document

Guided by facilitators from Erlanger and The Johnson Group, the town hall discussed a wide range of health care issues and then prioritized them through group voting. The results of all the town halls were compiled and reported to the CHNA Committee.

Finally, leaders at Erlanger Western Carolina and members of the CHNA work team evaluated all the research and community input and recommended priorities and next steps for 2023 – 2025. These are described in Section H of this document.

The priority recommendations were reviewed and endorsed by the CHNA committee. The final CHNA document was submitted to the Erlanger executive leadership team, and ultimately to the Erlanger Western Carolina Hospital Board of Trustees for review and approval.

<u>Information</u>

The following sources of information were used in the development of this CHNA:

- Erlanger Health System
- U.S. Census Bureau
- Centers for Disease Control
- National Institutes of Health
- Behavioral Risk Factor Surveillance System
- U.S. Bureau of Labor Statistics
- University of Wisconsin Population Health Institute County Health Rankings & Roadmaps/countyhealthrankings.org
- America's Health Rankings/americashealthrankings.org
- WNC Healthy Impact Community Health Survey

Section C: Update on 2019 Priorities

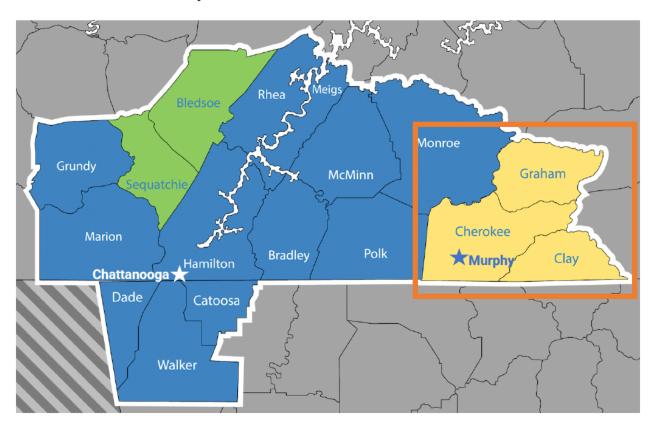
The Erlanger Western Carolina Hospital Community Health Needs Assessment for 2019 identified several areas of need and opportunities for community health improvement. Erlanger Health System and EWCH made significant progress, especially in expanding physician access. Leadership and staff at Erlanger worked to make progress in all the areas described below, but in some instances had to redirect attention and resources to more immediate priorities.

The global Coronavirus pandemic that hit the U.S. in early 2020 disrupted business as usual for every health care provider in the nation. As the Chattanooga region's largest health system, Erlanger rose to the challenge and treated more COVID-19 patients than other health systems in the region. Erlanger Western Carolina Hospital was also on the front lines, treating critically ill people throughout 2020 and 2021, and more still in 2022, was our greatest responsibility. Some of our 2019 plans were affected out of necessity.

2019 CHNA Priorities	Current Status
Behavioral Health	
Evaluate and explore a possible joint venture with a behavioral health care provider to bring expanded services to the EWCH service area.	The potential joint venture partner decided not to expand into western North Carolina.
	In 2022, EWCH entered a pilot project with East Carolina University to better serve and coordinate care for patients presenting in the EWCH emergency department who need behavioral care.
Increased Access to Care	
Recruit new, additional primary care and specialty care providers to the service area.	EWCH was highly successful adding primary care providers in Cherokee County. Also added was an orthopedic surgeon.
	The hospital also added a new primary care provider and an urgent care service in Hayesville.
Explore partnership with VA Community Care Network.	Deferred due to COVID-19 pandemic.
Explore feasibility of a pediatric mobile clinic to visit schools in the area.	The mobile clinic shut down due to COVID-19 pandemic.
Explore increased access to telehealth services for FQHCs, school clinics and others.	Cancelled due to COVID-19 pandemic.

Section D: Service Area Description

As the anchor of a regional health system, Erlanger Medical Center in Chattanooga, Tennessee serves a broad area that covers portions of four states. Erlanger Western Carolina Hospital serves a tightly defined portion of that service area, specifically the counties of Cherokee, Clay and Graham in western North Carolina.



As shown in the following chart, the total population and support for EWCH are weighted toward Cherokee County.

County	Service Area	2021 Population	Percent of Total Population	*2021 Discharges	Percent of Total Discharges
Cherokee	Primary	28,774	60.1%	972	72.7%
Clay	Primary	11,089	23.2%	181	13.5%
Graham	Secondary	8,030	16.7%	74	5.5%
Totals	•	47,893	100%	1,337	

Sources: US Census Bureau, July 2021; Erlanger Western Carolina Hospital discharge data.

<u>Age Profile</u>

Like most of the rural counties in the overall Erlanger service area, the counties in western North Carolina are older, with a median age well above the state average.

About one-fourth of residents in the service area are children or adolescents.

Service Area Age Profile

County	<u>Under 5</u> <u>Years</u>	<u>5 - 19 Years</u>	20 - 64 Years	65+ Years	Median Age
Cherokee	3.8%	14%	47.7%	29.7%	52.1
Clay	4.6%	14.5%	50.0%	31.1%	53.6
Graham	4.5%	18.3%	53.8%	23.5%	46.4
NC AVERAGE	5.8%	19.0%	58.9%	16.3%	38.9

Source: American Community Survey, 2020

Race/Ethnicity Profile

The EWCH primary service area is predominantly White. Graham County is quite different, with larger than average populations of Hispanic/Latino and American Indian residents. Western North Carolina is home to the Eastern Band of the Cherokee Indians.

Service Area Race/Ethnicity

County	Black & African American	American Indian & Alaska Native	<u>Asian</u>	<u>Hispanic</u> <u>or Latino</u>	White (Not Hispanic or Latino)	Two or More Races
Cherokee	1.7%	1.8%	0.7%	3.8%	90.3%	2.8%
Clay	0.9%	1.5%	0.3%	9.4%	88.3%	1.0%
Graham	1.9%	13.1%	0.8%	33.8%	5 0 .9%	2.0%
NC AVERAGE	22.3%	1.6%	3.4%	10.2%	61.9%	2.5%

Source: US Census Bureau, July 2021

According to the WNC Health Network's Healthy Impact Community Health Survey, 18% of Cherokee and Clay residents and 23% of Graham residents disagree that their communities are welcoming for people of all races and ethnicities. The average for all western North Carolina counties is 17%.

A small share of residents feel that they have been treated unfairly because of their race or ethnicity when getting medical care. According to the same WNC study, 2.4% of Cherokee County residents say they have been treated unfairly at least sometimes. For Graham County the rate rises to 5.7%. For Clay County the rate is less than one percent.

Educational Profile

It is not unusual for rural counties to have lower high school and college graduation rates. Compared to average graduation rates in North Carolina, most counties in the EWCH service area defy that profile.

Cherokee County and Clay County have high-school dropout rates that match or exceed statewide averages. Graham County, the most rural of the three counties, has higher dropout rates and lower college graduation rates.

Service Area Educational Profile (Persons 25+)

County	<u>Less Than High</u> <u>School Graduate</u> (Age 25 & Older)	High School Graduate (2016-2020)	<u>Bachelor's degree +</u> (2016-2020)
Cherokee	11.2%	88.8%	21.9%
Clay	11.9%	92.8%	19.9%
Graham	18.0%	85.3%	14.6%
NC AVERAGE	11.5%	88.5%	32.0%

Source: US Census Bureau, July 2021

Income Levels

Lower levels of education almost always translate to lower earning potential. Those without college degrees, tend to earn less than those who have college or post-graduate degrees. Those who decide not to finish high school tend to earn less than those with a high school diploma or equivalency.

Once again, as seen in the following table, the EWCH service area defies the norm. Cherokee County, which has the highest college graduation rates, has the lowest median household income. Clay County boasts far higher income levels and fewer people living below poverty levels.

Service Area Income Profile

County	Median Household Income	Per Capita Income Past 12 Months	Persons in Poverty
Cherokee	\$40,793	\$24,024	15.1%
Clay	\$63,686	\$29,990	9.1%
Graham	\$55,693	\$19,878	15.2%
NC AVERAGE	\$56,642	\$31,993	12.9%

Source: US Census Bureau, July 2021

Observations from Service Area Data

The Erlanger Western Carolina Hospital service area is sparsely populated mountain and farm land. Within its 983 square miles there are fewer than 50,000 people. The rural landscape makes access to health care services more difficult for many.

The average age of the population is older, making access to specialty services more important. However, one in four residents is under age 19, suggesting an emerging need for pediatrics and obstetric services.

Cherokee and Graham counties are lower in income, which translates to less access to health insurance and increased difficulties paying for health care services.

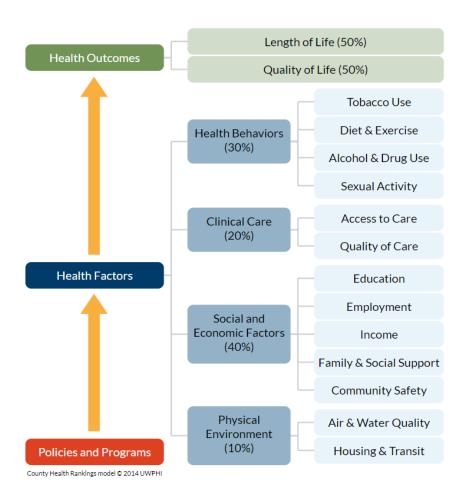
Section E: Community Health Status

Consistent with their similar rural characteristics, Cherokee County, Clay County and Graham County share similar health challenges.

Understanding community health and identifying factors that make health better or worse is complex and cannot be restricted to just a few indicators. According to The Population Health Institute at the University of Wisconsin:

"Health is more than what happens at the doctor's office. As illustrated in the model below, a wide range of factors influence how long and how well we live from education and income to what we eat and how we move to the quality of our housing and the safety of our neighborhoods. For some people, the essential elements for a healthy life are readily available; for others, the opportunities for healthy choices are significantly limited."

The Institute publishes county health rankings based on the following model.



As shown in the model, the factors that influence community health include the environment, social and economic factors (**Health Factors**), and the availability of clinical resources and personal health behaviors (**Health Outcomes**). Health Outcomes are an indicator of both **Quality of Life** and **Length of Life**.

County Health Rankings

The Population Health Institute at the University of Wisconsin measures and tracks community health factors by state and by county and publishes County Health Rankings and Roadmaps at the website www.countyhealthrankings.org. The database includes measures of Health Factors and Health Outcomes.

The report shows that among 100 North Carolina counties, Cherokee County ranks 73 for Health Outcomes and 56 for Health Factors. Graham County ranks 71 for Health Outcomes and 80 for Health Factors. Clay County ranks 38 for both measures.

2022 County Health Rankings for the 100 Ranked Counties in North Carolina

		Health	County		Heat.	Supply (County)		Health, Outcomes	Sounty		Health.
County	Health	Health	County	Heale	Healt	County	Heal	Healt	County	Healt	Healt.
Alamance	37	51	Cumberland	52	70	Johnston	20	27	Randolph	65	65
Alexander	39	55	Currituck	9	17	Jones	70	77	Richmond	93	94
Alleghany	63	78	Dare	4	10	Lee	56	53	Robeson	100	100
Anson	94	93	Davidson	54	59	Lenoir	90	82	Rockingham	81	73
Ashe	27	30	Davie	21	20	Lincoln	22	22	Rowan	61	62
Avery	32	39	Duplin	75	74	Macon	25	28	Rutherford	66	68
Beaufort	80	54	Durham	7	9	Madison	40	33	Sampson	62	76
Bertie	89	84	Edgecombe	99	98	Martin	88	72	Scotland	98	99
Bladen	85	89	Forsyth	33	29	McDowell	46	42	Stanly	53	46
Brunswick	26	24	Franklin	35	43	Mecklenburg	6	14	Stokes	43	58
Buncombe	19	8	Gaston	50	52	Mitchell	51	36	Surry	47	67
Burke	49	61	Gates	78	40	Montgomery	77	69	Swain	96	85
Cabarrus	10	12	Graham	71	80	Moore	17	6	Transylvania	18	16
Caldwell	68	63	Granville	34	34	Nash	64	66	Tyrrell	16	91
Camden	5	15	Greene	59	88	New Hanover	14	7	Union	3	5
Carteret	28	18	Guilford	31	31	Northampton	86	86	Vance	95	96
Caswell	76	79	Halifax	97	97	Onslow	23	26	Wake	1	2
Catawba	30	32	Harnett	36	50	Orange	2	1	Warren	92	95
Chatham	11	3	Haywood	42	25	Pamlico	79	37	Washington	87	90
Cherokee	73	56	Henderson	12	11	Pasquotank	55	57	Watauga	8	4
Chowan	67	64	Hertford	84	75	Pender	29	23	Wayne	74	60
Clay	38	38	Hoke	57	81	Perquimans	48	47	Wilkes	72	48
cieveiano	83	/1	Hyde	60	83	Person	58	44	Wilson	82	87
Columbus	91	92	Iredell	15	19	Pitt	44	35	Yadkin	69	49
Craven	45	21	Jackson	41	45	Polk	13	13	Yancey	24	41

Source: County Health Rankings and Roadmaps, University of Wisconsin Population Health Institute; 2020 North Carolina State Reports

The rankings underscore the challenges of providing services and influencing health behaviors in all communities, but particularly in rural areas.

The tables below show the incidence of key health issues by county. About a third of the adult population is obese. Over a quarter of adults continue to smoke despite years of warnings and support to help them stop. Excessive alcohol consumption and related driving deaths are an issue.

Service Area Health Issue by County 2022

	a l I			
	Cherokee	Clay	Graham	NC Average
Adult Obesity	33%	33%	35%	34%
Physical Inactivity	28%	27%	30%	26%
Adult Smoking	23%	21%	25%	19%
Excessive Drinking	18%	19%	18%	17%
Alcohol-Impaired Driving Deaths	29%	10%	0%	26%
Teen Births per 1,000 females	29	27	41	21
Sexually Transmitted Infections Per 100,000	160.8	240.4	201.4	669.9

Source: County Health Rankings and Roadmaps, www.countyhealthrankings.org/2022

Teenage birth rates tend to be higher in rural counties, and that is the case here, and especially in Graham County. The incidence of STIs is far lower in the area than state averages.

Disabilities and Access to Health Insurance

The Centers for Disease Control (CDC) estimates that one in four Americans is disabled. However, the age group with the highest levels of disability is the over-65 group, most of whom are insured through Medicare.

Disability contributes to several serious health ramifications including diminished mobility, obesity, diabetes, heart disease and ability to provide for oneself, including the ability to maintain health insurance.

Based on U.S. Census Bureau reporting, 8.5% of residents under age 65 in Cherokee County suffers from some type of disability. The rate for Clay County is lower at 7.9%, but higher in Graham County, at 10%. These rates are consistent with the western North Carolina average of 8.9%.

According to the CDC, 11.5% of Americans under age 65 lack health insurance. The rate is significantly higher in the EWCH service area.

Service Area Profile by Key Health Factors (Persons Under 65)

County	Persons with a Disability (2016-2020)	Persons Without Health Insurance (2016-2020)
Cherokee	8.5%	17%
Clay	7.9%	17%
Graham	10.0%	19%
WNC AVERAGE	8.9%	13%

Source: US Census Bureau, July 2021; WNC Health Network

Again, the rates of poverty and lower income found in the most rural counties are connected to disabilities and lack of health insurance. Graham County has the highest disability rates and the lowest levels of health insurance in the service area.

Mammograms & Flu Vaccinations

Data show that adults in the EWCH service area are less likely to access common health screening and prevention services like mammography and flu vaccinations. Both access these services less often than statewide averages.

Use of Mammography Screening and Flu Vaccine by County 2022

	Cherokee	Clay	Graham	NC Average
Mammography	40%	42%	29%	48%
Flu Vaccinations	46%	46%	39%	53%

Source: County Health Rankings and Roadmaps, www.countyhealthrankings.org/2022

Physical and Mental Health

According to the Population Health Institute at the University of Wisconsin, adults in the EWCH service area experience about four to five days a month when they are physically not well, mentally not well, or both.

As seen in the following table, on average, adults living in Graham County are most likely to report their health is only fair or poor. All three counties report lower rates of health than the statewide average.

Service Area Health Issue by County 2022

	Cherokee	Clay	Graham	NC Average
Poor or Fair Health	20%	19%	23%	18%
Poor Physical Health Days in Past 30 Days	4.3	4.1	4.7	3.7
Poor Mental Health Days in Past 30 Days	5.0	4.8	5.2	4.4

Source: County Health Rankings and Roadmaps, www.countyhealthrankings.org/2022

Access To Care

Providers of care available to treat those with physical, dental, and mental issues are concentrated in urban areas and are usually less accessible in rural areas. That is true in the Erlanger Western Carolina service area.

The table below shows the estimated ratio of persons in the county for every provider practicing in the county.

Ratio of Providers to Population by County 2022

	Cherokee	Clay	Graham	NC Average
Primary Care Providers	2,380/1	1,870/1	4,220/1	1,400/1
Mental Health Providers	710/1	680/1	1,060/1	360/1
Dentists	3,230/1	1,440/1	4,240/1	1,710/1

Source: County Health Rankings and Roadmaps, www.countyhealthrankings.org/2022

Despite some success recruiting new providers to the area, the ratio of population to primary care provider in Cherokee County remains 73% higher than the state average.

For mental health access, all counties lag statewide averages, and access is most acute in Graham County.

The need for dentists is more acute in Cherokee County and Graham County. Dental care is most accessible in Clay County where the access ratio is better than the state average.

Observations from Community Health Research

Counties and communities within the Erlanger Western Carolina service area provide many attractive advantages in terms of quality of life. Yet they also struggle with many of the health issues that challenge communities across the country.

Our research identifies several key health needs that are important to the EWCH area. These needs include:

- Improved access to primary care. The high provider to population ratios shows
 this is an ongoing need in the region. While some who choose to live in rural
 areas will always have to travel for many health care services, including primary
 care, efforts to increase the provider supply and reduce travel times seems
 important.
- Improved access to mental health care. The shortage of providers in some areas is quite evident. The supply of qualified mental health professionals is limited.

Section F: Erlanger Community Health Research

To better understand potential health issues in the community, Erlanger conducted a primary research study of 700 adults from across the entire Erlanger service area, including Western North Carolina. The research was collected online using a detailed questionnaire that focused on health needs, health habits, access to care, and other meaningful health topics.

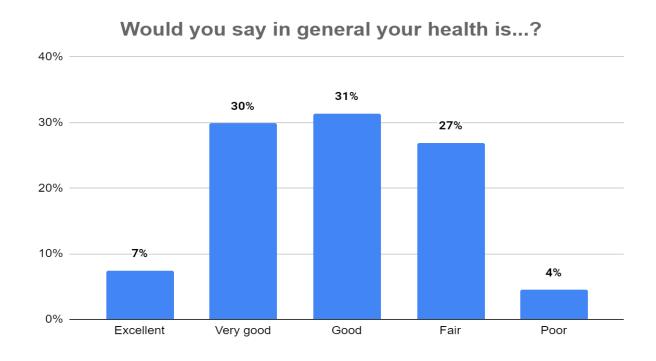
With a sample of 700 randomly selected participants, Erlanger's research has a confidence interval of 3.7% at the 95% confidence level. Simply put, this means, for a 50/50 response, interpretation can be 95% confident that the research result falls between 46.3 and 53.7. For responses where there is stronger agreement than 50/50, the confidence interval gets narrower, meaning levels of confidence grow stronger.

The large sample also allows some evaluation within the EWCH service area. Data was collected from 67 individuals from Cherokee, Clay and Graham counties, and some key results are reported here. Though the western Carolina sample size is smaller, the results are consistent with neighboring rural counties and secondary research, which increases confidence in the results.

A copy of the questionnaire is in the appendix of this document.

Overall Health

Most adults in the EWCH service area feel good about their overall health. At least 68% said their health is good, very good or excellent. Only 4% said their health is poor.



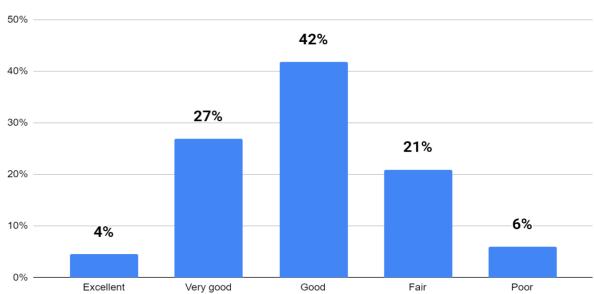
Age and income have less to do with feelings of overall health than one might think. Those under the age of 35 were almost as likely to report their health as fair or poor as those over age 75. Those who earn more than \$100,000 were as likely to report fair or poor health as those earning less than \$25,000.

The implication seems to be that general feelings of health are tied to other factors, such as health practices and lifestyle.

Community Health

Residents in the EWCH service area are more positive about the health of their communities, with only 73% saying the general health of the community is excellent, very good or good. Just over a quarter of respondents said the health of their community is only fair or poor.



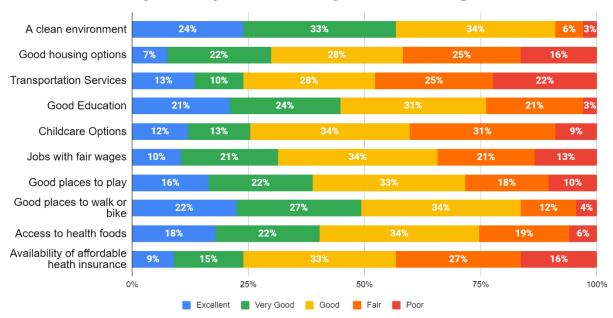


Community Health Ratings

Participants in the research were asked to rate their community in 10 areas that can impact health and quality of living. As can be seen in the chart below, communities in the western Carolina area rate most favorably for providing a clean environment and good places to walk or bike.

The areas where Cherokee, Clay and Graham rate lowest are for transportation services and for the availability of affordable health insurance.

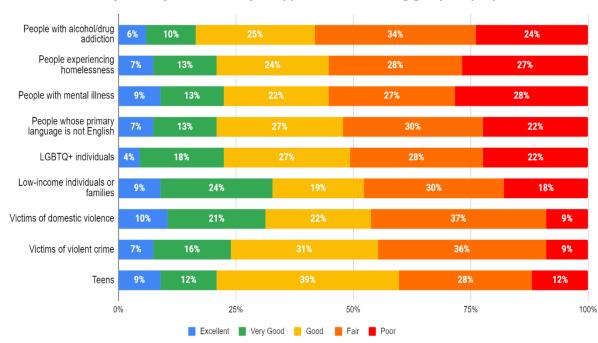




Quality of Support Services

Participants were asked to rate the quality of support services available to their communities. The following chart shows the services that Cherokee, Clay, and Graham residents found most lacking.

How do you rate your community's support for the following groups of people?

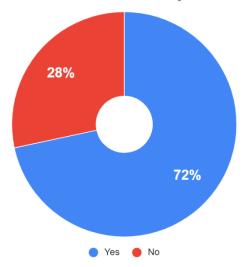


The top five most lacking in the service area appear to be support for those dealing with alcohol and drug addictions, people experiencing homelessness, those with mental illnesses, people whose primary language is not English, and those in the LGBTQ+ community.

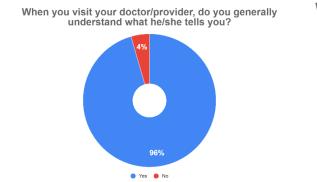
Access to Care

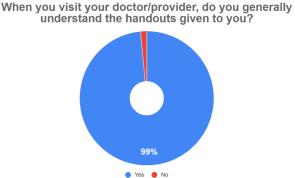
Most area residents said they have access to a primary care provider. Income is a barrier to access, however. Among those who earn less than \$25,000, 63% said they have a personal doctor or health care provider. Among those earning from \$25,000 to \$50,000, 67% have a personal provider.

Do you have one person you think of as your personal doctor or health care provider?



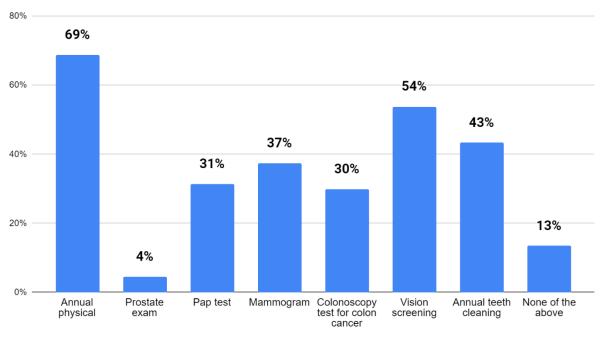
When adults go to the doctor, they generally understand what their provider tells them and the educational handouts the doctor provides. The few who do not always understand tend to be those who are under age 35.





The following chart shows access to health care services that many people consider to be routine. The research shows that most people are getting an annual physical, but for other services utilization is lower than it could be. About a third of all women said a mammogram and pap test are part of their routine.

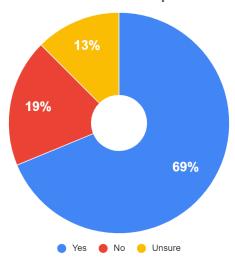




Children's Access to Care

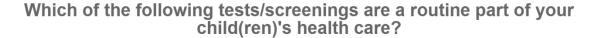
Access to primary care is slightly lower for children in the service area. Overall, 69% said their child or children have a personal doctor. Among the lowest income families, 67% said their children have a personal doctor or health care provider.

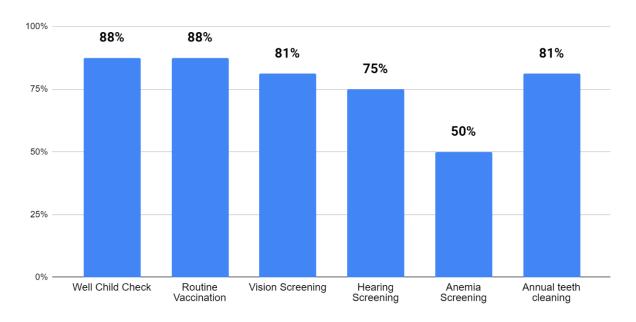
Do you have one person you think of as your child(ren)'s personal doctor or health care provider?



Even if they do not have a regular, personal doctor for their children, western Carolina parents seem to be getting their children to basic healthcare services. Among parents who responded to the research, 88% said their child/children receive an annual well-child checkup and vaccinations.

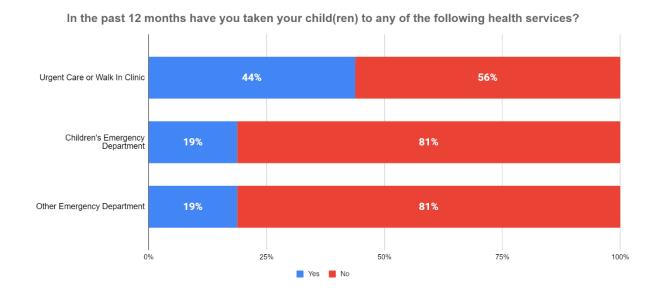
Similar percentages report getting vision screening and teeth cleanings. These rates of care are similar to what was reported in more urban sections of the larger Erlanger service area.





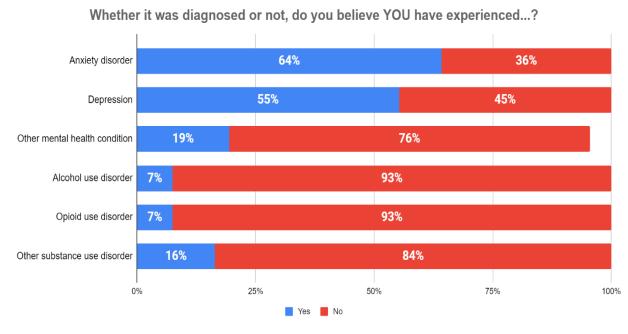
In addition to accessing a personal doctor and routine care, almost half (44%) of the parents in the research said they have taken a child to an urgent care center or walk-in clinic.

Only 19% said they took their child to a children's hospital emergency department or other hospital emergency department.

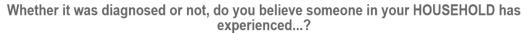


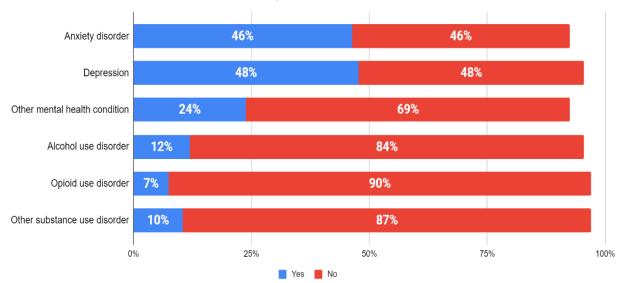
Mental Health

Over half of participants in the research feel they have struggled with some mental health issues at some point in the past. Although there might not be an official diagnosis, 64% said they believe they have had an anxiety disorder and 55% said they have experienced depression. Between 7% and 16% of respondents said they have had some type of substance misuse disorder.



A similar profile emerges when participants were asked about others in their households. Participants were somewhat more likely to report that another person in the household has a problem with abusing alcohol.

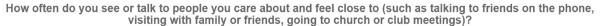


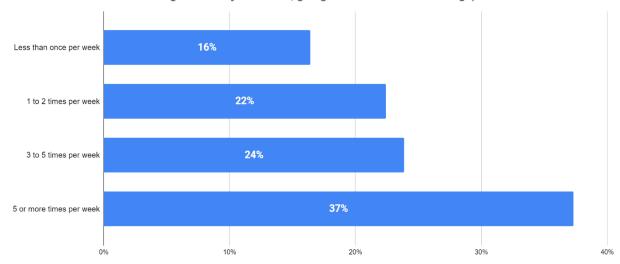


Most adults (53%) in the EWCH service area said they believe they could obtain mental health services if they really needed them, but they are a little less sure about their ability to pay for those services. When asked how confident they are they could pay for services, only 26% agreed they could.

Isolation

Being isolated or lacking contact with others can contribute to mental health issues. In the Erlanger Western Carolina service area, most adults said they have contact with others at least one or two times per week. The 16% who said they have contact with family or friends less than once per week are most likely to reside in Clay County.

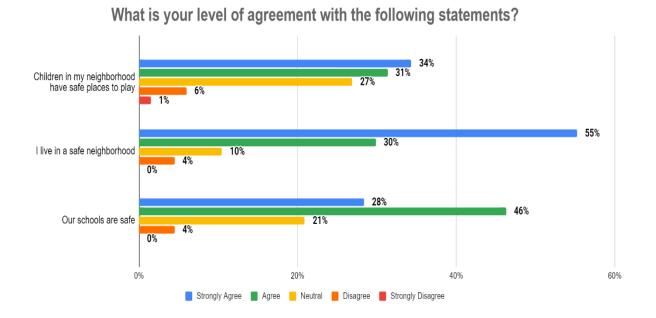




Personal Safety

When asked if they feel physically and emotionally safe where they live, most said they do. Only 7% expressed any level of disagreement that their neighborhood is safe.

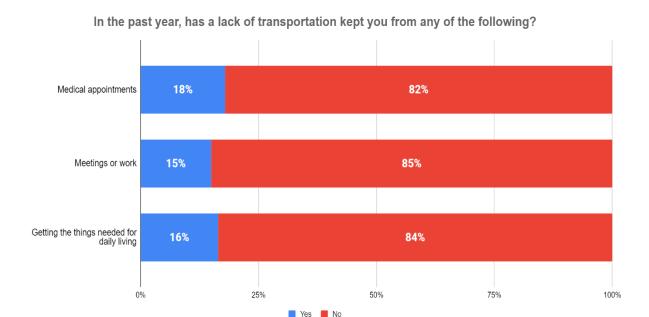
Most residents also agree that their schools and neighborhoods are safe. Further, 73% express confidence in their fire, police, and emergency services. Only 10% or less expressed any level of disagreement about fire, police, and emergency services.



Transportation

Getting where they need to go can be a problem in rural areas. Overall, 18% said that a lack of transportation kept them from a medical appointment in the past year. Similar percentages said a lack of transportation caused them to miss work or prevented them from getting basic needs for daily living.

Transportation problems seem to be more acute among younger, lower-income men. Transportation seems to be more of an issue in Cherokee County than in other counties in the service area.



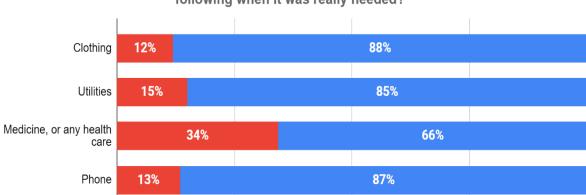
Access To Basic Services

Food

0%

16%

Income levels and the ability to afford basic services like food, housing and medicine are a concern to many in the service area. The research shows that between 12% and 34% of families in the service area have struggled to fulfill basic needs from time to time. Getting access to medicine or health care is the most acute issue.



In the past year, have you or any family member you live with been unable to get any of the following when it was really needed?

Among those earning less than \$25,000 annually, 38% said they have been unable to get medicine or health care when needed at least once in the past year. Within this same

Yes No

25%

84%

75%

50%

100%

lower income group, 18% have also been unable to get food at least one time in the past year.

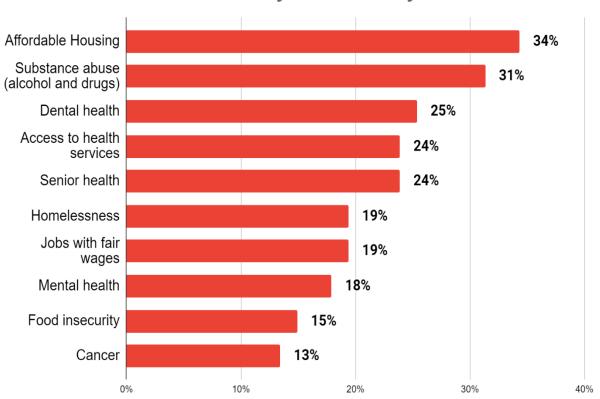
Top 10 Priorities

Near the end of the research, participants were asked to choose their top priorities that they feel should be addressed in the community. They could choose from a long list or add their own priorities. The chart on the following page shows the top 10 issues identified by research participants from EWCH service area.

Not all of the top concerns fall within the scope of Erlanger's historical mission. For example, housing and homelessness may be the top issues facing the community, but addressing them would require a fundamental shift in Erlanger's health care mission.

However, substance abuse and access to health service are clearly within the scope of Erlanger's mission.

What are the the TOP 10 PRIORITIES that you believe should be addressed in your community?



Observations from Erlanger Primary Research

Erlanger's primary research affirms what has been observed through the secondary research, that rural communities struggle more with access to essential services, including health care. Many of those who live in the Erlanger Western Carolina Hospital service area fit within this pattern.

The profile of rural residents displays lower levels of education, and therefore lower levels of income. Less income translates to less access to health insurance and some health care services. It also leads to increased difficulties with transportation, food access, clothing, and utilities.

Residents in the Erlanger Western Carolina service area observe or experience all these problems and rank access to substance abuse services and health care services among their top priorities.

One area where those struggling are the majority appears to be the area of anxiety and depression. Over half of all respondents feel they have experienced these problems, and a similar share see others in their families dealing with these issues as well.

Section G: Community Input/Town Hall Results

Representatives of the community were invited to participate in a collaborative discussion group, or town hall, focused on the Erlanger Western Carolina service area and its health care priorities. The meeting was held in the hospital cafeteria and lasted two hours.

A roster of all town hall participants can be found in the appendix.

The group began by identifying major health and quality of life issues in the area, and people and groups that are most at-risk related to each of the issues. The list of at-risk people and groups is listed here in alphabetical order:

- Children
- Disabled persons
- Elderly
- Foster care children
- Homeless persons
- Pregnant females
- Substance-abusing persons
- Uninsured families/people
- Veterans
- Youth

Everyone in the group was encouraged to discuss and add detail to a wide range of concerns and ideas. After discussion, all concerns and ideas were grouped into seven major issues as described below. Then those in the group were asked to identify their top priorities using a facilitated group voting process.

The top five issues identified by the group were:

- 1. Mental health access, particularly inpatient services and care coordination that encourages those in need to stick with their treatment.
- 2. Increased access to specialty care, particularly labor and delivery care.
- 3. Additional primary care services.
- 4. Increased services for the elderly, such as geri-psychiatric services, skilled nursing and assisted living services.
- 5. Expanded access to substance abuse treatment.

Here is a summary of every issue identified on the town hall participants ranked in order based on the number of votes received.

Erlanger Western Carolina Hospital Town Hall Results

Issue: Mental Health and Pediatric Mental Health (46 Total Votes)

Ideas/Issues	Votes
Provide inpatient mental health resources in this region	15
Stigma that prevents people from seeking care and sticking to it	13
Expand the number of mental health providers	10
More resources for VA patients	7
Education for parents and families for pediatric mental health issues	1

Issue: Access to Specialized Care (37 Total Votes)

Ideas/Issues	Votes
Labor and delivery care for everyone, including those on Medicaid	25
Recruit gynecology	9
Recruit and retain neurology, cardiology, and other specialists	3

Issue: Primary Care (36 Total Votes)

Ideas/Issues	Votes
Integrated primary care	14
Recruit/Retention of primary care providers	11
Establish training program for rural PCP's	6
Transportation to providers/expansion	5

Issue: Elderly Care (36 Total Votes)

Ideas/Issues	Votes
Establish geri-psych inpatient and outpatient services in the area	16
Assisted living and transitional housing	12
Community education for Dementia and aging issues	6
Residential Dementia program	2
EHS to monitor regulatory issues for elderly care	0

Issue: Substance Abuse, Meth, and Heroin (35 Total Votes)

Ideas/Issues	Votes
Increase addiction-trained mental health and primary care providers	12
Alternate sentencing for drug charges	9
Expand peer counseling in Cherokee County	8
Support groups for users and families	6

Issue: Affordable Daycare (19 Total Votes)

Ideas/Issues	Votes
Encourage more work-related childcare	14
Address lack of public/affordable daycare	5
Provide daycare at EWCH	0

Issue: Obesity (17 Total Votes)

Ideas/Issues	Votes
Access to extracurricular fitness activities	15
Outreach and education for the community	2
Education for school (like fire safety)	0
Establish weight management program	0
Create fitness facility in Graham County	0

Issue: Housing (12 Total Votes)

Ideas/Issues	Votes
Address homeless who come to Murphy from other cities	11
Education on available housing resources	1
Lack of housing for healthcare providers	0
Measure/address teen homelessness	0

Section H: Community Health Priorities 2023-2025

Based on the entire CHNA process–research, community input, and guidance from the CHNA committee–Erlanger Western Carolina Hospital has identified the following priorities that the hospital and the Erlanger Health System are committed to pursue in the three years ahead.

Identifying these priorities was based on four main criteria:

- 1. Need. There must be a clear, documented need that is supported by data, research, and community input.
- 2. Impact. Pursuit of the priority must have a meaningful impact on a significant group of people, especially those people who are defined as more at-risk in the community.
- 3. Feasibility. Our priorities must be limited to areas where Erlanger can act and make a difference.
- Mission. Everything we do must be consistent with Erlanger's mission, vision, and values.

The following priorities pass the test.

Expand Access to Behavioral Health Care

Mental health issues, substance abuse, dysfunctional families and adverse childhood behaviors were identified in research and in the town halls as the issue of greatest importance to the Erlanger Western Carolina service area. As a result, we propose to:

- Expand behavioral health treatment resources in the area.
- Evaluate through the University of Tennessee College of Medicine and, if feasible, pursue the launch of a new Graduate Medical Residency program in psychiatry and behavioral health. It should be noted that UTCOM behavioral medicine residents will not be able to train in North Carolina. However, an increase in regional providers will ultimately benefit the EWCH service area.

It should be noted that creating a residency program is not a quick process, and involves many participants at the table, and may take several years to bring about.

Expand Access to Primary Care and Specialty Care

Despite the successes in recent years recruiting new primary care to the Western Carolina service area, overall access remains an issue. The areas with the greatest need include, but are not limited to, rural communities like those in Cherokee, Clay and Graham, where it can be difficult to provide primary care without the supporting resources of an organization like Erlanger.

There is also need to expand the availability of specialty services available to patients the Erlanger Western Carolina service area, especially women's services.

The health system will work to define and update provider recruitment needs and opportunities across the service area.

Care Coordination

Every major health system, and especially those that serve as the public, safety-net providers like Erlanger and Erlanger Western Carolina, cares for patients who present for services far more often than average. Those who come to the emergency department frequently and those who are admitted to the hospital multiple times per year for the same chronic conditions consume a great deal of resources and yet do not really get better or improve their quality of life.

The town hall focus groups identified care coordination for such patients as a priority. The intent is to improve patient care and outcomes, and at the same time potentially reduce expenses by reducing avoidable readmissions and emergency department visits.

In response to this perceived need, Erlanger will appoint a team to study best practices of similar health systems in the nation and make recommendations for a possible pilot project to test the impact of those practices at Erlanger Western Carolina Hospital.

In addition, Erlanger will evaluate the potential for partnering with local organizations such as Blue Cross Blue Shield of Tennessee and United Way 211, entities that have developed social services that complement and support community care coordination.

To support better care coordination for children, the leadership of Children's Hospital at Erlanger will evaluate the feasibility, purpose and desired outcomes for a children's healthcare summit, an opportunity to bring together all care providers, social services organizations and schools to focus on the particular needs and opportunities to improve community care and the overall health of children, especially those in at-risk situations.

Healthcare Literacy

The assessment indicates that some people have difficulty understanding, navigating or trusting the health care system. Those lacking in health care understanding or health literacy are often among the most at risk in the community, either because of education, income level, age, ethnicity, or other factors.

A lack of healthcare literacy can lead to some serious complications, such as:

- Lack of health insurance
- Failure or inability to follow after-care instructions
- Lower vaccination rates
- Less access to preventive services
- Care avoidance
- Poor health outcomes
- Avoidable hospital readmissions
- Increased illness
- Early death

Erlanger and Erlanger Western Carolina Hospital propose to engage in community partnerships with potential educational partners like the University of Tennessee at Chattanooga, the University of Tennessee College of Medicine, Tri-County Community College, area public schools, and public health departments to evaluate opportunities for increased health literacy education for the community.

Appendix

ERLANGER HEALTH SYSTEM

Community Health Needs Assessment

Community Survey Questionnaire/Final

The Erlanger Health System is conducting a Community Health Needs Assessment. As part of our study, we are collecting information from a variety of people across our community. We invite you to share your thoughts on issues facing our community by completing the following survey.

We will use this information to better understand the greatest health needs in our community. Your participation is confidential. None of your responses will be used to identify you in any way.

Thank you for helping in this important effort.

[Begin Survey]

1. What is your county of residence?

Hamilton

Bradley

Grundy

Marion

McMinn

Meigs

Polk

Rhea

Sequatchie

Bledsoe

Catoosa, GA

Walker, GA

Dade, GA

Cherokee, NC

Clay, NC

Graham, NC

2. What is your zip code?

[Enter zip code]

3. Would you say in general your health is:

Poor Fair Good Very Good Excellent

Defining Community: Think of "community" as the place where you spend the most time living, working, playing and worshiping.

4. Would you say in general the health of your community is:

Poor Fair Good Very Good Excellent

5. Using a scale of 1 to 5 where 5 means excellent and 1 means poor, how do you rate your community in the following areas?

A clean environment
Good housing options
Transportation services
Good education
Childcare options
Jobs with fair wages
Good places to play
Good places to walk or bike

Access to healthy foods

Availability of affordable health insurance

6. Using a scale of 1 to 5 where 5 means excellent and 1 means poor, how do you rate your community's support for the following groups of people?

Aging adults

Children

Families

Single parents

Teens

Racial and ethnic persons

Veterans

People whose primary language is not English

Low-income individuals or families

LGBTQ+ individuals

People with disabilities

People experiencing homelessness

People with mental illness

People with alcohol/drug addiction

Victims of domestic violence

Victims of violent crime (such as assault, rape)

People with chronic disease**

**Chronic disease is defined as sickness lasting 3 months or longer, that cannot be cured by medicine. Examples include asthma, diabetes, chronic obstructive pulmonary disease (COPD).

7. Using a scale of 1 to 5 where 5 means excellent and 1 means poor, rate the quality of support services available in the community to meet the following needs:

Alcohol and drug abuse

Asthma

Cancer

COPD

COVID-19 Prevention and Treatment

Dental health
Diabetes
Food support/Nutrition
Heart disease and
High Blood Pressure/Hypertension
Stroke
Infant care
Mental health
Obesity/Overweight Adults
Obesity/Overweight Children
Prenatal care
Sexually transmitted diseases/STDs
Tobacco use/Smoking cessation
Violence/Abuse

8. Do you have one person you think of as your personal doctor or health care provider?

Yes No Unsure

9. When you visit your doctor/provider, do you generally understand what he/she tells you?

Yes No Unsure

10. When you visit your doctor/provider, do you generally understand the handouts given to you?

Yes No Unsure

11. Which of the following test/screenings is a routine part of your personal health care?

Check all that apply:

Annual physical
Prostate exam (men only)
Pap test (women only)
Mammogram (women only)
Colonoscopy test for colon cancer
Vision screening
Annual teeth cleaning
None of the above

12. Now, thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

Enter number of days:	
None	
Don't know/Not sure	

13. Now, thinking about your mental health, which includes stress, depre with emotions, for how many of the past 30 days was your mental health				obl	ems
Enter number of days: None Don't know/Not sure					
14. Whether it was diagnosed or not, do you believe YOU have experience	ed	?			
Anxiety disorder Depression Other mental health condition Alcohol use disorder Opioid use disorder Other substance use disorder	Yes Yes Yes Yes Yes		No No No No No No		DK DK DK DK DK DK
15. Whether it was diagnosed or not, do you believe SOMEONE IN YOUR Resperienced ?	HOUS	EΗ	OLD	has	S
Anxiety disorder Depression Other mental health condition Alcohol use disorder Opioid use disorder Other substance use disorder	Yes Yes Yes Yes Yes Yes		No No No No No		DK DK DK DK DK DK
What is your level of agreement with the following statement?					
16. I could pay for treatment of a medical problem or illness.	SA	A	N	D	SD
17. I could pay for treatment of a mental health illness or substance abuse disorder.	SA	A	N	D	SD
18. In the past year, have you or any family member you live with been un following when it was really needed?	able t	to g	jet a	ny c	of the
Clothing Utilities Medicine, or any health care Phone Food Other [Describe]	Yes Yes Yes Yes Yes		No No No No No		DK DK DK DK DK
19. In the past year, has a lack of transportation kept you from any of the	follo	win	g?		
Medical appointments Meetings or work Getting the things needed for daily living	Yes Yes Yes		No No No		DK DK DK

20. How often do you see or talk to people you care about and feel close to (such as talking to friends on the phone, visiting with family or friends, going to church or club meetings).

Less than once per week 1 to 2 times per week

3 to 5 times per week

5 or more times per week

21. Do you feel physically and emotionally safe where you currently live?

Yes

No

Unsure

22. What is your level of agreement with the following statements?

I live in a safe neighborhood	SA	Α	N	D	SD
Children in my neighborhood have safe places to play	SA	A	N	D	SD
Our schools are safe	SA	Α	N	D	SD
Our streets have good lighting	SA	Α	N	D	SD
Our sidewalks are safe	SA	Α	N	D	SD
Our public transportation is safe	SA	Α	N	D	SD
We have good fire/emergency/safety services	SA	Α	N	D	SD

23. Do you have children under the age of 18 living in your home?

[If so, ask the following]

24. Do you have one person you think of as your child(ren)'s personal doctor or health care provider?

Yes

No

Unsure

25. Which of the following tests/screenings are a routine part of your child(ren)'s health care?

[Check all that apply]

Well Child Check Routine Vaccination Vision Screening

Hearing Screening

Anemia Screening

Annual teeth cleaning

26. In the past 12 months have you taken your child(ren) to any of the following health services?

26.1 Urgent Care or Walk In Clinic

Yes

No

Unsure

26.2 Children's Emergency Department

Yes

No

Unsure

26.3 Other Emergency Department

Yes

No

Unsure

27. Choose your TOP 5 PRIORITIES that you believe should be addressed in your community. If you have priorities not on the list, you may add them where indicated.

Choose up to 5, including those you add

[Do not read list]

Access to social services (such as SNAP, WIC, etc.)

Access to health services

Cancer

Child abuse

Community violence (assault, rape, robbery, etc.)

COVID-19 prevention

Crime

Dental health

Diabetes

Domestic abuse

Environment (air, water, litter)

Food insecurity

Health education

Health screenings/programs

Heart disease/Stroke

Homelessness

Affordable Housing

Infant Health

Jobs with fair wages

LGBTQ+ Issues

Mental health

Obesity/Chronic disease related to obesity

People whose primary language is not English

People with disabilities

Places to play

Race relations/Ethnic relations Teen pregnancy Tobacco use Transportation services Safety Senior health Sexually transmitted diseases (including HIV/AIDS) Substance abuse (alcohol and drugs) Other Priorities. [Please specify

Demographics

Please help us understand and apply our research by answering the following questions. Remember, your responses will NOT be used to identify you in any way.

1

D1. How do you identify your gender?

Female

Male

Non-Binary

Prefer to self-describe/Prefer not to answer

D2. Which of the following groups represents your age?

18 to 24

25 to 39

40 to 54

55 to 64

65 to 74

75 and older

Prefer not to answer

D3. Choose the group that best represents you.

American Indian or Alaskan Native

Asian

White, Non-Hispanic

Black or African American

Native Hawaiian or Other Pacific Islander

White

Prefer to self-describe [1

Prefer not to answer

D4. Are you Hispanic, Latino or Spanish origin?

Yes

No

Unsure

Refused

D5. What is your living situation?

Check all that apply

I own my home

I rent my home

I live with family or friends

I live in temporary housing (such as a shelter, hotel, motel, transitional housing)

I am homeless

Other/Prefer not to answer

D6. Are you . . . ?

Check all that apply

Married

Single

Divorced/Separated

Widowed

Partnered

Other/Prefer not to answer

D7. Which of the following best describes you?

Working full time

Working part time

Not working, looking for work

Not working, not looking for work

Disabled, not able to work

Retired

A student, working

A student, not working

D8. How do you usually pay for health services?

Private insurance (through an employer or personal purchase)

1

Medicare

Medicaid

Military or Veterans Benefits

Pay Cash/Uninsured

Other [

D9. What is your highest grade or year of school you completed?

Less than high school diploma

High school diploma or GED

Technical school certificate/graduate

Some college, no degree

Two-year college degree

Four-year college degree

Post-graduate study/degree

Professional degree

D10. Approximately how much is your total combined household income?

\$0 to \$24,999 \$25,000 to \$49,999 \$50,000 to \$74,999 \$75,000 to \$99,999 \$100,000 or more

D11. Do you work providing health care or medical care?

D11.A. [If yes]

Do you work for the Erlanger Health System?

Please use the space below to share any ideas to help Erlanger Health System meet the needs of the community.

[Insert text box]

Thank you!

Town Hall Participants

Erlanger Western Carolina - Wednesday, June 1, 2022

Tom O'Brien

Todd Goins

David Badger

Sara Wilson

Beth Booth

Tim Radford

Jessica Orton/Mariano

Robin Caldwell

Danny Clayton

Doug Vuick

Sam Davis

Paul Worley

Jenni Irwin

Latesha Wiggins

Kristen Shuler

Diana Bowleg-Swan

Monique Matheny

Amanda Berry

Teresa Bowleg

Wesley Phillips

Martin McKay

Brandon Gibson

Bill Stiles