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EXECUTIVE SUMMARY

Dear Friends,

In introducing the NC Rural Health Association's (NCRHA) 2023 North Carolina Rural Health Snapshot, I hope to bring attention to progress, pain, and opportunity for communities across our state. NCRHA is one of the Foundation for Health Leadership & Innovation's core programs, charged with improving rural health in North Carolina. For the past three years, NCRHA has published the Snapshot as a sprawling breakdown of health, access, and equity in rural North Carolina. From hospital care to Medicaid access, oral health, and more, you will find data and analysis on a wide variety of health topics important to North Carolina's rural communities in this report.

As NCRHA collected data and authored this 2023 Rural Health Snapshot, the North Carolina Legislature voted to expand Medicaid. After 13 years of hard work and action reaching every corner of this state, health advocates have achieved a huge victory. More than half a million North Carolinians will gain health insurance thanks to this policy. Some for the first time in their lives. As we publish this report the state legislature is debating its biennial budget, which must be passed for Medicaid Expansion to take effect. Those of us at FHLI and NCRHA remain eager to see this step taken for the benefit of all North Carolinians.

Access to primary and specialty care physicians, income and poverty trends, and other data you will find in this report underscore an important fact: where you live impacts your options and opportunity to live a happy, healthy life.

Beyond geography, data shows persistent differences in health outcomes based on income levels and race. You will see in this report that all three overlap in ways that create virtual dead zones for health access.

As Medicaid Expansion takes effect, government officials and health care providers have a great opportunity to positively impact millions of lives – millions because the benefits of this policy will extend far beyond those who gain health coverage. But the work doesn’t stop there. NCRHA's leadership and membership includes experts who have studied rural health disparities and effective policy solutions. This report will serve as a foundation for further policy initiatives to create a future where all North Carolinians have access to the health care they deserve.

I want to extend a thank you to all the organizations and individuals who make up NCRHA's membership and to everyone who provided data, thought partnership, and support in the development of the 2023 North Carolina Rural Health Snapshot. I am also grateful for the hard work and time given to the Association by NCRHA Chair Emily Roland of the North Carolina Healthcare Association and Vice Chair Patrick Woodie of the NC Rural Center. Their continued commitment to improving access and equity across rural North Carolina is creating real, lasting impact.

Sincerely,

David Reese
President & CEO
Foundation for Health Leadership & Innovation
The North Carolina Rural Health Association (NCRHA) supports partnerships and strategies that improve health outcomes in rural North Carolina.

NCRHA is a collaborative network of associations, organizations, and individuals representing healthcare, education, economic development, local government, and a variety of other stakeholders invested in supporting rural health. It is committed to amplifying the voice of North Carolina’s rural communities with the intention of improving the health and well-being of all citizens.

Though members of the Association began convening in the 1990s, NCRHA was formally established in 2014. NCRHA is sponsored by the Foundation for Health Leadership & Innovation in Cary, North Carolina, and is funded by the National Rural Health Association (NRHA).

GUIDING PRINCIPLES

• We believe in the value, strengths, and assets of our rural communities.
• We strive for NCRHA to be at the forefront of rural health.
• We endeavor to build the rural voice at the local, regional, state and national levels.
• We promote shared and coordinated resources; including, but not limited to, time, knowledge, expertise, and funding.
• We seek to collaborate across our individual organizational missions and visions to achieve the greatest good for rural communities.
• We promote authentic community engagement and involvement, across all demographic and geographic groups representing rural North Carolina.
• We serve as a hub for innovative approaches and collective actions that advance rural health.
• We engage in proactive advocacy for policies and positions that promote whole-person, whole-community health for rural North Carolinians.
The North Carolina Rural Health Association is comprised of rural health and community leaders from a variety of partner organizations committed to improving health outcomes in rural North Carolina through education, strategic partnerships, and advocacy.
COVID-19: WHAT’S NEXT?

The COVID-19 pandemic has deeply impacted our state, especially North Carolina’s rural communities. The last three years were marked by uncertainty, fear, illness, death, economic challenges, and more. While the global pandemic shook us to our core, the last three years have also highlighted our state’s strength and resiliency as well as North Carolinians’ love for our neighbors.

As of April 2023, approximately 70% of North Carolinians have received at least one dose of a COVID-19 vaccine.

As the COVID-19 Public Health Emergency (PHE) ends, the road to recovery will be long, but not impossible. As we face the enduring impact of Long COVID, an increase in mental health challenges, health workforce shortages, and economic recovery, the end of the PHE will undoubtedly bring changes that will be felt across our state, including our health care system, our economy, and our families.

The North Carolina Rural Health Association (NCRHA) will continue to advocate for policies that support local health departments and public health organizations, partner with community-based organizations to understand and uplift the needs of our state’s rural communities and historically marginalized and underserved populations, and ensure that we address systemic inequities so that all North Carolinians have access to the resources and services they need to live healthy and productive lives.

Rural is resilient. Rural is unique. Rural is ready. Rural is abundant. Rural leads!
NC COUNTY MAP

78 Rural Counties

22 Urban/Suburban Counties

RURAL COUNTY
County with an average population density of 250 people per square mile or less = 78 counties

REGIONAL CITY & SUBURBAN COUNTY
Counties with an average population density between 250 and 750 people per square mile = 16 counties

URBAN COUNTY
Counties with an average population density that exceeds 750 people per square mile = 6 counties
According to the NC Rural Center, the rural North Carolina population has an increasing number of people 65 years and older and a declining number of children under 18 years old. Additionally, the number of young adults (18-29 years) are decreasing in rural North Carolina counties and increasing in urban and suburban counties.¹

**RURAL RACE/ETHNICITY: 2020**

Rural North Carolina residents under 18 years old are increasingly diverse, indicating rural communities will continue to become more racially and ethnically diverse in the future.

The greatest growth in the rural under 18 population is found in the Hispanic/Latino (from 7 percent to 15 percent) and Multiracial (from 3 percent to 7 percent) categories.
In the United States, a disproportionate share of veterans live in rural America. According to the National Center for Veterans Analysis and Statistics and the U.S. Department of Veterans Affairs (VA) Office of Rural Health (ORH), of the nearly 20 million veterans in the United States, 4.7 million live in rural America. 2.7 million, or 58%, of these rural vets are enrolled in the Veteran Affairs (VA) health care system, with 55% of rural enrolled veterans 65 years and older, and 56% affected by a service-related condition.

North Carolina is home to 638,000 veterans. Rural veterans often experience health care challenges that are intensified by service-related conditions.

CHALLENGES FOR RURAL VETERANS

Limited Access to Physical and Behavioral Health Care

Similar to other rural residents, rural veterans may find it difficult to access physical and behavioral health care services for themselves and their families. Hospital closings, transportation challenges, limited broadband access, stigma, lack of providers, and other social factors contribute to these significant physical and behavioral health care obstacles for rural veterans in North Carolina.

Homelessness and Poverty

Many veterans struggle with homelessness and housing insecurity. Veterans between 18 and 30 years old are twice as likely as adults in the general population to be homeless, according to VA statistics.2, 3

Lack of Health Care Coverage

Veterans may lack health insurance for reasons ranging from confusing eligibility requirements to the lack of a VA facility in their community. Estimates put the number of uninsured veterans in North Carolina close to 30,000, with many falling into the coverage gap.4

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North Carolina has a long history of promoting public education, with many of the best K-12 public schools in the nation located in the state. While there are many great schools across the state, funding disparities contribute to stark differences in educational outcomes.

2020 Census data shows that nationally public schools spent approximately $13,494 per student annually. North Carolina spent $9,958 per student annually or $3,536 (or 26%) less than the national average.

The high school completion rate is nearly 40% lower among the state’s rural population than the state’s urban population. 14.6% of the rural population has not completed high school, while 10.0% of the urban population lacks a high school diploma according to 2017-2021 ACS data reported by ERS.

Only 41% of North Carolina rural county adults (25-44 years old) have a postsecondary degree or credential. This is compared to 51 percent of suburban and 66 percent of urban county adults.

POSTSECONDARY ATTAINMENT: 2020

Percentage of Adults (25-44 Years) with a Postsecondary Degree or Credential

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 35%</td>
<td></td>
</tr>
<tr>
<td>35 - 40%</td>
<td></td>
</tr>
<tr>
<td>45 - 54%</td>
<td></td>
</tr>
<tr>
<td>55 - 64%</td>
<td></td>
</tr>
<tr>
<td>65 - 77%</td>
<td></td>
</tr>
</tbody>
</table>

NC ranked 43rd among the 50 states and the District of Columbia for per pupil spending in 2020.

According to the N.C. Department of Commerce annual tier rankings, the 25 most economically distressed counties in North Carolina are all rural or suburban.6

North Carolina’s rural poverty rate is nearly 40% higher than the state’s urban poverty rate. The poverty rate for people of color is consistently higher than that of white residents in rural parts of the state, according to the NC Rural Center.

<table>
<thead>
<tr>
<th>RURAL POVERTY RATE</th>
<th>VS</th>
<th>URBAN POVERTY RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.2%</td>
<td>11.8%</td>
<td></td>
</tr>
</tbody>
</table>

The state’s rural unemployment rate is 12% higher than the state’s urban unemployment rate.

In rural counties, older North Carolinians are working longer — there are 34 older adults (65 years and older) to every 100 working age adults (18 - 64 years old). That number is only 25 in suburban and 20 in urban counties.8

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7 (2021) USDA-ERS  
8 NC Rural Center
10+% of North Carolinians are food insecure⁹

18.1% of rural North Carolinians are enrolled in SNAP, compared to 11.3% of urban residents¹⁰

600,000+ North Carolina households don’t have enough to eat each day, the 8th highest rate of food insecurity in the nation according to FeedNC

30% of respondents who live in rural areas reported that it is not easy to buy fresh fruits and vegetables in their neighborhood, according to North Carolina Healthy Food Retail Task Force

About 348,000 renter households in North Carolina are at an extremely low income level and 69 percent of these households have severe housing cost burdens, according to data from the National Low Income Housing Coalition.

49% of renters are rent burdened, meaning they pay more than 30% of their household income on rent.

24% of homeowners are mortgage burdened, meaning they pay more than 30% of their income on their mortgage.

“People who live in homes that cost a large portion of their income – or where there is overcrowding or poor maintenance – are exposed to a variety of health risk factors. In many areas of North Carolina, there are insufficient affordable, quality housing options for low-income people and their families.”

North Carolina Department of Health and Human Services, North Carolina Early Childhood Action Plan, February 2019
High-speed internet access for rural residents and businesses is important to growing the economy of rural communities and expanding access to health care services. At least 1.1 million North Carolina households lack access to high-speed internet. Many also lack the digital skills to take advantage of telehealth opportunities, pursue an education using virtual tools, or use online job boards to find work, according to the NC Division of Broadband & Digital Equity.

14.8% of rural North Carolinians live without broadband access, vs 11.1% of the total state population.

Rural residents are 33% more likely to not have broadband access compared to all residents in North Carolina.
COUNTY HEALTH RANKINGS

County Health Rankings & Roadmaps (CHR&R) is a program of the University of Wisconsin Population Health Institute, funded by the Robert Wood Johnson Foundation. CHR&R tracks data on a wide variety of health factors for nearly every county in all 50 states. By incorporating data on health outcomes, behaviors, care access, social and economic factors, and physical environment, CHR&R assigns each county in a given state a health ranking. Lower numbers correspond with better overall health, with #1 going to the county with the best health score and #100 going to the county with the worst health score.

Robert Wood Johnson Foundation County Health Rankings, 2023
8.6% or nearly 28 million people in the United States lacked health insurance at any point during the last year.

11.4% or nearly 1.16 million people in North Carolina lacked health insurance at any point during the last year. This rate is 32.5% higher than the national uninsured rate, ranking North Carolina 44th among all states, the District of Columbia, and Puerto Rico.

9.8% of people across the United States under 65 did not have health insurance at any point during the last year.

12.4% of North Carolinians under 65 did not have health insurance at any point during the last year.

64% of North Carolinians have private health insurance coverage vs. 36% of North Carolinians have public health insurance coverage.

Rural residents are 40% more likely to fall in the health insurance coverage gap.

One of the most important factors in an infant’s health is their mother’s health before and during pregnancy. Low birth weight, birth defects, and even infant death are tied to factors such as access to prenatal care, health risk factors, and health behaviors like smoking or drinking alcohol. Importantly, structural racism presents consistent barriers to healthy outcomes for women of color and their babies.

INFANT MORTALITY RATES

Maternal mortality and morbidity are significant public health concerns in the United States. Historically, maternal health trends in the US have included an overall decline in the maternal mortality rate, increased use of cesarean deliveries, and increased the number of women who receive prenatal care in the first trimester. However, progress has stalled in the past two decades, with an increasing maternal mortality rate since 2000.

According to the 2023 North Carolina Child Fatality Task Force Annual Report to the Governor and General Assembly, North Carolina infant mortality rates are consistently higher than US rates and are among the highest 15% in the nation.12

The overall infant mortality rate is 6.8 deaths per 1,000 births in North Carolina. In rural counties the rate rises to 9.0 per 1000 live births. North Carolina’s infant mortality rate is 26% higher than the United States infant mortality rate of 5.4.

Black infant mortality in North Carolina is 12.1 per 1,000 live births and is twice the rate of White, non-Hispanic infant mortality.

In 2021, Washington County had the highest infant mortality rate in the state at 19.2.13

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MATERNAL HEALTH

PRE-TERM BIRTH WEIGHTS

Rural hospital closures and the closure of maternity wards within rural hospitals continues to intensify. Increased travel times for patients and a lack of access to maternal and general health services exacerbate negative maternal health outcomes and disparities.

10.8% of live births are pre-term in North Carolina.

In North Carolina, the pre-term birth rate among Black women is 52% higher than the rate among all other women.

In North Carolina, the maternal mortality rate doubled between 2019 and 2021. Across the United States, pregnant individuals died 40% more often in 2021 than they did before the COVID-19 pandemic began.14

2.6x

Across the United States, pregnant Black individuals die 2.6 times as often as their white counterparts.

56 counties with no access to hospital with obstetrics care or birth center

21 counties designated as maternal health deserts

Adverse childhood experiences (ACEs) — such as exposure to trauma, violence, or neglect during childhood — increase the likelihood of poor physical and mental health as a child grows up. Research has shown that exposure to adverse experiences can impact children’s neurobiological development, negatively affecting their learning, language, behavior, and physical and mental health.

14.8%
Of North Carolina children ages 0 - 17 have experienced two or more adverse childhood experiences, up from 13.4%.

A two-year estimate of the percentage of children ages 0-17 who experienced two or more of the following:

- Economic hardship
- Being treated or judged unfairly due to race/ethnicity
- Parental divorce or separation
- Witness to domestic violence
- A parent who served jail time
- Death of a parent
- Victim or witness to neighborhood violence
- Living with someone who had an alcohol or drug problem
- Living with someone who was mentally ill, suicidal or severely depressed

NORTH CAROLINA RANKINGS

28 counties with no active psychologists

25 counties with no active licensed psychological associates

24th out of all states for adults with a mental illness who did not receive treatment (51%)

37th out of all states for prevalence of untreated youth with depression (62%)

38th for youth with severe major depressive episode who received some consistent treatment
92 of NC’s 100 counties are designated as health professional shortage areas (population or geographic) for mental health

PSYCHOLOGISTS PER 10,000 POPULATION BY COUNTY, NORTH CAROLINA, 2021
ORAL HEALTH

While most oral disease is preventable, regular dental care is out of reach for many. Unmet dental needs lead to wide disparities in oral health. Marginalized groups, including those living in poverty, Black, Indigenous, and People of Color (BIPOC) communities, frail elders, those with special health care needs, and immigrant and refugee populations carry the heaviest burden of untreated oral health disease.

DENTISTS PER 10,000 POPULATION BY COUNTY, NORTH CAROLINA, 2021
ORAL HEALTH CARE ACCESS

As of January 2023, the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services has either fully or partially designated all 100 NC counties as Dental Health Professional Shortage Areas (dHPSAs).

According to the NCDHHS Division of Public Health, 79% of the population served by public water systems in NC receive fluoridated water. In Region 1, which includes Cherokee, Clay, Graham, Haywood, Jackson, Macon, Swain, and Transylvania Counties, only 17.9% of the population is served by public water systems that receive fluoridated water.

Smoking and tobacco use can cause oral health problems. 19% of adults in NC currently smoke cigarettes. 6% of middle school students and 21% of high school students currently use e-cigarettes.

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15% of kindergarten children have untreated tooth decay

30% of pregnant women have untreated tooth decay

46% of adults 18+ years have had permanent teeth extracted

17% of adults aged 65+ years had all of their permanent teeth extracted

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5 NC counties have no practicing dentists.

HEALTHCARE INFRASTRUCTURE

WHAT IS THE RURAL SAFETY NET IN NC?

- 12 Small Rural Hospitals
- 20 Critical Access Hospitals
- 61 NC-STEP Telepsychiatry Sites
- 82 Free & Charitable Clinics
- 86 Rural Health Clinics or Rural Health Centers
- 100 Health Departments
- 141 School Based Health Centers (includes telemedicine sites)
- 262 Federally Qualified Health Center (FQHC) Sites

Safety net providers are “those providers that organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid beneficiary and other vulnerable populations.”

Core safety net providers are those who “either by legal mandate or explicitly adopted mission, offer care to patients regardless of ability to pay; and a substantial share of their patient mix are uninsured, Medicaid and other vulnerable patients.”
According to the North Carolina Rural Health Research Program at The Cecil G. Sheps Center for Health Services Research, acute care hospitals have lower revenue because elective procedures and some routine care are being canceled to ensure capacity for COVID-19 patients. Many also face higher expenses because of supplies, equipment, and staff required for COVID-19 patients.

Many rural hospitals have low cash levels and may struggle to get through the current cash crunch. Rural residents are 40% more likely to be uninsured and eligible for Medicaid expansion. Prior studies have shown that Medicaid expansion is associated with improved hospital financial performance and reductions in hospital closures.

NORTH CAROLINA RURAL HOSPITAL CLOSURES SINCE 2005

* facilities that no longer provide health care services, facilities that no longer provide in-patient services, but convert to Rural Emergency Hospitals (no hospitals have converted to REHs as of April 2023), and facilities that no longer provide in-patient services, but continue to provide some health care services [e.g., primary care, skilled nursing care, long-term care]
HEALTH WORKFORCE

According to America’s Health Rankings, North Carolina ranks 22 among all states and the District of Columbia in the number of primary care physicians (including general practice, family practice, obstetrics and gynecology, pediatrics, geriatrics, internal medicine, physician assistants and nurse practitioners) per 100,000 residents.16

North Carolina ranks 23rd in mental health providers

North Carolina ranks 40th in dental care providers

North Carolina lost more than 9% of its direct care workforce between 2016 and 2021, based on the US Department of Commerce’s projection for job openings from 2021 - 2030. Direct care workers represent the most needed health care job in North Carolina, according to the North Carolina Department of Health and Human Services.17

12,500 Estimated shortage of registered nurses in NC by 2033

5,000 Estimated shortage of LPNs in NC by 2033

Growing health workforce shortages impact all counties of the state, but especially impact rural communities that have historically faced shortages.


<table>
<thead>
<tr>
<th>Service</th>
<th>Number of Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counties with no dentists</td>
<td>5</td>
</tr>
<tr>
<td>County with no physicians</td>
<td>1</td>
</tr>
<tr>
<td>Counties with no psychologists</td>
<td>28</td>
</tr>
<tr>
<td>County with no nurse practitioners</td>
<td>1</td>
</tr>
<tr>
<td>Counties with no physician assistants</td>
<td>2</td>
</tr>
<tr>
<td>Counties with no respiratory therapists</td>
<td>13</td>
</tr>
<tr>
<td>County with no pharmacists</td>
<td>1</td>
</tr>
<tr>
<td>Counties with no optometrists</td>
<td>13</td>
</tr>
<tr>
<td>Counties with no physicians with a primary area of practice of obstetrics &amp; gynecology</td>
<td>25</td>
</tr>
</tbody>
</table>
Medicaid Expansion will bring access and opportunity, opening new doors for progress across the state. For health care advocates across North Carolina, the first few months of 2023 may have felt surreal. More than a decade of hard work and advocacy from countless organizations and individuals passionate about access to health care has paid off with the North Carolina legislature voting to expand Medicaid and Governor Cooper signing Medicaid expansion into law.

FHLI and NCRHA recognize the benefits Medicaid expansion will bring to hundreds of thousands of people in our state. We are proud of the advocacy efforts so many of our staff participated in, and we are thankful to the many organizations and individuals who never wavered in their focus on the individuals and communities across North Carolina that stand to benefit from Medicaid Expansion.

By expanding Medicaid, more than 600,000 North Carolinians will gain access to quality, affordable health care. Working families across our state, including veterans, front-line workers, small business owners, parents, and so many more, will all benefit from expansion.

With an estimated creation of 37,200 jobs, thousands in savings for small businesses, and billions in federal funding brought back to the state each year, Medicaid Expansion will also strengthen North Carolina’s economy, create more resilient communities, and reduce uncompensated care costs.

Seven rural hospitals in North Carolina closed since Medicaid Expansion was first on the table in 2010. There is re-building that needs to happen. Medicaid Expansion isn’t the end of the road – it is a huge step in a positive direction that opens doors for new opportunities to build a future where all North Carolinians have access to the care they deserve.

Medicaid Expansion will make a massive dent in health disparities, increasing access and equity across our state. However, there will still be hundreds of thousands of uninsured North Carolinians unable to access the care they deserve. Many of those who gain Medicaid coverage will struggle to find providers who accept their insurance, especially for oral health and other specialty services.

FHLI and NCRHA are well-positioned to continue increasing access and equity across North Carolina. Our programs will use Medicaid Expansion as an opportunity, leveraging the policy as we work directly with rural communities and advocate for systems-level change.
SUPPORTING PARTNERSHIPS AND STRATEGIES THAT IMPROVE HEALTH OUTCOMES IN RURAL NORTH CAROLINA