NORTH CAROLINA
RURAL HEALTH TRANSFORMATION

2026

Regional Needs Assessment

IMPACT HEALTH

Acknowledgments

This Regional Needs Assessment reflects the work of many people and organizations across western North Carolina. Impact Health serves as the Hub Lead for Region 1 of the North Carolina Rural Health Transformation Program and guided the direction, scope, and review of this assessment.

WNC Health Network served as Impact Health's contracted regional assessment partner and led the assessment process and development of this report, including data collection and synthesis, analysis, stakeholder engagement and sensemaking, report writing, and coordination of report design. This work was carried out by WNC Health Network staff Meron Abebe, Erin Braasch, Jo Bradley, and Emily Kujawa, with additional facilitation, research, analysis, writing support and graphic design from Marian Arledge, Patrick Baron, Diana McCall, Megan O'Halloran, Emma Olson, Annika Pfaender, and Jennifer Runkle.

Mountain Area Health Education Center (MAHEC) contributed workforce, behavioral health, and perinatal health data and analysis, including regional workforce data briefs and the Rural Healthcare Workforce Needs Assessment survey report.

East Tennessee State University provided in-kind support through its review of county Community Health Assessments and Community Health Improvement Plans from across the region, as well as contracted support to develop select data, figures, and written content for the report.

We are especially grateful to the community members, providers, and organizations who participated in the sensemaking sessions held across the region in August 2026. They gave a full day of their time, shared what they know about the communities they serve, and spoke candidly about where gaps remain. Their contributions shape what follows, and this assessment is stronger for them. We also thank the organizations that hosted these sessions in their communities, the local businesses that supported them, and Cenzontle, who is translating session materials so this work can reach more of the region's communities.

We also thank the county health departments, hospitals, community-based organizations, and state and local partners whose existing assessments, data, and published work made this assessment possible in the time available.

This report is a starting point. The relationships built through this process will continue to guide the region's work as it moves into action planning.

Stevens Amendment Disclosure: This NC Region 1 Regional Needs Assessment 2026 is supported by the Centers for Medicare & Medicaid Services (CMS) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $213,008,356.47 with 100 percent funded by CMS/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CMS/HHS, or the U.S. Government

NORTH CAROLINA RURAL HEALTH TRANSFORMATION

IMPACT HEALTH

Table of Contents

1 INTRODUCTION 4

2 METHODOLOGY 8

3 REGIONAL PROFILE 15

4 PHYSICAL HEALTH DATA SUMMARIES 26

- PERINATAL HEALTH 27
- FOOD IS MEDICINE 38
- CHRONIC DISEASE 51

5 BEHAVIORAL HEALTH 63

6 WORKFORCE & CARE TEAMS 81

7 FISCAL SUSTAINABILITY OF RURAL HEALTH PROVIDERS 95

CHAPTER 1

INTRODUCTION

Introduction

This Regional Needs Assessment (RNA) was developed as part of Region 1's participation in the NC Rural Health Transformation Program (NCRHTP). Impact Health contracted WNC Health Network to lead the regional assessment process, including data collection and synthesis, analysis, stakeholder engagement, and development of this report. This assessment fulfills the requirements outlined in Sections IV.B.4 and IV.C of the NC ROOTS Hub Scope of Work, providing a comprehensive, data-informed analysis of physical and behavioral health, as well as health-related social needs, across the region's 19 counties and the Qualla Boundary. Serving as a foundation for ongoing community validation, the RNA is organized around core topic areas — perinatal health, chronic disease, food access, behavioral health, workforce, and rural health provider sustainability (encompassing both hospital and primary care sustainability) — summarizing current regional data, key trends, and population disparities while providing clear references to detailed primary sources.


Perinatal Health


Chronic Disease


Food is Medicine


Workforce & Care Teams

While this report assesses all 19 counties and the Qualla Boundary, geographic coverage varies naturally by specific data source. All state secondary data and local CHA reviews cover all 19 counties and the Qualla Boundary, whereas the WNC Community Health Survey covers 18 counties (excluding Caldwell), and the WNC Online Key Informant Survey (OKIS) covers 17 counties (excluding Burke and Caldwell). Where primary regional surveys omitted Avery, Burke, or Caldwell counties, targeted supplemental datasets were integrated to ensure complete and balanced regional representation.

Data Sources

Findings are based on existing secondary data sources, supplemented by regional assessments (Community Health Assessments (CHA), Community Health Improvement Plans, and annual State of the County Health updates across the region) and data reports contributed by topic-specific partners. Specific data sources are cited at the end of each chapter throughout the report. All data sources used are current and representative of the region, drawing on the most recent data available for each source. Where required, permission was obtained, and appropriate Data Use Agreements were established for datasets included in this report. A full description of the data collection methods and limitations is provided in the following Methodology chapter.

Scope

This assessment addresses needs across physical health, behavioral health, and health-related social needs. It includes a mapping of existing clinical, behavioral health, social supports, and digital infrastructure across the region, identifying service gaps and quantifying access barriers such as travel time, workforce shortages, and unmet demand.

Scope

Within this broader regional analysis, the assessment also addresses topic-specific areas, including perinatal health, chronic disease, food access, behavioral health, workforce, and rural health provider sustainability. This includes an environmental scan of regional maternity services and maternity care deserts; the burden of chronic disease and related risk factors alongside the availability of evidence-based programs; and an environmental scan of food access organizations across the region.

Community Engagement & Validation

While this initial report establishes a robust quantitative baseline, our data collection, community engagement, and validation strategy remain an ongoing, vital process that will be fully integrated into our upcoming Hub Action Plan. Working with Impact Health, WNC Health Network designed and coordinated a series of topic-specific sensemaking and strategy sessions throughout August in counties demonstrating the greatest regional need. Held directly within local spaces, these sessions convened healthcare professionals, providers, hospitals, community-based organizations, local leaders, and subject matter experts to review data, identify critical gaps, and surface local solutions across four core areas: perinatal health, chronic disease, food is medicine, and workforce. Each session addressed these critical regional topics alongside specific NCRHTP requirements, while offering asynchronous engagement options so that all regional partners can continuously shape our strategy. This primary engagement was further enriched by existing qualitative sources, including findings from prior community health assessments and key informant input.

SESSION STRUCTURE AND PARTICIPATION:

To ensure grounding in localized community realities, four core regional sessions were convened in locations selected based on acute, data-backed needs: Food is Medicine in Swain County (August 5; addressing low food hub density and digital access gaps), Perinatal Health in McDowell County (August 7; targeting WNC's highest maternal risk area), Chronic Disease in Caldwell County (August 11; addressing elevated chronic mortality and hospitalization rates), and Workforce & Care Teams in Clay County (August 19; highlighting severe provider shortages in a county without a local hospital). Each session engaged a broad cross-sector cohort—including clinical providers, health systems, public health departments, higher education, community organizations, regional councils, and residents with lived experience across all 19 WNC counties and the Qualla Boundary—while rural health provider sustainability is being captured via direct engagement with primary care and hospital leadership, and behavioral health considerations were integrated as a core lens throughout all sessions.

Community Engagement & Validation

METHODOLOGY:

Each session was designed to combine data review with community and provider expertise, using a format suited to its topic area — from structured sensemaking exercises to broader environmental scans of the current landscape. Participants reviewed a data handout summarizing key indicators for that session's topic, explicitly framed as a representative subset of the full data compiled for this assessment, with facilitators and data leads present to answer clarifying questions in real time. Sessions surfaced local assets, gaps, and priorities that quantitative data alone may not fully capture, and gathered input on strategies, existing supports, potential barriers, and implementation partners. This input directly validates and prioritizes the underlying data,informing the standards of care and strategies to be developed as part of the Hub Action Plan process.

ASYNCHRONOUS ENGAGEMENT:

To ensure input was not limited to those who could attend in person, Impact Health developed a parallel asynchronous engagement process for invited partners who were unable to attend. Participants received the same data handout used in the live session, along with a short set of structured questions addressing data reactions, priority indicators, and strategy input, distributed within one week of each session. Ultimately, this intentional, community-first design reflects our core mission: to bridge community and clinical systems to ensure all Western North Carolinians can access what they need to thrive.

Identifying Root Causes and Prioritizing Needs

This assessment identifies root causes of gaps, access barriers, and social drivers of health, with root-cause analysis intended to inform evidence-based approaches suited to this one-time, five-year funding period. A need was identified as significant to the regional health system if it met one or more of the following criteria:

- The relevant data is trending in the wrong direction over time, or falls short of state or national benchmarks
- A clear disparity exists across geography, race/ethnicity, age, or other population characteristics
- The issue was independently raised as a priority across multiple counties' Community Health Assessments or Improvement Plans
- The issue was consistently identified by community partners during sensemaking sessions as a gap or barrier

The needs meeting these criteria were synthesized into the themes and priority needs presented in each topic chapter. Themes, priorities, and strategy input gathered through this engagement process are being synthesized separately and will directly inform the Hub Action Plan that follows this assessment, including the region's proposed standards of care.

CHAPTER 2

METHODOLOGY

Secondary Data Methodology

This Regional Needs Assessment draws on both quantitative metrics and qualitative stakeholder input to identify and prioritize regional health needs across our 19-county service area.

To learn about the specific factors affecting the health and quality of life of residents of Medicaid Region 1, data was collated from numerous secondary data sources accessible in the public domain. Where appropriate and available, trend data has been used to show changes in indicators over time.

Sources for the demographic, economic and social characteristics of the region included: the US Census Bureau; NC Department of Health and Human Services (NCDHHS); NC Office of State Budget and Management; NC Department of Commerce; UNC-CH Jordan Institute for Families; NC Division of Health Benefits; and the Cecil G. Sheps Center for Health Services Research. The principal source of secondary health data is the NC State Center for Health Statistics (NC SCHS), including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics unit, and Cancer Registry. Other health data sources included: NC Division of Public Health (DPH) Epidemiology Section; Injury and Violence Prevention Branch (DPH); Overdose Epidemic Data Dashboard (DPH); the Centers for Disease Control and Prevention.

All secondary data included in the workbook are the most current available as of June/July 2026, but in some cases may be several years old. Names of organizations, facilities, and geographic places presented in the tables and graphs are quoted exactly as they appear in the source data. In some cases, these names may not be those in current or local usage; nevertheless, they are used so readers may track a particular piece of information directly back to the source. Effort was made to obtain the most current data available at the time but it is not possible to continually update the data past a certain date; in most cases that end-point is July 30, 2026.

This assessment also incorporates regional hospital administrative data from the North Carolina Hospital Discharge Database (NCHDD), maintained by the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill, including hospital and emergency department (ED) visits, to better understand healthcare use across Western North Carolina. These data were used to examine maternal health outcomes, emergency department use, mental health conditions, and other clinical indicators.

Also incorporated was Hospital service availability data from the Centers for Medicare & Medicaid Services (CMS) Healthcare Cost Report Information System (HCRIS), obtained from RAND. Hospital cost report data from 2015 and 2024 were used to examine the availability of 13 key inpatient service lines among North Carolina critical access and Inpatient Prospective Payment System (IPPS) hospitals, including geographic patterns in operating room availability and changes in service offerings over time. Hospitals were classified as critical access, rural IPPS, or urban IPPS hospitals, and a service was considered available when the corresponding hospital cost center reported non-zero expenditures. Analyses of 2024 service availability included 102 hospitals, while analyses of service openings and closures between 2015 and 2024 included 99 hospitals meeting data completeness criteria.

Primary Data Methodology

WNC COMMUNITY HEALTH SURVEY

The 2024 WNC Community Health Survey was conducted from March to June 2024. The purpose of the survey was to collect primary data to supplement the secondary dataset, and allow individual counties in the region to collect data on specific issues of concern. The survey was conducted throughout the entire WNC 18-county region, which includes the following counties: Avery, Buncombe, Burke, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey.

Professional Research Consultants, Inc. (PRC) designed and implemented the mixed-mode survey methodology, which included a combination of telephone (both landline and cell phone) interviews, online survey, as well as a community outreach component promoted by WNC Health Network and its local partners through social media posting, in-person events and other methods of communication. The survey methodology was designed to achieve a representative sample of the regional population that would allow for stratification by certain demographic characteristics, while also maximizing data collection timeliness and efficiency. Survey sampling and implementation methodology is described in greater detail below.

SURVEY INSTRUMENT

The survey instrument was developed the WNC Healthy Impact Data Workgroup, WNC Regional Data Team, and Mountain DEEP, with assistance from PRC. Many of the questions were derived from the CDC Behavioral Risk Factor Surveillance System (BRFSS) and other validated public health surveys. Other questions were developed specifically by WNC Healthy Impact, with input from regional and local partners, to address particular issues of interest to communities in western North Carolina.

Sampling Approach & Design

PRC designed the survey methodology to minimize sample bias and maximize representativeness by using best practice random-selection sampling techniques. They also used specific data analysis techniques, including poststratification, to further decrease sample bias and account for underrepresented groups or nonresponses in the population. Poststratification involves selecting demographic variables of interest within the population (here, gender, age, race, ethnicity, and poverty status) and then applying "weights" to the data to produce a sample which more closely matches the actual regional population for these characteristics. This technique preserves the integrity of each individual's responses while improving overall representativeness.

In order to determine WNC regional estimates, county responses were weighted in proportion to the actual population distribution to appropriately represent Western North Carolina as a whole. Since the sample design and quality control procedures used in the data collection ensure that the sample is representative, the findings may be generalized to the region with a high degree of confidence.

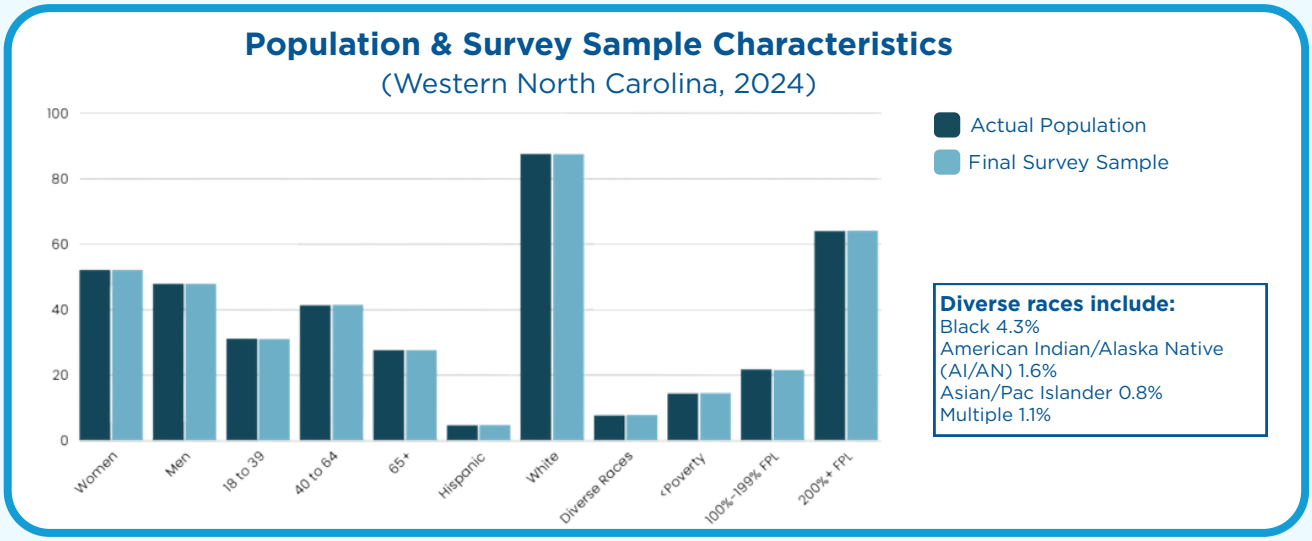
Primary Data Methodology

Survey Administration

PRC piloted the survey through 30 interviews across the region and consulted with WNC Health Network staff to resolve substantive issues before full implementation. PRC used trained, live interviewers and an automated computer-aided telephone interviewing system to administer the survey region-wide. Survey interviews were conducted primarily during evening and weekend hours, with some daytime weekday attempts. Interviewers made up to five call attempts per telephone number. Interviews were conducted in either English or Spanish, as preferred by respondents. PRC worked with a third-party provider to identify and invite potential respondents for an online survey for a small proportion of the sample population. The online survey was identical to the telephone survey instrument and allowed better sampling of younger and more urban demographic segments. The final sample included 3,313 random sample surveys (PRC).

PRC also created a link to an online version of the survey, and WNC Health Network in collaboration with Mountain DEEP, Survey Ambassadors and local partners promoted this online survey link throughout the various communities in order to drive additional participation and bolster overall samples. This yielded 1,927 additional community outreach surveys for the region.

Size: The total regional sample size was 5,240 individuals age 18 and older. PRC conducted all analysis of the final, raw dataset.
Sampling Error: For statistical purposes, the maximum rate of error associated with the WNC regional sample is ±1.3% at the 95 percent confidence level. For county-level findings, the maximum error rate ranges from ±3.3% (Buncombe County) to ±9.8% (Graham County).
Characteristics: The following chart outlines the characteristics of the survey sample for the WNC region by key demographic variables, compared to actual population characteristics from census data. Note that the sample consists solely of area residents age 18 and older.



Source: US Census Bureau, 2016-2020 American Community Survey.

Notes: All Hispanic respondents are grouped, regardless of identity with any other race group. Race reflection those who identify with a single race category, without Hispanic origin. "Diverse Races" include those who identify as Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian/Pacific Islander, or as being of multiple races, without Hispanic origin.

Survey Limitations and Information Gaps

LIMITATIONS

The survey methodology included a combination of telephone interviews, using both landlines and cell phones, and an online survey. Each of these survey methods has limitations. For example, participation in the telephone survey requires access to a landline or cell phone, while participation in the online survey requires internet access.

The PRC online survey component also has inherent limitations related to recruitment and administration. Respondents were recruited from a pre-identified panel of potential respondents, which may not be representative of the overall population.

Additionally, PRC created an online survey link that was promoted by WNC Health Network and its local partners through social media posts and other communications. Because respondents to the online survey link were not randomly selected, they might not be representative of the overall population.

A general limitation of using online survey technology is that respondents must interpret survey questions themselves rather than have them explained by a trained, live interviewer. This may affect how respondents interpret and answer questions.

To further decrease potential sample bias and account for underrepresented groups, nonresponses, and oversampling, poststratification was applied to the data. This technique uses weights to produce a sample that more closely matches the actual regional population and helps preserve the integrity of each individual's responses while improving overall representativeness. However, when certain demographic groups are under-sampled, larger weights may be applied to a smaller number of respondents, potentially magnifying the influence of their responses on the overall results.

INFORMATION GAPS

This assessment was designed to provide a comprehensive and broad picture of the health of the community overall. It does not measure all possible aspects of health in the community, nor does it represent all possible populations of interest. For example, due to low population numbers, members of certain racial/ethnic groups (e.g., Black, AI/AN, Hispanic/ Latinx, etc.) may not be identifiable or represented in numbers sufficient for independent analyses. In these cases, information gaps may limit the ability to assess the full array of the community's health needs.

Online Key Informant Survey

ONLINE SURVEY METHODOLOGY

Survey Purpose and Administration

The 2024 Online Key Informant Survey was conducted in July 2024. WNC Health Network in partnership with WNC Healthy Impact, and with support from PRC, implemented an OKIS to solicit input from local leaders and stakeholders who have a broad interest in the health of the community. WNC Healthy Impact shared with PRC a list of recommended participants, including those from our county. This list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted through an email that introduced the purpose of the survey and provided a link to take the survey online. Reminder emails were sent as needed to increase participation.

Survey instrument

The survey provided respondents the opportunity to identify important health issues in their community, what is supporting or getting in the way of health and wellbeing in their community, and who in their community is most impacted by these health issues.

Participation

In all, 283 community stakeholders took part in the OKIS:

Online Key Informant Survey Participation

Key Informant Type	Number Participating
Physicians	7
Public Health Representatives	20
Health Directors	15
Other Health Providers	70
Social Services Providers	31
Other Community Leaders	126
CHA Leads	14

Online Key Informant Survey

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Survey Limitations

The OKIS was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

To collect this data, purposive sampling (a type of non-probability sampling which targets a specific group of people) was used. Unlike the random sampling technique employed in the telephone survey, the purpose is not to make generalizations or statistical inferences from the sample to the entire population, but to gather in-depth insights into health issues from a group of individuals with a specific perspective.

CHAPTER 3

REGIONAL PROFILE

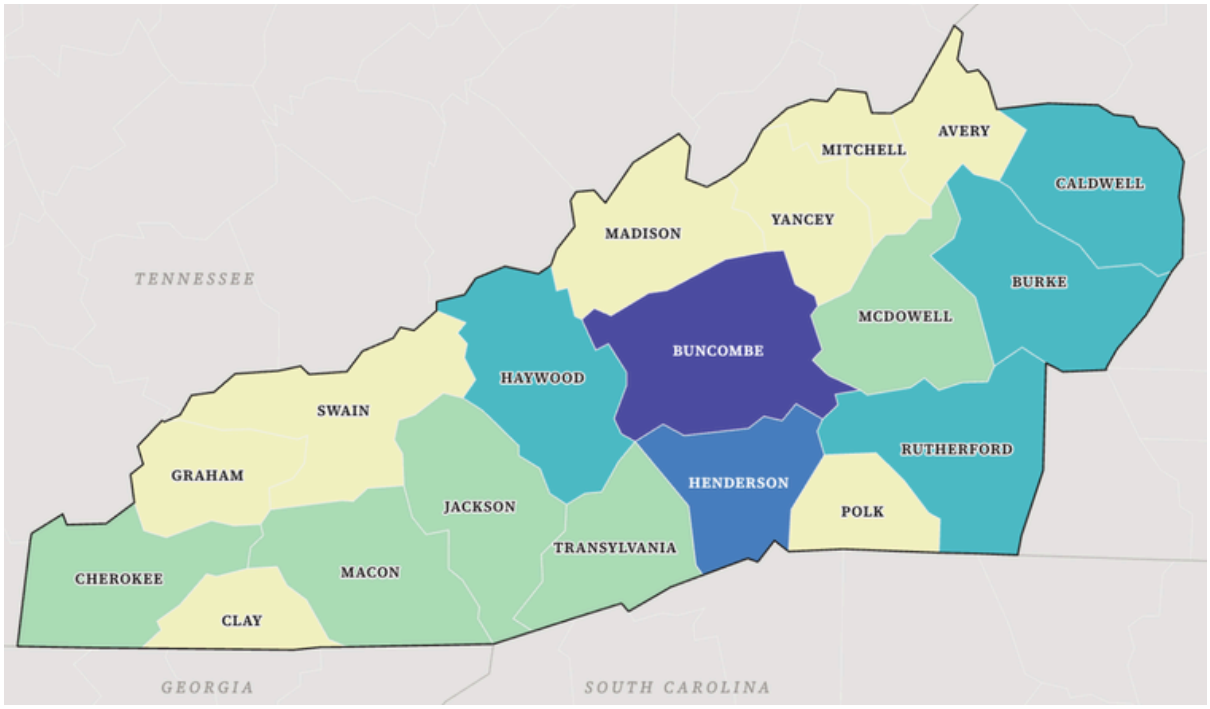
Introduction

Medicaid Region 1, which encompasses 19 counties in Western North Carolina, includes a population of more than one million people across nearly 8,000 square miles. The geography of the region stretches across both the foothills and the highest mountains in the Eastern US; from tiny rural towns, national parks and forest lands, to larger college towns and tourist destinations.

With 93% of the Region's land area classified as rural, more than half of the population resides in rural blocks. Eight counties (Avery, Cherokee, Clay, Graham, Madison, Mitchell, Swain and Yancey) were classified as 100% rural as of the 2020 Census. Even Buncombe County, the largest and most populous county in the Region, is 74% rural.

TOTAL POPULATION BY COUNTY

Nineteen counties of Western North Carolina, including Caldwell. Counties are shaded by total population; class breaks match the published assessment.



Total Population

118,485 to 274,360	*1*
87,796 to 118,484	*1*
44,818 to 87,795	*4*
21,868 to 44,817	*5*
8,072 to 21,867	*8*

Geographies
19 counties.

Source: County boundaries: US Census Bureau (TIGER). Population Classes as published in the Regional Needs Assessment

Key Indicator Tables

How to Read This Table:

This table provides a snapshot of key demographic indicators and highlights notable patterns across the region. 2024 indicates when data for each measure were last updated. Trends/Disparities summarizes available information about the direction the measure is trending over time and calls attention to important differences or disparities among populations. Geographic Disparities identifies counties that stand out from the broader regional pattern, helping highlight areas where outcomes may be notably better, worse, or otherwise different.

Demographic Indicators	2024	Trends/Disparities	Geographic Disparities
Total Population	1,005,471	51.3% (508,422) Rural in 2020 ↗	Avery, Cherokee, Clay, Graham, Madison, Mitchell, Swain, Yancey are 100% Rural
Hispanic/Latino	7.8% (78,337)	Increased since 2010 ↗	Highest % in Henderson, Macon, Buncombe, Burke
Two or More Races	7.0% (69,929)	Increased significantly since 2010 ↗	Highest % in Swain, Buncombe
Black/African American	3.9% (38,645)	Decreased since 2010 ↘	Highest % in Rutherford, Burke, Buncombe
American Indian/Alaska Native	1.2% (11,904)	Eastern Band of Cherokee Indians (EBCI) in Swain, Jackson, Cherokee, Graham, Haywood counties	Highest % in Swain, Graham, Jackson
Asian	1.1% (10,916)	Hmong population	Highest % in Burke
Population Change	+ 4.3% by 2030	26.6% of population aged over 65 by 2030	Avery, Graham, McDowell, Mitchell, Swain are losing population
Non-English Speaking Households with Limited English	19.90%	Spanish is the primary language spoken by the linguistically isolated	Avery, Burke, Caldwell, Henderson, Rutherford, Buncombe have highest concentrations
With a Disability	16.60%	Ambulatory and Independent Living difficulties most common	Highest in Rutherford, Burke, Yancey, Mitchell
Population over 25 with 4-year degree or higher	26.70%	30% of females, 25% of males have 4-year degree or higher	Graham, Caldwell, McDowell have lowest proportion of population with 4-year degree or higher

Key Indicator Tables

Demographic Indicators	2024	Trends/Disparities	Geographic Disparities
Households with No Vehicle Access	4.80%	Higher among renters and householders 65+ ↗	Highest in Graham, Mitchell
Households with No Computing Device	8.90%	Higher than NC (5.1%) ↗	Highest in Madison, Yancey, Graham, Clay, Caldwell
Households with No Internet Subscription	15.80%	Higher than NC (9.8%) ↗	Highest in Swain, Jackson, Yancey

Economic Indicators	2024	Trends/Disparities	Geographic Disparities
Poverty Rate	13.3% (129,922 people)	Higher among Black/African American and Hispanic/Latino ↗	Highest rates in Swain, Jackson, Rutherford
Median Household Income	$59,255	More than $13,000 lower than NC ↘	Lowest incomes in Graham, Swain, Rutherford
Median Family Income	$77,453	More than $12,000 lower than NC ↘	Lowest incomes in Graham, Rutherford
Cost Burdened Owned Housing Units	25.20%	Median Monthly Costs $268 lower than NC ↘	Highest in Clay, Madison, Transylvania
Cost Burdened Rented Housing Units	40.30%	Gross Rent $335 lower than NC ↘	Highest in Buncombe, Haywood, Henderson, Transylvania
Travel Out of County/State for Work	32.60%	27.6% travel out of county, 5.0% travel out of state ↘	Highest in Madison, Clay, Polk
Unemployment Rate	3.70%	3.3% in April 2025 ↘	Highest in Graham, Clay, Mitchell, Rutherford
Average Weekly Wage	$940	Lower than NC ($1,548), Health Care and Social Assistance is the largest sector (17.2%) ↘	Lowest in Clay, Swain, Avery, Yancey

Key Indicator Tables

Healthcare Access Indicators	2024	Trends/Disparities	Geographic Disparities
Uninsured (under age 65)	12.90%	Higher among those aged 19-34, AI/AN, Hispanic/Latino ↗	Highest in Rutherford, Jackson, Macon, Avery
% Eligible for Medicaid	33.5% (SFY2025)	Increased since SFY2020 ↗	Highest in Swain, Graham, McDowell, Rutherford
% Under 19 with Medicaid coverage	41.40%	Increased since 2021 ↗	Highest in Cherokee, Swain, Jackson
Physicians per 10,000 population	15.79	Little change in a decade; lower than NC (26.10) —	Lowest in Avery, Graham, Madison, Yancey
Primary Care Physicians per 10,000 population	7.68	Little change in a decade —	Lowest in Graham, Rutherford, Cherokee
% of Physicians Aged 65 and Older	24.20%	Higher than NC (13.6%) ↗	Highest in Macon, Polk, Transylvania

For detailed source information and to see the county-level data that supports the Regional data story, please explore the 2026 Impact Health Initial Regional Needs Secondary Data Workbook.

Hospitals as of July 2026	County	Licensed Beds
Charles A Cannon Jr. Memorial Hospital Inc. (UNC Health)	Avery	13 General Beds 10 Nursing Facility Beds
Asheville Specialty Hospital (closed in 2024 but still licensed by NC)	Buncombe	34 General Beds
CarePartners Rehabilitation Hospital (Mission Health/HCA)	Buncombe	80 Inpatient Rehabilitation Beds
Mission Hospital (Mission Health/HCA)	Buncombe	733 General Beds 120 Psych Beds
UNC Health Blue Ridge (UNC Health)	Burke	293 General Beds 22 Psych Beds
Caldwell Memorial Hospital (UNC Health)	Caldwell	110 General Beds 27 Psych Beds
Cherokee Indian Hospital Authority (Joint Commission accredited facility)	Cherokee	18 Inpatient Beds 2 Hospice Beds

Critical Access Hospitals are indicated in yellow.

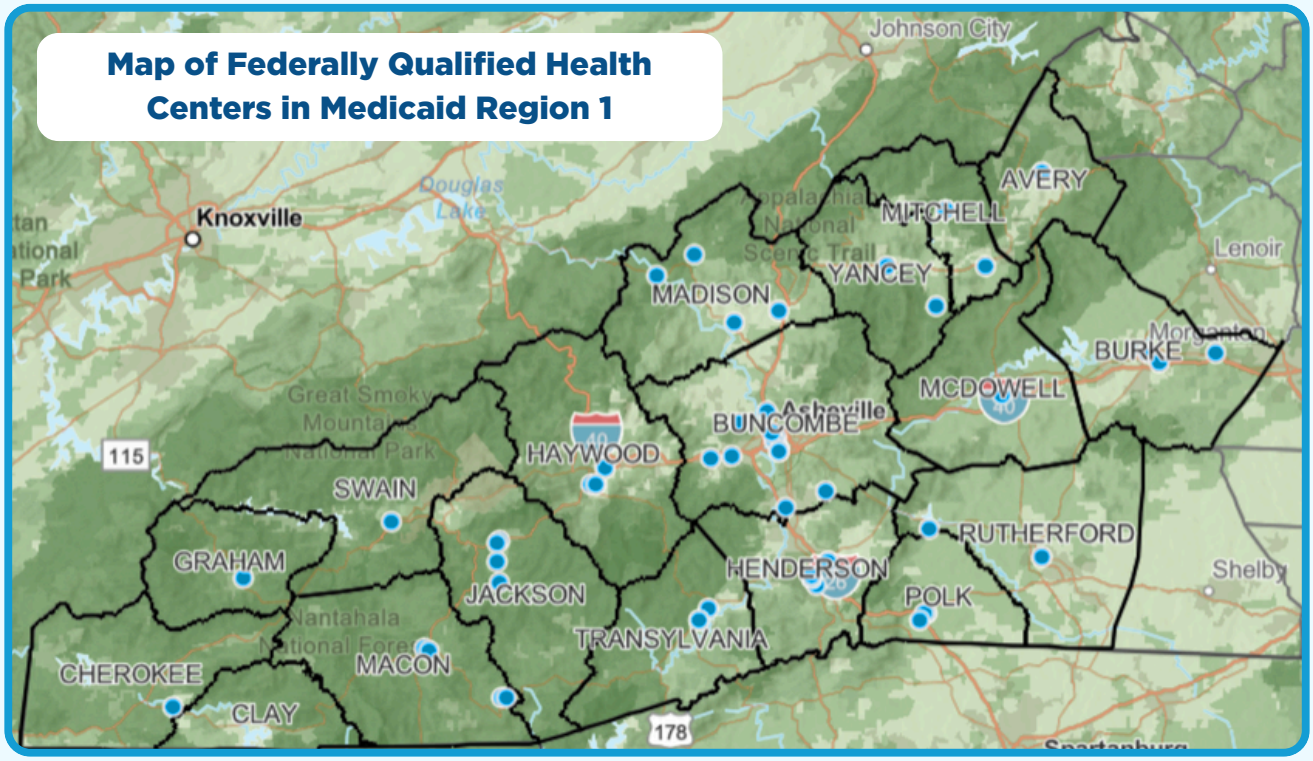
Key Indicator Tables

Hospitals as of July 2026	County	Licensed Beds
Erlanger Murphy Medical Center	Cherokee	57 General Beds
Haywood Regional Medical Center (Duke LifePoint)	Haywood	120 General Beds 33 Psych Beds
AdventHealth Hendersonville (AdventHealth)	Henderson	62 General Beds 34 Psych Beds
Margaret R Pardee Memorial Hospital (UNC Health)	Henderson	201 General Beds 21 Psych Beds
Harris Regional Hospital (Duke LifePoint)	Jackson	86 General Beds
Angel Medical Center (Mission Health/HCA)	Macon	30 General Beds
Highlands-Cashiers Hospital (Mission Health/HCA)	Macon	24 General Beds
Mission Hospital McDowell (Mission Health/HCA)	McDowell	65 General Beds
Blue Ridge Regional Hospital (Mission Health/HCA)	Mitchell	46 General Beds
AdventHealth Polk (formerly St. Luke's Hospital, AdventHealth)	Polk	25 General Beds
Rutherford Regional Medical Center (Duke LifePoint)	Rutherford	129 General Beds 14 Psych Beds
Swain Community Hospital (Duke LifePoint)	Swain	48 General Beds
Transylvania Regional Hospital (Mission Health/HCA)	Transylvania	42 General Beds 40 Substance Use Disorder Beds 10 Nursing Facility Beds

Critical Access Hospitals are indicated in yellow.

Source: Hospitals Licensed by the State of North Carolina. NCDHHS, Division of Health Service Regulation. Indian Health Service, Find Health Care Map.

Regional Priorities



Note: This map/source does not include Caldwell County, which has two FQHCs: Kintegra Health and the Caldwell County Health Department.
Source: Mountain Area Health Education Center (MAHEC) FindMyCareWNC Map: General Health and Wellness, FQHCs

WNC Healthy Impact is a partnership and coordinated process between hospitals, public health agencies, and key regional partners in western North Carolina, working locally and regionally on a community health improvement process to assess health needs, develop collaborative plans, take coordinated action, and evaluate progress and impact. This innovative regional effort is supported by financial and in-kind contributions from hospitals, public health agencies, and partners, and is housed and coordinated by WNC Health Network.

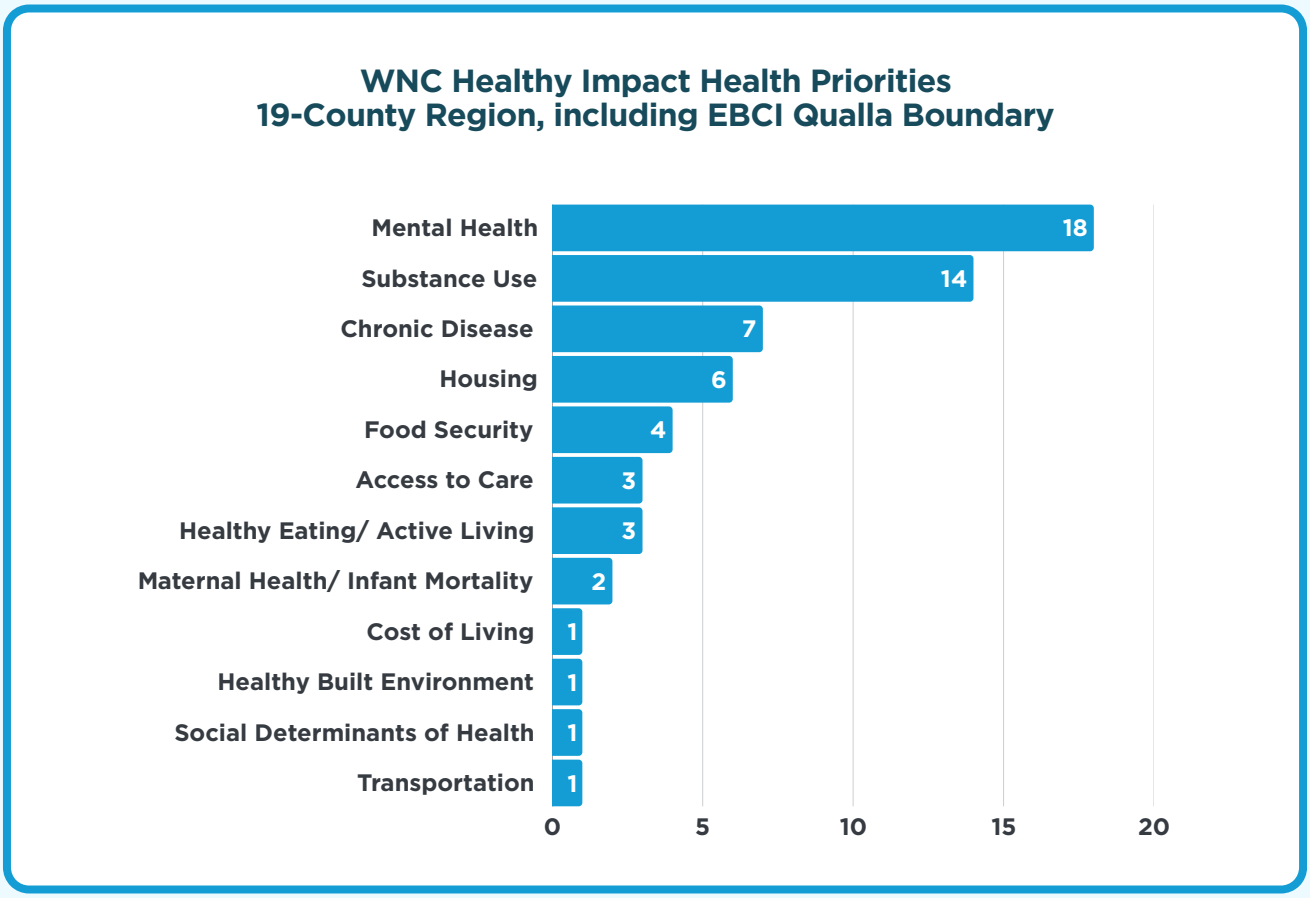
In order to identify the county-level priorities required of the Community Health Assessment process, key Healthy Impact partners reviewed data from the WNC Healthy Impact Data Workbook and discussed the unique facts and circumstances impacting their communities. Several criteria were used to identify significant health issues:

- Data is related to past health priorities
- Data reflects a concerning trend related to size or severity
- Significant disparities exist
- Issue surfaced as a topic of high community concern
- County data deviates notably from the region, state or benchmark

Regional Priorities

Once each county's team made sense of the data, key health issues were presented to a wide range of partners and community members. The participants used the information presented to score each issue, and then vote for their top areas of concern. Participants used a modified Hanlon method to rate the priorities based on their relevance, the potential impact of addressing the issue, and feasibility of addressing the issue. Then dot-voting and multi-voting techniques were used to narrow to the top priority health issues.

This graphic summarizes the results of the prioritization process conducted as part of Community Health Assessment (CHA) across the 19 counties in Medicaid Region 1. CHAs from all participating Western North Carolina local health departments and tribal public health organizations were reviewed. Reports were accessed through the North Carolina State Center for Health Statistics Community Health Assessment repository and supplemented with reports provided directly by local partners.



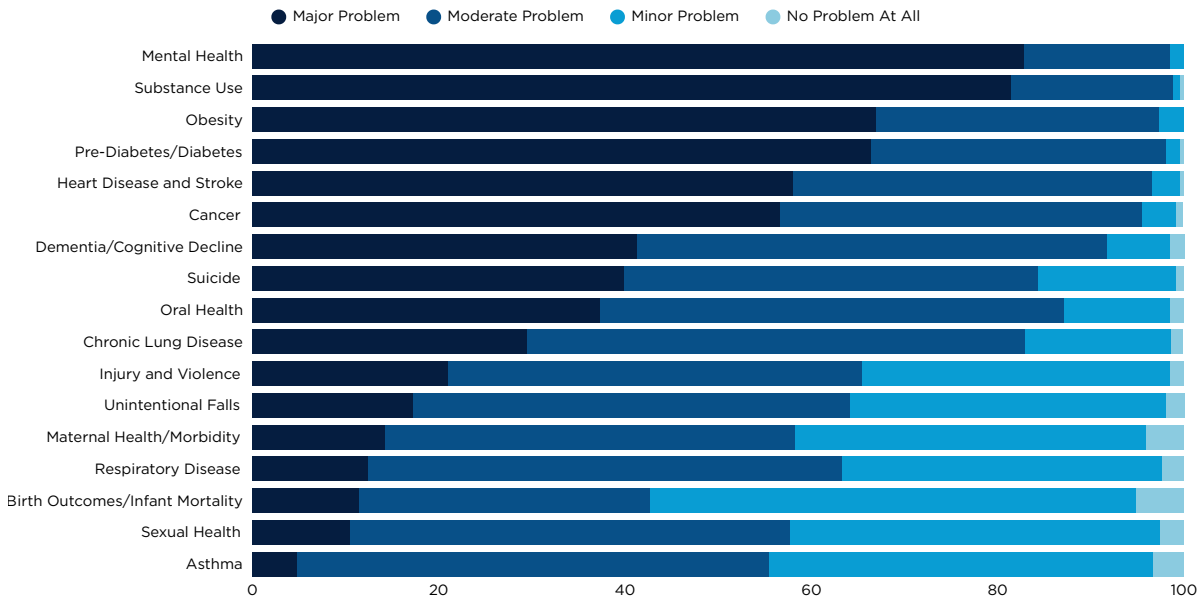
Regional Priorities

WNC Health Network in partnership with WNC Healthy Impact implemented an Online Key Informant Interview Survey (OKIS) in July 2024 to solicit input from local leaders and stakeholders who have a broad interest in the health of the community. Participants included physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted through an email that introduced the purpose of the survey and provided a link to take the survey online. The survey provided respondents the opportunity to identify important health issues in their community, what is supporting or getting in the way of health and wellbeing in their community, and who in their community is most impacted by these health issues.

The following graphic presents the results of the OKIS across the 17 counties participating in the 2024 OKIS (Burke and Caldwell are not included).

WNC Region Key Informants: Relative Position of Health Topics as Problems in the Community



Source: WNC Health Network. (2024). 2024 Online Key Informant Survey: Western North Carolina regional findings [Unpublished report].

Appendices – Regional Profile

01. 2026 Impact Health Initial Regional Needs Secondary Data Workbook

An Excel file, compiled for this Regional Needs Assessment, containing more than 100 spreadsheets of data describing the 19 counties in Medicaid Region 1. Secondary data is pulled from public domain sources like the US Census Bureau, NC Office of State Budget and Management, NC Department of Commerce, NC State Center for Health Statistics, Cecil G. Sheps Center for Health Services Research, CDC, and more. The primary data includes select indicators most relevant to this project and comes from the WNC Healthy Impact Community Health Survey, conducted periodically across 18 counties in WNC, most recently in 2024. Note that primary data does not include Caldwell County.

02. Western North Carolina Health Network Regional Data

Through WNC Healthy Impact, WNC Health Network works alongside local hospitals, public health departments, and community partners to collect, analyze, and share meaningful data about health in our region. Our goal is to make data more useful, equitable, and connected to real community voices. Their website includes maps, charts, Community Health Assessments from network partners, as well as data stories focused on the established regional priorities.

03. WNC Regional Dataset

The WNC Regional Dataset, available by request, contains more than 200 spreadsheets of data describing the 16 counties in the WNCHN's Healthy Impact region as well as the two additional counties (Avery and Burke) that comprise the Dogwood Health Trust region. Secondary data is pulled from public domain sources like the US Census Bureau, NC Office of State Budget and Management, NC Department of Commerce, NC Department of Public Instruction, NC Department of Justice, NC State Center for Health Statistics, Cecil G. Sheps Center for Health Services Research, NC Department of Public Health, NC Division of Health Services Regulation, CDC, NC Department of Environmental Quality, US Department of Agriculture, US Environmental Protection Agency, and others. The primary data is collected periodically by Professional Research Consultants, Inc. (PRC). PRC designed and implemented the survey methodology with review and input from WNC Healthy Impact, which included a combination of telephone (both landline and cell phone) interviews, as well as an online survey. The survey methodology was designed to achieve a representative sample of the regional population that would allow for stratification by certain demographic characteristics, while also maximizing data collection timeliness and efficiency. Note that the survey sample does not include Caldwell County.

04. WNC Healthy Impact 2024 Community Health Survey

This slide deck presents the results of the 2024 Community Health Survey in graphic form, disaggregated by county and race. Available by request from WNCHN.

05. MAHEC FindMyCare WNC Map

The FindMyCareWNC - Interactive map for Transitions, Access, and Continuity of Care (ITACC) provides an overview of reproductive healthcare, substance use treatment, and related resources across the 18 westernmost counties of North Carolina. The objective of this platform is to provide communities with key information and tools that can enhance transitions, continuity, and access to healthcare services. Does not include Caldwell County, which lies outside the MAHEC region.

Appendices – Regional Profile

06. MAHEC FindMyCareWNCTrends Dashboard

The FindMyCareWNCTrends - Interactive dashboard for Transitions, Access, and Continuity of Care (ITACC) provides an overview of reproductive healthcare, substance use treatment, and related resources across the 18 westernmost counties of North Carolina. The objective of this platform is to provide stakeholders with key information to support public health decision-making based on up-to-date, specific, and relevant data. We hope that this tool serves as a user-friendly, effective, and efficient way to understand trends and patterns across our region in order to advocate for policies, processes, and services that enhance quality of care and quality of life. Does not include Caldwell County, which lies outside the MAHEC region.

07. CHA County Resource Chapters

This document collates the listing of available health resources that is required as part of a Community Health Assessment. The listing includes how the resources were compiled during the CHA, descriptions of agencies and programs, as well as contact information and identified gaps in services. All 19 counties in Medicaid Region 1 are represented.

CHAPTER 4

PHYSICAL HEALTH DATA SUMMARIES

CHAPTER 4

SECTION 1

PERINATAL HEALTH



Overview

Perinatal health refers to the health of pregnant people and infants during pregnancy, childbirth, and the period surrounding birth. Western North Carolina (WNC) has made progress in some areas, but the region is facing a more complex perinatal health landscape, marked by rising chronic disease and behavioral health needs, persistent disparities, and gaps in maternity care access, particularly in rural communities.



Progress in Prenatal Care, but Growing Health Needs

Access to early prenatal care is a regional strength. In 2023, 85% of pregnant women in WNC received early prenatal care, compared with 72% statewide. At the same time, the perinatal health needs of WNC families are changing, with chronic health conditions and behavioral health needs becoming growing concerns. Since 2010, WNC has seen substantial increases in gestational diabetes, hypertensive disorders during pregnancy, perinatal mood and anxiety disorders, and substance misuse. Maternal obesity remained the most common condition, affecting more than half of delivery hospitalizations since 2021. Severe maternal morbidity also continues to be an important concern across the region.

By 2023, rates of hypertensive disorders of pregnancy were higher in WNC than statewide, and diagnosed perinatal mood and anxiety disorders were more than twice as common in WNC as across North Carolina. Preterm birth also remains higher than the statewide rate, while low birth weight and infant mortality have shown little improvement. The observed patterns suggest that priority setting should extend beyond preventing complications at delivery to strengthening prevention, early identification, and management of chronic disease and behavioral health needs before, during, and after pregnancy.

Unequal Burden and Gaps in Maternity Care Access

Perinatal health challenges are not experienced equally across the region. Risks vary by race and ethnicity, insurance coverage, geography, and access to maternity care. Black, American Indian, Asian, and Hispanic women experience elevated risks for several maternal complications, while Medicaid-covered deliveries have substantially higher risks of severe mental illness and substance misuse than privately insured deliveries.

Where women live and their access to maternity care also matter. Women in low-access counties experienced nearly twice the risk of severe maternal morbidity without transfusion and higher risk with transfusion, while residents of maternity care deserts experienced elevated risks for severe maternal morbidity, PMAD (Perinatal mood and anxiety disorders), obstetric hemorrhage, hypertensive disorders of pregnancy, and substance misuse compared with counties with full maternity care access. Several of the highest burdens cluster in smaller rural mountain counties, including Cherokee, Clay, Graham, Macon, Mitchell, and McDowell.

Baseline Trends in Pregnancy, Prenatal Care Access, and Birth Outcomes

How to Read This Table:

This table provides a snapshot of key indicators and highlights notable patterns across Western North Carolina (WNC). Indicator identifies the measure being assessed, while Current provides the most recent available estimate for WNC. Trend summarizes available information about how the measure is changing over time within WNC, and Comparison provides state-level data to help put WNC's current status into context. Counties Most Affected identifies counties that stand out from the broader regional pattern, helping highlight areas where outcomes may be notably better, worse, or otherwise different. Populations Most Affected calls attention to important differences or disparities among populations within the available data.

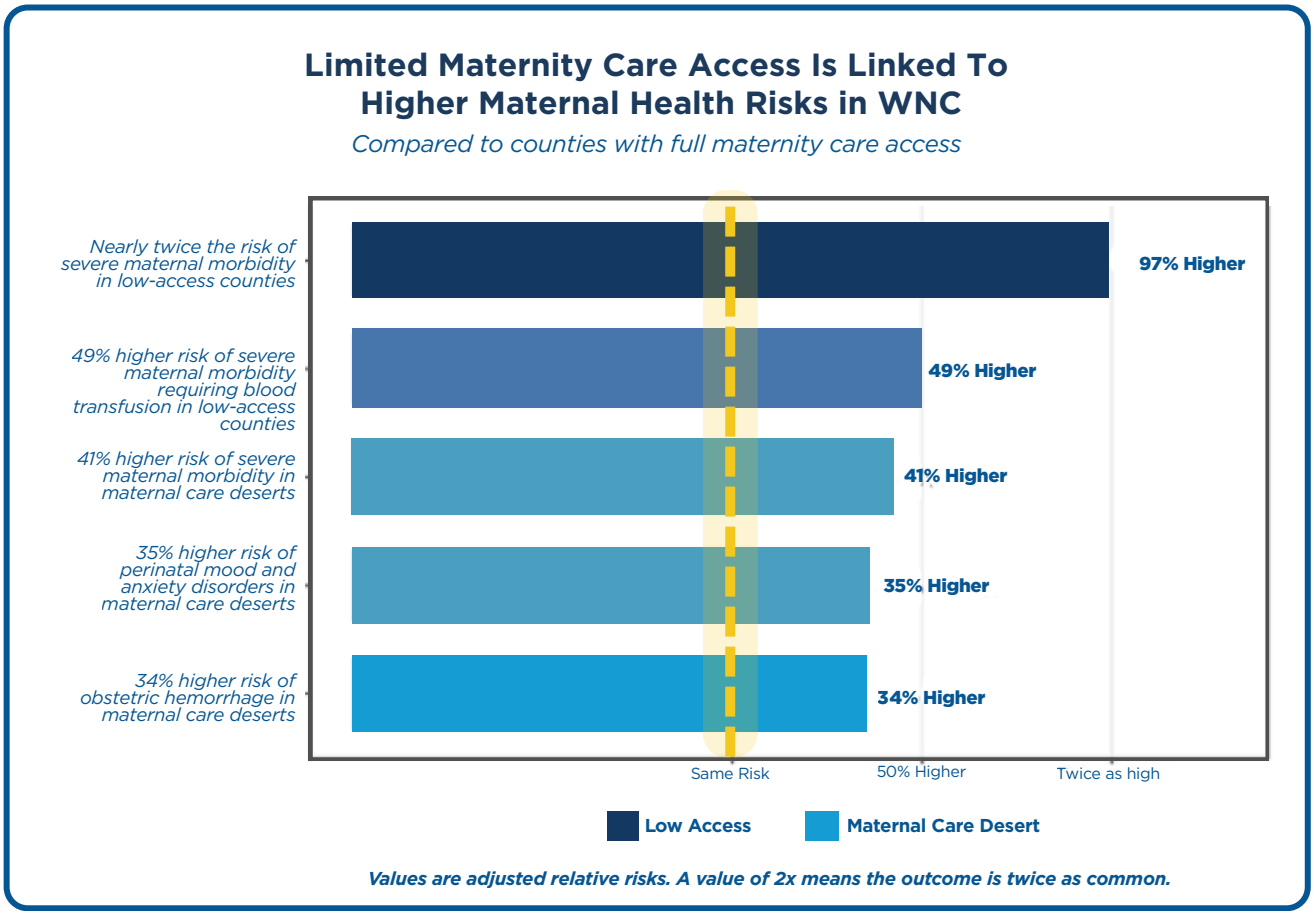
Indicator	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Pregnancy Rate (Ages 15–44)	60 per 1,000 births in 2023	Decreased since 2010 ↘	69 per 1,000 for NC	Buncombe, Jackson, Swain, Transylvania	Higher pregnancy rate in Hispanic populations
Percentage of Early Prenatal Care Access	84% in 2023	Improved (12%+) since 2011 ↗	72% in 2023 for NC	Lowest (<80%) rates in 2023: Caldwell, Burke, Rutherford, Avery, Macon	Data not available by race and ethnicity at the county level
Percentage of Women with Access to Needed Medical Care	4 out of 5 women (18-44) reported no access	Increased since 2021 ↗	22% in 2024 for WNC reported access	Rural women reported lower access	Data not available by race and ethnicity
Percent of Low Birth Weight Babies	8.6% (2019-2023)	Remained relatively stable —	9.6% (2019-2023) for NC	Rutherford, Macon, Caldwell, McDowell, Haywood	Non-Hispanic (NH) Black infants (16.8%) compared with NH White infants (10.0%)
Infant Mortality Rate	6.6 per 1,000 births (2020-2024)	Remained relatively stable —	6.6 per 1,000 births (2020-2024)	Avery, Rutherford, Mitchell, Swain, Haywood	Data not available by race and ethnicity at the county level
Percentage of Preterm Birth	11.4% (2019-2023)	Remained relatively stable —	10.7% (2019-2023)	Mitchell, Swain, McDowell, Jackson, Macon, Haywood	Black, American Indian women

Baseline Trends in Pregnancy, Prenatal Care Access, and Birth Outcomes

Indicator	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Rate of Gestational Diabetes Diagnoses During Pregnancy	1,031 per 10,000 in 2023	Increased since 2010 (+195%) ↗	1,052 per 10,000 in 2023 for NC	McDowell, Macon, Henderson, Jackson, Mitchell	Asian/PI, Hispanic, AI/AN
Rate of Hypertensive Disorders of Pregnancy (High Blood Pressure Conditions)	2,719 per 10,000 in 2023	Increased since 2010 (+59%) ↗	2,319 per 10,000 in 2023 for NC	Avery, Clay, McDowell, Mitchell, Cherokee	Black
Rate of Perinatal Mood and Anxiety Disorder Diagnoses	2,504 per 10,000 in 2023	Increased since 2010 (+166%) ↗	914 per 10,000 in 2023 for NC	No single county stands out	NH White women
Rate of Substance Misuse Diagnosed During Pregnancy	438 per 10,000 in 2023	Increased since 2010 (+185%) ↗	302 per 10,000 in 2023 for NC	Mitchell, Cherokee, Swain, Macon, Transylvania	AI/AN
Rate of Severe Maternal Morbidity Involving Blood Transfusion	200 per 10,000 in 2023	Increased since 2010 (+46%) ↗	463 per 10,000 in 2023 for NC	Cherokee, Clay, Graham, McDowell	Black, Asian/PI, Hispanic
Rate of Severe Maternal Morbidity Not Involving Blood Transfusion	137 per 10,000 in 2023	Increased since 2010 (+12%) ↗	177 per 10,000 in 2023 for NC	Cherokee, Clay, Graham, Madison	Black
Rate of Obstetric Hemorrhage (Severe Bleeding During Pregnancy or Childbirth)	570 per 10,000 in 2023	Peaked in 2018 and again in 2022 ↗↘↗	779 per 10,000 in 2023 for NC	Clay, Cherokee, Graham	Hispanic, Asian/PI, AI/AN
Rate of Severe Mental Illness Diagnosed During Pregnancy	90 per 10,000 in 2023	Remained relatively stable since 2010 →	107 per 10,000 in 2023 for NC	No single county stands out	AI/AN
Rate of Maternal Obesity as a Pregnancy Risk Factor	6,625 per 10,000 in 2023	Increased since 2016 (+20%) ↗	6,527 per 10,000 in 2023 for NC	Buncombe	Black, AI/AN
Rate of Fetal Growth Restriction (Babies Diagnosed with Restricted Growth Before Birth)	449 per 10,000 in 2023	Increased since 2016 (+102%) ↗	646 per 10,000 in 2023 for NC	Cherokee, Yancey	Black, Asian/PI
Rate of Placental Disorders (Complications Involving the Placenta During Pregnancy)	542 per 10,000 in 2023	Increased since 2016 (+87%) ↗	440 per 10,000 in 2023 for NC	Cherokee, Macon, Jackson, Madison	AI/AN, Black

Limited Access to Maternity Care Is Linked to Worse Maternal Health Outcomes

- Women in Low Access counties had nearly twice the risk of severe maternal morbidity without blood transfusion and a 49% higher risk of severe maternal morbidity with blood transfusion. Low Access counties have limited access to maternity care resources (e.g., few OB/GYNs, certified nurse-midwives, or birth centers).
- Women living in Maternity Care Deserts (areas with no hospitals providing obstetric care, no birth centers, and no OB/GYN providers) also experienced higher risks of severe maternal morbidity, perinatal mood and anxiety disorders, and obstetric hemorrhage.



Source: Limited Maternity Care Access Is Linked To Higher Maternal Health Risks in Western North Carolina. Adjusted relative risks for selected maternal health outcomes among women residing in Low Access and Maternal Care Desert counties compared with women living in counties with Full Access to maternity care services. Estimates were adjusted for maternal age, race and ethnicity, insurance payer, rurality, and year of delivery.

Economic Cost of Complications

The most serious maternal complications not only threaten the health of mothers and infants, but they also carry hospital charges that are two to three-and-a-half times higher than those for uncomplicated deliveries, highlighting the value of preventing avoidable complications through timely, high-quality maternity care.



What Maternal Complications Cost in Western North Carolina

OUTCOME	MEDIAN CHARGE	COMPARED WITH UNCOMPLICATED DELIVERY
Severe Maternal Morbidity without Blood Transfusion	$50,251	**3.5× higher**
Severe Maternal Morbidity with Blood Transfusion	$39,412	**2.7× higher**
Obstetric Hemorrhage	$29,870	**2.1× higher**
Preterm Birth	$24,216	**1.7× higher**
Hypertensive Disorders of Pregnancy	$24,403	**1.7× higher**

Source: What Maternal Complications Cost in Western North Carolina, 2024. Median hospital charges associated with major maternal and perinatal health conditions compared with uncomplicated deliveries.

The table above represents median hospital charges for the maternal delivery stay only and do not include post-discharge care or neonatal stay costs (e.g., NICU admissions), which significantly increase total healthcare costs.

Community Voice

What We Are Hearing:

What's Helping

- Local public health departments
- FQHCs
- Non-profits
- High quality medical providers
- Continued support for minor consent law in NC for family planning
- Community supports including doulas, childbirth education classes and breastfeeding resources
- Care management for pregnant and postpartum people

What's Hurting

- Lack of labor and delivery services/ options
- Limited providers
- Distance and travel times
- Lack of transportation
- Stigma around sexual health
- Policies and legislation restricting access
- Insurance/cost barriers
- Disparities in maternal health outcomes by race/ethnicity

Source: WNC Health Network. (2024). 2024 Online Key Informant Survey (OKIS): Western North Carolina community health assessment findings [Unpublished report].

Perinatal Health Community Sensemaking & Strategy Session



On Friday, August 7, 2026, Impact Health (with the support of WNC Health Network) convened a full-day Perinatal Health sensemaking session in McDowell County, hosted at Centro Unido Latino Americano (CULA) with a local welcome from Executive Director Margarita Yañez. McDowell County was selected for the region's first perinatal session given its risk profile: the county ranks first in the region for overall maternal risk, placing in the top five for seven of eight high-risk outcomes tracked, including severe maternal morbidity, hemorrhage, and preterm birth, while nearly 40% of residents rely on Medicaid. Despite that risk profile, the county also shows strong early engagement, with 87.2% of mothers receiving first-trimester care — a foundation the session aimed to build on. The session brought together 33 participants (45 including facilitators and subject matter experts) representing maternal and child health, clinical care, public health, academia, community nonprofits, and health funding organizations, drawing attendees from across all 19 counties and the Qualla Boundary.

The day opened with participants sharing paired stories about times the perinatal care system had worked well or fallen short, then synthesizing those stories into shared features of a stronger system of care — themes like compassion, trust, cultural responsiveness, and continuity of care that recurred across the room. From there the day moved into review of regional perinatal data, with participants dot-voting on priority indicators, followed by small-group discussion of who is most affected and what's helping or hurting for each top indicator, and closed with individual and paired strategy brainstorming. Participants chose access to needed medical care, maternal obesity as a pregnancy risk factor, hypertensive disorders of pregnancy, and perinatal mood and anxiety disorders as the top priority indicators, with infant mortality, early prenatal care access, and severe mental illness during pregnancy also named as priority areas.

Fragmentation across the care continuum, not an absence of programs, is the primary problem participants identified. Rural areas face maternity care deserts, labor and delivery closures, scarce high-risk OB and specialty care, and long travel times worsened by mountainous terrain and weather — problems compounded, not solved, by disconnected data systems, inconsistent MCO benefit structures, weak referral loops, and provider silos that make it hard for care to follow a mother from preconception through delivery, postpartum, and into pediatric and behavioral health care.

Perinatal mental health came up as a specific, recurring gap within that larger fragmentation. Participants pointed to inconsistent screening and referral practices and a lack of follow-up that extends meaningfully past a single postpartum visit, rather than any shortage of concern about the issue.

Perinatal Health Community Sensemaking & Strategy Session

Social drivers of health were treated as core to care, not adjacent to it. Participants called for integrating transportation, nutrition, childcare, broadband access, insurance navigation, and health literacy support directly into care models, and were clear that the traits that make a system trustworthy — compassion, active listening, transparency, patient choice, and culturally responsive, trauma-informed practice — matter as much as clinical access itself. Participants also emphasized centering community voice and trusted local organizations in how programs get designed, particularly in rural and historically underserved areas.

Workforce sustainability underlies much of the above. Provider burnout, turnover, and low reimbursement were named as direct contributors to rural maternity unit closures, and community-based providers — community health workers, doulas, midwives, and IBCLCs — face reimbursement structures too complex or inadequate to sustain their work at the scale participants described needing.

Participants also worked directly with several specific tools and models shaping the path forward: the CDC Maternal and Neonatal Levels of Care Assessment Tool (LOCATe), approaches to expanding maternity care access through academic partnerships, AI-enabled ultrasound, and simulation-based emergency obstetric training, and ways the "I Gave Birth" program could be scaled regionally. Discussion of each generated strategy-specific input that will carry directly into Action Planning.

initial Takeaways

- Strengthen rural maternity access through hub-and-spoke care models, LOCATe capacity planning, emergency obstetric training, and tele-ultrasound pathways
- Build longitudinal, closed-loop navigation connecting OB, pediatrics, primary care, behavioral health, and community partners from preconception through the first postpartum year
- Normalize routine perinatal mental health screening across multiple points of care and expand access to specialized psychiatric consultation
- Establish sustainable, direct reimbursement for community health workers, doulas, midwives, and IBCLCs alongside rural clinician recruitment support
- Integrate social drivers of health directly into clinical visits — transportation, remote blood pressure monitoring, broadband access, and food navigation
- Standardize postpartum safety protocols and build shared regional data-sharing and referral infrastructure

Note: These takeaways reflect an initial review of the session discussion and are not a final synthesis. Further stakeholder engagement will be needed to fully validate and prioritize these themes. As we move into the action planning phase, we will be reviewing the full notes from this session for additional insights.

Appendices — Perinatal Health

01. 2026 Impact Health Initial Regional Needs Secondary Data Workbook

An Excel file, compiled for this Regional Needs Assessment, containing more than 100 spreadsheets of data describing the 19 counties in Medicaid Region 1. Secondary data is pulled from public domain sources like the US Census Bureau, NC Office of State Budget and Management, NC Department of Commerce, NC State Center for Health Statistics, Cecil B Sheps Center for Health Services Research, CDC, and more. The primary data includes select indicators most relevant to this project and comes from the WNC Healthy Impact Community Health Survey, conducted periodically across 18 counties in WNC, most recently as 2024. Note that primary data does not include Caldwell County.

02. Perinatal Health Outcomes and Complications

Hospital delivery discharge data were summarized for common perinatal health conditions in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends and disparities by geography, race and ethnicity, and insurance payer, as well as adjusted relative risks and the economic burden associated with maternal morbidity.

03. NC Maternal and Infant Health Data Dashboard

The Maternal and Infant Health Data Dashboard was created to provide data showing trends, racial/ethnic inequities, maternal age, maternal education, and geographical differences for a variety of important health indicators describing maternal risk factors and characteristics and birth outcomes. Indicators were carefully selected to ensure that summarized information could be disaggregated to the largest extent possible over time and by race/ethnicity, age, education, region, and county.

04. Contraceptive Deserts

This interactive tool maps health centers offering the full range of birth control methods by state and county. Managed by Power to Decide using data from the Guttmacher Institute.

05. 2024 WNC Maternal Health Needs Assessment Results

The 2024 Maternal Health Needs Assessment collected 15 responses from various maternal care providers across WNC. The results provided an overview of the challenges facing practices and patients alike in WNC. The assessment asked local WNC health professionals specializing in maternal health questions that aimed to gauge insight into the issues facing OB patients, patient travel distance, and referrals; prioritize regional initiatives; and explore the impacts of labor and delivery department closures.

06. MAHEC FindMyCare WNC Map

The FindMyCareWNC - Interactive map for Transitions, Access, and Continuity of Care (ITACC) provides an overview of reproductive healthcare, substance use treatment, and related resources across the 18 westernmost counties of North Carolina. The objective of this platform is to provide communities with key information and tools that can enhance transitions, continuity, and access to healthcare services. Does not include Caldwell County, which lies outside the MAHEC region.

07. MAHEC FindMyCareWNCTrends Dashboard

The FindMyCareWNCTrends - Interactive dashboard for Transitions, Access, and Continuity of Care (ITACC) provides an overview of reproductive healthcare, substance use treatment, and related resources across the 18 westernmost counties of North Carolina. The objective of this platform is to provide stakeholders with key information to support public health decision-making based on up-to-date, specific, and relevant data. We hope that this tool serves as a user-friendly, effective, and efficient way to understand trends and patterns across our region in order to advocate for policies, processes, and services that enhance quality of care and quality of life. Does not include Caldwell County, which lies outside the MAHEC region.

CHAPTER 4

SECTION 2

FOOD IS MEDICINE



Overview

Food is Medicine (FIM) is a framework for implementing population health prevention strategies through increased and targeted access to nutrition. Several types of entities comprise the regional food system that delivers services in the FIM framework.



Food Hubs aggregate food from local farmers and engage in retail sales for a variety of customers. There are at least seven food hubs currently serving the WNC region, and four other aggregators that are scaling up activities. All supply locally-grown food for the regional Community-based organizations (CBOs) network.

CURRENT

7 food hubs in 2026

TREND

Increased

5 → 7

hubs since 2023

COMPARISON

There are at least 5 other active hubs in NC, most are in WNC



GEOGRAPHIC DISPARITIES

Clay, Cherokee, Graham and Swain

counties have the lowest concentration of food hub activities in the region

As of 2022, there are **7,369 farms** in Region 1, a decline of 5.5% from four years prior. Over 50% of WNC farms operate on 50 acres or less of cultivated land.

There are three food banks currently serving Region 1. MANNA Food Bank covers over 90% of the service population in this area; the remainder is covered by Second Harvest Food Bank of Metrolina (Rutherford and Burke counties), and Second Harvest Food Bank of Northwest Carolina (Caldwell County). All three are part of USDA's Feeding America program. MANNA distributed almost 23 million pounds of food (equivalent to over 44 million meals) in 2024-2025, including over 12 million pounds of fresh and perishable food items. MANNA also distributed over $1.2 million in local food, totaling 725,000 pounds, purchased from 40+ farm and food hub partners across 16 counties.1 Most of the distribution for all three food banks occurred through a network of **348 food pantries and 10 prepared meal providers affiliated with an area food bank**. There are also a number of CBOs providing food in each county in Region 1 that are not affiliated with a food bank.

There are also **20 senior centers** in Region 1, one in each county, and one in the Qualla Boundary. Each senior center is responsible for operating the Meals on Wheels prepared-food delivery program as well as congregate meal services for older adults or people with disabilities. All of the meal services provided through senior centers are supported by the Area Agency on Aging (AAA) covering that county, part of the regional Council of Governments (COG). Five COGs/AAAs cover the Region 1 ROOTS Hub counties.

FIM in Rural Health: HOP and PPP

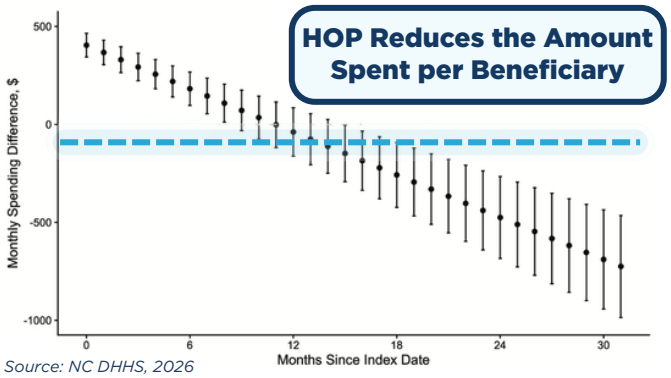
Healthy Opportunities Pilot (HOP)

HOP exemplifies a FIM framework within regional systems providing food and nutrition access. HOP focuses on increasing household nutrition access (and other interventions) as a health prevention strategy. CBOs that provided services for HOP recipients received reimbursement from NC Medicaid in a fee-for-service model.

HOP-enrolled households demonstrated a healthcare expenditure savings of $164/month per person over a two-year period. The savings value was inclusive of the cost of services and administrative overhead.

Over 89% of HOP recipients also self-reported improved physical and mental health within six months of being enrolled. The magnitude of all positive health effects and healthcare savings increased over time.

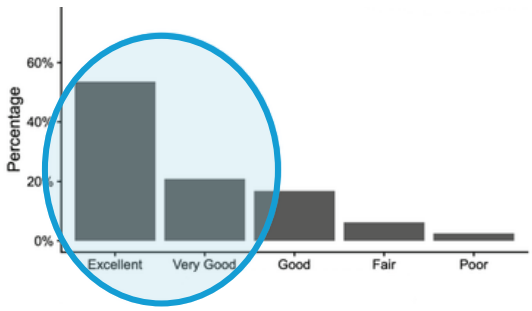
HOP Beneficiary Monthly Spending Difference



Source: NC DHHS, 2026

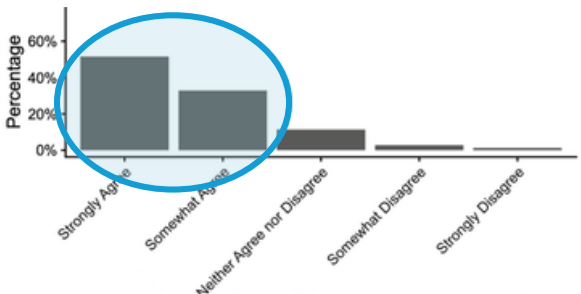
Beneficiary Survey

Beneficiary Survey: Rating of Help from HOP



Source: NC DHHS, 2026

Beneficiary Survey: HOP Improved Health



Source: NC DHHS, 2026

Produce Prescription Programs (PPPs)

PPPs integrate FIM frameworks in similar health prevention strategies to the HOP program. Households are enrolled through their healthcare provider. PPP-enrolled households receive a weekly food box which can be tailored to different kinds of health needs. Healthcare providers monitor participants' health biomarkers to evaluate clinical impacts. PPPs also focus on behavior change through food education. As of summer 2026 there are four PPPs with actively enrolled households in Region 1. Many of these focus on regionally produced food as the source for household nutrition access.

Food Insecurity in WNC

Prevalence and Trends within Regional Food Insecurity

The prevalence of population food insecurity is higher in the Region 1 ROOTS Hub counties than the national and statewide averages. In 2024, **28.6% of households in 18/19 counties included in the Region 1 ROOTS Hub were food insecure** (ran out of food at least once in the past year and/or worried about running out of food in the past year). This represents a dramatic **53.7% overall increase compared to 2021 region-wide average food insecurity rates** (18.6%). Across 18 WNC counties, 2024 food insecurity prevalence ranged from 16.6% (Polk County) to 41.7% (Rutherford County).

Demographics of WNC Food Insecure Households

Community surveys of food insecure WNC households from 2024 and 2026 provide context for the observed increase in population food insecurity. Three main demographic groups are represented in that increasing portion of the regional population experiencing food insecurity.

01. Older adults living on fixed incomes

02. Families with children, particularly younger children

03. Hispanic/Latino households

In ongoing surveys of food pantry users in the MANNA network, >40% were households with adults 65 years or older, with about 1 in 7 also including minors under 18 years old. Households with children under 18 are >25% of the rural food pantry patrons in the assessment; households with pregnant people or children under 6 years old were 15.1% of respondents.[6] The nutrition needs of older adults and households with children differ from those of the general population, as do their health issues.

Internet and Phone Access

Recent assessments of rural food insecure populations indicate that around 1 in 5 food insecure rural households have no home internet service and no internet access via smartphone or other wireless devices. These households are more likely to be older adults, often living alone. They live in more remote locations, and they reported higher rates of severe food insecurity (regularly skipping meals and/or losing weight involuntarily). Many of these households reported having no home phone service at all. Over 80% of rural households who reported having some form of internet access also reported regular interruptions to that access due to data limitations or poor service. **Overall, there is a clear association between rural food insecurity and a lack of reliable access to internet and cell phone service.**

Food Insecurity in WNC

Chronic Health and Nutrition Access in Food Insecure Households

Food insecure rural WNC households are at elevated risk for a variety of chronic health issues. They experience significant health disparities in the prevalence of long-term illness including in cardiovascular disease, Type 1 and Type 2 diabetes, chronic kidney disease, and other diet-mediated health issues and risk factors. **In 2026, over 70% of rural food pantry patrons self-identified a diagnosed long-term illness.**

Among respondents who identified a long-term health issue, only 1.2% reported that they "always" had adequate access to nutrition for their health needs. Over 28% reported that they "rarely" or "never" had access to adequate nutrition for health support, and 57.6% reported that they "sometimes" had access.

Mental Health and Food Insecurity

Food insecurity affects more than physical health, it also takes a significant toll on mental well-being. Recent research in the region using the WNC Health Network's regional Community Health Needs Assessment found that food insecurity is one of the strongest pathways connecting poverty and poor mental health. **The study estimated that if household food insecurity could be addressed, more than one-third (37%) of the mental health burden associated with poverty among low-income residents in Western North Carolina could potentially be reduced.**

Among rural WNC households using an area food pantry in 2023, 82.9% reported "often" or "sometimes" experiencing stress or anxiety from worrying about having enough food to address their household hunger needs; 85.5% reported the same regarding having enough healthy food available to address household nutritional needs. Over 90% of these same households reported that being able to access a food pantry relieved that stress and provided positive mental health impacts.

Access to WIC and SNAP

The 2026 community survey of rural WNC households using CBO food services demonstrated that 15.1% of households included children under 6 years old and/or pregnant household members. Among these households, **only 39.9% were enrolled in WIC (Special Supplemental Nutrition Program for Women, Infants, and Children).** In the 2023 community survey of rural households using CBO services, **only 32.1% of respondents reported being actively enrolled in SNAP (Supplemental Nutrition Assistance Program) benefits.**

The 2026 survey also revealed a large number of food insecure households in WNC who reported lost or reduced benefits supporting household food and economic security. **Over 27% of respondents reported losing access to benefits within the last 12 months, with most singling out reductions in or total loss of SNAP benefits.**

Community-Based Organizations

Regional Need for Services

A variety of different indicators all demonstrate a dramatic increase in the regional need for CBO food services within the last 6 years; primary among these is the increase in service volume for regional CBO services over this time span. Data from previous and ongoing assessments of the CBO network providing food services indicates that **the volume of CBO food services in WNC doubled between 2020-2023, doubled again from 2023-2026, and continues to increase.**

CBOs Accounting for Severe Food Insecurity

Severely food-insecure households are experiencing hunger (i.e., involuntarily skipping meals, eating less than one should) and physical effects from a lack of food (i.e., involuntary weight loss). Community survey data indicate that demand for CBO services is responding to an increasing number of food-insecure people **and a high proportion of severely food-insecure people.**

Comparison: Food-Insecure Rural WNC Households

Comparison of assessment data of rural WNC households using CBO services shows a decrease in total food access, and a **dramatic drop in nutrition access from 2023-2026.** In the same period, there was also a decrease in the proportion of severely food insecure households among the total population using CBO services. Though this may appear to be a positive trend, the most likely explanation for this decrease is a **large influx of newly-food-insecure people into the total regional population using CBO services**. **People who are using CBOs for the first time are much less likely to be severely food insecure than those with a longer history of using CBO services.** The prevalence of severe food insecurity among CBO households is calculated by dividing the number of households who are severely food insecure (S) by the total number of households using CBO services (T). Prevalence can decrease either by a lower S-value (fewer food insecure households in the total population) or a higher T-value (a greater total number of households using regional CBO services). The observed drop in the prevalence of severe food insecurity among all households using CBO services likely represents the latter explanation.

Food Insecurity Status	2023	2026
% Reporting Always Having Adequate Food Access for Nutrition	13.50%	**3.20%** ↘
% Reporting Always Having Adequate Food Access for Hunger	15.20%	14.30% ↘
% Reporting Skipping Meals, Eating Less Than Satisfies Hunger	80.20%	60.80% ↘*
% Reporting Losing Weight Involuntarily	44.60%	26.10% ↘*

**Decreasing prevalence of severe food insecurity among households using CBO services likely represents a growing number of total households accessing CBOs, not a reduction in severe food insecurity among those households*

Community-Based Organizations

The Changing Role of CBOs

All of these indicators point to a similar conclusion: the regional CBO network that was established to provide **supplemental** food and nutrition access for residents in this region today serves as the **primary and essential point of access for food and—to an even greater degree—nutrition for a growing number of food-insecure residents,** who continue to live out a multi-year trajectory of worsening food insecurity, poorer nutrition, and increasing health risks.

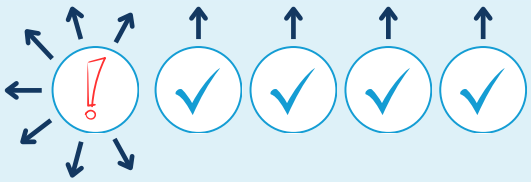
All of this is occurring within a prolonged and uneven economic recovery from Hurricane Helene, a broad reduction in publicly funded health and social safety net services, and a cost-of-living crisis that shows no signs of abating. These macro issues are accelerating the demand for CBO services while also decreasing food and nutrition access and increasing health risks for a large and growing portion of the WNC population. **The collective impact of these issues will likely continue or exaggerate all of the trends that place increasing demand on the CBO network to provide essential food and nutrition services.** The capacity of this network to deliver increased services in the coming months and years is of critical importance.

CBO Capacity to Deliver Services

In a 2026 survey of 110 regional CBOs providing food services, only 7.3% reported no change in demand for food services in the previous 12 months, while 23.6% reported a small increase, **50.9% reported a substantial increase, and 18.2% reported that demand for services is the highest it has ever been**. The CBOs that reported no or small demand increases generally distribute smaller amounts of food less frequently.[6]

While only 20.9% of those CBOs reported not having enough food to meet the current level of demand for services, the CBOs that reported this lack tended to distribute greater amounts of food more frequently than other CBOs.

The 1 in 5 CBOs that do not have enough food to distribute serve a much larger share of the regional demand for services.[6]



The larger CBOs that have increased capacity in tandem with the growing needs of their service community are **absorbing a large and increasing share of the overall growth in service volume of the CBO network.** This shifting burden is overstretching many of these organizations' resources and capacity.

Capacity challenges confronted by regional CBOs are more widespread regarding their ability to access and distribute enough fresh and frozen food products to address nutritional needs in their service population. **Only 22.7% of CBOs reported no limitations to being able to provide adequate amounts of fresh and frozen foods to meet demand.** The most common reported barriers were adequate cold storage, budget limitations/expense, and a lack of overall access to fresh and frozen foods through available sources.

Community Voice

What We Are Hearing:

What's Helping

- Food banks and pantries
- Food vouchers
- Food assistance programs – SNAP, WIC
- Nutrition education
- Food delivery services
- Non-profits and faith-based orgs
- Farmers Markets
- Community gardens
- Healthy Opportunities Pilot (HOP)

What's Hurting

- Expense of healthy options, cost of groceries
- Lack of volunteers
- Inconvenience of fresh food options
- Isolated geography and travel times
- Lack of transportation
- Food deserts
- Federal limits on FNS (Food and Nutrition Services - NC's SNAP)
- Systemic racism and discrimination

Source: WNC Health Network. (2024). 2024 Online Key Informant Survey (OKIS): Western North Carolina community health assessment findings [Unpublished report].

Source: WNC Health Network. (2024). 2024 Online Key Informant Survey (OKIS): Western North Carolina community health assessment findings [Unpublished report].

Big Picture Issues and Needs

WHO IS AT RISK?

- Older adults, especially those living alone or caring for a minor
- Working families
- Households with young children and pregnant women
- People with disabilities





WHAT IS AT RISK?

- Increased food and nutrition insecurity
- Increased hunger and severe food insecurity
- Negative health effects that will be long-lasting, increasingly hard to reverse
- Expensive healthcare needs
- Decreased capacity of health and social safety net systems
- A worst-case scenario of increasing need overwhelming CBO systems

CAPACITY NEEDS IN CBO SYSTEM TO REDUCE RISK

- More food, more nutrition
- Diverse food procurement sources
- Infrastructure for sourcing, disseminating, providing more fresh/frozen food
- Diversified and increased revenue streams
- CBOs in service gap areas
- Infrastructure to mobilize care and services
- Cultural competency for diverse demographics
- Infrastructure to address access barriers
- Volunteers



Food is Medicine Community Sensemaking & Strategy Session



On August 5, 2026, Impact Health (with support from WNC Health Network) convened a full-day Food is Medicine sensemaking session in Swain County, hosted at Nantahala Village Resort with a local welcome from WNC Lighthouse. The session brought together 53 participants representing a broad cross-section of the region's food and health landscape: clinical and community health providers, food hubs, community-based organizations, faith organizations, government agencies, funders, registered dietitians, organizations serving elders and providing direct food assistance, and people with lived experience seeking or offering support around food access. Participants ranged from organizations that had formed in direct response to Hurricane Helene to legacy groups with more than a decade of work in the region.

The day moved from storytelling about when the food-related care system works well, through review and discussion of the Food is Medicine data, into a facilitated environmental scan of the trends and conditions shaping the regional food system and closed with participants naming solutions and the conditions needed to make them work. Several findings ran consistently across those conversations.

Coordination is the gap participants named most often, ahead of any single service gap. Participants described a region with substantial food assets — food hubs, county food councils, local farms, mobile markets, prepared meal producers, SNAP incentive programs, community health workers, and coordination platforms like NCCARE360/Unite Us — operating largely in parallel. What is missing is the connective tissue: shared referral pathways between clinical settings and community-based organizations, a living regional asset map, and consistent convening space. Participants repeatedly asked for recurring, sub-regional check-ins rather than one-time gatherings, and framed the emergency collaboration that emerged after Helene as a model worth turning into permanent regional infrastructure rather than letting it fade.

Delivery and transportation, not food supply, are the binding constraints for the highest-need populations. Homebound elders, people with disabilities, people without transportation, and residents of the region's most rural communities came up consistently throughout the day. Participants also consistently identified working families who earn too much to qualify for SNAP but cannot reliably afford groceries, immigrant and non-English-speaking residents, and people managing chronic conditions where diet is a primary lever.

Food is Medicine Community Sensemaking & Strategy Session



Convenience, dignity, and cultural fit determine whether food-related care is actually used. Participants pushed for prepared and culturally relevant meal options, commercial kitchen capacity to produce them locally, and models that preserve client choice and agency rather than distributing standardized boxes. They were direct that programs adding steps for either patient or provider — extra forms, unclear referrals, limited hours, or digital tools that replace rather than support trusted in-person relationships — will not be used.

Sustained funding is the precondition participants named for nearly every solution. Beyond the volume of concern, participants raised specific structural issues: food procurement itself is not a funded NCRHTP activity, reimbursement for community health worker and social-need services lags behind the pace at which people lose coverage, existing food programs are carrying real uncertainty about federal nutrition funding, and short-term grant cycles can drive organizational silos and competition rather than collaboration.

Initial Takeaways

- Durable regional coordination: recurring sub-regional check-ins, shared CBO–healthcare governance structures, and a living regional asset map
- Flexible delivery infrastructure: expanded mobile markets, home delivery, prepared meals, and community-based access points to reduce transit barriers
- Sustainable financing: reimbursement pathways for Food is Medicine services and community health workers, and resolving the funding gap around direct food procurement
- Local food systems investment: commercial kitchens, cold storage, and reliable procurement pipelines for WNC farmers
- Person-centered design: lived-experience voices embedded in governance, streamlined clinical referral workflows, and preserved non-digital access options alongside platforms like NCCARE360

Note: These takeaways reflect an initial review of the session discussion and are not a final synthesis. Further stakeholder engagement will be needed to fully validate and prioritize these themes. As we move into the action planning phase, we will be reviewing the full notes from this session for additional insights.

Appendices — Food is Medicine

01. MANNA FoodBank (unpublished)

MANNA Food Bank internal data report (2026, unpublished): a summary report of internal and unpublished data on the 2025 service volume, food procurement (by source and type) and food distribution metrics. There is no hyperlink to these data as they are not yet publicly available and were provided upon request and through a data-sharing agreement.

02. United States Department of Agriculture, National Agriculture Statistics Service (2022)

USDA-NASS 2022 Census of Agriculture (2022, USDA-NASS): a data scrape from publicly-available databases detailing the number, size and location of farms in North Carolina, sourced from the 2022 USDA Census of Agriculture. Hyperlink: https://www.nass.usda.gov/AgCensus/

03. North Carolina Department of Health and Human Services, Cecil G. Sheps Center for Health Services Research at the University of North Carolina (2026)

HOP Summative Evaluation Report, June 2026. A data brief highlighting analysis of the health and healthcare impacts of the statewide HOP program 2022-2024. Hyperlink: https://www.ncdhhs.gov/hop-evaluation/download?attachment

04. WNC Health Network (2024)

2024 WNC Healthy Impact Community Health Survey: Data Workbook. [Data set]. A database maintained by WNC Health Network of population health assessment metrics for the WNC population.Available from https://www.wnchn.org/partner-resources/.

05. MountainWise Partnership for Health (2024)

Population Health Trends Within Food Insecure Communities, Emerging Issues, and Strategic Opportunities Identified in a Community Food Assessment of Jackson, Swain and Macon Counties, Fall 2023- Spring 2024. An assessment of food insecurity, associated health outcomes, correlating factors, and the capacity and needs of public/CBO systems for three rural WNC counties. Hyperlink: https://mountainwise.org/mountainwise-partnership-for-health/

06. MANNA FoodBank, C&I Collaborative (unpublished) 2026

WNC Regional Community Food Assessment, MANNA Food Bank, Collaboration and Innnovation Working Group. (unpublished, 2026). An assessment of food insecurity, associated health outcomes, correlating factors, and the capacity and needs of public/CBO systems for 16 rural WNC counties and the Qualla Boundary. There is no hyperlink to these data as they are not yet publicly available and were provided upon request and through a data-sharing agreement.

07. Runkle, J. D., Herbst, K., Bradley, J., & Braasch, E. (2026)

Pathways linking poverty and mental health: Causal mediation analysis in Southern Appalachia. Journal of Rural Mental Health, 50(2), 86–96. Runkle, J. D., Herbst, K., Bradley, J., & Braasch, E. (2026).

A decomposition analysis of the WNC Health Network dataset on regional poverty, food insecurity, and mental health status. Details the causal relationship between poverty and poorer mental health status and explains the role of food insecurity as a mediating factor in this relationship. Hyperlink: https://psycnet.apa.org/record/2027-28724-001

08. Food is Medicine: Full-Length Report

Prepared by Patrick Baron, this full-length version of the Food is Medicine chapter provides an environmental scan of the regional food system, covering the local food supply chain (food hubs, farms by county) and the network providing free food access (food banks, food pantries, prepared meal services, senior centers and Meals on Wheels). It documents the Healthy Opportunities Pilot and active produce prescription programs in the region, along with the organizations engaged in food and health education. It also includes county-level data on food insecurity prevalence, the demographics of food-insecure households, connections between food insecurity and both chronic illness and mental health, WIC and SNAP enrollment, and a detailed assessment of community-based organization service volume and capacity. It closes with capacity needs and potential directions for expanding Food is Medicine services regionally.

CHAPTER 4

SECTION 3

CHRONIC DISEASE



Overview

Western North Carolina is facing a convergence of challenges that are reinforcing the region's chronic disease burden, from food insecurity and other barriers to healthy living, to high rates of hypertension and cardiovascular risk, persistent disparities, and rising healthcare costs. These interconnected challenges call for place-based investments that strengthen prevention and disease management while addressing the local conditions that make it harder for people to stay healthy.



Conditions That Shape Chronic Disease Risk

Chronic disease in WNC is shaped not only by access to healthcare, but also by the conditions that make it easier or harder for people to stay healthy. Across the region, food insecurity increased to nearly 3 in 10 residents in 2024, participation in food assistance programs varies considerably across counties, and fewer than 5% of residents reported eating the recommended five or more servings of fruits and vegetables each day. These challenges exist alongside increasing levels of obesity and other chronic disease risk factors, creating conditions that can make preventing and managing illness more difficult. At the same time, there are signs of progress. Physical activity has improved and cigarette smoking has declined.

A High and Persistent Chronic Disease Burden

Against this backdrop, WNC continues to experience a substantial burden of hypertension, heart disease, diabetes, cancer, and chronic respiratory disease. More than 4 in 10 adults reported high blood pressure in 2024, diabetes remains more common than statewide, and heart disease mortality has increased. Although overall cancer incidence is slightly below the state rate, several cancers, including colorectal, lung, melanoma, and cervical cancer, occur at higher rates in the region, and overall cancer mortality in the region remains higher than North Carolina. Chronic respiratory disease remains a significant health concern, with mortality rates well above the statewide average. Although cigarette smoking has declined, the growing use of e-cigarettes presents a new challenge for prevention efforts. The financial consequences are also increasing, with median hospital charges for major chronic conditions more than doubling since 2010.

Chronic Disease Disparities Across the Region

The burden is not evenly distributed across WNC. Rural communities, lower-income residents, older adults, and some racial and ethnic populations experience higher burdens across multiple chronic disease indicators, while counties including Caldwell, McDowell, Rutherford, Swain, and Cherokee emerge repeatedly with elevated disease burden or hospital utilization. Differences are also evident by insurance coverage, with Medicaid, Medicare, and VA populations experiencing higher rates for several conditions. These disparities are compounded by barriers identified by residents and community partners, including limited access to healthy food, primary and specialty care, transportation, affordable medications, and health information.

Chronic Disease Trends

How to Read This Table:

This table provides a snapshot of key indicators and highlights notable patterns across Western North Carolina (WNC). Indicator identifies the measure being assessed, while Current provides the most recent available estimate for WNC. Trend summarizes available information about how the measure is changing over time within WNC, and Comparison provides state-level data to help put WNC's current status into context. Counties Most Affected identifies counties that stand out from the broader regional pattern, helping highlight areas where outcomes may be notably better, worse, or otherwise different. Populations Most Affected calls attention to important differences or disparities among populations within the available data.

Medicaid Region 1 Summary of Current Status, Trends, and Disparities

Access to Healthy Foods	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Self-Reported Food Insecurity	28.6% in 2024	Increased since 2021 ↗	Lower than US (43.3%)	Highest (30%+) in Haywood, Jackson, Rutherford	Those below the 200% Federal Poverty Level (FPL), Hispanic population
Individuals Receiving SNAP Benefits	130,801 in Jan 2025	Increased by 4,900 since Jan 2024 ↗	34% are under age 18	Highest % of population enrolled: Rutherford, Graham	Children 5-17, African Americans (10% of Individuals Receiving FNS Benefits, 4.5% of WNC population)
Self-Reported 5+ Daily Servings of Fruits/Vegetables	4.7% in 2024	Decreased since 2012 ↘	No comparison data	Lowest (-4%) in Rutherford, Macon, Burke, Cherokee, Haywood, Jackson, McDowell	Those below the 200% FPL, LGBTQ+, Hispanic
Cancer					
Hospital Visits (per 10,000 visits)	490 visits per 10,000 in 2024	Stable since 2021 –	Colorectal & prostate up, lung down	Jackson & Madison (cervical), Transylvania & Mitchell (prostate), Swain (colorectal), Madison (lung)	Asian/NH*/PI* (breast, colorectal, all cancers), Black (colorectal), Medicaid beneficiaries (cervical, lung) and VA beneficiaries (cervical)
Cancer Incidence Rates (per 100,000 population)	479.9 in 2024, lower than NC (490.2)	Increased since 2020 ↗	Colorectal, lung, melanoma, cervical higher than NC	Total Cancer Incidence highest in Swain, McDowell, Caldwell, Mitchell, Rutherford	Not available by race at the county level

NH = Non-Hispanic
PI= Pacific Islander

Chronic Disease Trends

Cancer	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Cancer Mortality Rates (per 100,000 population)	157.3 in 2019-2023, higher than NC (152.9)	Steady for the past decade —	Colorectal, melanoma, and lung higher than NC	Total Cancer Mortality highest in Transylvania, Caldwell, Mitchell	Data is limited, but White and Black males tend to have the highest rates. American Indian / Alaska Native (AI/AN) rates higher than other races in Jackson and Swain.
Diabetes					
Hospital Visits (per 10,000 visits)	881 in 2024	Decreased since 2021, but still high ↘	Visits for Type 1 diabetes rising	Elevated risk in Caldwell, Cherokee, McDowell, Rutherford, Swain	AI/AN, Black, Asian, Men; VA, Medicaid and Medicare beneficiaries
Self-Reported Diabetes	13.7% in 2024	Steady since 2018 —	Higher than NC (12.1%)	Highest (20%+) in McDowell, Swain, Macon	AI/AN, Black, aged 65+
Risk Factor: Obesity Prevalence	28.9% in 2024	Increased ↗	No comparison data	Highest (30%+) in Haywood, Rutherford, McDowell, Henderson, Caldwell, Burke	Source doesn't have race data at the county level
Heart Disease					
Hospital Visits (per 10,000 visits)	1013 in 2024	Heart disease steady — Ischemic HD increased ↗	Heart Failure visits increasing	Elevated risks in Caldwell, Swain, McDowell, Cherokee	Black; VA, Medicare and Medicaid beneficiaries; Men
Heart Disease Mortality (per 100,000 population)	180.4 in 2019-2023	Increased since 2016-2020 ↗	Higher than NC (165.2)	Highest rates in Swain, Caldwell, Rutherford, Mitchell, Avery	African American (especially males), AI/AN (especially males)
Self-Reported Heart Disease	7.4% in 2024	Increased since 2015 ↗	Higher than NC (7.1%), lower than US (10.3%)	Highest (10%+) in Clay, Macon, Swain, McDowell	Aged 65+, those below 100% FPL, men

Chronic Disease Trends

Hypertension	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Hospital Visits (per 10,000 visits)	1,570 in 2024	Increased 25% since 2010 ↗	Hypertensive disease visits increasing	Elevated risks in Caldwell, McDowell	Black, AI/AN
Self-Reported High Blood Pressure	42.7% in 2024	Increased since 2021 ↗	Higher than NC (34.7%) and US (40.4%)	Highest (50%+) in Macon, Swain, Cherokee	Aged 65+, Black, AI/AN, men.
Hospital Visits for Stroke (per 10,000 visits)	76 in 2024	All stroke lower ↘ Ischemic stroke increased ↗	All stroke is decreasing	Elevated risks in Caldwell, Swain, McDowell, Rutherford	Asian/NH/PI; VA, Medicare and Medicaid beneficiaries
Physical Activity					
Self-Reported Meeting Physical Activity Guidelines	28.7% in 2024	Increased since 2018 ↗	Higher than NC (21.6%), lower than US (30.3%)	Lowest (under 25%) in Graham, Mitchell, Swain, Yancey, Macon, Cherokee, Clay	Those below 100% FPL, women; those with diabetes or hypertension are less likely to meet guidelines
Disability Status	16.6% in 2024	Decreased since 2020 ↘	Higher than NC (13.6%)	Highest in Rutherford, Burke, Yancey, Mitchell	AI/AN, NH/OPI*, Aged 65+, Ambulatory and Independent Living difficulties most common
Self-Reported No Leisure Time Activity	22.4% in 2024	Decreased since 2018 ↘	Lower than NC (23.1%) and US (30.2%)	Highest (25%+) in Swain, Cherokee, McDowell, Burke, Rutherford, Mitchell	Those below 100% FPL, Black, Hispanic

OPI=Other Pacific Islander

Chronic Disease Trends

Tobacco/ Nicotine Use	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Self-Reported Current Smoker	16.7% in 2024	Decreased since 2012 ↘	Higher than NC (14.7%), lower than US (23.9%)	Highest (20%+) in Rutherford, Mitchell, McDowell	Those below 200% FPL, Black, aged 18-39, AI/AN
Self-Reported E-Cigarette Use	11.0% in 2024	Increased since 2015 ↗	Higher than NC (7.9%), lower than US (18.5%)	Highest (14%+) in Rutherford, Swain, Jackson	Those below 100% FPL, aged 18-39, Black, LGBTQ+
Chronic Lower Respiratory Disease Mortality	51.0 in 2019-2023	Level for a decade —	Higher than NC (39.4)	Highest in Swain, Graham, Rutherford, Caldwell, Avery	In NC, rates tend to be highest among AI/AN

Sickle Cell Disease

In 2016-2020, the most recent period available, only three counties in Medicaid Region 1 (Buncombe, Jackson, Transylvania) saw any births of newborns with Sickle Cell Disease (SCD). Exact numbers are suppressed, but between 1 and 25 babies were born in each of the three counties in 2016-2020. Jackson, Mitchell, and Rutherford counties experienced the highest burden of ED visits for SCD, with elevated risks being observed in Caldwell and Avery counties.

Economic Burden of Chronic Diseases

Between 2010 and 2024, the median costs for chronic disease hospitalizations more than doubled. These increasing expenditures put pressure on patients, healthcare systems, and public payers.

All cancer costs rose 157% with colorectal cancer being the most expensive cancer-related hospitalization (almost $65,000, nearly $6,900 more than the statewide median).

Heart disease hospitalization costs rose 143% with heart failure costs rising 160%.

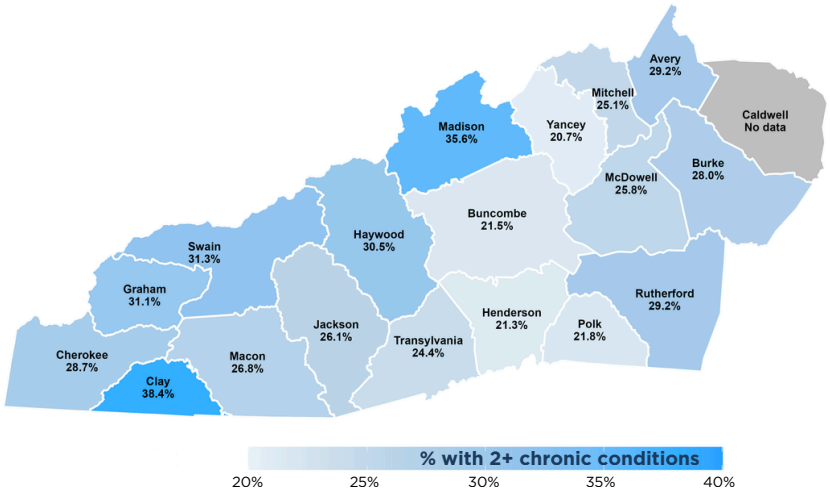
Diabetes-related hospitalization cost rose 149%.

Stroke hospitalization costs increased by more than 160%.

Figures & Maps

Geographic heat map (by county) of WNC Community Health Survey respondents with 2+ chronic conditions

Proportion of residents reporting at least two of the following:
high blood pressure, diabetes, COPD, heart disease, asthma, or stroke.



Note: Adults living with two or more chronic diseases often have more complex healthcare needs and may require ongoing medical care and support. This indicator helps identify communities (Clay and Madison) where the burden of chronic illness is greatest and where coordinated prevention and management efforts may have the greatest impact.

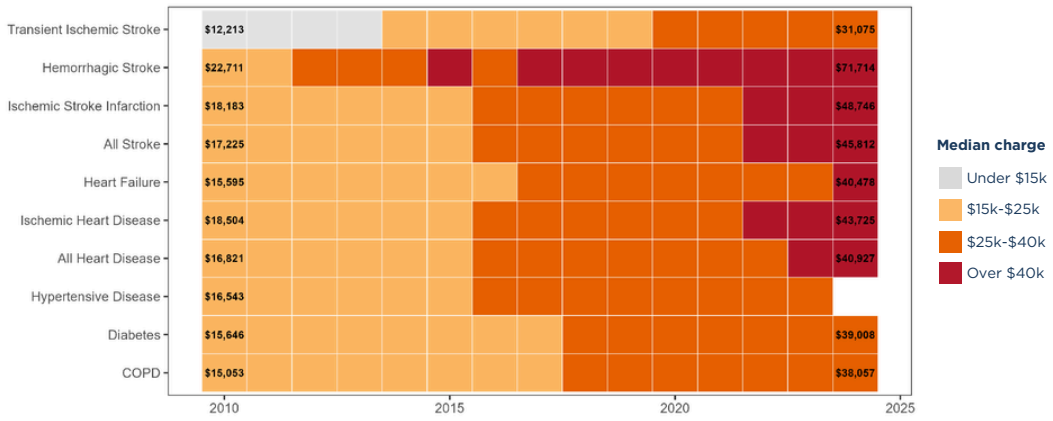
Source: Community Health Needs Assessment, 2021 and 2024. Caldwell County is shown in gray because no estimate was available.

Median total hospital charges by outcome

Western North Carolina, 2010-2024

Chronic Disease Hospitalizations Have Become More Expensive Over Time

Median total hospital charges by outcome, Western North Carolina, 2010-2024



Note: Although costs increased across all outcomes, the most expensive hospitalizations in 2024 were for hemorrhagic stroke ($71,714), followed by ischemic stroke ($48,746), all stroke ($45,812), and ischemic heart disease ($43,725). These findings show that chronic diseases are driving substantially higher healthcare costs, creating growing economic pressures for patients, healthcare systems, and public payers across the region.

Source: Hospital discharge charges for select chronic diseases. NC Hospital Inpatient Discharge Data, maintained by the Cecil G. Sheps Center for Health Services Research, Fiscal Year 2010-2024.

Community Voice

What We Are Hearing:

What's Helping

- Local public health departments
- Local providers
- Food banks/farmers markets
- Medication assistance programs
- Non-profits and CBOs
- Medicaid expansion
- Healthy Opportunities Pilot (HOP)
- Telehealth
- NC Quitline
- Education Programs

What's Hurting

- Limited providers and specialists
- Access to fresh/healthy foods
- Lack of education programs
- Insurance/cost barriers
- Lack of transportation
- Inflation and cost of food
- Prescription cost barriers
- Health literacy

Source: WNC Health Network. (2024). 2024 Online Key Informant Survey (OKIS): Western North Carolina community health assessment findings [Unpublished report].

Chronic Disease Community Sensemaking & Strategy Session

On Tuesday, August 11, 2026, Impact Health (with support from WNC Health Network) convened a Chronic Disease sensemaking session in Caldwell County, hosted at AMOREM's McCreary Family Professional Center (Robbins Center) in Hudson. Caldwell County was selected as a regional hotspot given its elevated hospital utilization and mortality rates across heart disease, stroke, COPD, and cancer, bringing local partners together to apply community expertise to these complex, often co-occurring conditions. The session brought together 41 in-person participants representing clinical and health systems, public health and regional councils, food, wellness, and community organizations, and payers and research partners.

The day moved from storytelling about when the chronic disease care system works well, through review and discussion of regional chronic disease data, into a facilitated discussion of the trends and conditions shaping chronic disease outcomes across the region, and closed with participants completing strategy worksheets naming priority interventions. Several findings ran consistently across those conversations.

Fragmented coordination, not a lack of services, is the challenge participants named most consistently. Participants described people who technically have care available to them but no trusted person or team helping them navigate it — poor information-sharing between primary care and specialists, inaccessible records, outdated contact information, and weak referral pathways were named as recurring failure points. The strongest and most consistent participant priority was expanding trusted, consistent navigators and interdisciplinary care teams — community health workers, care navigators, community paramedics, and pharmacists — who understand both medical and social needs and can coordinate across providers rather than leaving that coordination to patients and families.

Healthy food access surfaced as a central chronic disease issue in its own right, not a peripheral concern. Participants pointed to a substantial existing food-access infrastructure across the region — food banks and pantries, farmers markets, community gardens, mobile and pop-up markets, SNAP/WIC navigation, and Food as Medicine programming — but raised real concern about unstable funding, Healthy Opportunities Pilot changes and eligibility restrictions, and rising grocery costs eroding what's already in place. Participants were equally clear that chronic disease outcomes are shaped by conditions well beyond the clinic: poverty, housing, transportation, caregiving demands, and inflexible work schedules were repeatedly connected to people's ability to manage chronic conditions, and participants pushed back on framing physical inactivity or obesity as matters of individual motivation, describing them instead as structural outcomes of wages, work schedules, transportation, discrimination, and the built environment.

Chronic Disease Community Sensemaking & Strategy Continued



Sustainable, flexible financing is the precondition participants named for nearly every proposed solution, and their priorities did not map evenly onto the state's eight predefined chronic disease programming strategies. Of 63 completed strategy worksheets, 37 (about 59%) focused on expanding interdisciplinary care teams or strengthening provider education. Physical activity came up repeatedly elsewhere in the day's discussion as a structural, cross-cutting concern rather than a standalone program area. Another third of all submissions (21 of 63) fell outside the eight predefined categories entirely, most often addressing food access, navigation, and behavioral health, reflecting a consistently cross-cutting, systems-level view of chronic disease rather than a disease-specific one.

Initial Takeaways

- Expand interdisciplinary care teams — community health workers, navigators, community paramedics, and pharmacists — with sustainable financing and clearly defined roles
- Strengthen provider education and engagement around whole-person, culturally responsive chronic disease management
- Build closed-loop care coordination and referral infrastructure connecting primary care, specialists, hospitals, and community organizations
- Expand and sustainably finance Food as Medicine and healthy food access, including produce prescriptions and SNAP/WIC navigation
- Implement the state's eight programming strategies through a cross-cutting systems lens reflecting participants' priorities — workforce, navigation, food access, and social needs

Note: These takeaways reflect an initial review of the session discussion and are not a final synthesis. Further stakeholder engagement will be needed to fully validate and prioritize these themes. As we move into the action planning phase, we will be reviewing the full notes from this session for additional insights.

Appendices – Chronic Disease

01. 2026 Impact Health Initial Regional Needs Secondary Data Workbook

An Excel file, compiled for this Regional Needs Assessment, containing more than 100 spreadsheets of data describing the 19 counties in Medicaid Region 1. Secondary data is pulled from public domain sources like the US Census Bureau, NC Office of State Budget and Management, NC Department of Commerce, NC State Center for Health Statistics, Cecil B Sheps Center for Health Services Research, CDC, and more. The primary data includes select indicators most relevant to this project and comes from the WNC Healthy Impact Community Health Survey, conducted periodically across 18 counties in WNC, most recently as 2024. Note that primary data does not include Caldwell County.

02. WNC Healthy Impact 2024 Community Health Survey

This slide deck presents the results of the 2024 Community Health Survey in graphic form, disaggregated by county and race. Available by request from WNCHN.

03. Chronic Health Conditions | Cardiovascular Disease, Diabetes, and COPD

Hospital discharge data were summarized to characterize the burden of chronic disease in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends and disparities by geography, race and ethnicity, insurance payer, age, and sex, as well as the economic burden associated with chronic disease hospital care.

04. Chronic Health Conditions | Cancer

Hospital discharge data were summarized to characterize the burden of cancer in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends and disparities by geography, race and ethnicity, insurance payer, age, and sex, as well as the economic burden associated with cancer hospital care.

05. Chronic Health Conditions | Physical Inactivity and Smoking

Community Health Needs Assessment data from the WNC Regional Assessment were summarized for physical activity and smoking behavior among those with chronic diseases in Medicaid Region 1.

06. Chronic Health Conditions | Sickle Cell Disease

Hospital administrative data were summarized to characterize the burden of sickle cell in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends and disparities by geography, as well as the economic burden associated with emergency department visits for SCD.

07. County Hotspots Across Multiple Adult Chronic Disease Outcomes

Utilizing inpatient discharge data from the North Carolina Hospital Discharge Database provided by Cecil G. Sheps Center for Health Services Research, data were summarized by ranking of the highest-risk counties experiencing the burden of multiple chronic diseases, adult cancer, and multiple maternal health outcomes.

08. Community Health Assessments and Community Health Improvement Plans

As part of the Community Health Assessment process, local health departments and their partners document existing health resources and initiatives, as well as service gaps and barriers to access. Those resources, gaps, and barriers were compiled and summarized in the Data Primers that were presented and discussed at the Sense-Making Sessions conducted for this Regional Needs Assessment process. All 19 counties in Medicaid Region 1 completed CHAs in either 2024 or 2025.

09. CHA County Resource Chapters

This document inventories health-related programs, agencies, and services identified through each county's Community Health Assessment process — including chronic disease prevention, management, and screening resources — along with descriptions, contact information, and identified gaps in service availability. All 19 counties in Medicaid Region 1 are represented, providing a county-level environmental scan of existing chronic disease program availability and service gaps across the region.

CHAPTER 5

BEHAVIORAL HEALTH

Introduction
MENTAL HEALTH

Mental health and substance use remain among the highest health priorities across Western North Carolina. Nearly every county identified mental health and substance misuse in their top three health priorities in the recent 2024 Community Health Needs Assessments. Despite growing awareness and investment, many behavioral health indicators have worsened over time, while access to prevention, treatment, and recovery services continues to vary across the region. The following sections summarize key trends in mental health and substance use, highlight populations and communities experiencing the greatest burden, and describe barriers to accessing behavioral health care.

Mental Health in Western NC

Mental health challenges have increased across WNC over the past decade. Mental health is the component of behavioral health that includes our emotional, psychological, and social well-being. Mental health is a state of well-being that enables us to cope with the stresses of life, realize our abilities, learn well and work well, and contribute to our community (CDC, 2025).

Stress, social connection, and suicide risk remain important mental health concerns. In 2024, 17.2% of adults reported that a typical day was extremely or very stressful. Stress was highest in Haywood and Rutherford counties and disproportionately affected adults living below 200% of the federal poverty level, younger adults (18–39 years), and LGBTQ+ individuals. Indicators of suicide risk have worsened in recent years. In 2024, 10.7% of adults reported having seriously considered suicide in the past year, an increase since 2021. The highest prevalence was observed in Haywood and Rutherford counties, with elevated rates among lower-income adults, younger adults, Black adults, and LGBTQ+ individuals.

Measures of social support have declined over time, suggesting growing social isolation across the region. In 2024, 64.3% of adults reported usually or always receiving the social and emotional support they needed, a decline since 2012, while 64.9% reported having someone they could rely on for help, down since 2021. Conversely, 50.6% of adults reported feeling lonely at least occasionally. Lower levels of social support and higher loneliness were most common among adults with lower incomes, Hispanic adults, younger adults, and LGBTQ+ individuals, with Haywood, Rutherford, Buncombe, Burke, Henderson, and McDowell counties experiencing some of the greatest challenges.

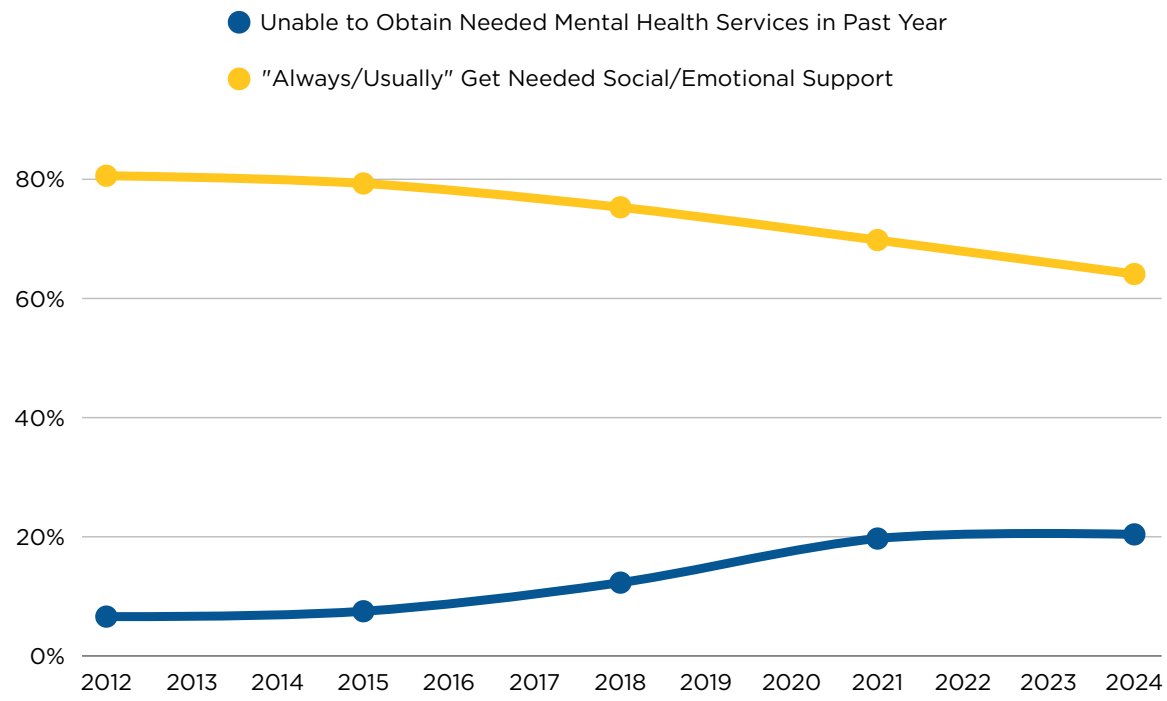
Emergency department data also reflect changing patterns of mental health needs. Overall rates of mental health-related ED visits remained relatively stable between 2010 and 2024 after peaking in 2017. However, trends differed by condition. Anxiety-related ED visits increased 23% over the study period and remained above pre-2020 levels, while ED visits involving suicidal thoughts more than doubled between 2010 and 2024 despite declining from a peak in 2022. In contrast, depression-related ED visits declined after 2020 and were 35% lower in 2024 than in 2010. Together, these findings suggest a shift in the types of mental health crises presenting to emergency departments, with growing demand related to anxiety and suicidal ideation.

Access to Mental Health Care

MENTAL HEALTH

Access to mental health care remains a significant challenge. Although nearly 30% of adults (29.4%) reported receiving mental health treatment in 2024, higher than the national average, almost 1 in 5 (19.7%) reported being unable to obtain needed mental health services, a proportion that has increased since 2012 and exceeds the US average (see figure below). Barriers to care were greatest in Buncombe and Rutherford counties and disproportionately affected adults with lower incomes, younger adults (18-39 years), and LGBTQ+ individuals. Men, older adults, and Hispanic adults were less likely to report receiving mental health treatment.

Service Area Ability to Obtain Mental Health Services and Frequently Getting Needed Emotional Support Over Time



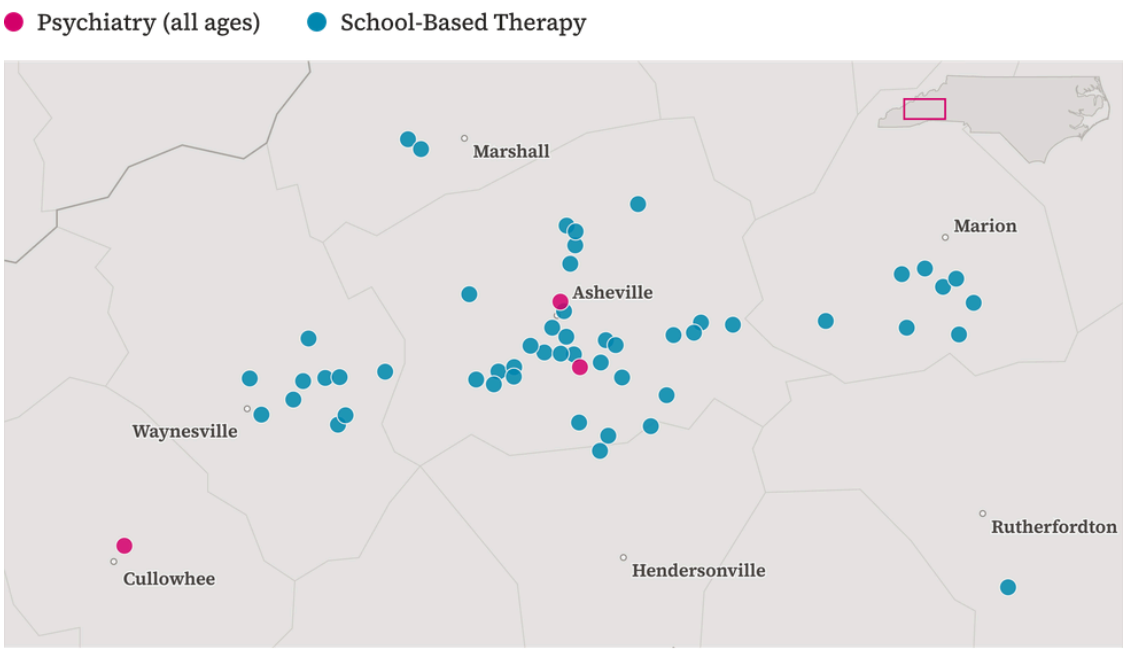
Source: Service area ability to obtain mental health services and frequently getting needed emotional support over time (2012-2024). Source: WNC Health Network 2024 WNC Healthy Impact Community Health Survey: Data Workbook.

Access to Mental Health Care

MENTAL HEALTH

Mental health providers are concentrated in Buncombe County, leaving many rural communities with limited access to psychiatric care (see figure below). While the number of general psychiatrists has increased over time, the behavioral health workforce remains constrained by shortages of addiction specialists and child and adolescent psychiatrists. Several rural counties rely on only a small number of psychiatrists nearing retirement, and Graham, Mitchell, and Yancey counties currently have no psychiatry providers. These workforce shortages contribute to access barriers, with 19.7% of adults reporting they were unable to obtain needed mental health services in the past year. Expanding provider capacity, improving rural access, and increasing the availability of services outside traditional business hours remain important regional priorities.

MAHEC Psychiatry Locations by Type



Point locations digitized from the source map; positions are approximate.

Source: Community Needs Assessment for the Certified Community Behavioral Health Center (CCBHC) at Mountain Area Health Education Center (MAHEC)

Key Indicator Tables
MENTAL HEALTH

How to Read This Table:

This table provides a snapshot of key indicators and highlights notable patterns across Western North Carolina (WNC). Indicator identifies the measure being assessed, while Current provides the most recent available estimate for WNC. Trend summarizes available information about how the measure is changing over time within WNC, and Comparison provides state-level data to help put WNC's current status into context. Counties Most Affected identifies counties that stand out from the broader regional pattern, helping highlight areas where outcomes may be notably better, worse, or otherwise different. Populations Most Affected calls attention to important differences or disparities among populations within the available data.

Medicaid Region 1 Summary of Current Status, Trends, and Disparities

Mental Health	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Self-Rated Mental Health (Fair or Poor)	22.1% in 2024	Baseline in 2024	Lower than US (24.4%)	Highest (25%+) in Haywood, Jackson, Rutherford	Those below the 200% FPL, Ages 18-39, LGBTQ+
Self-Reported 7+ Days Poor Mental Health in Past Month	19.8% in 2024	Increased since 2012 ↗	NA	Highest (25%+) in Haywood, Rutherford	Those below the 200% FPL, Ages 18-39, LGBTQ+
Self-Reported Dissatisfaction with Life	12.8% in 2024	Increased since 2012 ↗	NA	Highest (17%+) in Haywood, Rutherford	Those below the 200% FPL, LGBTQ+
Mental Health Access/ Treatment					
Self-Reported Currently Receiving Mental Health Treatment	29.4% in 2024	Increased since 2021 ↗	Higher than the US (21.9%)	Lowest (<21%) in Cherokee, Graham	Men, Ages 65+, Hispanic
Self-Reported Unable to Get Mental Health Services When Needed	19.7% in 2024	Increased since 2012 ↗	Higher than the US (13.2%)	Highest (23%+) in Buncombe, Rutherford	Those below the 200% FPL, Ages 18-39, LGBTQ+

Key Indicator Tables
MENTAL HEALTH

Medicaid Region 1 Summary of Current Status, Trends, and Disparities

Stress	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Self-Reported Typical Day is Extremely/Very Stressful	17.2% in 2024	Baseline in 2024	Lower than US (24.4%)	Highest (22%+) in Haywood, Rutherford	Those below the 200% FPL, Ages 18-39, LGBTQ+
Suicide Ideation					
Self-Reported Have Considered Suicide in Past Year	10.7% in 2024	Increased since 2021 ↗	NA	Highest (16%+) in Haywood, Rutherford	Those below the 200% FPL, Ages 18-39, Black, LGBTQ+
Support					
Self-Reported Always/Usually Get Needed Social/Emotional Support	64.3% in 2024	Decreased since 2012 ↘	NA	Lowest (<62%) in Haywood, Rutherford	Those below the 200% FPL, Hispanic
Self-Reported Always/Usually Have Someone to Rely on for Help When Needed	64.9% in 2024	Decreased since 2021 ↘	NA	Lowest (<63%) in Burke, Henderson, McDowell	Those below the 200% FPL, Hispanic
Self-Reported Feel Lonely Often/ Some of the Time/ Occasionally	50.6% in 2024	Baseline in 2024	NA	Highest (55%+) in Buncombe, Haywood, Rutherford	Those below the 200% FPL, Ages 18-39, LGBTQ+
Resilience					
Self-Reported Able to Stay Hopeful in Difficult Times	81.9% in 2024	Decreased since 2021 ↘	NA	Lowest (<77%) in Haywood, McDowell, Rutherford	Those below the 200% FPL, Ages 18-39, LGBTQ+

Community Voice

MENTAL HEALTH

What We Are Hearing:

What's Helping

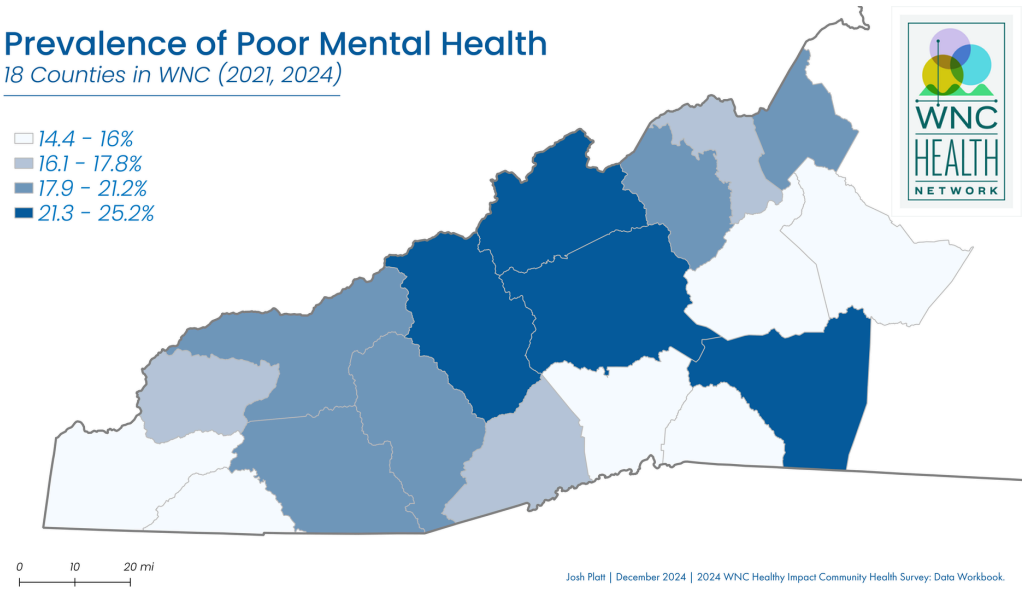
- Crisis support and resource access
- School-based and youth-focused services
- Telehealth and expanded care options
- Community engagement and outreach
- Training and education

What's Hurting

- Limited access and long wait times
- Stigma and shame
- Isolation and transportation barriers
- Poverty and unmet basic needs
- Unaddressed trauma
- Lack of crisis response options

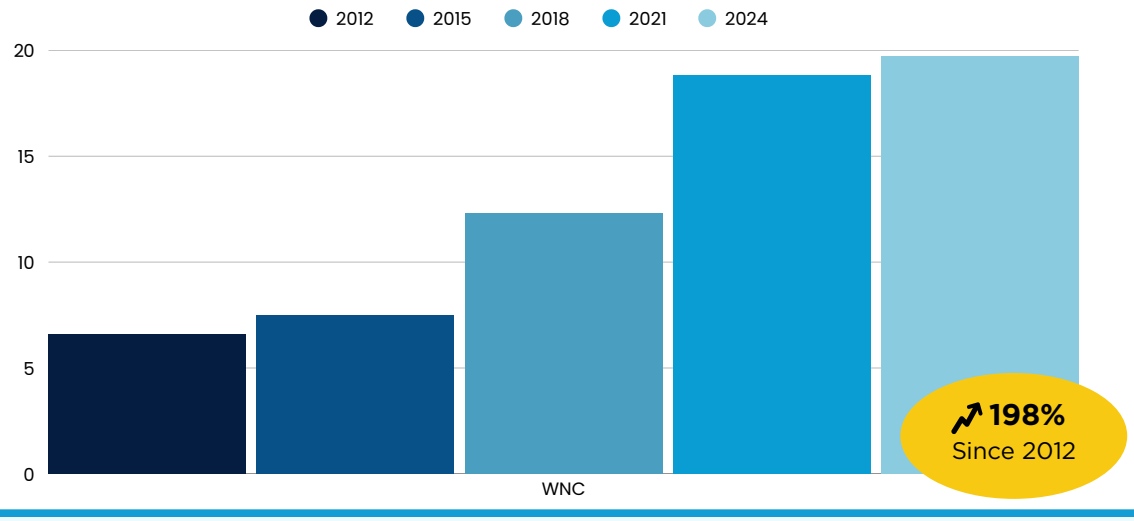
Figures & Maps
MENTAL HEALTH

Geographic heat map (by county) of Prevalence of Poor Mental Health



Mental Healthcare Access: Unable to Get Mental Health Services When Needed in the Past Year

Western North Carolina, 2024



Source: WNC Health Network. (2024). 2024 WNC Community Health Survey: Data Workbook. [Data set]. Available from https://www.wnchn.org/wnc-data/regional-data/.

Introduction
SUBSTANCE USE

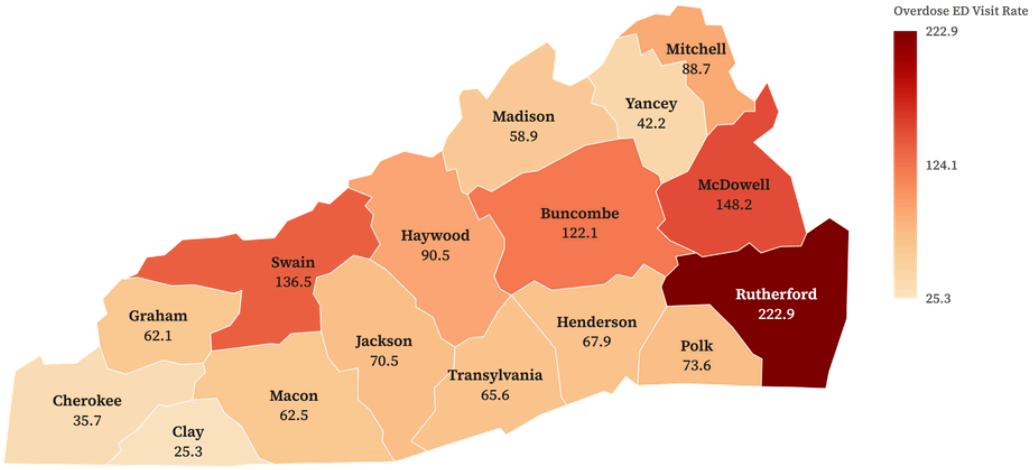
Substance Misuse in Western North Carolina

Substance misuse remains a significant public health concern in WNC, despite progress in some areas. In 2024, 19% of adults reported excessive alcohol use, with the highest prevalence in Buncombe, Haywood, and Henderson counties and among men, younger adults (18-39 years), and LGBTQ+ individuals. While prescription opioid use declined to 13.1% of adults since 2018, the region continues to experience a disproportionate burden of opioid-related harms. The unintentional overdose death rate (71.1 per 100,000) was nearly twice the statewide rate and was highest in Swain and Cherokee counties. Although rates of infant drug withdrawal have declined in recent years, they remain more than three times higher than the North Carolina average, particularly in Cherokee, Swain, and Graham counties. Reflecting the broad impact of substance use on families and communities, more than half of adults (54.2%) reported that their lives had been negatively affected by their own or someone else's substance use, an increase since 2018.

Opioid Use and Overdose

Emergency department visits for drug overdose increased substantially between 2016 and 2022 before declining in 2023, potentially reflecting expanded access to naloxone and other harm reduction efforts (see figure below). However, overdose mortality has continued to rise, with death rates remaining well above the statewide average and the majority of overdose deaths now involving illicit opioids. The highest overdose death rates were observed in Graham County, while Rutherford, McDowell, and Swain counties experienced the highest rates of overdose-related emergency department visits. These findings underscore the continued need for comprehensive prevention, treatment, recovery, and harm reduction strategies across the region.

Overdose ED Visit Rate (2024)



Source: Service Area Overdose ED Visit Rates (2024). Source: NCDHHS Opioid and Substance Use Action Plan Data Dashboard

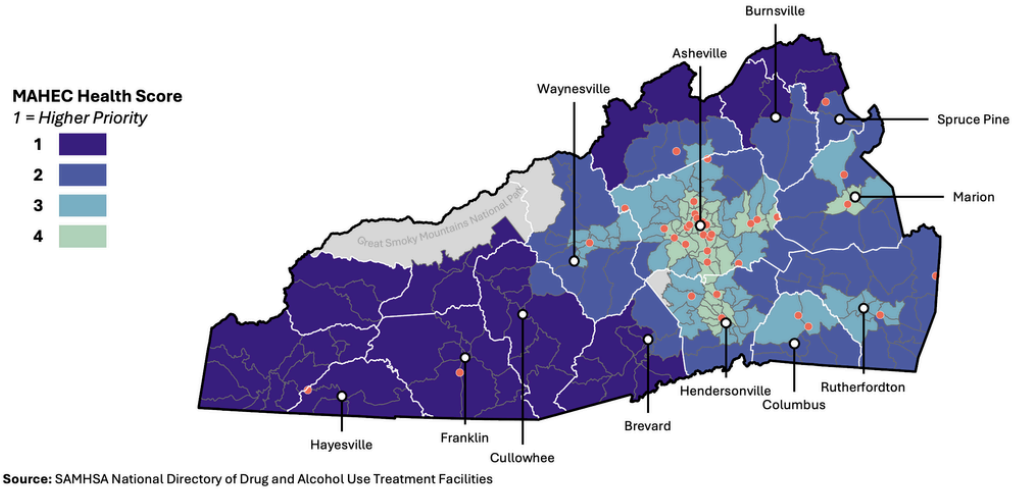
Introduction
SUBSTANCE USE

Between 2016 and 2023, ED visits for stimulant overdose nearly tripled, representing the largest increase among all substance use outcomes, while opioid overdose visits increased by 80% and opioid use disorder visits increased by nearly 30%. Alcohol use disorder and all-drug overdose visits also increased over the study period, although more modestly. While overall substance use disorder visits declined from a peak in 2017, they remained higher in 2023 than in 2016, suggesting that the regional burden has increasingly shifted toward opioid- and stimulant-related harms.

Men experienced substantially higher rates of alcohol use disorder, stimulant overdose, and opioid-related ED visits than women. American Indian patients experienced the highest rates across nearly every substance use and overdose outcome, while adults aged 18-44 years had the greatest burden of opioid- and stimulant-related ED visits and adults aged 45-64 years had the highest rates of alcohol use disorder and all-drug overdose. Patients insured by Medicaid, Medicare, self-pay, or other non-private coverage consistently experienced higher rates of substance use-related ED visits than those with private insurance.

Access to Substance Use Facilities

Distance to Nearest Substance Use Facilities



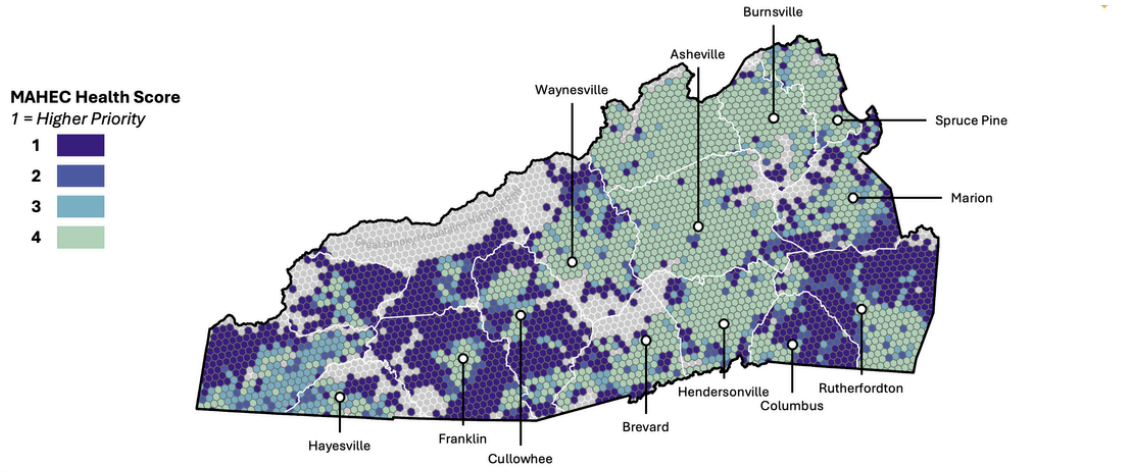
Source: SAMHSA National Directory of Drug and Alcohol Use Treatment Facilities

Source: Distance to Nearest Substance Use Facilities. Source: SAMHSA National Directory of Drug and Alcohol Use Treatment Facilities

Digital Infrastructure

Reliable internet access is an essential component of behavioral health care, particularly as telehealth expands access to services in rural communities. In Western North Carolina, 85% of households have an internet subscription, while 15% lack internet access, and 12% rely exclusively on cellular data (Figure 5). Additionally, 8.5% of households do not have a computer or other computing device. Broadband access remains uneven across the region, with significant gaps in portions of Rutherford, Polk, Jackson, Macon, Swain, Graham, and Cherokee counties, potentially limiting residents' ability to access telehealth services, online behavioral health resources, and other digital supports. Households with lower incomes experience substantially lower internet access, with approximately 40% of households earning less than $20,000 annually lacking an internet subscription, compared with much higher connectivity among higher-income households; across the region, this ranged from 28% in Transylvania County to 50% in Macon County.

Percent of Households without Access to Broadband Internet



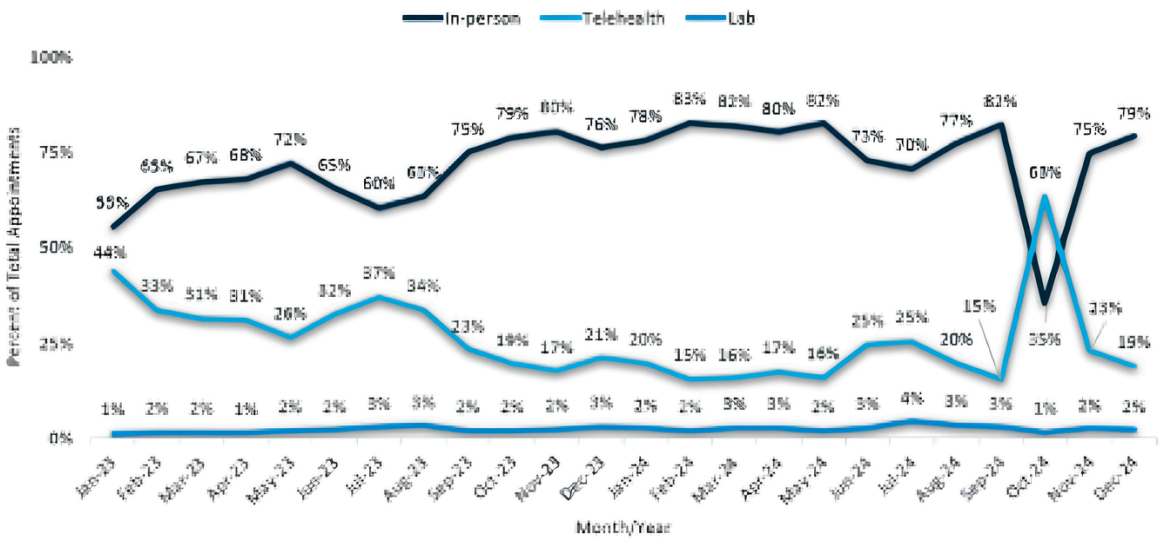
Source: Lorem ipsum
Note: In 2023, 7.9% of households in the United States did not have a broadband internet subscription. Residents of rural and tribal areas tend to have lower access to broadband. Lack of broadband access can limit educational and economic opportunities, as well as delivery of health care services remotely through telehealth services. Telehealth services have been shown to reduce chronic disease risk factors and improve the management of chronic disease conditions, like cardiovascular disease, diabetes, and obesity. Providing grants or loans to internet service providers, health care centers, or local governments to expand availability of and lower the costs associated with broadband is one strategy to increase broadband availability.

Source: Percent of Households without Access to Broadband Internet. Source: FCC Broadband 2025

Limited broadband access may reduce the effectiveness of telehealth as a strategy for expanding behavioral health care, particularly in rural counties with significant connectivity gaps (see figure above). While ongoing state and local broadband initiatives may improve access over time, fewer than half (46%) of survey respondents reported they would be very or extremely likely to use telemedicine for future routine care (CHNA 2024), suggesting that telehealth might serve as a complement to in-person behavioral health services.

Behavioral Health Workforce

Service Delivery at MAHEC Psychiatry Department



Source: Service Delivery at MAHEC Psychiatry Department. Source: MAHEC Psychiatry Department data.

The behavioral health workforce in WNC has grown over the past decade, driven primarily by an increase in general psychiatrists, while the number of child and adolescent psychiatrists has remained largely unchanged and addiction psychiatry has grown only modestly. The supply of psychologists has increased, but the number of psychological associates (master's-level clinicians) has steadily declined. Most behavioral health providers are concentrated in Buncombe County, leaving many rural communities with limited access to specialty behavioral health care. Workforce shortages are expected to intensify as providers retire and the region's population grows, highlighting the need to recruit and retain behavioral health professionals, particularly in rural and underserved communities.

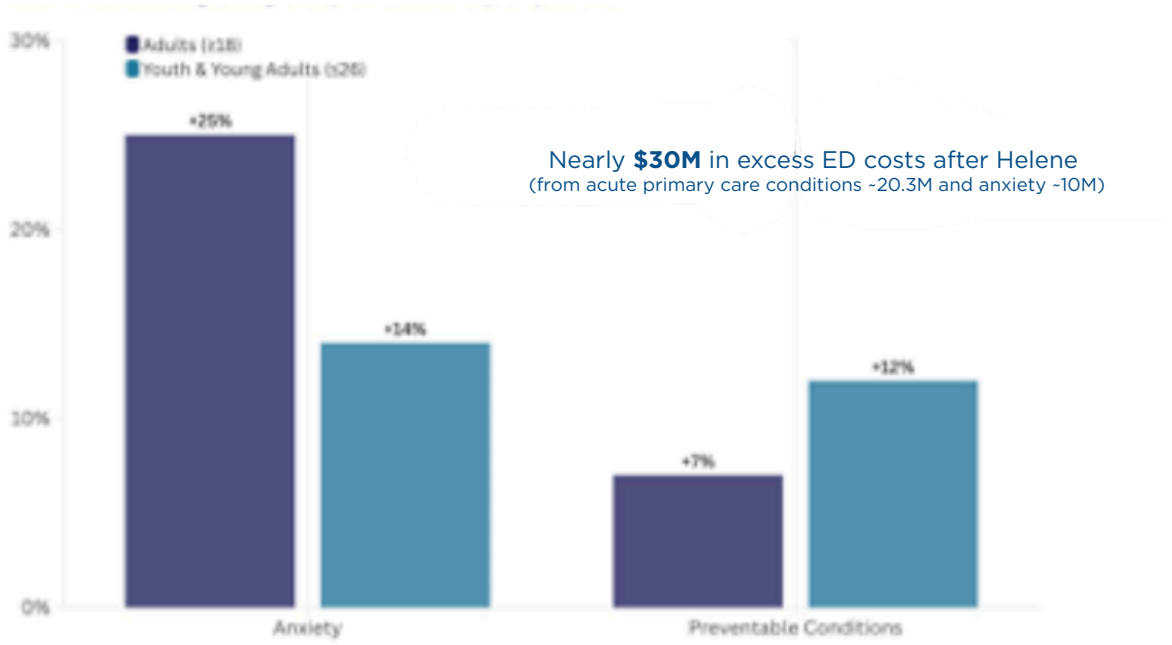
Hurricane Helene & Post-Disaster Considerations

Hurricane Helene, which struck WNC in September 2024, was the most devastating natural disaster in North Carolina's history and is expected to have lasting impacts on behavioral health. The storm highlighted the importance of coordinated behavioral health response systems, including crisis counseling, telehealth, and support for healthcare workers. As recovery continues, ongoing monitoring of mental health needs and expansion of accessible behavioral health services will be essential to support long-term community resilience.

Although the data in this report largely predate Hurricane Helene, early post-disaster evidence indicates a surge in anxiety-related emergency department visits during the first three months after the storm, with the greatest increases observed among adolescents, young adults, and adults (Figure 7). Anxiety-related ED visits increased by 25% among adults and 14% among youth and young adults, generating nearly 3,000 excess visits and $10 million in additional healthcare costs. These early findings suggest that behavioral health needs are likely to remain elevated well beyond the immediate disaster response period.

Emergency visits rose for both adults and youth after Helene

Increases were seen in preventable primary-care sensitive conditions and anxiety-related emergency department visits



Source: Increases in anxiety-related and preventable emergency department visits following Hurricane Helene, Western North Carolina (2022-2024). During the three months following Hurricane Helene, anxiety-related emergency department (ED) visits increased by 25% among adults and 14% among youth and young adults compared with expected levels. ED visits for preventable primary care-sensitive conditions also increased (7% among adults and 12% among youth and young adults).

Key Indicator Tables
SUBSTANCE USE

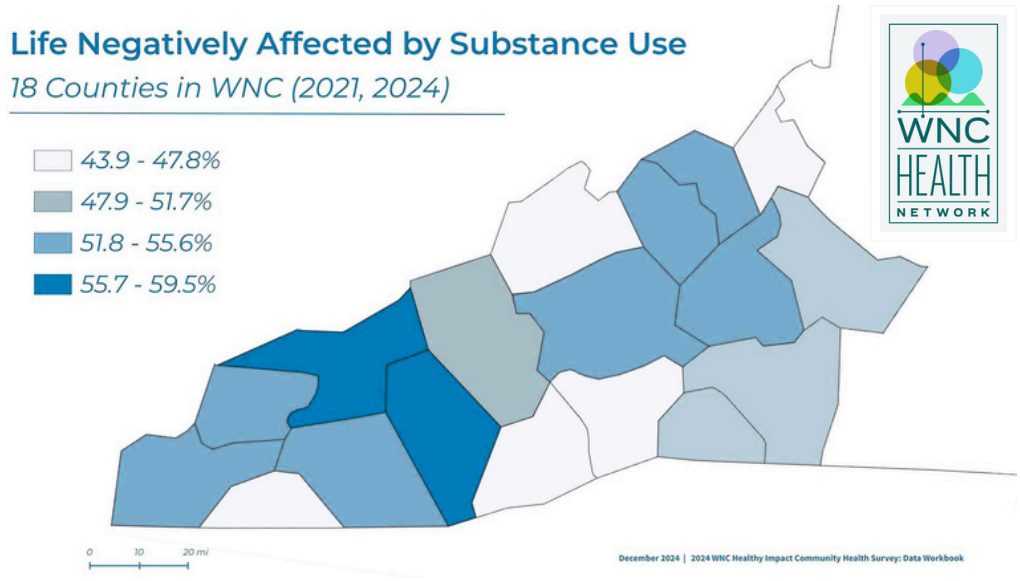
How to Read This Table:

This table provides a snapshot of key indicators and highlights notable patterns across Western North Carolina (WNC). Indicator identifies the measure being assessed, while Current provides the most recent available estimate for WNC. Trend summarizes available information about how the measure is changing over time within WNC, and Comparison provides state-level data to help put WNC's current status into context. Counties Most Affected identifies counties that stand out from the broader regional pattern, helping highlight areas where outcomes may be notably better, worse, or otherwise different. Populations Most Affected calls attention to important differences or disparities among populations within the available data.

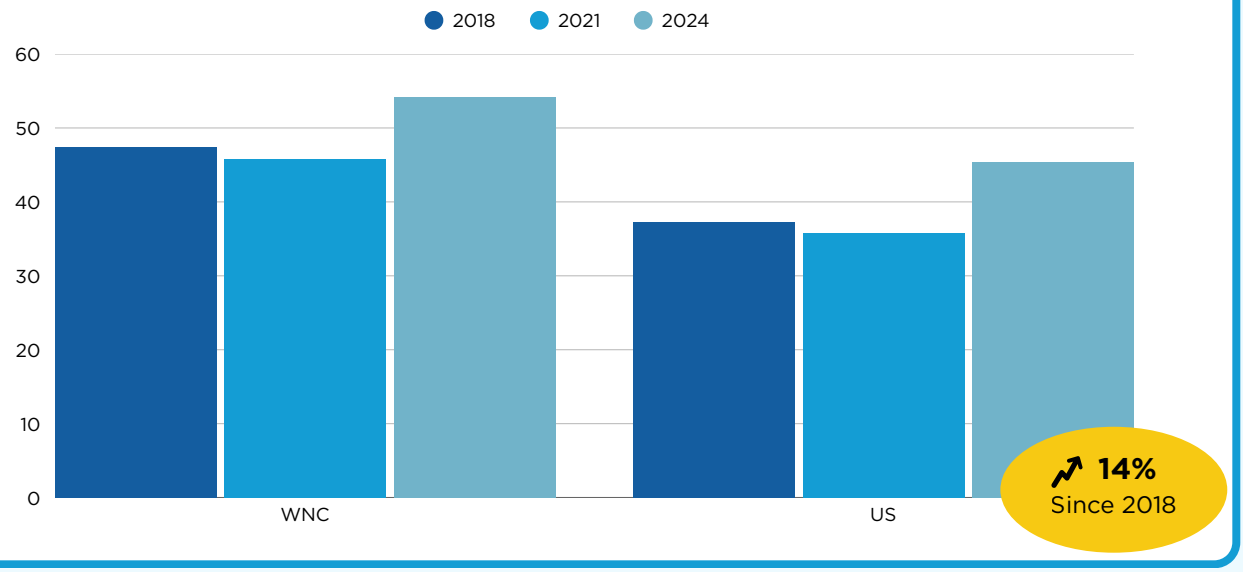
Drinking	Current	Trend	Comparison	Counties Most Affected	Populations Most Affected
Self-Reported Excessive Drinking	19% in 2024	Increase since 2012 ↗	Lower than US (34.3%)	Highest (21%+) in Buncombe, Haywood, Henderson	Men, Ages 18-39, LGBTQ+
Opioids					
Self-Reported Used a Prescription Opioid in the Past Year, With or Without a Prescription	13.1% in 2024	Decrease since 2018 ↘	Lower than US (15.1%)	Highest (18%+) in Clay, Haywood, McDowell	Those below the 200% FPL, Ages 65+, AI/AN
Life Negatively Affected					
Self-Reported Life Has Been Negatively Affected by Substance Use (by Self or Someone Else)	54.2% in 2024	Increased since 2018 ↗	Higher than US (45.4%)	Highest (62%+) in Jackson, Swain, Yancey	Ages 18-39, AI/AN, LGBTQ+
Overdoses					
Unintentional Poisoning Mortality (rate per 100,000 population)	71.1 in 2019-2023	Increase since 2013-2017 ↗	Higher than NC (36.0)	Highest in Swain and Cherokee	Statewide: AI/AN, aged 35-44, male
Infant Withdrawal Discharges					
Newborns Discharged with Infant Drug Withdrawal Diagnosis (per 1,000 newborn discharges)	26.2 in 2020-2024	Decrease since 2017-2021 ↘	Higher than NC (7.7)	Highest in Cherokee, Swain, Graham	Unclear

Figures & Maps
SUBSTANCE USE

Geographic heat map (by county) of Prevalence of Life Negatively Affected by Substance Use



Life Has Been Negatively Affected by Substance Use (by Self or Someone Else)
(Western North Carolina, 2024)



Source: WNC Health Network. (2024). 2024 WNC Community Health Survey: Data Workbook. [Data set]. Available from https://www.wnchn.org/wnc-data/regional-data/.

Community Voice

SUBSTANCE USE

What We Are Hearing:

What's Helping

- MAT (Medication-Assisted Treatment)
- Suboxone clinics
- Peer support groups and recovery programs
- Drug court programs
- Community outreach and peer-led harm reduction
- Prevention, education, and early intervention
- Workforce and housing support
- Policy and funding infrastructure

What's Hurting

- Availability of substances (e.g., fentanyl, vape shops, overprescription)
- Limited treatment options and underfunded systems
- Poverty, unemployment, and other social determinants
- Lack of tobacco-free spaces and social activities
- Stigma, shame, and generational trauma
- Legal gray areas
- Marketing and normalization of use

Source: WNC Health Network. (2024). 2024 Online Key Informant Survey (OKIS): Western North Carolina community health assessment findings [Unpublished report].

Appendices – Behavioral Health

01. **2026 Impact Health Initial Regional Needs Secondary Data Workbook**

An Excel file, compiled for this Regional Needs Assessment, containing more than 100 spreadsheets of data describing the 19 counties in Medicaid Region 1. Secondary data is pulled from public domain sources like the US Census Bureau, NC Office of State Budget and Management, NC Department of Commerce, NC State Center for Health Statistics, Cecil B Sheps Center for Health Services Research, CDC, and more. The primary data includes select indicators most relevant to this project and comes from the WNC Healthy Impact Community Health Survey, conducted periodically across 18 counties in WNC, most recently as 2024. Note that primary data does not include Caldwell County.

02. **WNC Healthy Impact 2024 Community Health Survey**

This slide deck presents the results of the 2024 Community Health Survey in graphic form, disaggregated by county and race. Available by request from WNCHN.

03. **Mental Health-Related Emergency Department Visits in Western North Carolina**

Hospital discharge data were summarized for common mental health conditions in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends, racial and ethnic disparities, sex-based and age-based differences, insurance disparities, and geographic disparities.

04. **Substance Misuse and Overdose-Related Emergency Department Visits in Western North Carolina**

Hospital delivery discharge data were summarized for common substance misuse and overdose-related visits in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends, racial and ethnic disparities, sex-based and age-based differences, insurance disparities, and geographic disparities.

05. **Community Health Assessments and Community Health Improvement Plans**

As part of the Community Health Assessment process, local health departments and their partners document existing health resources and initiatives, as well as service gaps and barriers to access. Those resources, gaps, and barriers were compiled and summarized in the Data Primers that were presented and discussed at the Sense-Making Sessions conducted for this Regional Needs Assessment process. All 19 counties in Medicaid Region 1 completed CHAs in either 2024 or 2025.

06. WNC Data Stories: Mental Health in Western NC and WNC Data Stories: Substance Use in Western NC

Data Stories are snapshots of key health issues in Western North Carolina, prepared by the team at WNC Health Network. They blend local data with community voices to help people understand what's happening, and why it matters. Beginning with the most recent Community Health Assessment (CHA) data from all 18 counties in Western North Carolina, including the Eastern Band of Cherokee Indians, WNCHN focused on the health priorities identified by local health departments and public health agencies across the region. These priorities reveal the topics that matter most to local communities—and in 2025, some of the most cross-cutting issues include climate, housing, and food security. Note that Caldwell County is not reflected in these data stories.

07. 2026 Community Needs Assessment for the Certified Community Behavioral Health Center (CCBHC) at Mountain Area Health Education Center (MAHEC)

Prepared by the Program Evaluation Team at MAHEC, this assessment describes the 16 westernmost counties in NC. It identifies current community needs, desired services, and desired outcomes related to mental health and substance use within the service area. It also details MAHEC's capacity to address the needs of the service population and make organizational recommendations to expand services and access for communities that could benefit most. Note that Avery, Burke and Caldwell are not in this service area.

08. 2026 CCBHC Needs Assessment Visual Summary

Brief chart, map and figure-focused highlights from the longer needs assessment report cited above.

CHAPTER 6

WORKFORCE & CARE TEAMS



Key Findings

WNC Population Projections – Implications for Future Workforce Demand Composition

By 2060, Western North Carolina's total population is projected to reach 1.19 million (16% above its 2025 level compared to a 30% statewide growth). The geriatric population (65+) is the region's dominant demand driver. It will grow from 261,477 in 2025 to 343,446 by 2060, an addition of roughly 82,000 residents. This +31% growth, though slower than the state's +63%, reflects a higher starting point: one in four Western North Carolinians is already 65 or older in 2025, a share North Carolina as a whole does not reach within the entire projection horizon. Geographically, the aging is sharpest in the region's most rural counties. Clay and Cherokee project 38% 65+ shares by 2050. Transylvania, Macon, and Avery will reach 35%, 32%, and 29% respectively.

As of 2025, one in four Western North Carolinians is 65 or older, already a greater proportion of older adults currently compared to the statewide proportion in 2060 which includes growth in this age range.

The working-age population (18–54) is projected to grow only 12% through 2060. In four rural counties, it shrinks: Transylvania (−9%), Avery (−11%), Mitchell (−5%), and McDowell (−4%). These same counties have the region's highest projected 65+ shares by 2050.

Pediatric and adolescent populations flatten or decline. The 0–9 cohort ends 2060 just 1% above its 2025 level (statewide +15%), and the 10–17 cohort shrinks 2% (statewide +12%).

The shifting demographics of WNC have important implications for the kinds of care anticipated to be needed. The growth of the 65+ cohort indicates a growing need for chronic disease management, Medicare transition, complex chronic, long-term care and palliative services to meet growing demand.



How might we align workforce development strategies to meet current needs AND prepare for future demographic demands?

Workforce development strategy should consider both current and future project demand.



Current Workforce

Workforce Supply

Western North Carolina's physician supply has grown 33% over the past 14 years, increasing from 1,950 active, in-region physicians in 2010 to 2,584 in 2024. However, this growth lags behind North Carolina's statewide increase of 38% over the same period, suggesting uneven physician workforce development across the state.

Physician distribution in the region is highly concentrated. Buncombe County alone accounts for 52% of all WNC physicians (1,354), having grown 61% since 2010. Henderson and Burke counties represent the second and third largest bases, with 293 and 227 physicians respectively, though their growth rates (21% and 20%) remain below Buncombe's trajectory.

Rural counties show stagnation or decline in physician volume. Transylvania, Rutherford, and Macon counties have all lost physicians since 2010 (–5%, –26%, and –26% respectively), while smaller, more remote counties (Clay, Graham, Yancey) maintain minimal physician presence. Even counties with modest growth—Jackson (+4%), Caldwell (+11%), Madison (+55%)—remain significantly under-resourced relative to population and healthcare needs.

Perinatal Care. WNC's perinatal workforce expanded modestly between 2013 and 2024, but significantly lagged state growth. Certified nurse midwives grew 27% regionally versus 101% statewide, while OB/GYN providers increased 17% regionally versus 24% statewide. Both professions concentrate heavily in Buncombe County (52% of midwives, 57% of OB/GYNs). Multiple counties—Madison, Polk, Yancey, Cherokee, and others—have zero midwife or OB/GYN presence, creating significant gaps in maternal and obstetric care capacity outside the Asheville area.

Behavioral Health. Between 2010 and 2024, WNC's psychologist supply grew 16%—slower than the state's 21%. Growth concentrated in Buncombe County (68% of regional psychologists, +35% growth), while more than half of WNC's counties have five or fewer psychologists, with several counties maintaining zero presence. This geographic maldistribution underscores a significant gap in behavioral health workforce capacity across rural areas.

Primary Care. Nearly half of WNC counties saw their primary care physician rate decline between 2013 and 2024. Nine of nineteen counties lost ground over the observed window, most steeply in Rutherford (–26%), Macon (–18%), Mitchell (–12%), and Jackson (–11%). The regional average rose to 118% of the state rate, but that gain is driven almost entirely by Buncombe County, whose rate doubled the statewide rate by 2024.

Oral Care. Between 2010 and 2024, WNC's dentist supply grew, but slower than the state. The regional rate rose to 4.9 per 10,000 residents by 2024 (+19% over the time frame), but statewide growth of +27% means WNC ended at 88% of the state rate rather than closing on it. Growth was concentrated in three counties — Buncombe (+24%), Henderson (+23%), and Haywood (+22%) — which are also the only counties meeting or exceeding the statewide rate.

Current Workforce

Workforce Supply

Nursing. WNC's nursing workforce shows a mixed trajectory between 2010 and 2024. Registered nurses grew modestly (8%), keeping pace with the state's growth (12%) and maintaining 99% of the statewide rate per capita. However, licensed practical nurses declined sharply—down 36% regionally versus 15% statewide—leaving WNC below the state average at 91% of the statewide rate. In contrast, nurse practitioners experienced robust growth of 236%, outpacing the state's 223% expansion and now exceeding the statewide rate at 103%. This composition shift reflects national trends toward advanced practice nursing, but the decline in practical nurses may signal workforce transitions and challenges in retaining lower-credential nursing positions. Geographic concentration persists: Buncombe County represents a dominant share of nursing capacity across all roles, while rural counties continue to experience workforce constraints in all nursing categories.

Allied Health. WNC's allied health workforce shows divergent trajectories across specialties between 2010 and 2024. Physical therapists grew 44% regionally, outpacing the state's 36% expansion and reaching 119% of the statewide rate per capita. Occupational therapists similarly expanded 70%, exceeding the state's 68% growth and reaching 111% of the statewide rate.

- Buncombe County dominates across all three professions (214% of state rate for physical therapists, 198% for occupational therapists, 135% for respiratory therapists), reflecting the concentration pattern seen in other healthcare roles. Rural counties face severe allied health shortages: multiple counties have minimal or zero respiratory therapy capacity, and smaller rural areas lag significantly in physical and occupational therapy availability.

Community Health Workers. Western North Carolina has 188 certified Community Health Workers (CHWs) as of July 1, 2026, with 139 holding current SCCT CHW I certification. However, advanced practitioners are scarce: only 8 CHW IIIs and 1 CHW IV exist across the region. Buncombe County accounts for 45% of all CHWs (85), while fourteen of nineteen counties have fewer than 10 certified CHWs. Four counties have only 1–2 certified CHWs. The concentration of CHWs in Buncombe and the shortage of CHW located in rural areas indicate a need for additional workforce development in these areas.

Emergency Medical Services. According to NC OneMap's Emergency Medical Services dataset, the 19-county Western North Carolina region has 3,851 emergency medical personnel supporting 237 facilities across 5 facility types.

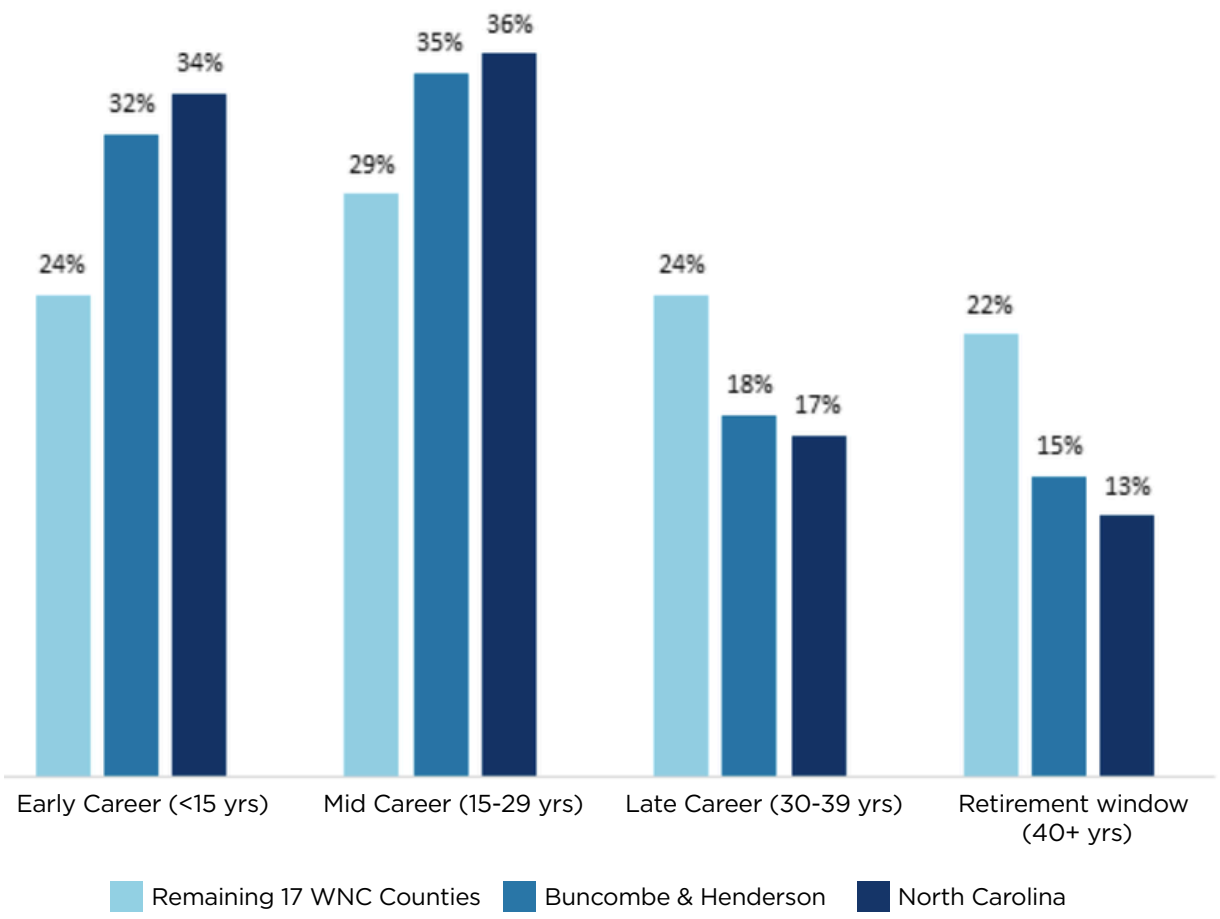


Current Workforce

Physician Retirement

Of the region's **3,177** actively licensed MDs, 46% of those practicing outside Buncombe and Henderson counties are 30 or more years past medical school graduation (used as a proxy for career stage) compared with 33% in Buncombe and Henderson counties and 30% statewide. Buncombe and Henderson hold the region's concentrated medical infrastructure; the seventeen remaining counties recruit and retain physicians on a different pattern.

46% of Western North Carolina's Rural Physician Workforce Nearing Retirement



Source: North Carolina Medical Board Licensing Roster, retrieved July 12 2026. Using length of time from a physician's medical school graduation year as a proxy for career stage and retirement risk.

Health Workforce Training Pipeline

Technical/Post-Secondary Training

- **Allied Health and Medical Assisting Services program output declined notably from 2015 to 2024,** dropping from 149 to 112 total graduates across certificate and associate degree levels. The primary decrease was concentrated in Medical/Clinical Assistant programs (from 95 to 59 combined), while some specialized programs like Pharmacy Technician were discontinued.
- **Mental and social health training output more than doubled between 2015-2024.** Completions rose from 104 to 224 (+115%), with new programs at Isothermal Community College and Blue Ridge Community College contributing over a third of 2024 output.

Graduate Medical Education

Accreditation Council of Graduate Medical Education (ACGME) accreditation ensures that residency and fellowship programs meet rigorous national standards for clinical training and education quality. Western North Carolina's graduate medical education infrastructure is anchored by two ACGME-accredited Sponsoring Institutions: Mountain Area Health Education Center (MAHEC) and UNC Health Blue Ridge Program.

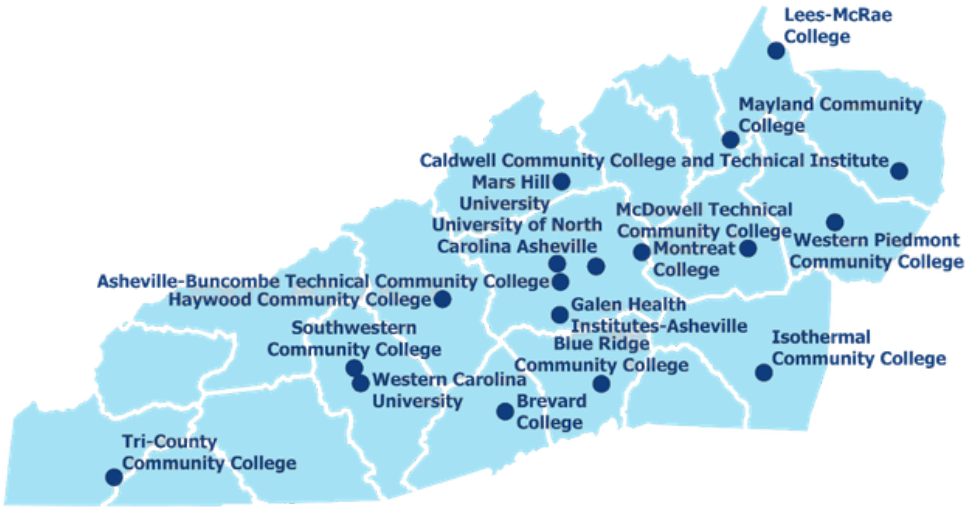
MAHEC, as the larger of the two sponsoring institutions, oversees 17 graduate medical education programs, 15 of which operate within the 19-county Western North Carolina region and 2 of which operate in Boone, NC. This breadth of programming enables MAHEC to train physicians across multiple specialties and address diverse workforce needs throughout the region. MAHEC sponsors pipeline program specialties in family medicine, internal medicine, obstetrics and gynecology, psychiatry, dentistry, pharmacy and surgery and sponsors continuing graduate medical education (GME) in sports medicine, maternal-fetal medicine, addiction psychiatry/medicine, child and adolescent psychiatry, consultation-liaison psychiatry, and surgical critical care. MAHEC's current (AY 26-27) graduate medical education includes 202 residents and 12 fellows. UNC Health Blue Ridge Program sponsors an internal medicine pipeline program and a gastroenterology continuing GME program based in Burke County. Collectively, these two institutions coordinate clinical training across 115 participating clinical sites distributed throughout the region—a network that reflects WNC's commitment to embedding graduate medical education within community-based healthcare systems.

This distributed model of graduate medical education strengthens the region's ability to produce physicians with direct experience in rural care settings, increasing the likelihood they will practice locally and contribute to addressing persistent healthcare access gaps.

Health Workforce Training Pipeline

Technical/Post-Secondary Training

Western North Carolina's 18 Postsecondary Health Professions Training Institutions



Source: National Center for Education Statistics' (NCES) Integrated Postsecondary Education Data System (IPEDS) 2025 Institutional Characteristics Data File (HD2025).

Strengthening the health professions workforce pipeline is critical to addressing healthcare workforce shortages and expanding rural access to care across Western North Carolina's 19-county region. Recent data from the National Center for Education Statistics' (NCES) Integrated Postsecondary Education Data System (IPEDS) demonstrate meaningful progress on this priority. Between 2015 and 2024, the region's health professions training output grew across all credential levels. Eighteen educational institutions awarded 2,140 health professions credentials in 2024—a 16% increase from the 1,844 credentials awarded in 2015.

- **Regional educational institutions offering certificates, associates, bachelors and graduate degree credentials in human health (18):** Asheville-Buncombe Technical Community College, Blue Ridge Community College, Brevard College, Caldwell Community College and Technical Institute, Haywood Community College, Isothermal Community College, Lees-McRae College, Mars Hill University, Mayland Community College, McDowell Technical Community College, Montreat College, University of North Carolina Asheville, Southwestern Community College, Tri-County Community College, Warren Wilson College, Western Piedmont Community College, Western Carolina University, Galen Health Institutes-Asheville
- **Registered nursing is the region's dominant training pipeline.** The RN program area produced 696 completions in 2024 (+11% since 2015) — roughly a third of all health professions credentials — with Western Carolina University accounting for 46% of the total completions.

Challenges to Workforce Recruitment and Retention

Housing Affordability

Housing affordability in Western North Carolina has sharply deteriorated in recent years, creating a challenge to healthcare workforce recruitment and retention. Housing cost-to-income ratios—a standard measure of affordability—remained relatively stable from 2010 through 2018, but have risen sharply since. Buncombe County's ratio climbed from 4.3 (2010–2014) to 5.3 (2019–2023); Transylvania County, the region's most stretched, rose from 4.1 to 5.6 over the same span. Twelve of the region's nineteen counties now exceed North Carolina's statewide ratio of 4.0, and the pressure extends beyond Asheville: Henderson, Jackson, Madison, and Clay counties all have strained housing affordability.

Renters face a sharper burden. Between 2020 and 2024, 47% of the region's renter households spent 30% or more of income on housing—more than two and a half times the rate for owner households (18%). This disparity carries particular weight for the entry-level healthcare workforce, where new hires typically rent before purchasing homes. The combination of entry-level salaries and rapidly rising housing costs creates friction in attracting and retaining early-career nurses, therapists, physicians, and other clinical staff who might otherwise consider Western North Carolina as a place to launch their careers.

Transportation & Commuting

Rural Western North Carolina faces a transportation challenge amplified by terrain and workforce dynamics. In 2020–2024, 77% of the region's workers drove alone to work. Work-from-home arrangements increased to 11.3% following the COVID-19 pandemic, reflecting a national trend. However, these gains may not translate to a healthcare workforce who typically deliver in-person care.

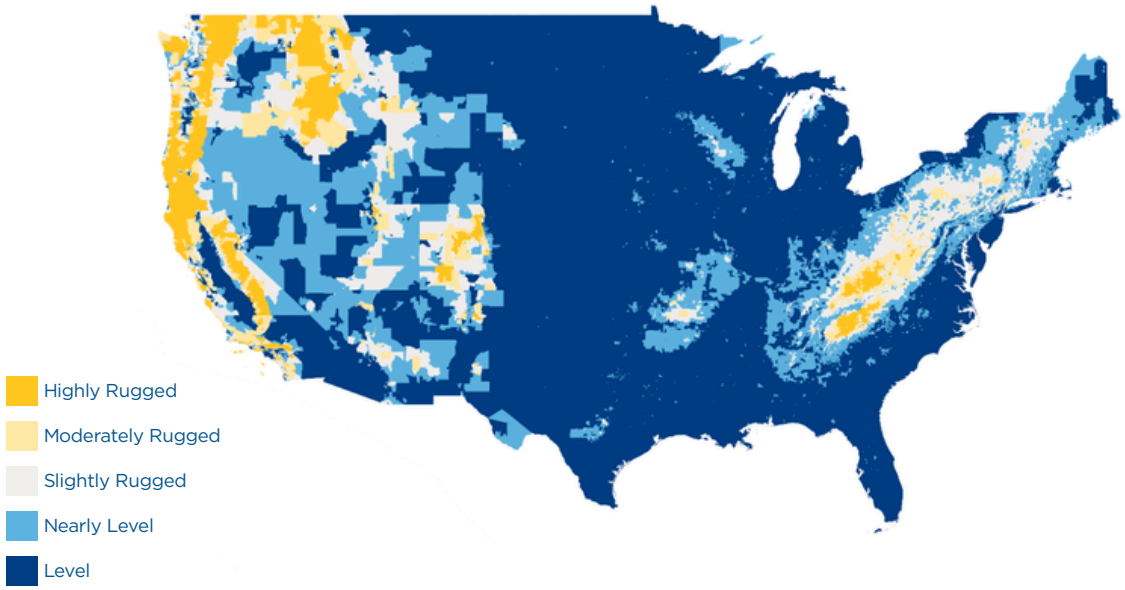
Western North Carolina ranks among the most rugged terrain in the United States according to USDA Economic Research Service road ruggedness scores, meaning steeper grades, more curves, and longer travel times to reach destinations. Commutes are longest in the region's most rural counties: Madison, Polk, and Yancey report 45–49% of workers commuting 30 minutes or longer, compared with 29% regionally. Haywood, Rutherford, Avery, Cherokee, and McDowell all exceed regional averages.

Longer commutes mean higher transportation costs. Vehicle ownership, insurance, and fuel expenses represent a substantial portion of household budgets in the rural workforce, particularly for lower-wage entry-level healthcare positions.

Challenges to Workforce Recruitment and Retention

Transportation & Commuting

Western North Carolina's Terrain Among the Most Rugged in the United States



Source: USDA, Economic Research Service using 2025 Area and Road Ruggedness Scales data product.

Child Care Cost and Capacity

Child care costs in Western North Carolina vary by county. According to County Health Rankings & Roadmaps (2025 release), child care cost burden—measured as the annual cost of child care for two children as a percentage of median household income—ranges from 22% in Haywood County to 31% in Yancey County. Annual costs range from $12,464 (Graham County) to $19,385 (Buncombe County), derived from cost burden applied to county median household income estimates from the Small Area Income and Poverty Estimates (SAIPE). Nine of the region's nineteen counties exceed North Carolina's statewide burden of 25%.

Licensed child care center supply, sourced from Homeland Infrastructure Foundation-Level Data (HIFLD), totals 450 centers serving 45,895 children under age five across the region. Supply density varies: licensed centers per 1,000 children under age five ranges from 6.6 in Polk County to 19.3 in Graham County, compared to the statewide rate of 8.7 per 1,000. The regional rate is 9.8 per 1,000.

A limitation of center-based counts is that they reflect only licensed, formal child care facilities and do not capture family child care homes, unlicensed arrangements, or care provided by relatives.

Community Voice

What We Are Hearing:

What's Helping

- Location (Mountains)
- Close-knit communities
- Personal and professional fulfillment
- Outdoor recreation opportunities
- Work/Life balance
- Broad scope of practice
- Family friendly living
- Team environments
- Competitive wages/benefits
- Kindness of people who live here

What's Hurting

- Staffing numbers
- Low salaries
- Housing shortages
- Geographic isolation
- Limited applicant pools
- Need for advanced training in behavioral health, substance use disorder treatment, and chronic disease management.

Source: MAHEC Rural Health Initiative. (2026). Rural healthcare workforce needs assessment: Western NC region.

Health Workforce Community Sensemaking & Strategy Session

On Wednesday, August 19, 2026, Impact Health (with support from WNC Health Network) convened a Healthcare Workforce sensemaking session in Clay County, hosted at the Hinton Rural Life Center in Hayesville with a welcome from Executive Director Dr. Jacqueline Gottlieb. Clay County was selected to highlight the realities of the region's far-western border: as a federally designated shortage area with no local hospital or emergency room, it reflects the 30- to 60-minute travel burdens, provider shortages, and frontline burnout felt across rural WNC, and ensured local leadership had a direct seat at the table. The session brought together 42 in-person participants representing healthcare delivery and hospital systems, public health, higher education, regional councils, and community-based organizations; insurers and funders were notably not represented in the room.

The day opened with participants sharing paired reflections on a memorable experience helping grow, support, or serve the health workforce in WNC, then moved into grounding the group in a broad, shared definition of the workforce — one that extends beyond clinical roles to include community-based and frontline work. From there the day moved into a facilitated review of regional workforce data structured around what stood out, who is most affected, what's already happening, and what gaps the data points to, followed by a Wave workshop in which participants identified established, emerging, on-the-horizon, disappearing, and undertow trends shaping the region's workforce. These forces were marked as helping, hurting, or neutral. The session closed with participants completing strategy worksheets naming priority interventions. Several findings ran consistently across those conversations.

The workforce shortage is an ecosystem problem, not simply a shortage of clinicians. Participants pointed to real demographic pressure behind that framing — the region's population is projected to grow by roughly 165,000 people by 2060, more than half of them age 55 or older, even as about 37% of the current provider base is approaching retirement or at retirement risk, and providers remain heavily concentrated in Buncombe County relative to the rest of the region. Participants pushed to broaden what counts as the healthcare workforce in the first place: community health workers, first responders, administrative and front-desk staff, caregivers, peer-support workers, and faith-based health workers were named repeatedly as essential, currently under-recognized capacity that needs training, compensation, and real career pathways rather than continued reliance on informal or volunteer labor.

Health Workforce Community Sensemaking & Strategy Continued



Childcare, housing, and transportation function as workforce infrastructure, not separate social issues. Participants were direct that recruitment incentives alone won't hold if workers can't afford to live and raise a family in the community they'd be serving — childcare shortages and closures, disappearing affordable housing, and rural transportation costs came up as the practical reasons trained workers leave or never arrive, regardless of how strong the clinical training pipeline is. Relationship-based, culturally responsive care delivered through trusted community messengers — genuinely from and known by the communities they serve, not simply assigned to them — was raised as inseparable from workforce planning itself, alongside broadband and digital access gaps that limit both telehealth delivery and workers' own training and advancement options.

Funding instability and system fragmentation were named as the forces most likely to undercut any of this. Participants described healthcare, education, workforce development, and community organizations largely operating on separate tracks despite serving the same population, and raised concern that smaller, trusted, community-embedded organizations are often overlooked for funding in favor of larger institutions. Sustained, coordinated, cross-sector funding — rather than another round of short-term, siloed grants — was the precondition participants named for making real progress on recruitment, retention, and training capacity alike.

Initial Takeaways

- Build locally rooted workforce pipelines from K-12 through apprenticeships, community colleges, universities, residencies, and employer-based training
- Pair recruitment incentives with retention supports — childcare, housing, transportation, tuition/loan assistance, competitive wages, and mentorship
- Invest in and professionalize the existing community workforce, including CHWs, first responders, peer-support workers, and other frontline roles
- Expand mobile care, telehealth, and community internet access to reach the communities farthest from existing services
- Build formal cross-sector coordination and shared funding structures connecting healthcare, education, public health, CBOs, and funders — directing meaningful resources to smaller, trusted local organizations alongside larger institutions
- Measure success through retention, vacancy reduction, rural placement, and training capacity, not participation counts alone

Note: These takeaways reflect an initial review of the session discussion and are not a final synthesis. Further stakeholder engagement will be needed to fully validate and prioritize these themes. As we move into the action planning phase, we will be reviewing the full notes from this session for additional insights.

Health Workforce Data Development

The workforce chapter of this assessment draws on the strongest available regional data, but several categories relevant to the Scope of Work's workforce requirements could not be fully captured within the scope and timeline of this assessment. MAHEC's data team has documented these gaps below, along with the reasoning behind each and recommendations for closing them in future data collection.

Direct Care Workers (IV.E.2.b)
MAHEC's data team acknowledges this as a data limitation. Workforce data came from the Cecil G. Sheps Center for Health Services Research at UNC Chapel Hill and does not capture unlicensed professionals. Direct care workers — including paid and unpaid carers in home care, nursing, and residential care facilities — could not be captured using publicly available supply data. Demand, however, is reflected in the assessment's demographic analyses, which project rising need for direct care workers as the population ages and chronic disease prevalence increases. We recommend seeking additional feedback from regional partners to inform a data strategy for capturing and tracking this workforce from an employer perspective.

Practice Environment Factors (IV.E.2.c)
IT readiness across employers and the workforce was not quantified in this assessment. Traditional workforce supply data (licensure, training, employment) does not capture IT infrastructure, system adoption, or workforce IT competency, and assessing it would require primary data collection (employer surveys) or health-IT-specific secondary sources — neither of which were available at the time of this assessment.

We recommend adding an IT infrastructure element to employer surveys in future workforce assessments, and partnering with regional employers to evaluate current health IT adoption and capacity. Future assessments could draw on the 2025 Uniform Data System Manual (UDS) — specifically Appendix D — for Region 1 FQHCs and look-alikes across the 19-county region. The data team also recommends exploring broadband access across WNC as a proxy for IT readiness.

Navigators / Team-Based Care (IV.E.2.e)
An independent patient navigator workforce was not quantified in this assessment; further clarification is needed on how "navigator" is defined and scoped. Based on the team's current understanding, navigator roles align closely with the scope of practice of community health workers (CHWs), so CHW workforce data is presented here as the closest available proxy.

This approach is supported by the North Carolina Community Health Worker Association's 2025 Organization Survey Report, which found substantial variation in CHW job titles statewide — 50 distinct titles reported, 10 of them appearing multiple times, including Patient Navigator, Care Coordinator, and Patient Coordinator, along with titles like Peer Referral Navigator, Patient Navigation Lead, Referral Navigator, and Social Navigator.

01. Mountain Area Health Education Center (MAHEC) Workforce Data Briefs, 2026

A series of targeted data briefs compiling secondary data from multiple sources to generate a landscape view of the health workforce in Western North Carolina, including the workforce training pipeline (postsecondary and graduate medical education), demographic projections, current workforce supply and demand, retirement exposure, and workforce challenges (housing, transportation, child care). Data acquisition and analysis were supported by MAHEC's Data Science & Analytics Division, with synthesis and interpretation supported by the Program Evaluation and Workforce Development divisions. Data sources include the National Center for Education Statistics' Integrated Postsecondary Education Data System (NCES IPEDS), the U.S. Census Bureau's Post-Secondary Employment Outcomes (PSEO), Longitudinal Employer-Household Dynamics (LEHD), and American Community Survey (ACS), the North Carolina Medical Board, the Cecil G. Sheps Center for Health Services Research Health Professions Data System, the North Carolina Office of State Budget and Management (NC OSBM) population projections, the University of Wisconsin Population Health Institute's County Health Rankings & Roadmaps, and the Accreditation Council for Graduate Medical Education (ACGME). The series includes the following briefs:

- *WNC Child Care Cost and Capacity*
- *WNC Emergency Medical Services and Facilities*
- *WNC Health Professions Training and Output*
- *WNC Health Service Locations*
- *WNC Health Workforce Supply*
- *WNC Housing Affordability and Transportation*
- *WNC Physician Career Stage and Retirement*
- *WNC Population Projections by Health Service Line*

02. Rural Healthcare Workforce Needs Assessment, MAHEC Rural Health Initiative, 2026

This report presents the results of a regional survey of rural healthcare workforce needs across 17 Western North Carolina counties, conducted by MAHEC's Rural Health Initiative (RHI) in partnership with the Dogwood Health Trust. The survey was deployed to regional healthcare organizations and independent dental practices, with responses collected between March and May of 2025. The report documents clinical and administrative vacancies by profession — including physicians, nurses, behavioral health providers, dental providers, advanced practice providers, and pharmacy staff — and by county; recruitment and retention barriers such as competitive salary, affordable housing, applicant pool quality, geographic isolation, and the added strain of Hurricane Helene; and rural clinical training needs, with recommendations for regional workforce development.

CHAPTER 7

FISCAL SUSTAINABILITY OF RURAL HEALTH PROVIDERS

Introduction

Improving access to coordinated, high-quality care across the continuum—from preventive services to specialty care—is a central goal of rural health transformation across Western North Carolina (WNC). This section summarizes key indicators that reflect different dimensions of healthcare access and system performance, including rural hospital transfers and ambulatory care-sensitive conditions (ACSCs) among adults and children. Hospital transfers reflect regional specialty care capacity, while adult and pediatric ACSCs signal potentially preventable hospitalizations that stem directly from outpatient access and quality, offering critical insight into primary care performance across the region. Because well-child visit data were unavailable for this assessment, pediatric ACSCs were used to provide complementary insight into children's access to primary care. Hospital service availability provides an additional perspective on access by examining the availability and geographic distribution of key inpatient services and how that capacity has changed over time.

The acute care delivery landscape across Western North Carolina relies on a network of community and Critical Access Hospitals (CAHs) distributed across five health systems and tribal governance. Critical Access Hospitals play a pivotal role in maintaining essential emergency response, swing-bed post-acute recovery, and outpatient care across rural mountain corridors, yet inpatient access remains starkly unequal across county lines. Four counties in the western footprint—Madison, Yancey, Clay, and Graham—contain no hospital facilities within their geographic boundaries, creating significant healthcare deserts and forcing residents to rely heavily on regional transit, outpatient access points, and emergency transfers into neighboring health systems. A significant portion of regional capacity is concentrated under large health systems (including HCA Mission, Duke LifePoint, UNC Health, Erlanger Health, and AdventHealth) alongside the Cherokee Indian Hospital Authority. System-level decisions often centralize high-cost specialty lines (such as obstetrics and behavioral health) at regional hubs, placing distinct volume and operational pressures on smaller rural facilities.

Impact Health has reached out to all hospitals in our region to gauge their interest in participating in a feasibility study. To ensure a transparent, collaborative, community-centered approach across WNC, hospital prioritization will balance regional health needs, operational sustainability, and local consensus. Since full feasibility data will not be complete before this submission, our initial framework relies on existing regional studies. Where prior analyses do not exist, we will focus directly on urgent health access needs and building trusted, collaborative partnerships across our local health ecosystems. Following upcoming technical consultations, we will finalize a clear decision matrix aligned with shared regional goals. To support long-term stability for our rural providers, this effort also evaluates strategic opportunities to implement or build on existing Value-Based Payment (VBP) and alternative payment models—ensuring sustainable, high-quality, whole-person care for community member.

Introduction Continued

Reducing avoidable hospital visits and keeping the region's care continuum financially stable will require progress on several fronts:

- **Care Delivery Model Transitions:** Transitioning fee-for-service outpatient clinics into hospital-based Rural Health Clinic models to strengthen primary care infrastructure and improve Medicaid/Medicare reimbursement.
- **Census Optimization:** Addressing low average daily inpatient censuses by optimizing swing-bed utilization for post-acute care, expanding tele-cardiology and specialty coverage, and building hub-and-spoke networks.
- **Feasibility Infrastructure:** Completing comprehensive, standard-compliant feasibility studies across facilities to adapt to shifting patient flows and regional market dynamics, as no hospital in the region has completed a full study. Dedicated annual design and feasibility grant funding will be essential to support this work.
- **Cost Analysis:** Maximizing eligibility for 340B pharmaceutical pricing for non-profit CAHs and qualified RHCs, securing dedicated annual design funding, and leveraging analytical tools—such as NCDHHS Rural Health Clinics cost reports—to monitor volume, margin health, and long-term operational viability.
- **Value-Based Alignment**: Evaluating strategic opportunities to implement or expand Alternative Payment Models (APMs) and Value-Based Payment (VBP) structures—ensuring sustainable, high-quality, whole-person care for the communities of WNC.

Regional Sensemaking Session Engagement

Across four regional sensemaking sessions held in WNC (covering Perinatal Health, Food is Medicine, Chronic Disease, and Healthcare Workforce), cross-sector stakeholders engaged directly in regional strategy development. Representation included 14 hospital system participants (6 attending in-person, 8 engaging via asynchronous feedback) and 10 primary care and specialty clinical leaders (8 attending in-person, 2 engaging via asynchronous feedback), alongside public health officials, community-based organizations, and local leaders. Together, these participants validated core operational and financial dynamics to strengthen rural health provider sustainability:

- Facilities face severe margin pressures driven by an aging population, an impending retirement wave, and shifting reimbursement models.
- Geographic isolation and rural service closures drive patients to hospital emergency departments for preventable or primary care conditions.
- Provider retention and patient viability are constrained by broader infrastructure deficits, including rural transit, affordable housing, childcare, and food insecurity.
- Stakeholders strongly favored expanding multidisciplinary care teams—incorporating CHWs, community paramedics, and navigators—to extend workforce capacity and relieve clinical burnout.

Hospital System Representatives: 14 Individuals, representing health systems including AdventHealth, Duke LifePoint/Harris Regional, Erlanger, Mission Health/HCA Healthcare, UNC Health Appalachian, and UNC Health Pardee.
Primary Care & Specialty Clinical Providers: 12 Individuals, including physicians, medical directors, and clinical executives across Blue Ridge Health, Chatuge Family Practice, Hazelwood Healthcare, MAHEC, Western Carolina Medical Society/Project Access, and Western NC Community Health Services.

WNC Hospitals Licensed by NCDHHS

Region 1 Hospital Name	County	Owner/Managing Entity
Charles A. Cannon Jr. Memorial Hospital Inc.	Avery	UNC Health
CarePartners Rehabilitation Hospital	Buncombe	Mission Health / HCA Healthcare
Mission Hospital	Buncombe	Mission Health / HCA Healthcare
UNC Health Blue Ridge	Burke	UNC Health
Caldwell Memorial Hospital	Caldwell	UNC Health
Cherokee Indian Hospital Authority	Cherokee	Eastern Band of Cherokee Indians (EBCI)
Erlanger Murphy Medical Center	Cherokee	Erlanger Health
Haywood Regional Medical Center	Haywood	Duke LifePoint Healthcare
AdventHealth Hendersonville	Henderson	AdventHealth
Margaret R. Pardee Memorial Hospital	Henderson	UNC Health
Harris Regional Hospital	Jackson	Duke LifePoint Healthcare
Angel Medical Center	Macon	Mission Health / HCA Healthcare
Highlands-Cashiers Hospital	Macon	Mission Health / HCA Healthcare
Mission Hospital McDowell	McDowell	Mission Health / HCA Healthcare
Blue Ridge Regional Hospital	Mitchell	Mission Health / HCA Healthcare
AdventHealth Polk (St. Luke's Hospital)	Polk	AdventHealth
Rutherford Regional Medical Center	Rutherford	Duke LifePoint Healthcare
Swain Community Hospital	Swain	Duke LifePoint Healthcare
Transylvania Regional Hospital	Transylvania	Mission Health / HCA Healthcare

Critical Access Hospitals are indicated in yellow.

Hospital Transfer Patterns

RURAL PATIENTS MORE FREQUENTLY REQUIRE CARE OUTSIDE THEIR COMMUNITY

Across 2010-2024, rural residents in Western North Carolina were two times more likely than urban residents to require transfer to another hospital following an inpatient admission (see figure below). While only about 2% of urban admissions resulted in transfer, rural transfer rates ranged from approximately 4-7% annually. These findings suggest that many rural hospitals continue to rely on regional referral networks to provide specialty and advanced care services, underscoring the importance of investments that strengthen rural healthcare capacity and allow patients to receive care closer to home.

RURAL TRANSFER BURDEN

Rural residents were transferred to another hospital at more than twice the rate of urban residents (5.5% vs. 2.1%).

REFERRAL DEPENDENCE

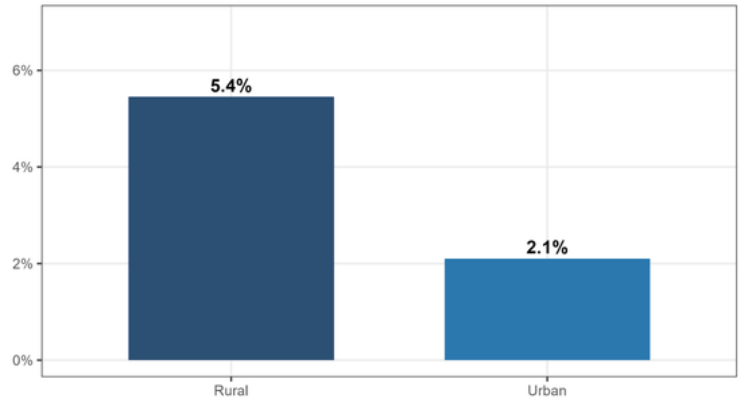
More than one in four rural admissions (27.8%) arrived as transfers from another healthcare facility, compared with 19.0% of urban admissions.

LOCAL CARE CAPACITY

Approximately three-quarters of community admissions were treated and discharged locally, though rural residents experienced lower local retention than urban residents (76.5% vs. 78.5%).

Rural Residents Are More Than Twice as Likely to Be Transferred

Percent of inpatient admissions transferred to another hospital



Source: Rural Residents Are More Than Twice as Likely to Be Transferred to Another Hospital. Annual percentage of inpatient admissions resulting in transfer to another hospital among rural and urban Western North Carolina residents, 2010-2024.

Rural vs Urban Transfer Profile

Hospital transfer patterns differed somewhat between rural and urban populations (Table: Rural vs Urban Transfer Profile). Rural transfers more often involved common acute medical conditions, including pneumonia, congestive heart failure, chronic obstructive pulmonary disease (COPD) exacerbations, and urinary tract infections, suggesting greater reliance on referral hospitals for their management. Urban transfers were more frequently associated with myocardial infarction, coronary artery disease, rehabilitation services, and neonatal care, potentially reflecting greater access to specialty services and tertiary referral centers. Sepsis was the leading transfer diagnosis in both rural and urban populations.

Diagnosis	Rural Rank	Urban Rank
Sepsis	#1	#2
Myocardial Infarction	#4	#1
Single Liveborn Infant	#3	#3
Pneumonia	#2	#6
Acute Respiratory Failure	#8	#8
Atrial Fibrillation	#10	#9
Congestive Heart Failure	#6	Not Top 10
COPD Exacerbation	#7	Not Top 10
Urinary Tract Infection	#9	Not Top 10
Acute Kidney Failure	Not Top 10	#7
Coronary Atherosclerosis	Not Top 10	#4
Rehabilitation Care	Not Top 10	#5

Source: Rural Residents Are More Than Twice as Likely to Be Transferred to Another Hospital. Annual percentage of inpatient admissions resulting in transfer to another hospital among rural and urban Western North Carolina residents, 2010-2024.

Challenges in Accessing Care

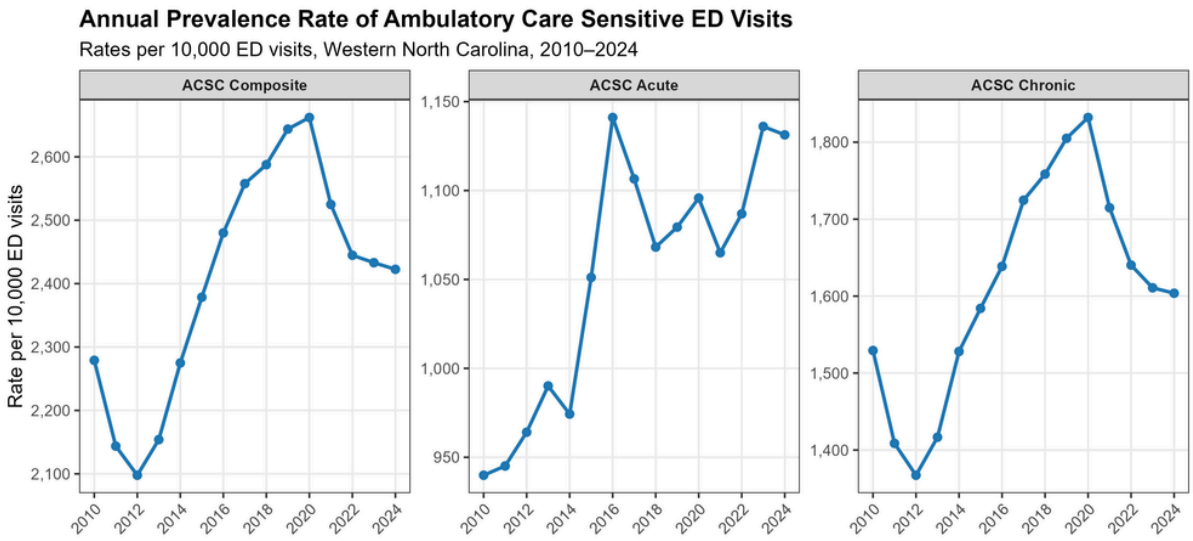
AMBULATORY CARE SENSITIVE CONDITIONS

Ambulatory care-sensitive conditions include acute and chronic conditions for which timely, high-quality outpatient care may help prevent avoidable emergency department visits or hospitalizations. In this analysis, the composite ACSC measure includes both chronic and acute ACSCs. Chronic ACSCs include asthma, COPD, congestive heart failure, hypertension, diabetes, and angina without procedure. Acute ACSCs include dehydration, bacterial pneumonia, kidney/urinary tract infection, perforated appendix, gastroenteritis, and seizures.

ADULT AMBULATORY CARE-SENSITIVE CONDITIONS (18 YEARS AND OLDER)

Over the past decade, emergency department visits for health conditions that can often be prevented or better managed through timely primary care have generally increased across the region. Overall, these visits rose by nearly 17%, reaching their highest level in 2020. Visits for acute conditions, such as dehydration and infections, continued to increase through 2024, while visits for chronic conditions, including asthma, diabetes, and heart disease, also increased and peaked in 2020 before declining somewhat in recent years. These trends suggest ongoing opportunities to strengthen access to primary care and help people receive the right care before conditions become serious enough to require emergency treatment.

Annual Prevalence Rate of Ambulatory Care Sensitive ED Visits
Rates per 10,000 ED visits, Western North Carolina, 2010-2024



Note: Annual prevalence rates per 10,000 ED visits are shown for all ACSC composite, acute ACSCs, and chronic ACSCs. ACSC measures include conditions for which effective outpatient/primary care may reduce the need for emergency treatment. Rates were adjusted for age, sex, insurance payer, race/ethnicity, and rurality. Chronic ACSCs include asthma, chronic obstructive pulmonary disease (COPD), congestive heart failure, hypertension, diabetes, and angina without procedure. Acute ACSCs include dehydration, bacterial pneumonia, kidney/urinary tract infection, perforated appendix, gastroenteritis, and seizures.

Source: Annual Prevalence Rates of Ambulatory Care-Sensitive Conditions (ACSC) Emergency Department (ED) Visits in WNC, 2010-2024.

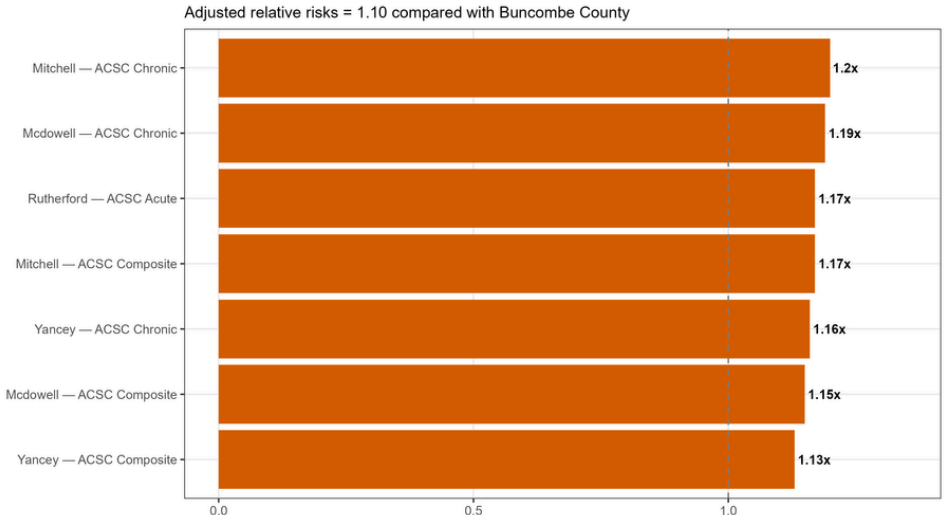
Challenges in Accessing Care

AMBULATORY CARE SENSITIVE CONDITIONS

The strongest geographic disparities were observed for chronic ACSCs and the overall ACSC composite. Mitchell, McDowell, and Yancey Counties had the highest composite ACSC risks, while Mitchell, McDowell, and Yancey also showed elevated chronic ACSC risks. Acute ACSC disparities were more modest overall, with Rutherford County standing out as the highest-risk county for acute ACSC ED visits.

Largest Elevated County-Level ACSC ED Visit Risks

Adjusted relative risks of 1.10 or higher compared with Buncombe County



Note: Relative risks were estimated using multivariable Poisson regression models adjusted for age, sex, race/ethnicity, insurance status, rurality, and admission year. Bars represent county-outcome combinations with the greatest excess risk observed across the study period.

Source: Counties with the Highest County-level Ambulatory Care Sensitive Condition Emergency Department Visit Risks in WNC, 2010-2024. Counties exhibiting the largest adjusted relative risks for ACSC-related ED visits compared with Buncombe County.

YOUTH AMBULATORY CARE-SENSITIVE CONDITIONS (<18 YEARS)

Data on well-child visit use were not available at the time of this needs assessment. Therefore, pediatric ambulatory care-sensitive conditions were examined as a complementary indicator of children's access to timely and effective outpatient care. While pediatric ACSCs are not a direct measure of preventive care utilization, higher rates of potentially preventable emergency department visits and hospitalizations may reflect challenges in accessing or receiving appropriate primary care, including preventive services, continuity of care, and chronic disease management.

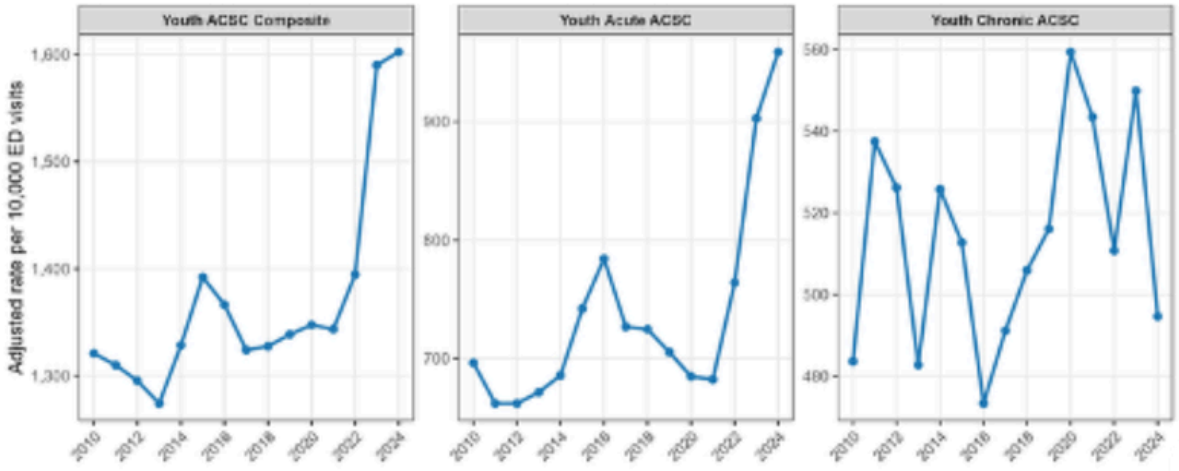
Challenges in Accessing Care
AMBULATORY CARE SENSITIVE CONDITIONS

YOUTH AMBULATORY CARE-SENSITIVE CONDITIONS (<18 YEARS)

Over the past decade, emergency department visits among children and youth for health conditions that can often be prevented or better managed through timely primary care have increased across Western North Carolina. Overall, these visits rose by more than 21% between 2010 and 2024. Visits for acute conditions, such as dehydration, infections, and gastroenteritis, experienced the largest increase, rising nearly 38% over the study period. Visits for chronic conditions, including asthma and other ongoing health conditions, increased through 2020 before declining somewhat in recent years. These trends suggest opportunities to strengthen access to preventive and primary care for children and adolescents, helping families receive timely care before conditions become serious enough to require emergency treatment.

Annual Prevalence Rate of Youth Ambulatory Care Sensitive ED Visits

Adjusted rates per 10,000 youth ED visits, Western North Carolina, 2010-2024



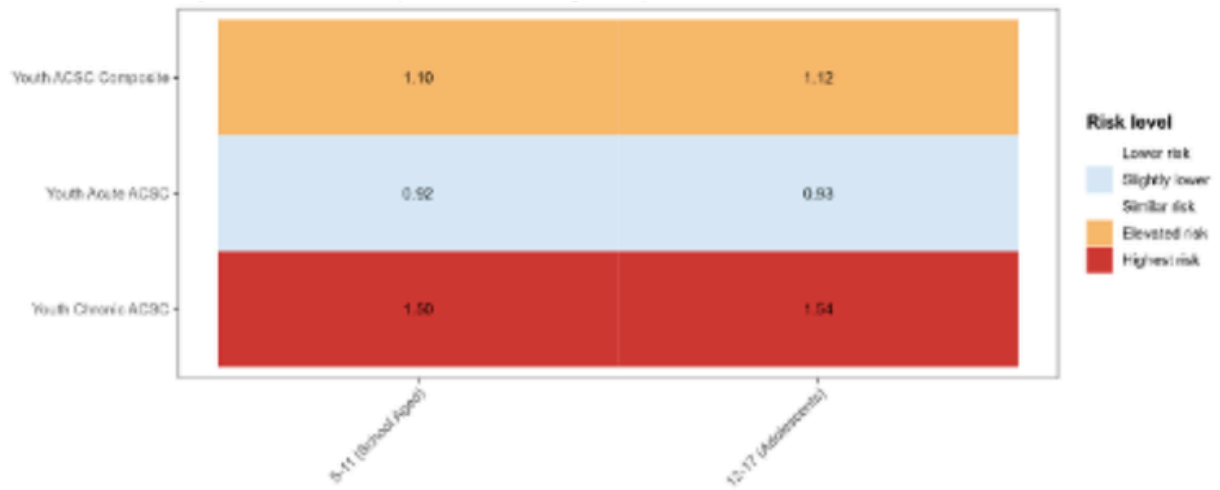
Source: Annual Prevalence Rates of Ambulatory Care Sensitive Conditions (ACSC) Emergency Department (ED) Visits in WNC, 2010-2024.

Older children (ages 5-11) and adolescents (ages 12-17) experienced a greater burden of emergency department visits for health conditions that can often be prevented or better managed through primary care than children under age 5. While younger children had slightly higher rates of acute conditions, school-aged children and adolescents were about 50% more likely to visit the emergency department for chronic conditions such as asthma. These findings highlight the importance of ensuring children and adolescents have consistent access to primary care to effectively manage chronic health conditions and reduce avoidable emergency visits.

Figures & Charts

Age-Group Disparities in Youth ACSC ED Visits

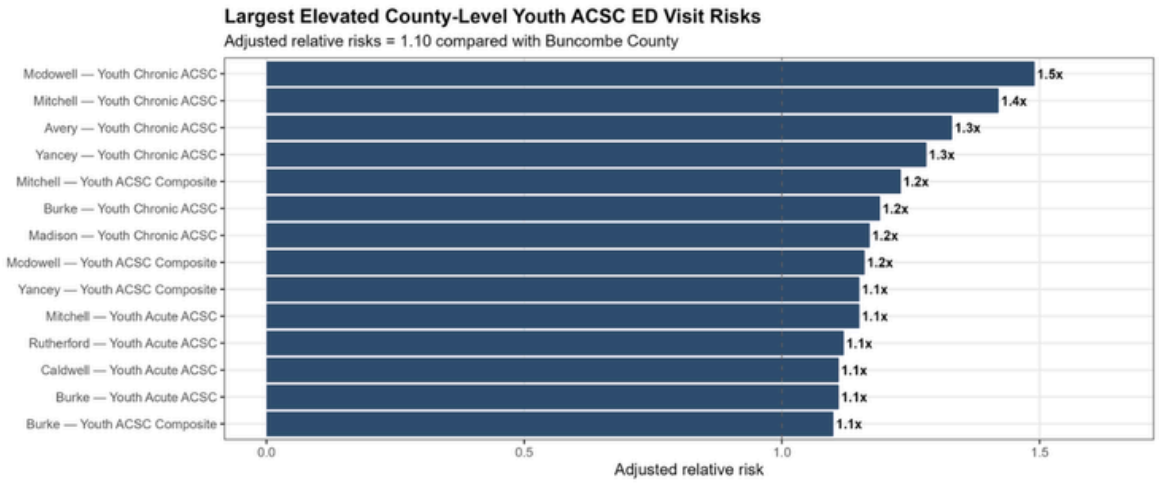
Adjusted relative risks compared with children 0-4 years



Source: Age Group Disparities in Ambulatory Care Sensitive Condition (ACSC) Emergency Department Visits, WNC (2010-2024). Heat map showing adjusted relative risks (RRs) of ACSC-related emergency department visits by age group, using children aged 0-4 as the reference group. Colors indicate risk categories ranging from lower risk (blue) to highest risk (red). Values displayed within cells represent adjusted relative risks. Models were adjusted for sex, race/ethnicity, insurance status, rurality, and calendar year.

Largest Elevated County-Level Youth ACSC ED Visit Risks

Adjusted relative risks =1.10 compared with Buncombe County



Source: Counties with the Highest County-level Ambulatory Care Sensitive Condition Emergency Department Visit Risks in WNC, 2010-2024.

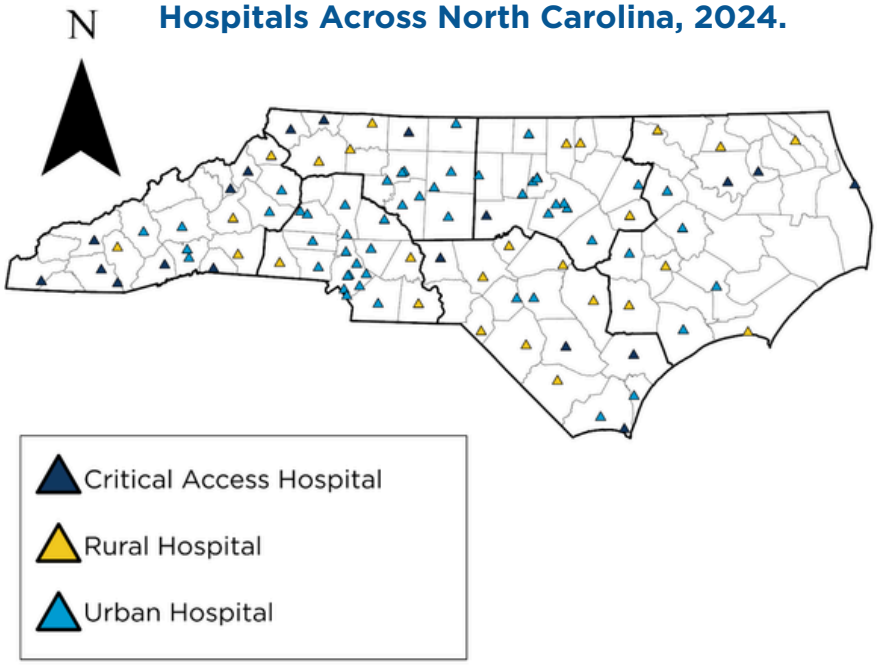
North Carolina's Hospital Landscape

The availability of hospital-based services is shaped by both where hospitals are located and the services they are equipped to provide. This section examines North Carolina's hospital landscape, with a particular focus on Medicaid Region 1, to understand how hospital and service availability in the region compares with patterns across the state. The analysis describes the distribution of critical access hospitals and rural and urban hospitals reimbursed under the Inpatient Prospective Payment System (IPPS); examines the availability of select inpatient service lines in 2024 and changes in service offerings between 2015 and 2024; and assesses geographic access to hospital-based care through drive-time analysis. Together, these findings provide insight into the availability and geographic accessibility of inpatient hospital services in Medicaid Region 1 and across North Carolina.

LOCATION OF HOSPITALS IN NORTH CAROLINA BY TYPE

As of 2024, 102 non-specialized, acute care hospitals were operational in North Carolina, with 20 designated as critical access hospitals and 27 classified as rural IPPS hospitals. Within Medicaid Region 1, there were eight critical access hospitals, six urban IPPS hospitals, and four rural IPPS hospitals. The Eastern coast and the Western portion of the state have multiple counties without any hospitals.

Location of Critical Access, Rural IPPS, and Urban IPPS Hospitals Across North Carolina, 2024.



Source: East Tennessee State University Center for Rural Health and Research (2026), using CMS HCRIS data obtained from RAND.

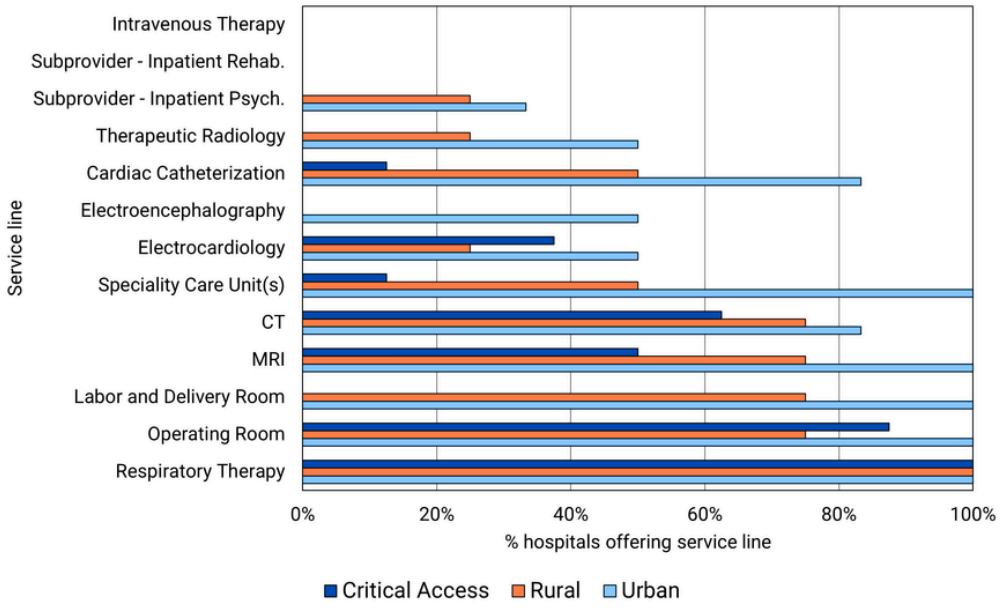
Availability of Select Inpatient Service Lines

AVAILABILITY OF SERVICE LINES

The availability of select inpatient service lines varies among critical access, rural inpatient prospective payment system (IPPS), and urban IPPS hospitals in North Carolina in 2024, with the smallest portion of critical access hospitals offering each service, followed by rural IPPS, and urban IPPS. Less than 40% of critical access, rural IPPS, and urban IPPS hospitals offered intravenous therapy, sub-provider inpatient rehabilitation, sub-provider inpatient psychiatry, and therapeutic radiology services. In contrast, more than 80% of hospitals of each type offered respiratory therapy and operating room services. Additionally, no critical access hospitals in the state offered four of the thirteen included service lines.

Availability of select inpatient service lines differs by hospital type in North Carolina's Medicaid Region 1, with no hospitals offering intravenous therapy or sub-provider inpatient rehabilitation services in 2024. Additionally, no critical access hospitals offered sub-provider inpatient psychiatry, therapeutic radiology, electroencephalography, or labor and delivery room services, and likewise, no rural IPPS hospitals offered electroencephalography services. Conversely, all urban IPPS hospitals in Medicaid Region 1 offered respiratory therapy, operating room services, labor and delivery room services, MRI services, and specialty care unit(s). Further, cardiac catheterization and CT services were offered by more than 80% of urban IPPS hospitals.

Availability of Select Service Lines Among Critical Access, Rural IPPS, and Urban IPPS Hospitals in North Carolina Medicaid Region 1, 2024.



Source: East Tennessee State University Center for Rural Health and Research (2026), using CMS HCRIS data obtained from RAND.

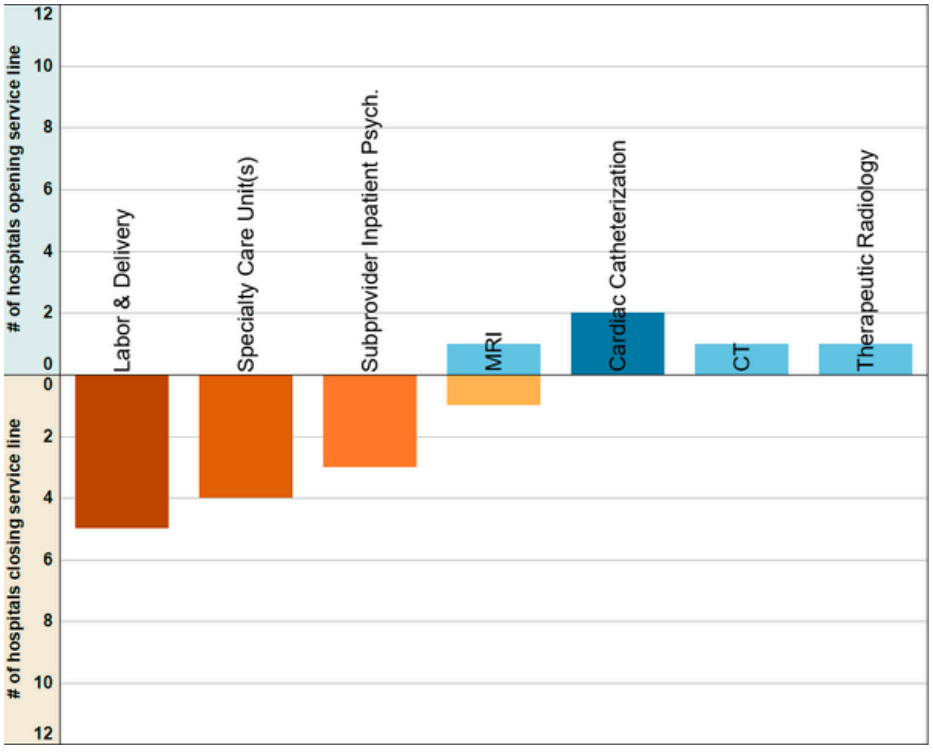
Service Line Changes Over Time

CHANGES FROM 2015 TO 2024

Among hospitals in North Carolina's Medicaid Region 1, several service line closures were observed, with fewer openings than closures. Most common closures included labor and delivery (n=5), specialty care unit(s) (n=4), and sub-provider inpatient psychiatric services (n=3). Two hospitals opened cardiac catheterization services, while one opened MRI, CT, and therapeutic radiology services.

Note: Specialty care units, including as intensive care units, surgical intensive care units, burn intensive care units, and other undefined intensive care units are together considered "other specialty care units" if they share a nurse station, which is common in the data. As such, we have aggregated these units into a summary of specialty care unit(s).

Service Line Changes Among Medicaid Region 1 Hospitals



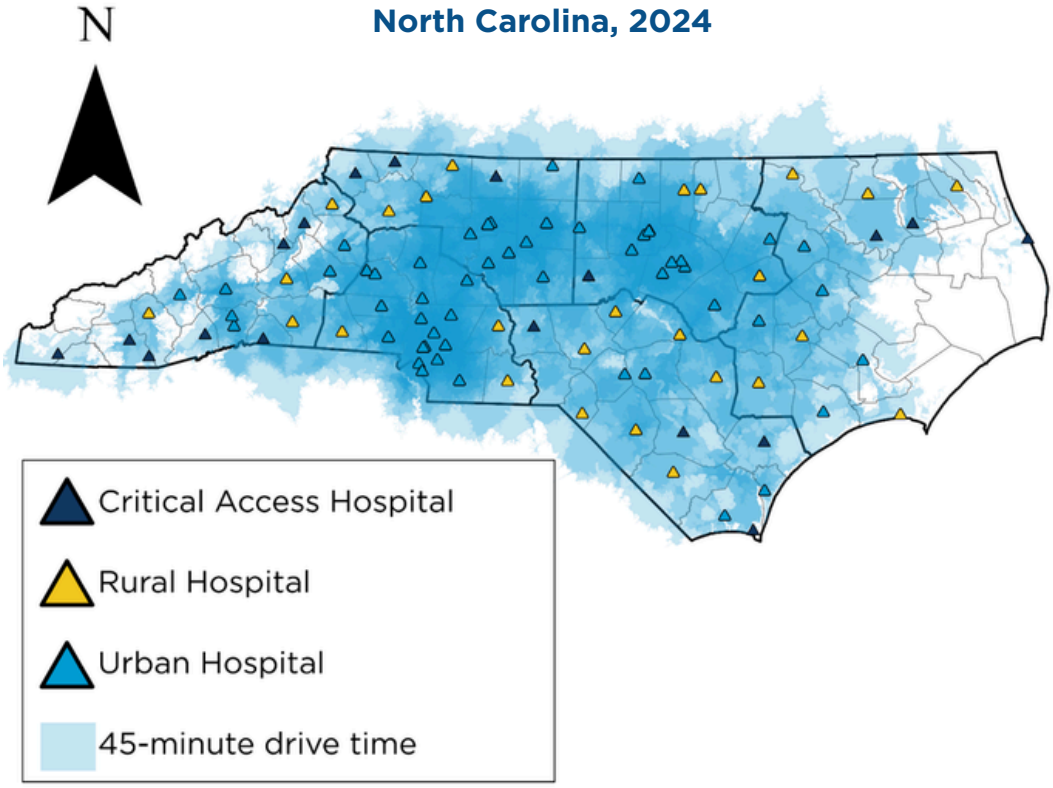
Source: East Tennessee State University Center for Rural Health and Research (2026), using CMS HCRIS data obtained from RAND.

45-Minute Drive Time to Hospitals

45-MINUTE DRIVE TIME NETWORK

In 2024, North Carolina had 98 hospitals offering operating room services, with much of the state within a 45-minute drive of a hospital with an operating room, as indicated by the blue color. Darker hues indicate overlapping drive-time networks among nearby hospitals. Areas with no operating room coverage are concentrated in the Eastern coastal and the Western portion of the state. In contrast, darker hues indicating overlapping drive-time networks are more centrally located in the state, concentrated around metropolitan centers such as Durham, Chapel Hill, and Charlotte.

45-Minute Drive Time Network of Hospitals Across North Carolina, 2024



Source: East Tennessee State University Center for Rural Health and Research (2026), using CMS HCRIS data obtained from RAND.

01. Urban vs Rural Discharges

Hospital discharge data were summarized to characterize the burden of chronic disease in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends and disparities by geography and rurality.

02. Youth Ambulatory Care Sensitive Conditions

Hospital discharge data were summarized to characterize the burden of ambulatory care sensitive conditions (ACSC) in Medicaid Region 1 between 2010 and 2024. Using data from the North Carolina Hospital Discharge Database, provided by the Cecil G. Sheps Center for Health Services Research, the document summarizes regional trends and disparities in emergency department visits for ACSC by geography, race and ethnicity, insurance payer, age, and sex, as well as the economic burden associated with cancer hospital care.

03. WNC Healthy Impact 2024 Community Health Survey

This slide deck presents the results of the 2024 Community Health Survey in graphic form, disaggregated by county and race. Available by request from WNCHN.

04. Hospital Service Line Figures

The Centers for Medicare & Medicaid Services (CMS) Healthcare Cost Report Information System (HCRIS) contains annual cost report data submitted by Medicare-certified healthcare institutions. Hospital cost reports include information on facility characteristics, utilization, costs and charges, and hospital-based cost centers, allowing for examination of hospital services, operations, and changes over time. Data and figures included in this report were prepared by the East Tennessee State University Center for Rural Health and Research using CMS HCRIS data obtained from RAND.