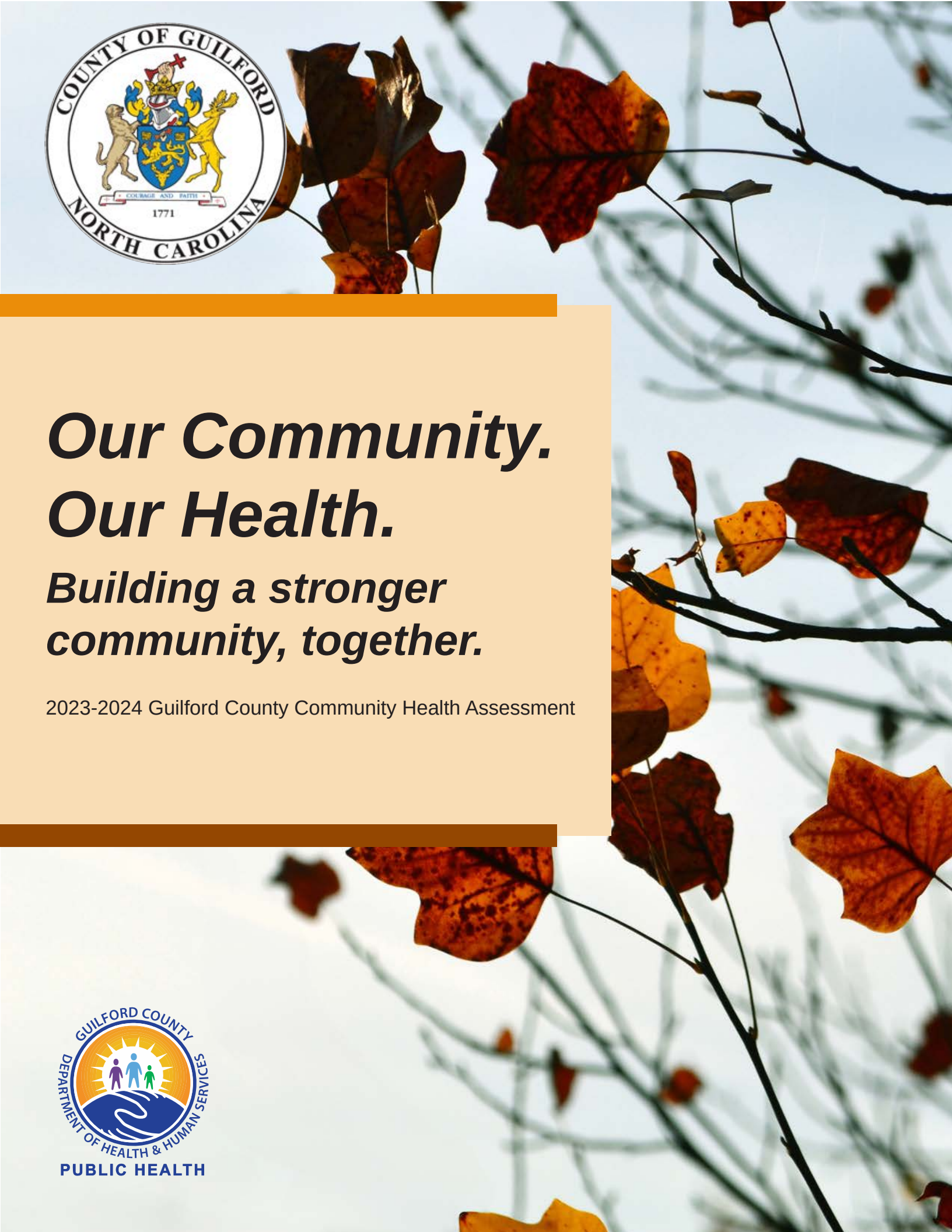


Our Community. Our Health.

Building a stronger community, together.

2023-2024 Guilford County Community Health Assessment

GUILFORD COUNTY DEPARTMENT OF HEALTH & HUMAN SERVICES
PUBLIC HEALTH

Acknowledgements

This assessment would not have been possible without the invaluable help and support of numerous individuals and groups of people dedicated to the health of Guilford County community residents.

With Gratitude

The Guilford County Division of Public Health gratefully acknowledges the following individuals and groups for their contributions:

- The community residents for participating in surveys and community meetings, providing their thoughts, insights, and valuable information about their experiences.
- The Community Health Assessment Design and Implementation Team members for their investment and guidance throughout the Community Health Assessment process.
- Iulia Vann, MD, MPH, former Public Health Director; Anita Ramachandran, MHA, MBA, Interim Public Health Director; Dennis M. Jenkins, Sr., Health Education Division Director; and the entire Public Health Executive Team for their support of the process and staff involvement.
- The Guilford County Board of Commissioners (Board of Health) for their ongoing commitment to public health.
- Michael Halford, MPA, County Manager; Victor Isler, MHA, MSW, LCSW, Assistant County Manager for Successful People and Director of the Department of Health and Human Services; Natalie Craver, MPA, Deputy Director of the Department of Health and Human Services; Sharon Barlow, Director of Social Services; and county administrative staff for their support of public health and community engagement.
- Laura Mrosla, MPH, MSW, Community Health Educator, for overall guidance and direction of the Community Health Assessment process and coordination of all project activities.
- Mark H. Smith, Ph.D., Epidemiologist Consultant, for assistance with the design and implementation of the Community Health Assessment process, data collection and analysis, GIS analysis, map production, and report development.
- Rimple Patel, MPH, Epidemiologist, for assistance with data analysis and report development.

- The many community volunteers, partners, and Public Health and County staff who connected and interviewed community residents for the Guilford County Community Health Assessment surveys.
- Health Education Division staff for their community engagement contributions throughout the process and their dedication to the communities we serve.
- Public Health interpreters and bilingual staff for sharing their knowledge and skills in translation and interpretation.
- John Wallace with the North Carolina Institute for Public Health and Matt Simon with Spatial Data Consulting for providing expertise and technical assistance in carrying out the Guilford County Community Health Assessment survey.
- Courtney Meihls, Communications Consultant, for her guidance and talent in report design.

Writing Contributors

Many individuals contributed to the writing of this document, with several writing more than one section. Thank you to the writers who put in many hours developing this document for the Guilford County community. The names of these contributors and reviewers are located at the beginning of each chapter.

Contents

A Letter from the Interim Public Health Director

Dear Guilford County Residents,

On behalf of the Guilford County Division of Public Health, I am pleased to share the 2023-2024 Guilford County Community Health Assessment, *Our Community. Our Health*. Conducted every four years, this report captures a comprehensive picture of our county's health—through the lenses of environment, society, behavior, and lived experience—and identifies key areas for community health improvement planning.

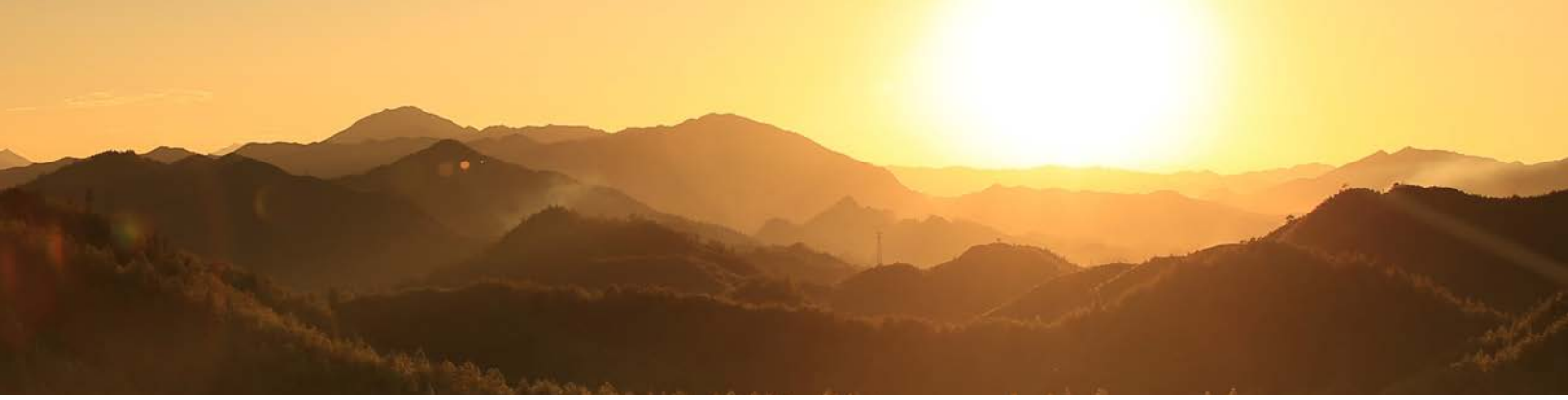
The Guilford County Division of Public Health's mission is to protect, promote, and enhance the health and well-being of all people and the environment in partnership with the community we serve. We achieve this by providing essential public health services, partnering with community organizations, and engaging with community members throughout Guilford County. To support our work, Public Health regularly assesses the health of the county to inform policy, strategic planning, programming, and investments that support our mission.

Our last Community Health Assessment was completed before the COVID-19 pandemic dramatically altered our world. This report marks our first since the pandemic and symbolizes a time of rebuilding and reconnecting. We have all endured so much, and our community has shown incredible resilience. As we move forward, we at Public Health continue to learn about the existing community assets that support health in our area, as well as the social determinants of health and systemic issues that influence health outcomes.

Our Community Health Assessment is not only about sharing collected data. It incorporates the voices and input of hundreds of our residents as well as community partners, covering topics surrounding where we live, work, learn, and play. As you read through the report, please consider it a call to action. Our hope is that it will motivate each of you to get involved or to continue to play a role, individually and collectively, in making Guilford County a vibrant, equitable, and healthy community for all.

Sincerely,

Anita Ramachandran, MHA, MBA
Interim Public Health Director
Guilford County Division of Public Health



Executive Summary

Contributors:

Laura Mrosla, MPH, MSW, Community Health Educator
Mark H. Smith, Ph.D., Epidemiology Consultant

Vision Statement

The 2023 Guilford County Community Health Assessment (CHA) will *collect, analyze,* and *share* meaningful data with community members and partners to *empower collective action* to support systems, policies, and practices that *promote health equity* for all members of our Guilford County communities.

Leadership

Differing CHA and community health needs assessment timelines with past hospital assessment partners, along with the impact of COVID-19 on Public Health staffing, necessitated a different leadership approach than that taken in the 2019 CHA. The Guilford County Division of Public Health (GCDPH) formed an expanded internal Assessment Design and Implementation Team to guide the 2023-2024 CHA process and rebuild community connections disrupted by the COVID-19 pandemic. Guided by Laura Mrosla and Mark Smith, who both have over 25 years of CHA experience in Guilford County, this Team includes experienced and new public health staff and student interns:

Assessment Design and Implementation Team

Alexis Powell, MPH, Community Health Educator II
Amanda Clark, MPH, Drug and Injury Prevention Manager
Anita Ramachandran, MHA, MBA, Interim Health Director
Chantelle McChristian, Public Health Business Intelligence Analyst
Dennis M. Jenkins, Sr., Health Education Division Director
Elisven (Eli) Saavedra Villatoro, PMP, MS, RDN, LDN, Guilford County – NC Cooperative Extension
Kaleigh Rhodes, Community Health Educator II
Laura Mrosla, MPH, MSW, Community Health Educator
Mark H. Smith, Ph.D., Epidemiology Consultant
Rebecca Oakes, MPH, Community Health Educator
Rimple Patel, MPH, Epidemiologist
John Wallace, Ph.D., UNC Institute for Public Health
Matt Simon, MA, GISP, Spatial Data Consulting
Albar Arvizu, University of North Carolina at Greensboro MPH Intern
Natalya Tweedy, East Carolina University MPH Intern
Hannah Phillips, MPH, Intern

Partnerships/Collaborations

Over 360 community members kindly shared their time and insights in the 2023 Guilford County Community Health Survey. Representatives from 37 community organizations and 19 community volunteers collaborated with 50 dedicated staff to play a role in this assessment's success. Community organizations included local collaboratives, funders, hospital and health related organizations, government, behavioral health providers, and local education and academic institutions.

Involvement and support included providing input into survey tool development, conducting surveys, sharing information about CHA data collection efforts, reviewing primary and secondary data, and attending community meetings to provide insights on community assets and challenges. These contributions add to the richness of information gathered and lay the groundwork for future collaborative efforts.

Category	Number
Public Health Agency	1
Government (non-health)	7
Hospitals	3
Behavioral Health Care Provider(s)	3
Education – primary, colleges, universities	6
Community Organizations	7
Foundations	4
Other Affiliated Health organizations	2
Collaboratives	3

Regional/Contracted Services

GCDPH contracted with the North Carolina Institute for Public Health (NCIPH) to support the primary data collection through community survey sample selection, assisting with staff and volunteer training, data collection and analysis. NCIPH subcontracted with Spatial Data Consulting. NCIPH is a part of the University of North Carolina at Chapel Hill's Gillings School of Global Health.

Theoretical Framework/Model

In previous assessments Guilford utilized the County Health Rankings Model of Health to organize and frame the assessment of health metrics. Because this model recognizes that 50% of variation in health outcomes is due to Social and Economic Factors (40%) and the Physical Environment (10%), a greater focus on the social drivers of health is warranted; therefore, the Healthy People 2030 Social Determinants of Health framework also informed the 2023-2024 CHA process. The assessment is also broadly situated in the social-ecological model, recognizing the need to look upstream to identify root causes and effective solutions collectively.

County Health Rankings Model of Health

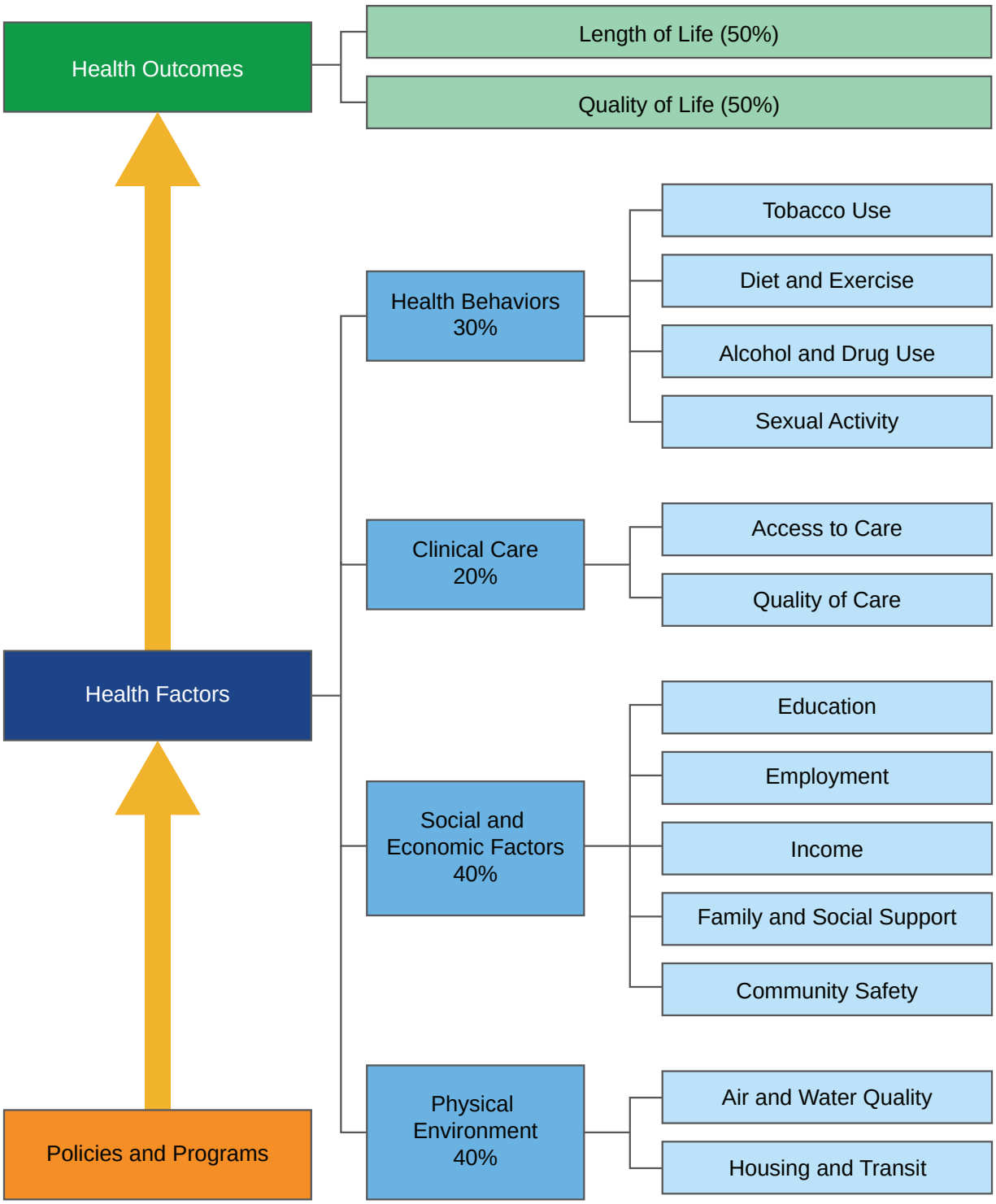


Figure: County Health Rankings Model of Health.

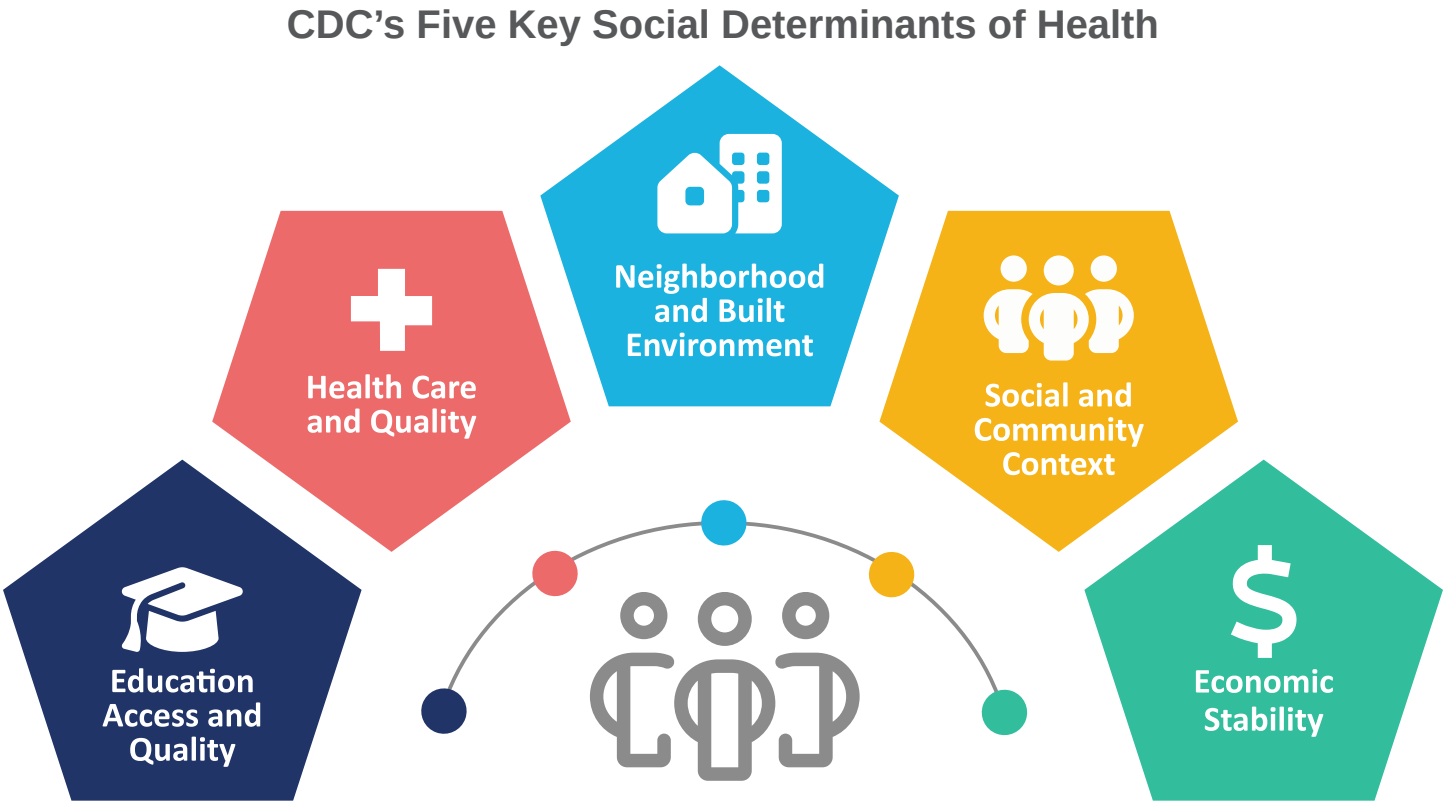


Figure: CDC's Five Key Social Determinants of Health (CDC, 2024).

Collaborative Process Summary

CHA planning began in early 2023, building on prior discussions about adding to the existing body of knowledge and learning more about the impact of social drivers of health and historic and persistent disparities. After collecting and synthesizing secondary data and primary survey data in 2023, these data were analyzed in winter of 2023/2024. At community meetings held in High Point and Greensboro in June of 2024, responders weighed in on their assessment of community issues through a "penny for your thoughts" exercise, a discussion of community assets, and through partner and community opinion questionnaires. In July 2024, the CHA Assessment Design and Implementation Team triangulated findings from the secondary data, the 2023 Guilford County Community Health Survey, community meetings, and community opinion survey rankings in the context of previous CHA priorities to determine the health priorities for the 2023-2024 Guilford County Community Health Assessment.

Guilford County Priority Health Issues and Key Findings

After triangulating assessment data from a variety of local, state, and national sources, the Guilford County Division of Public Health prioritized the following Health Priorities

- Access to Health Care
- Firearm (Gun) Violence and Injury
- Behavioral Health - Drug Overdose and Mental Health
- Healthy Eating and Active Living
- Maternal and Child Health and Infant Mortality
- HIV and Other Sexually Transmitted Infections

It is important to acknowledge that Social Determinants of Health influence health outcomes in each of these priority areas. Social determinants of health (SDOH) are "the conditions in the environments where people are born, live, learn,

work, play, worship, and age" (Healthy People 2030). These social conditions have led to significant health inequities and must be addressed to improve health outcomes and ensure all Guilford County community members have an opportunity to achieve their best health.

Next Steps – Share, Plan, Elevate, Gather

Next steps in the Community Health Assessment process include:

- Sharing the CHA findings and the top identified needs to community partners, organizations, government bodies, and the public with the help of community partners,
- Developing community health improvement plans (CHIPs) for at least two health priorities,
- Elevating both the CHA and CHIPs using Clear Impact Community Health Improvement Scorecard, and
- Continuing to gather community input through the Guilford County cohort and community conversations.

Chapter 1:
Understanding Guilford County's Health Using a Health Equity Lens

Contributors:

Laura Mrosla, MPH, MSW, Community Health Educator
Mark H. Smith, Ph.D., Epidemiology Consultant
Alexis Powell, MPH, Community Health Educator II

Introduction

Building a healthy community requires individuals and groups from throughout the community working together to foster an environment in which all people thrive and live their healthiest life. Many individuals and organizations in Guilford County are striving to do just that. In Guilford County, there are numerous individuals and organizations dedicated to this mission. To effectively support this collective effort, it is crucial to have access to current information about the community's needs, assets, resources, and challenges that influence its health.

Every four years the Guilford County Division of Public Health (GCDPH) engages with community partners and members to assess the health of Guilford County through a Community Health Assessment or CHA. The CHA identifies health priorities through the assessment of health data, leading to the development of Community Health Improvement Plans (CHIPs) to lay out strategies to achieving health improvements. This CHA also fulfills state Public Health accreditation requirements.

In this first CHA since the COVID-19 pandemic, GCDPH sets a bold vision for the 2023-2024 Guilford County Community Health Assessment. GCDPH hopes that this CHA will add to the wealth of data from other community research and assessment work by hospital systems, community-based organizations, foundations, and collaboratives in Guilford County and the Triad area to inform intentional collective action.

2023-2024 CHA Vision

To collect, analyze, and share meaningful data with community members and partners to empower collective action to support systems, policies, and practices that promote health equity for all members of our Guilford County communities.

The Community Health Assessment Cycle

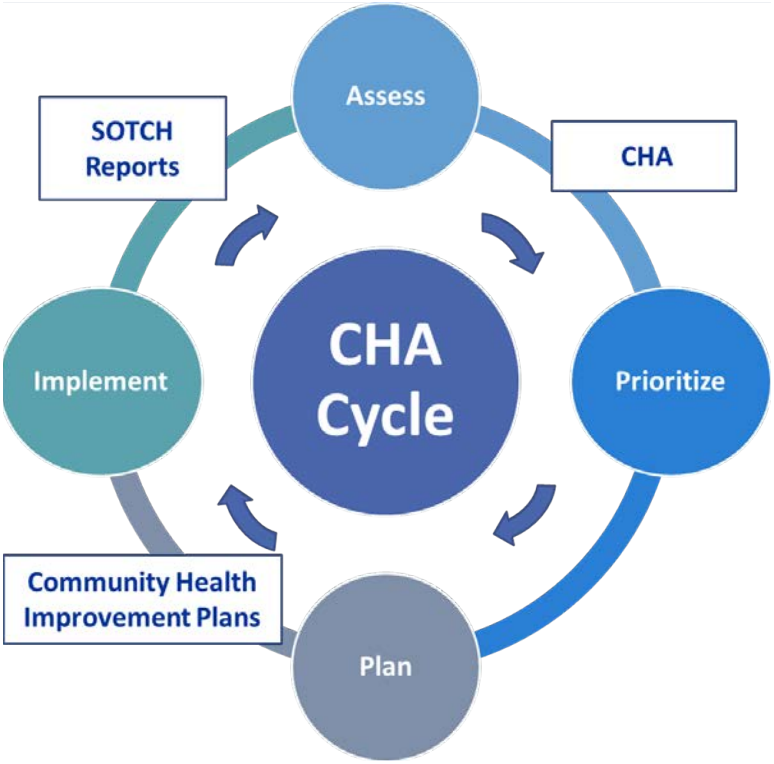


Figure: Community Health Assessment Cycle.

The CHA is a continuous cycle of assessment, planning and action in which we work collaboratively with community partners to:

- Collect and analyze primary and secondary data to identify needs and assets.
- Select health priorities facing Guilford County.
- Develop and implement Community Health Improvement Plans (CHIPs) with partners.
- Report on progress through the State of the County's Health Report (SOTCH) annually during years when a CHA is not underway.

This CHA approach strives to:

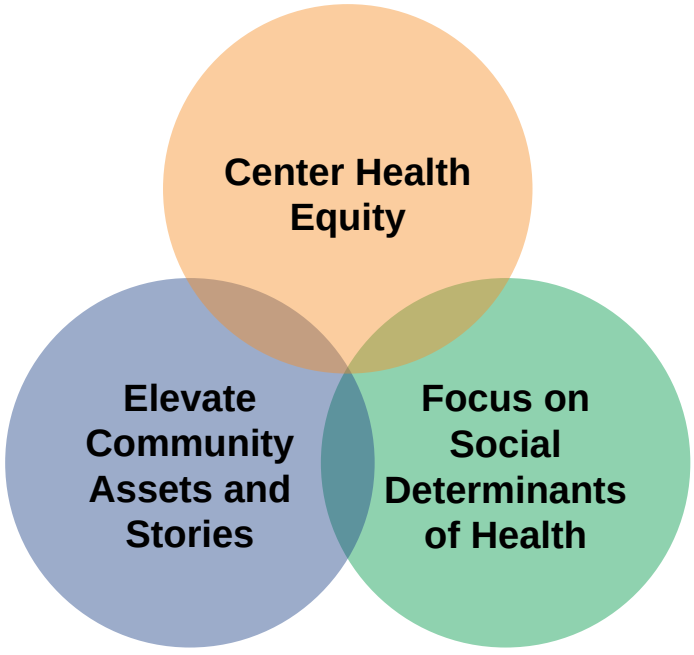
- **Center the importance of health equity** in bettering the health of all Guilford County community members.
- **Focus on the social determinants of health** that drive many of the persistent health disparities and health inequities in our communities.
- **Elevate community assets and stories** to uplift community voices, encourage collective action, and acknowledge their role in individual and collective resilience.

This approach aligns with Guilford County's operational mission and core values and supports the Division of Public Health's vision of a "healthy people living in a healthy community."

Centering Health Equity

According to the Robert Wood Johnson Foundation, "**health equity** means everyone has a fair and just opportunity to achieve their optimal health" (Robert Wood Johnson Foundation, 2017). While this opportunity should be accessible to all, a wealth of data shows just the opposite. Like past CHA efforts, this CHA report calls attention to persistent chronic heath disparities and health inequities that exist in Guilford County. This report also examines many of the social and structural challenges that create barriers for members of our community from achieving that goal.

Healthy People 2030 defines **health disparities** as health differences that are closely linked with historical or current social, economic, and/or environmental disadvantage (USDHHS, 2020). This definition and an ever-growing body of literature acknowledges the role social, economic and environmental conditions on shaping the health of individuals, families and communities. The World Health Organization builds upon this definition adding that differences in how health resources are allocated also impact these differences in health (WHO, 2018).



A comprehensive review from the National Academies of Sciences, Engineering and Medicine (NASEM), *Communities in Action: Pathways to Health Equity*, frames the root causes of health inequity in two main "clusters:"

1. **Structural inequities that organize the distribution of power and resources differently** across groups of identity.
   Examples of structural inequities include policies, laws, overt discrimination, implicit bias, and historical trauma.
2. The ***unequal distribution of power and resources*** that creates unequal social, economic, and environmental conditions, often described as social determinants of health.

This NAS report describes these social determinants of health "as the terrain on which structural inequities produce health inequities" (National Academies of Sciences, Engineering and Medicine*, 2017*). This chapter shares health outcomes on life expectancy and leading causes of death that illustrate the importance of integrating health equity in our approach.

What are Health Disparities?	What are Health Inequities?
Health disparities are health differences that are closely linked with historical or current social, economic, and/or environmental disadvantage. -Healthy People 2030	“Health inequities are unfair differences in health status or health resource distribution across population groups.” -World Health Organization

“Health equity means everyone has a fair and just opportunity to achieve their optimal health. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.”

Robert Wood Johnson Foundation

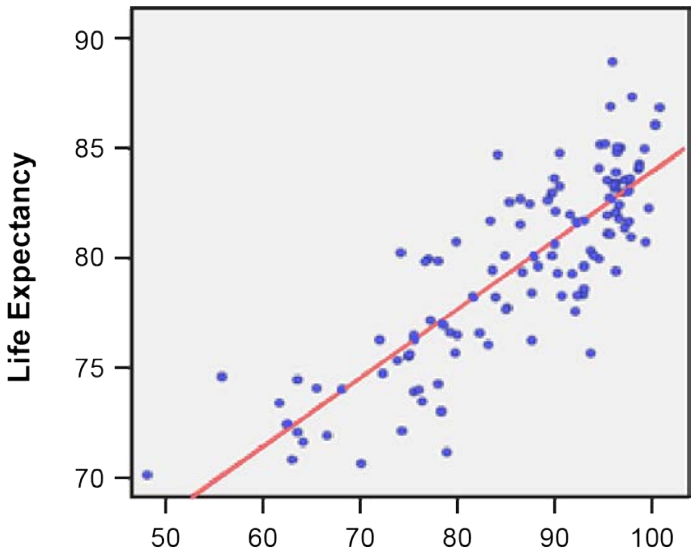
Focusing on Social Determinants of Health

Social determinants of health (SDOH) "are the non-medical factors that influence health outcomes. They are conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms and policies, racism/discrimination, climate change, and political systems" (WHO, 2024).

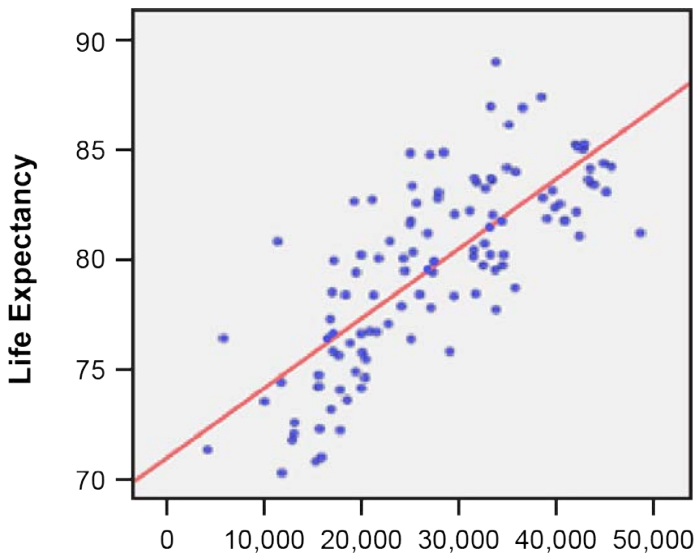
A large body of research recognizes that *social determinants of health* contribute as much as or even more to health outcomes as health behaviors and health care availability and quality (Kindig et al., 2010). An individual's income, education, and the environment in which they live influence their life expectancy and quality of life more than their behavioral choices such as tobacco use, eating and exercise habits and sexual activity.

In 2016 and 2019, the CHA team prioritized social determinants of health after finding that social and economic factors significantly impact health outcomes. The 2016 analysis revealed a clear relationship: as education and income increase, life expectancy also increases.

Average Life Expectancy per Census Tract by Education



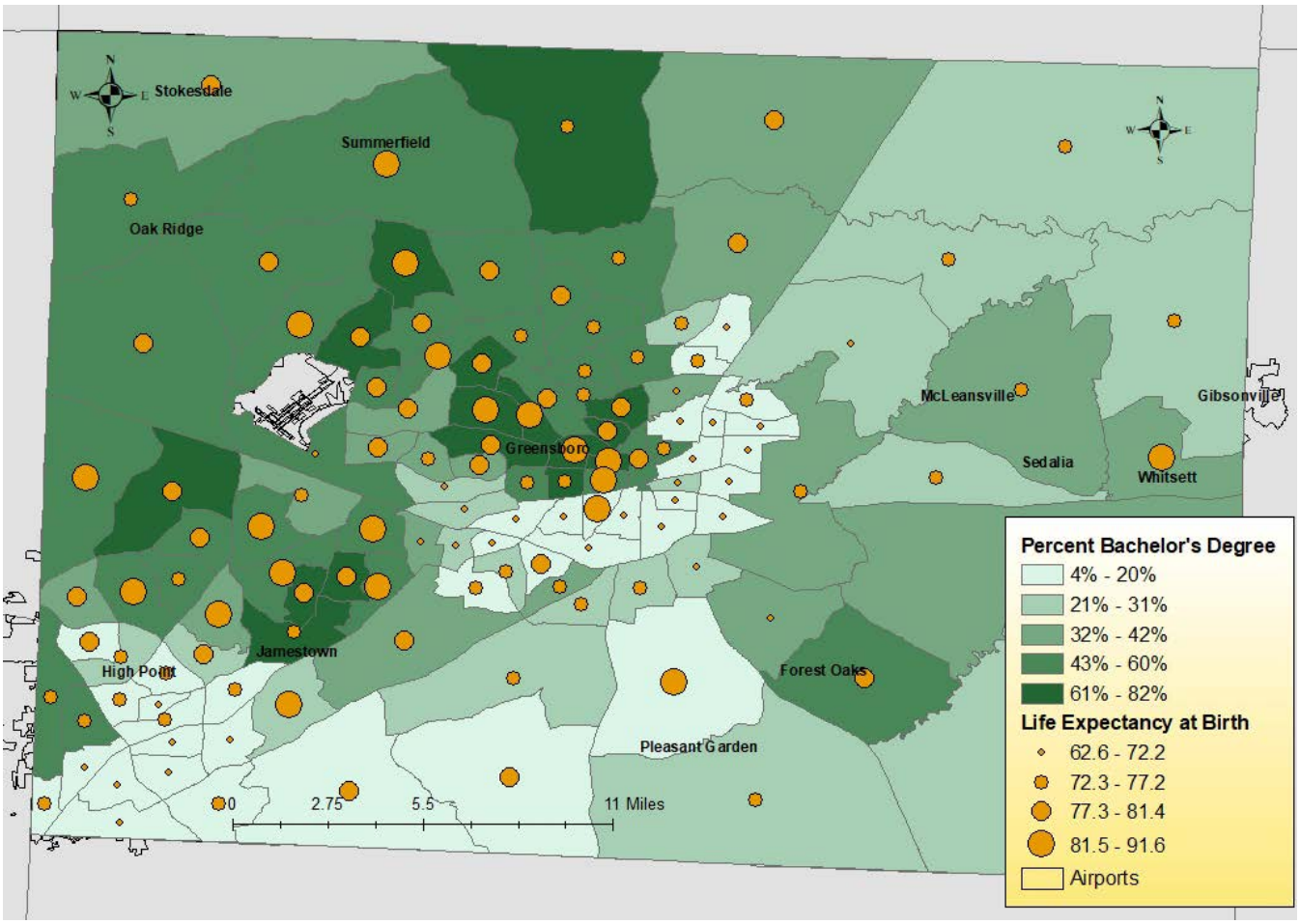
Average Life Expectancy per Census Tract by Income



Sources: US Census Bureau, American Community Survey 2009-2013; North Carolina State Center for Health Statistics, 2013.*

The 2023-2024 CHA maps illustrate the impact of education and income on life expectancy in Guilford County. The map below shows the percentage of the population over 25 with a bachelor's degree or higher, correlated with life expectancy by census tract. Darker areas indicate higher education levels and greater life expectancy, while lighter tracts show lower education and life expectancy. Similar trends are observed for those with a high school diploma or equivalent.

Percent Population Over the Age of 25 with a Bachelor's Degree or Higher with Life Expectancy at Birth



Source: American Community Survey, 2018-2022; Life Expectancy data from NC NCHS 2016-2020.

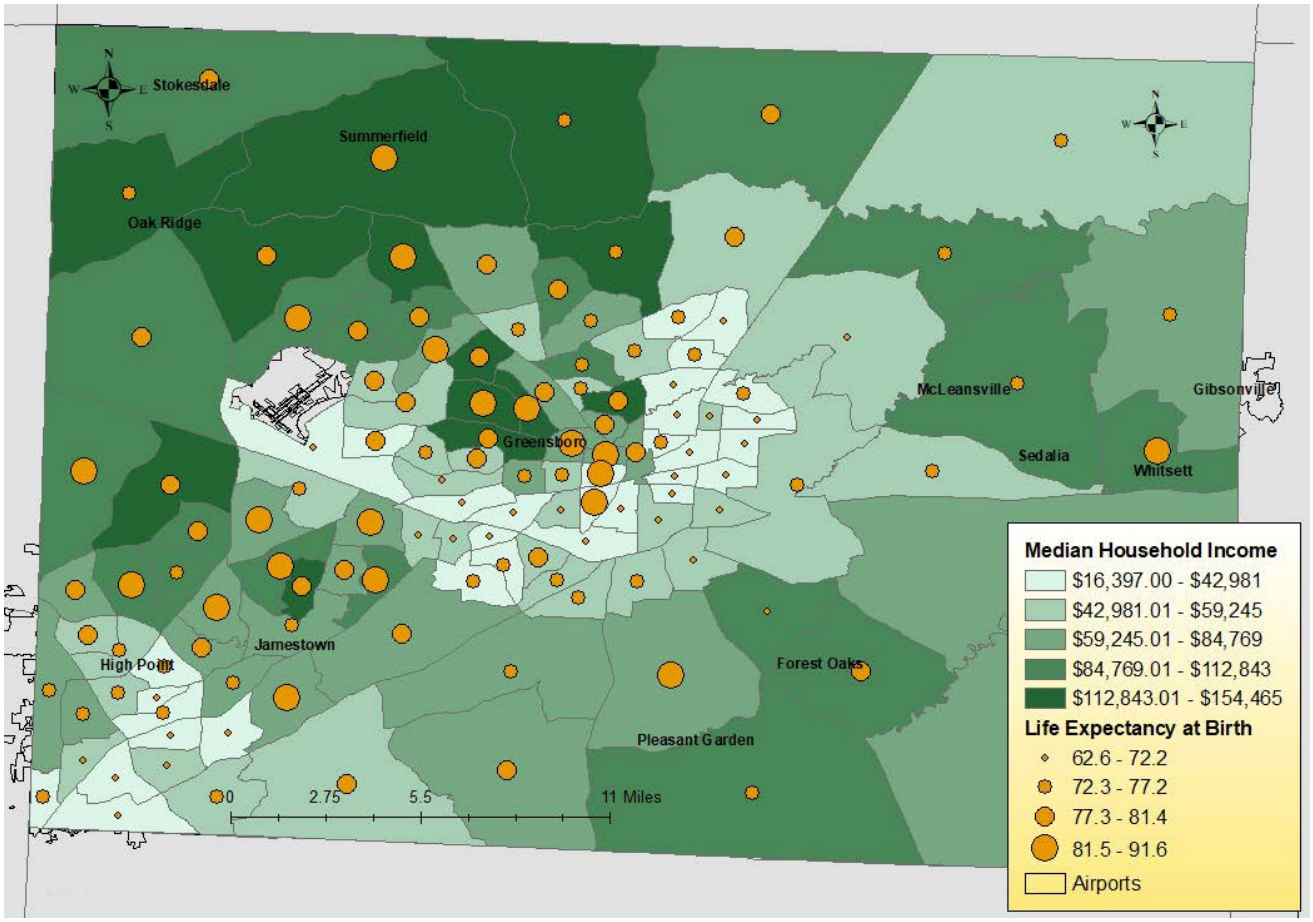
What is the Social Vulnerability Index?

Social Vulnerability refers to the demographic and socioeconomic factors that may make communities more "vulnerable" to community-level stressors or hazards. These hazards or stressors can include natural or human-caused disasters disease outbreaks, like COVID-19, or other public health crises.

The Social Vulnerability Index or SVI can help to identify and map communities based upon this potential vulnerability to inform response efforts.

Agency for Toxic Substances and Disease Registry, 2020

Median Household Income and Life Expectancy, by Census Tract



Source: American Community Survey, 2018-2022; Life Expectancy data from NC NCHS 2016-2020.

In the map above, there is also a clear pattern between median household income and life expectancy by census tract. Census tracts with lighter shading, indicating lower median household income, also tend to have lower life expectancy.

Education and income drive health outcomes but are not the only social determinants that affect health. Substandard housing can exacerbate asthma, increase vulnerability to falls, exposure to violence, and environmental hazards. Exposure to violence and emotional trauma can contribute to a host of health issues and shorten lives, while strong social support promotes positive health behavior change and resilience.

In the 2023-2024 CHA, the design of the 2023 Guilford County Community Health Survey sought to further assess local SDOH impact through the adoption of the CDC's Social Vulnerability Index (SVI) in its two SVI-based sampling frame methodology. The SVI is an index of 16 measures across four domains of socioeconomic status, household characteristics, racial and ethnic minority status, and housing type and transportation. This methodology allows for the analysis and comparison of results across two groups, those living in census tracts with the 25% highest degree of vulnerability and the remaining census tracts which have lower levels of social vulnerability. The team also added questions around stressors, social and emotional support, caregiving, childcare, discrimination, transportation, housing and food security, and emergency preparedness to the survey tool. **Chapter 3, Assessment Methodology**, and the **2023 Guilford County Community Health Survey Report** (see Appendices) provide more detail on this data collection and results.

Inequalities in income, wealth, housing, and education are rooted in longstanding policies and systemic patterns related to race, economics, and social development. As a result, tackling these inequalities can be quite complicated and challenging. This CHA report elevates local SDOH data framed by the CDC's five key SDOH categories, access to quality health care, education, economic stability, and a safe, supportive community and physical environment.

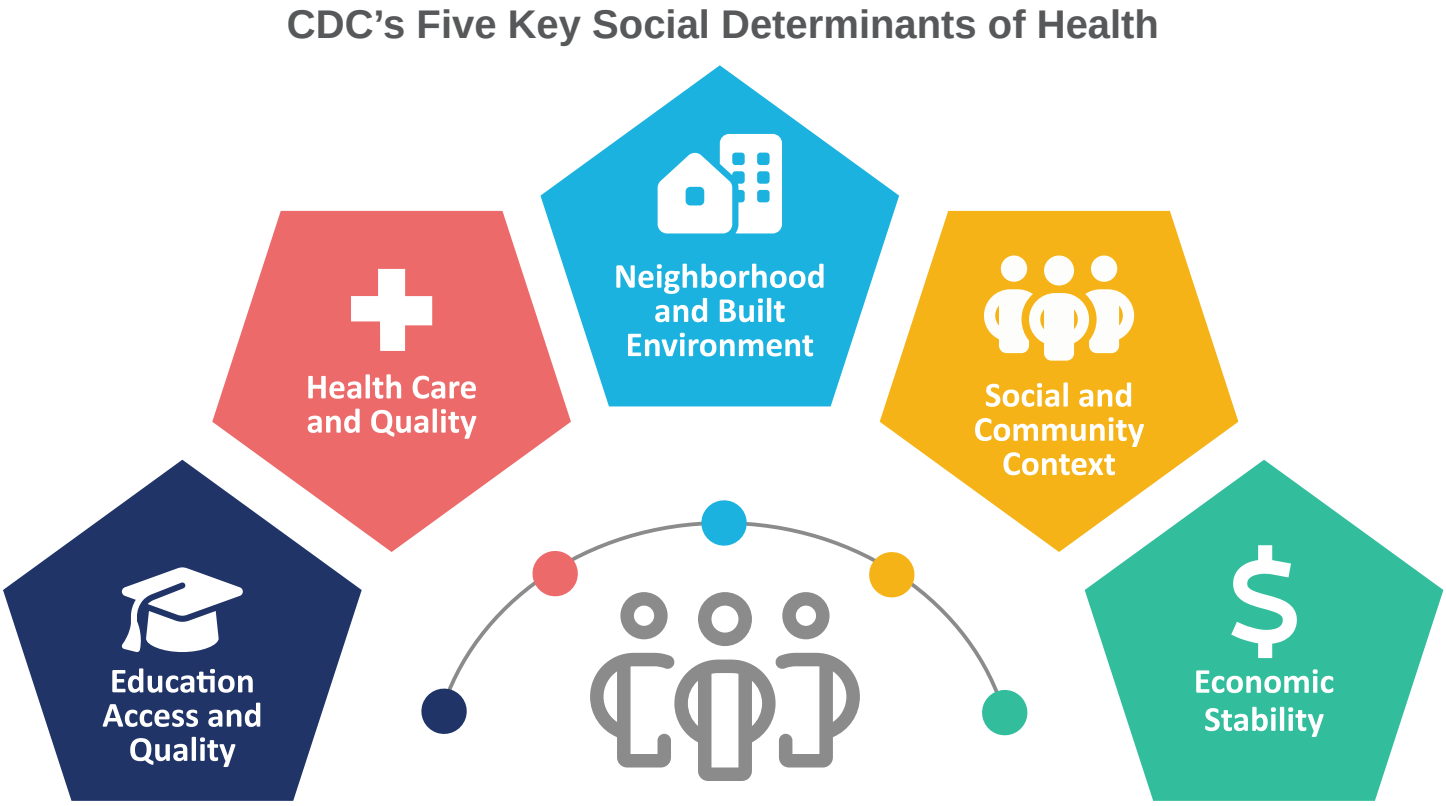


Figure: CDC's Five Key Social Determinants of Health (CDC, 2024).

Chapter 4: Social Determinants of Health provides more detail on select measures that impact health outcomes and quality of life in Guilford County. To support efforts to address SDOH, Public Health can provide critical data for decision-making, convene stakeholders across sectors, inform policy efforts and collaborate across sectors to influence outcomes and behavior (Hacker, 2022).

Elevating Community Stories and Assets

While the CHA highlights important health and community data, the Assessment and Design Team emphasizes that behind each of these statistics is a valued community member with a unique story, strengths and challenges. This CHA strives to elevate the importance of community stories to cultivate empathy and connection and to humanize the data. Guilford County also has many formal and informal community assets that can and do play a powerful role in addressing health equity in Guilford County.

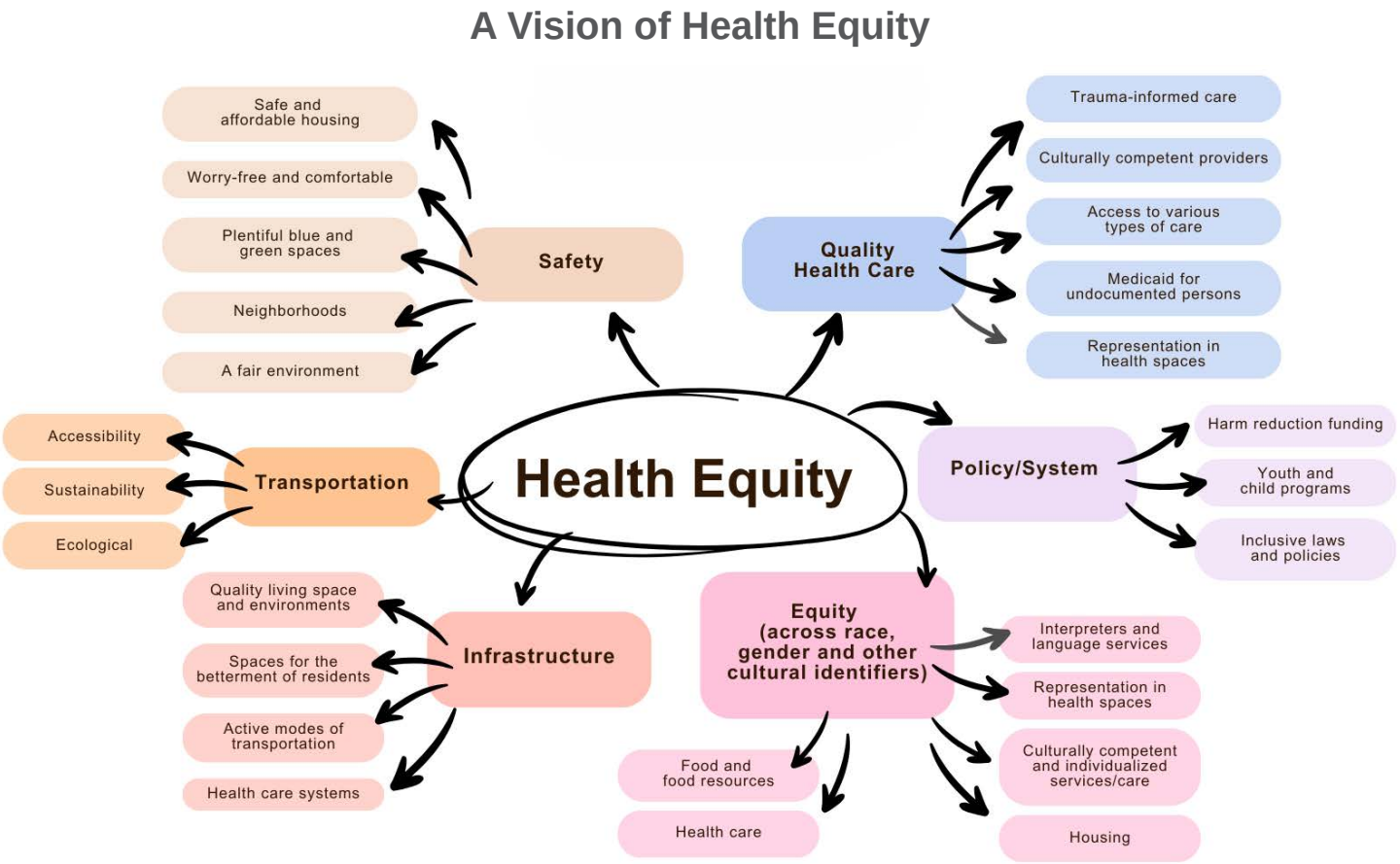
The CHA Assessment and Design Team sought out these stories and assets by engaging with community members and rebuilding connections with community partners post-COVID. Strategies included:

- Interviewing more than 360 community members through the 2023 Guilford County Community Health Survey with the help of community partners and volunteers.
- Hosting two community meetings to share results and seek feedback on community assets and priority issues.
- Inviting additional input through an online community opinion survey and community partner survey in the summer of 2024. GCDPH looks forward to sharing these data in the future.

Select stories and assets are integrated into this CHA in the form of quotes, observations from community members and visualizations. Team members also developed short fictional narratives based on likely situations experienced by community members. While these are fictional, these narratives reflect the often real and complex circumstances that community members face.

Visioning for Health Equity

In June 2024, GCDPH convened in-person community meetings in Greensboro and High Point to engage past and new community partners in the assessment process. Responders shared words and phrases to describe health equity if it existed in its full potential. As this visual illustrates, health equity includes not just the ability access health care, but a wide range of social, environmental and structural conditions influence health.

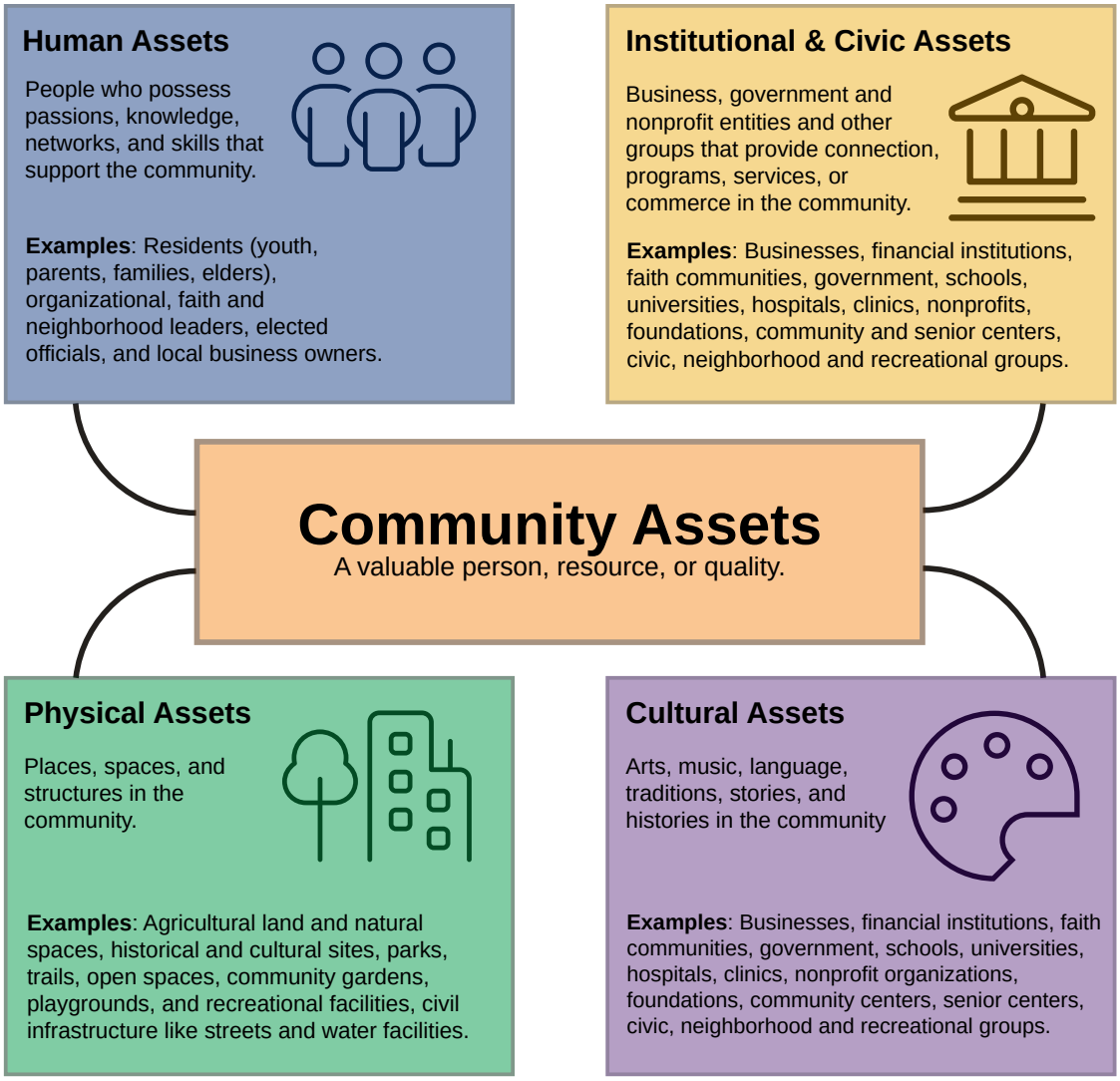


Visualization Data Analysis by: Devontee' Tanner, Rebecca Oakes, Julia Mounsamlouath, and Hannah Phillips.

Community Assets

To learn more about the formal and informal community assets in Guilford County responders also shared their knowledge of existing community assets at the June 2024 CHA Community Meetings. On sticky notes, responders responded to the following question: "What are assets, strengths, and resources in our community that support the health and well-being of our members?"

The figure above provides a glimpse of community assets identified in our diverse communities based on those present at these community meetings. This is not intended to be a comprehensive list of resources and assets that exist throughout the county but lifts the importance of their potential role in community health improvement efforts. These and other community assets are or could potentially be instrumental in addressing the health priorities outlined in this CHA. Additional asset data from the Community Opinion Survey and Partner Survey collected in the summer of 2024 will add to the richness of this picture.



What Health Outcome Data Tells Us about Health Equity in Guilford County

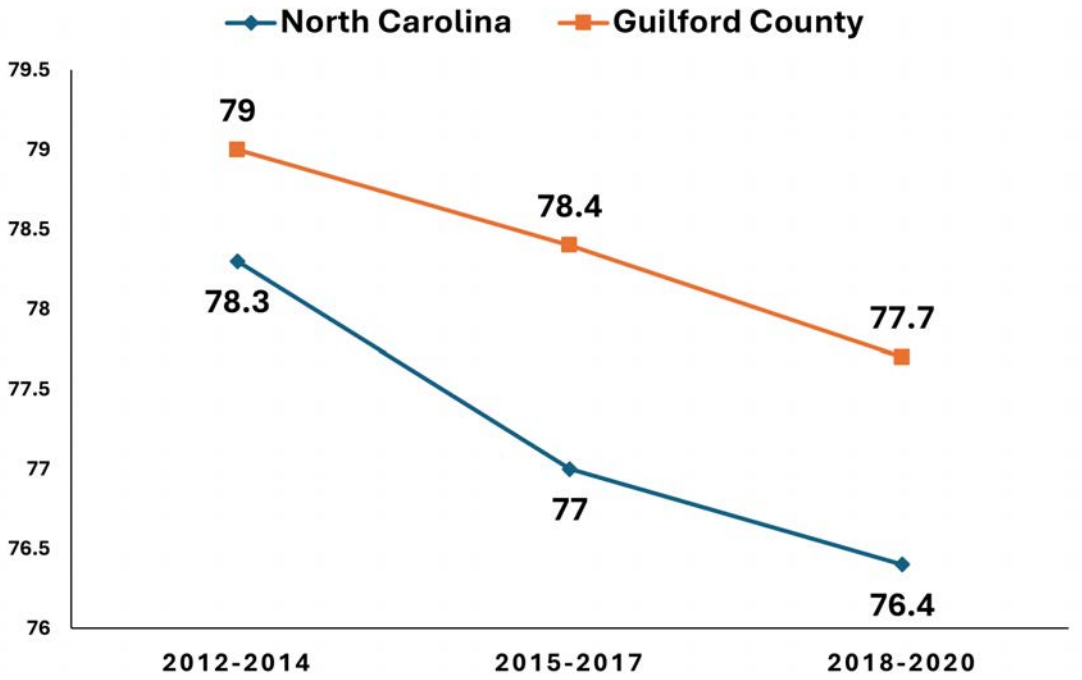
Good health is essential for individuals and families, supporting both personal and collective well-being and a strong, productive economy. However, significant health inequities persist across various health issues in Guilford County, leading to preventable disparities in health outcomes among different groups. This section provides a detailed look at data on life expectancy and leading causes of death to illuminate the human impact of these persistent health inequities.

Differences in Life Expectancy

Life expectancy is an important and easy to understand population health measure that is defined as the average number of years infants would be expected to live if death patterns stayed the same. The Healthy NC 2030 target is to increase life expectancy to 82 years. In 2018-2020, Guilford County life expectancy was 77.7, slightly higher than North Carolina. However, life expectancy has declined in Guilford County over the last several years from 79 years (2012-2014) to 77.7 years (2018-2020), a decline following a state and national trend. The American Medical Association describes 60% of this decline that has occurred nationally due to heart disease, cancer, and COVID deaths. In addition, overdose deaths have risen nationally five-fold in the last 20 years (Berg, 2023).

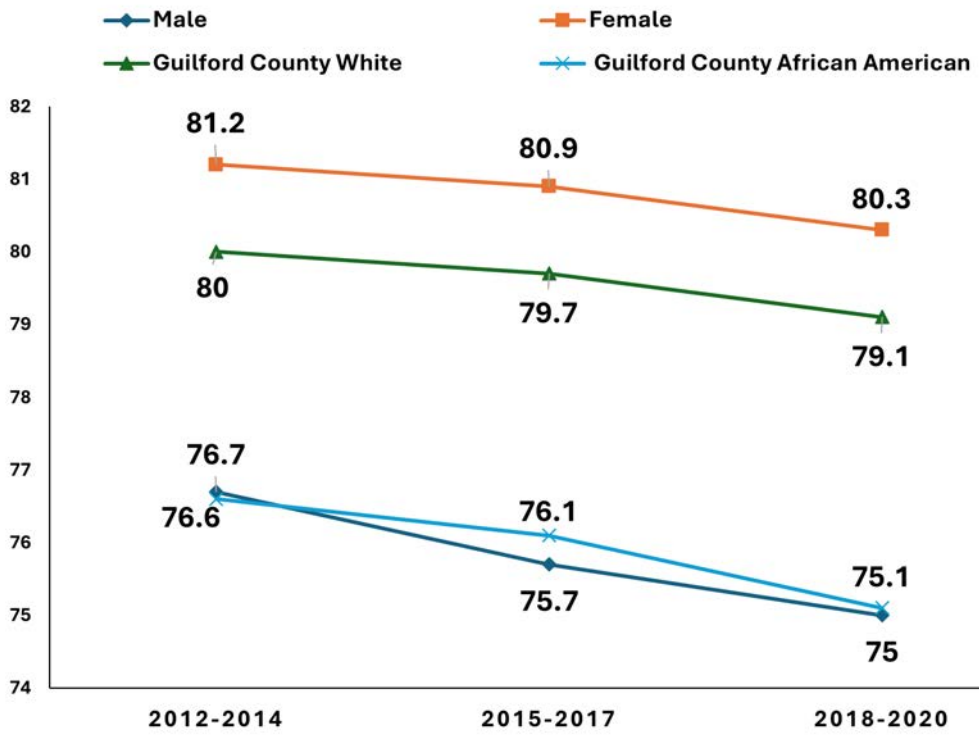
Persistent disparities in life expectancy exist by sex and race in Guilford County. While all populations saw a decrease between 2012 and 2020, females' life expectancy remained five years higher than males and Whites' life expectancy remained four years higher than African Americans during this same time.

Trends in Life Expectancy in Guilford County and North Carolina



Source: NC State Center for Health Statistics.

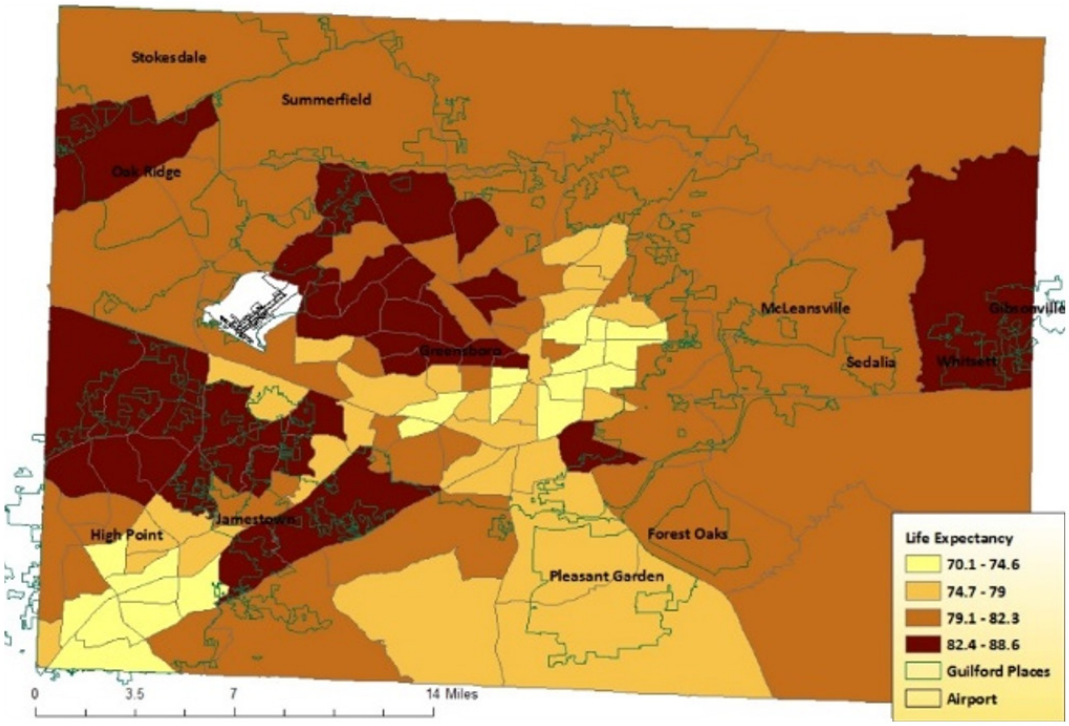
Trends in Life Expectancey by Sex and by Race in Guilford County



Source: NC State Center for Health Statistics.

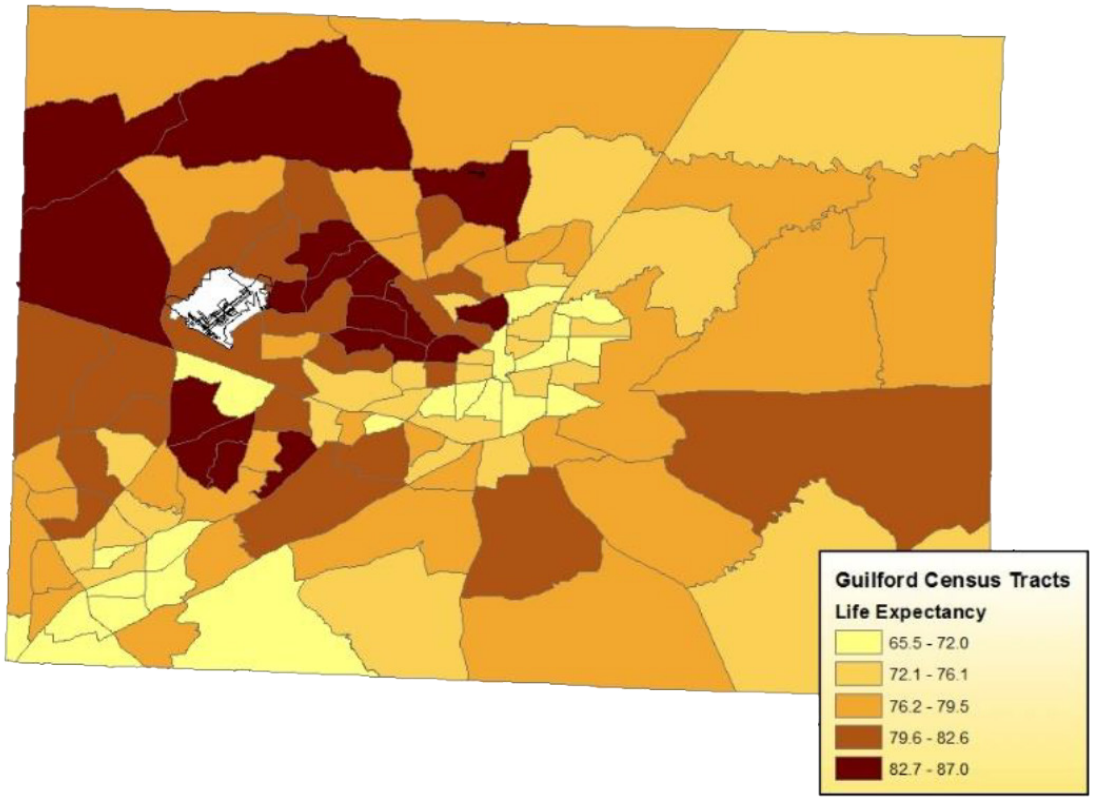
Looking only at the average life expectancy conceals a wide range of variation and disparities within the county. The 2016 CHA noted a geographic variation of up to 18 years in life expectancy by census tract, ranging from a low of 70.1 years to a high of 88.6 years (See MAP: Life Expectancy at Birth by Census Tract, 2009-2013). Documentation of these geographic patterns continues in the 2019 CHA, illustrating differences in life expectancy of up to 20 years in 2012-2016 See MAP: Life Expectancy at Birth by Census Tract, 2012-2016).

Life Expectancy at Birth, by Census Tract, Guilford County - 2009-2013



Source: Mortality data provided by NC Center for Health Statistics; Population data from the American Community Survey.

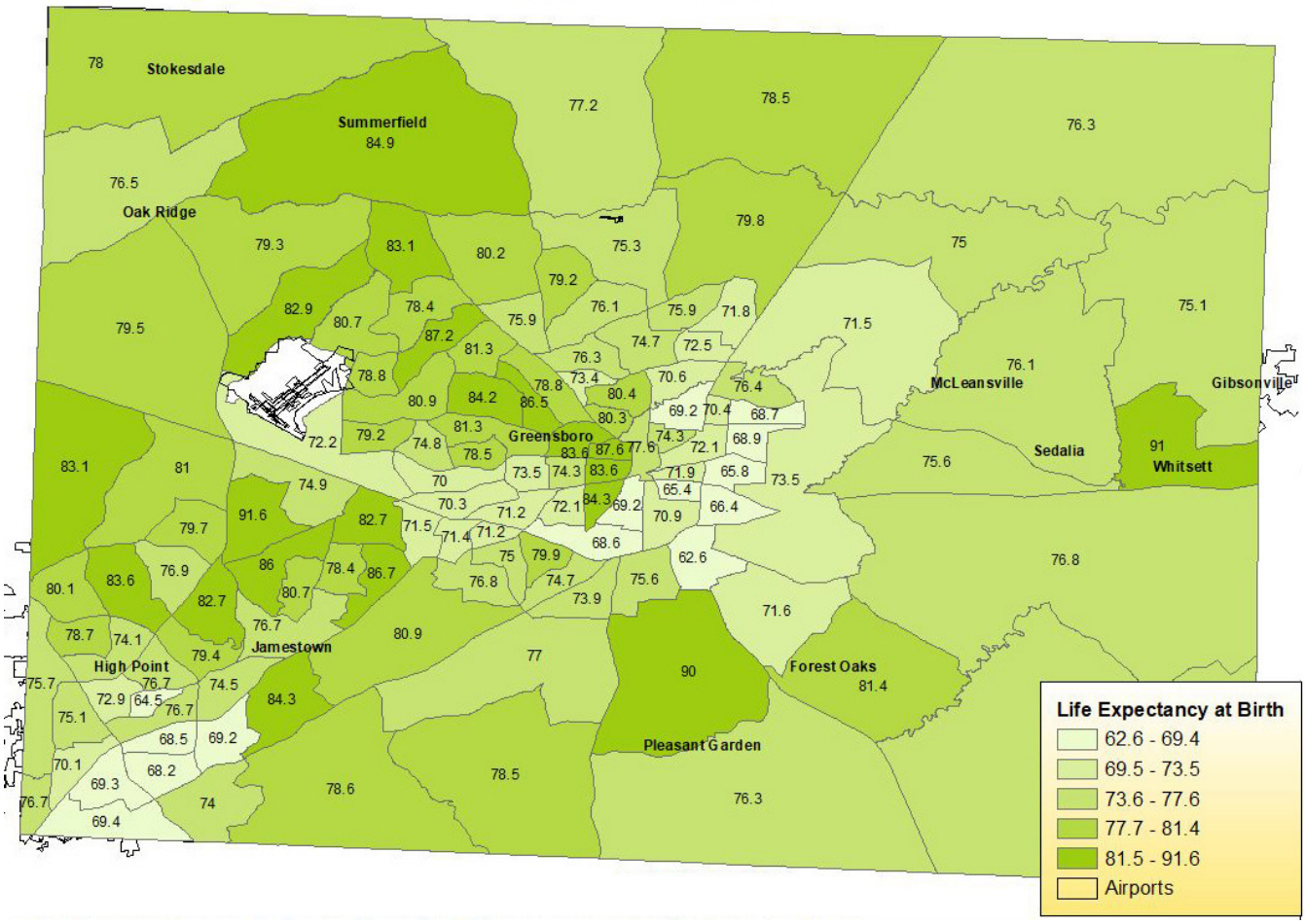
Life Expectancy at Birth, by Census Tract, Guilford County - 2012-2016



Source: Mortality data farom the NC Center for Health Statistics; Population data from the American Community Survey.

Ongoing analysis in this CHA affirms that life expectancy varies dramatically depending on where residents live. Significant disparities exist depending upon where a person lives in Guilford County, with a difference as high as 28.4 years in some areas. See MAP: Life Expectancy at Birth by Census Tract, 2020.

Estimated Life Expectancy at Birth, by Census Tract, 2020
Guilford County, NC



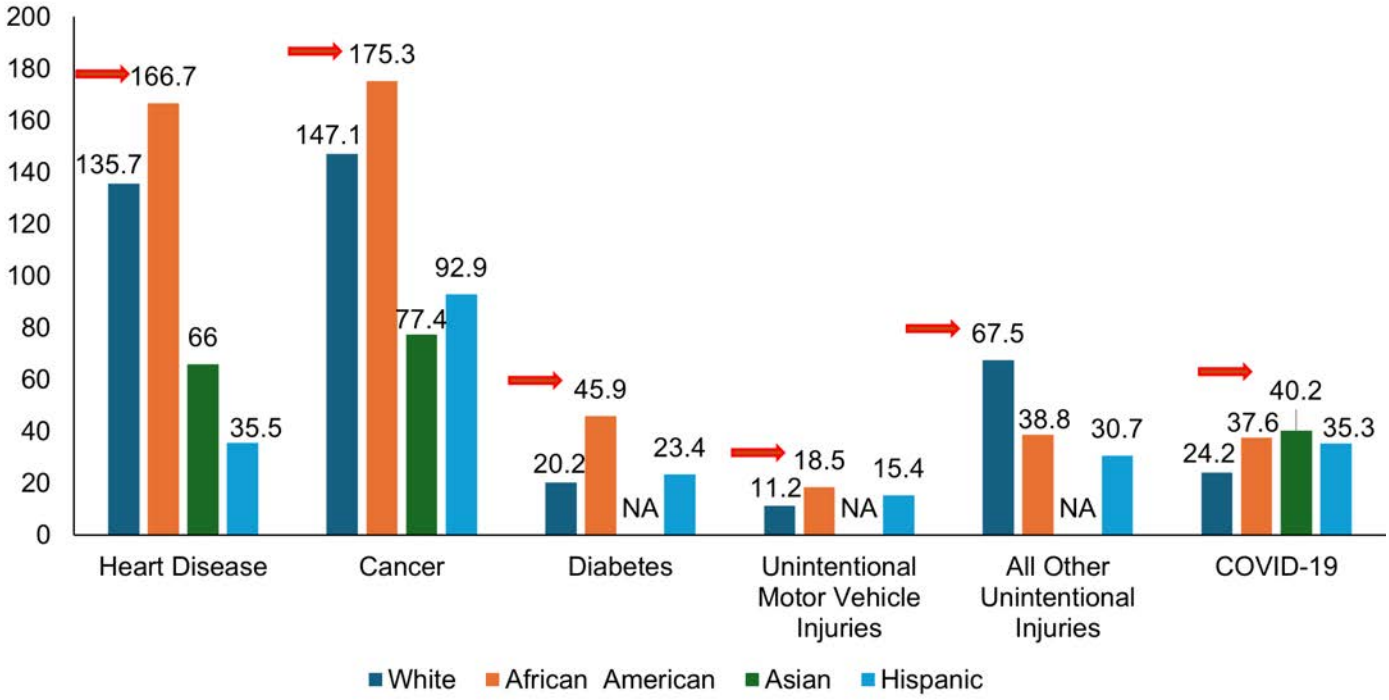
Source: 2016-2020 mortality data from NC State Center for Health Statistics. Population estimates used in calculations are from teh 2016-2020 American Community Survey.

Limitations: Census tract life expectancy estimates use calculations based on age-specific mortality rates that utilized American Community Survey (ACS) census tract population estimates ACS collects population data through a survey methodology. Rates using ACS population estimates are subject to variability based on survey sampling error.

Differences in Leading Causes of Death

In a comparison of age-adjusted mortality rates per 100,000 population, differences exist by race and ethnicity in Guilford County. As the chart below illustrates, African Americans are disproportionately impacted with the highest death rates for heart disease, cancer, diabetes, and unintentional motor vehicle injury deaths. Whites have higher mortality rates due to heart disease and cancer than Asians and Hispanics and have the highest rates of unintentional injury death. African American, Asians, and Latinos were disproportionately impacted by COVID-19.

Five-year Adjusted Mortality Rates per 100,000, Guilford County, 2017-2021 by Race and Ethnicity



Note: Unintentional injuries include deaths primarily due to unintentional poisonings, falls, and other external causes of injury.
Source: NC State Center for Health Statistics.

African Americans are also disproportionately impacted by most cancers, kidney related diseases and homicide, while Whites are disproportionately impacted by chronic lower respiratory diseases and suicide. There were especially large disparities in mortality due to diabetes, kidney related diseases, and prostate cancer, with African Americans in Guilford County having almost twice the death rates as Whites for these conditions. Whites have higher rates of chronic lower respiratory disease death rates.

Persistence of Health Disparities Over Time

Looking back over the past 10 to 15 years, the following table highlights the persistence of health disparities across several health outcomes, including life expectancy, chronic disease death rates, infant mortality rates and HIV new infection rates.

Life Expectancy	2012-2014	2015-2017	2018-2020
White	80 years	79.7 years	79.1 years
Black	76.7 years	76.1 years	75.1 years
Heart Disease Mortality Rate per 100,000 population*	2007-2011	2012-2016	2017-2021
White	151	132.2	135.8
Black	189.1	173	166.7
Asian	NA	NA	66
Hispanic	38.7	47.5	35.5
Cancer Mortality Rate per 100,000 population*	2007-2011	2012-2016	2017-2021
White	151	154.7	147.1
Black	189.1	181.8	175.3
Asian	NA	NA	77.4
Hispanic	39	86.4	92.9
Diabetes Mortality Rate per 100,000 population*	2007-2011	2012-2016	2017-2021
White	12.2	15.9	20.2
Black	30	35.1	45.9
Hispanic	NA	NA	23.4
Infant Mortality Rate per 1,000 live births	2016	2019	2022
White	3.5	6.7	5.5
Black	14.5	14.3	11.7
Hispanic	6	2.3	10.7
HIV Rates per 100,000 population	2016	2019	2022
White	2.8	10.3	25.4
Black	66.9	65.1	140.2
Hispanic	28.4	12.2	47.4

*Rates age-adjusted

The **Health Priority chapters (Chapters 5 -10)** provide more detail on the persistent health disparities that exist across these and other health issues.

The next chapter, **Chapter 2: About Guilford County: Who are We?** shares recent demographic data about Guilford County. It also dives deeper into select historical policies, movements and events that have contributed to the persistent structural and health inequities in Guilford County. While in the past, their effects persist, disproportionately impacting many Guilford County residents. Individual city and town demographic profiles can be found in the Appendices.

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Chapter 2:
About Guilford County: Who are We?

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Special Research and Contributions

Introduction, Economy, Education: Institutions of Higher Learning, and Guilford County within an Equity Context

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History of Guilford County Division of Public Health

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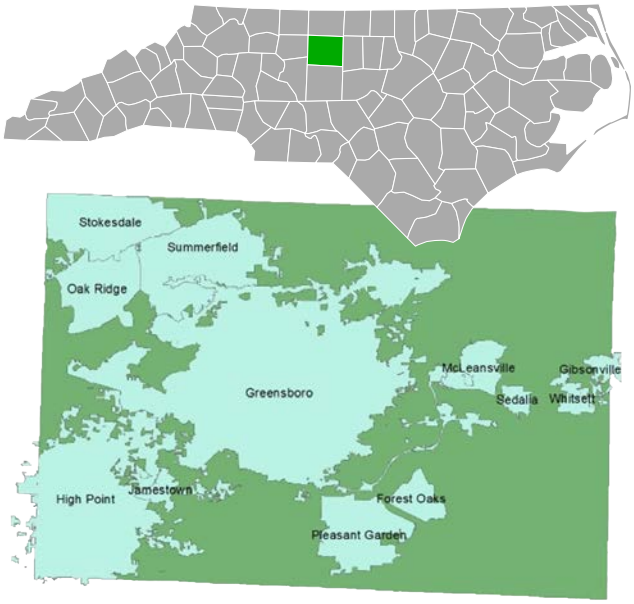
Introduction

Located in the Piedmont Triad region of North Carolina, Guilford County is the third most populated county with approximately 539,557 individuals living in a mix of suburban, urban, and rural environments (US Census, 2022). Guilford County offers a blend of active city life in Greensboro and High Point and charming small-town communities, including Gibsonville, Jamestown, Oak Ridge, Pleasant Garden, Stokesdale, Summerfield, and Whitsett and other unincorporated areas.



Formed in 1771, Guilford County is named after Francis North, the first Earl of Guilford and British Prime Minister from 1770 to 1782. Guilford County has been the site of significant historical events, industrial development, and a rich academic history. Historical sites include locations like the former Woolworth's counter which is now memorialized within the International Civil Rights Center and Museum, the Greensboro Historical Museum, the Charlotte's Hawkin's Brown Museum, the High Point Museum, and the Mendenhall Homeplace. Guilford County is also well known for its academic institutions including Guilford College, Greensboro College, Bennett College, North Carolina Agricultural and Technical State University, High Point University, Guilford County Technical Community College and the Elon University School of Law.

Economy

Guilford County emerged as a commercial transportation and manufacturing hub, driving its economic growth. In the mid-1850s, the NC legislature authorized a railroad to connect the coastal plains to the Piedmont, enhancing local industrial development. Historically, the county has focused on furniture, apparel, and textiles, with the railroad facilitating mass goods transport across the Southeast (Powell, 2006).

In the 1880s, the High Point Furniture Manufacturing Company was established, leading to the first Southern Furniture Market by 1909 (High Point Museum, n.d.; NC Department of Natural and Cultural Resources, 2016). The Cone Mills White Oak Plant, created in 1891, became a major denim producer after being purchased by the Cone Brothers in 1905, significantly boosting local employment and revenue (Cone Denim, 2024).

During the Civil War, Guilford County remained appealing to businesses due to low labor costs, abundant raw materials, and minimal taxes (Powell, 2006). The 20th century saw continued economic prosperity with large corporations like VF, Jefferson Pilot and Lorillard establishing operations in the area (Powell, 2006; Stoesen, 2022). For more on the largest current industries and employers, see Chapter 4: Social Determinants of Health.

Education: Institutions of Higher Learning

Guilford County is home to several educational institutions that emerged in the late 19th century, influenced by events such as industrialization, urbanization, and ongoing racial divides. The region's abolitionist efforts were strongly supported by Quakers in the Guilford College area. In 1808, Quakers acquired enslaved individuals to protect them from re-enslavement (Guilford College, 2024). In 1837, they founded a boarding school that evolved into **Guilford College**, the first co-educational institution in the South, opening its doors to non-Quaker students four years later. By the 1880s, it had become a four-year liberal arts college and was officially named Guilford College in 1888. Many Quakers actively sought more radical means to assist in the emancipation of enslaved people. The campus is now recognized as a National Historic District by the U.S. Department of the Interior and is preserved by the National Park Service (Guilford College, n.d.).

Greensboro College, chartered by the Methodist Church in 1838, was the first institution in North Carolina to educate women. It opened in 1846 and awarded its first bachelor's degrees in 1913. Renamed Greensboro College in 1919, it had an enrollment of 400 by 1938 and became coeducational in the 1950s. Currently, it serves around 1,000 students, who are encouraged to "Think critically. Act justly. Live faithfully" (Stoesen, 2006; Greensboro College, 2024).

Bennett College was founded in 1873 as a co-educational institution and moved to its current site, purchased by formerly enslaved individuals. It operated under the Freedman's Aid Society for 50 years before becoming a women's college in 1926, following recommendations due to the need to educate African American women. Over 5,000 women have graduated from Bennett, which offers multiple degree programs (Bennett College, 2022).

North Carolina Agricultural and Technical State University (NC A&T) was established in 1891 to educate African American students in agricultural and mechanical arts. It graduated its first class in 1899 and admitted female students for the first time in 1928. The university officially became known as North Carolina Agricultural and Technical State University in the late 1960s. Notably, during the COVID-19 pandemic, NC A&T was the first UNC institution to provide vaccination clinics and testing for its community (NC A&T, 2024a). With over 14,000 students enrolled for the 2023-2024 academic year, it is the largest Historically Black College or University (HBCU) in the nation (NC A&T, 2024b).

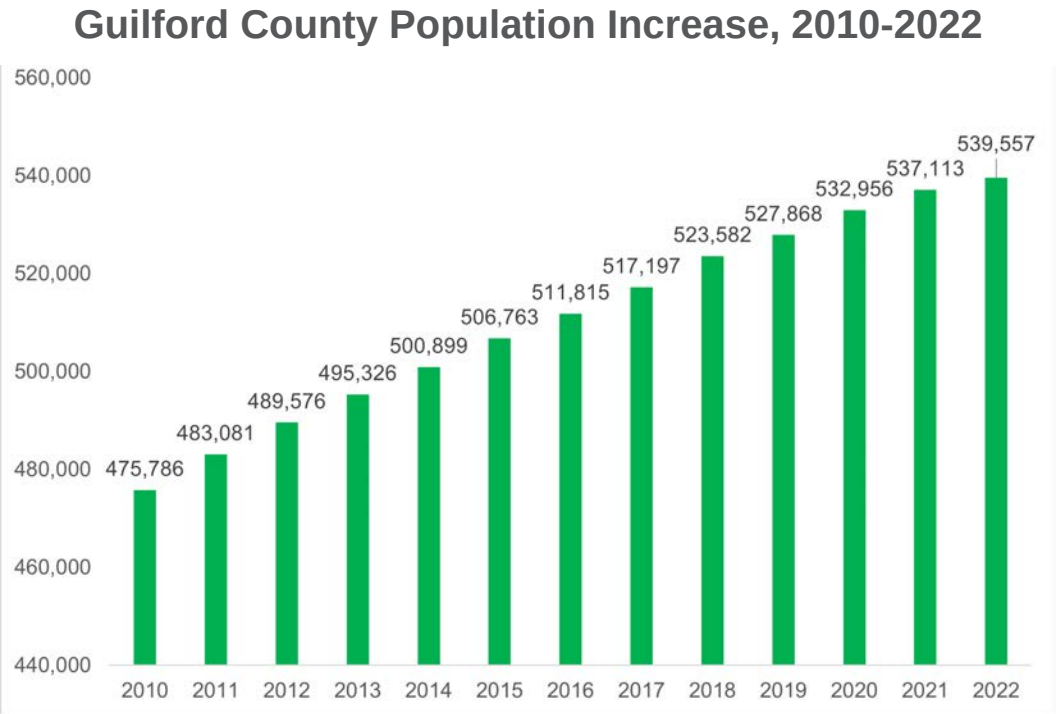
The University of North Carolina at Greensboro (UNCG) began as the State Normal and Industrial School in 1891, following an act by the North Carolina General Assembly to create a school for white girls. It underwent several name changes before becoming UNCG in 1963, integrating in 1956 and becoming coeducational in 1962 (McKown, 2009). Enrollment for the 2023-2024 academic year exceeded 17,000 students (Powell, 2023).

The Palmer Memorial Institute was established in 1902 by African American educator, Dr. Charlotte Hawkins Brown. Initially an agricultural and manual training facility, it transformed into a recognized liberal arts school, educating over 2,000 students. Throughout her tenure, Brown secured funding from various philanthropists and raised significant donations, including a $100,000 endowment in the 1940s. Although the institute closed in 1971, the Charlotte Hawkins Brown Museum became the first state historic site honoring African American heritage in 1987 (Dunn, 2024; State of North Carolina, n.d.).

High Point University (HPU), originally High Point College, was founded through a partnership between the Methodist Protestant Church and the City of High Point, starting with nine faculty members and 122 students. Reverend Joseph F. McCullough played a crucial role in its establishment. In 1921, High Point contributed land and funding, leading to the start of classes in 1924. Despite financial challenges in the 1930s, the university achieved full accreditation in 1951 and currently enrolls over 6,000 students (High Point University, 2023; High Point University, 2024).

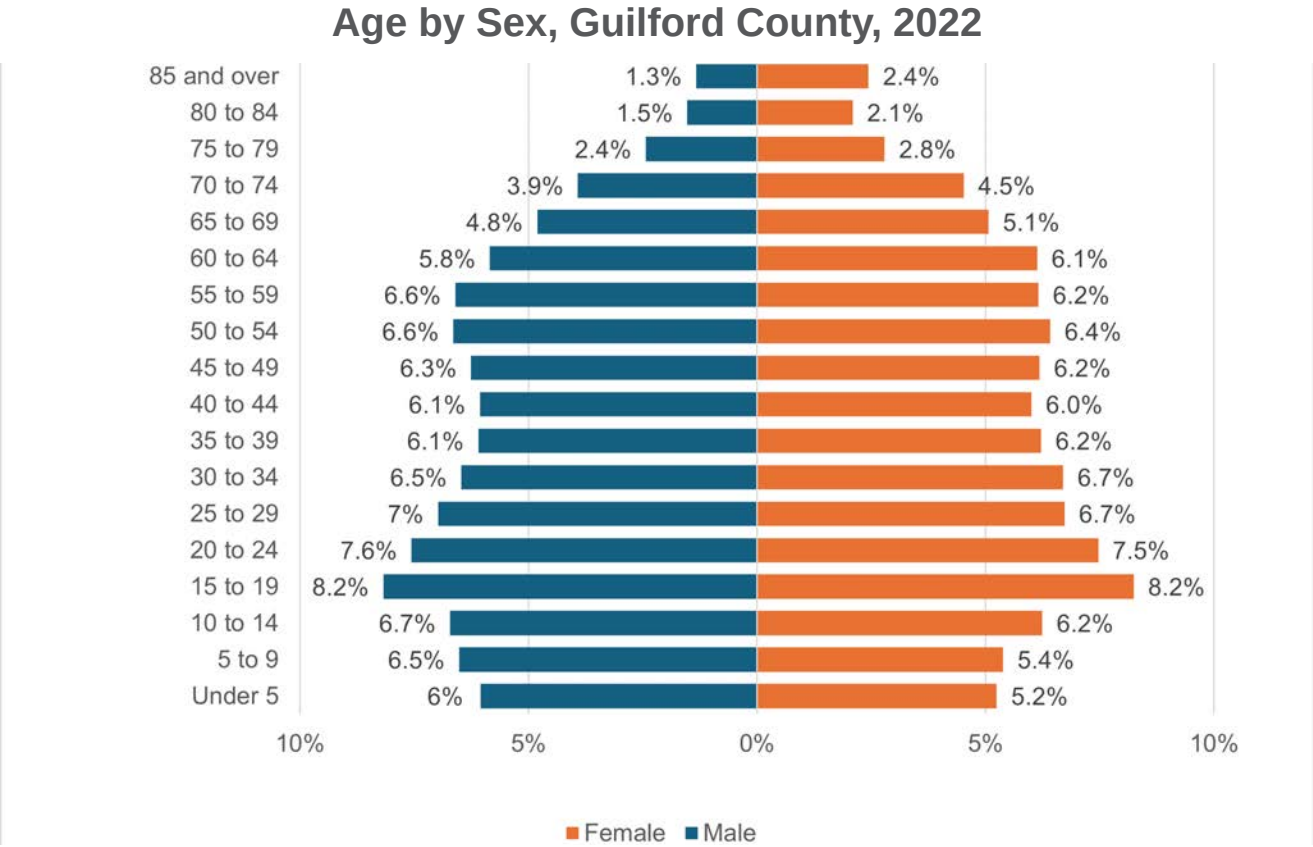
Demographic Characteristics of Guilford County

The population of Guilford County was 539,557 in 2022, making it the 3rd largest county by population in North Carolina. Guilford County grew 13.4% from its 2010 population size of 475,786.



Source: Table DP05 Demographic and Housing Characteristics, American Community Survey, five-year estimates.

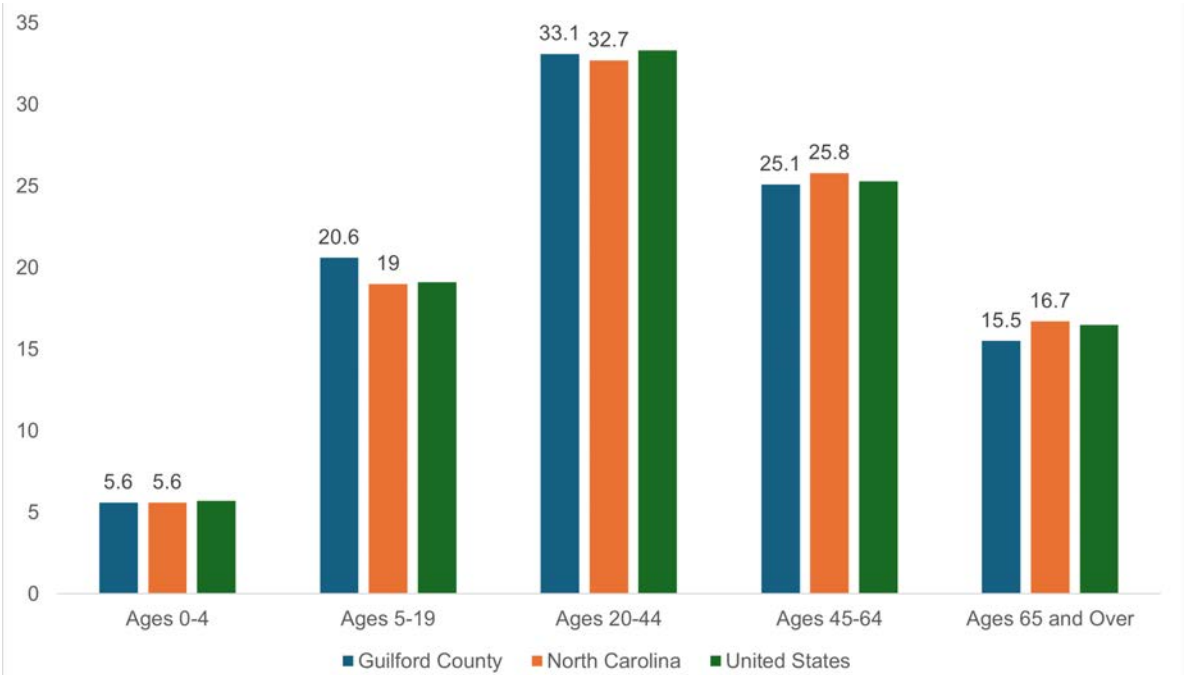
Of the 539,557 total residents in 2022, 282,826 (52.4%) were females and 256,731 (47.6%) were men. An estimated 21.9% of the population was under the age of 18, 37.4% were between the ages of 18 and 44, 25.1% were between the ages of 45 and 64, and 15.5% were 65 years or older (Table DPO5, ACS, 5-year estimates). As seen in the following chart, males make up a larger share of the Guilford County population until the ages of 25-29, after which ages females comprise a larger share. After the age of 85, females outnumber males almost two to one.



Source: Table S0101 Age and Sex, American Community Survey.

The age distribution of Guilford County residents closely resembles the age distributions of North Carolina and the United States, with the exception that Guilford County has a higher percentage of residents in the 5 to 18 age groups than NC and the US and a slightly lower percentage of residents over the age of 65. The Guilford County median age of 37.2 years is younger than the median age of NC at 39.1 years and the US at 38.5 years.

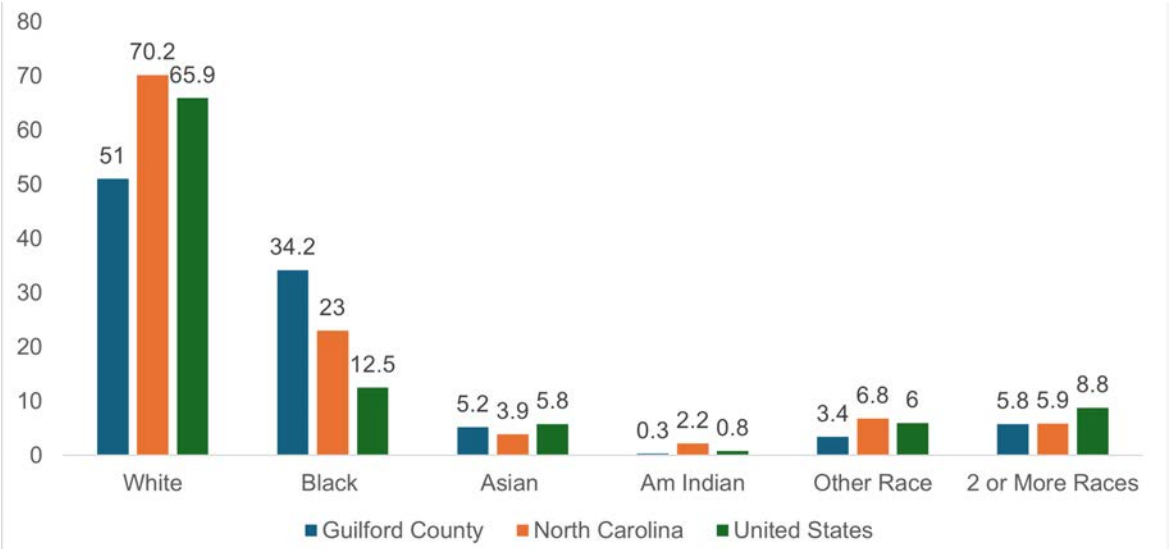
Percent Population by Age Group



Source: Table DP05 Demographic and Housing Characteristics, American Community Survey, 2018-2022.

The Guilford County population includes a larger proportion of Black/African American residents than North Carolina or the United States. About 34% of the population is Black, compared to 23% statewide and 12.5% in the US, while the White percentage of the Guilford population is 51.0%, compared to 70.2% in North Carolina and 65.9% nationwide. About 5% of the county population is Asian, less than 1% are American Indian or Alaska Native, 3.4% identify as some other race, and 5.8% identify as two or more races.

Percent of Population by Race, 2022

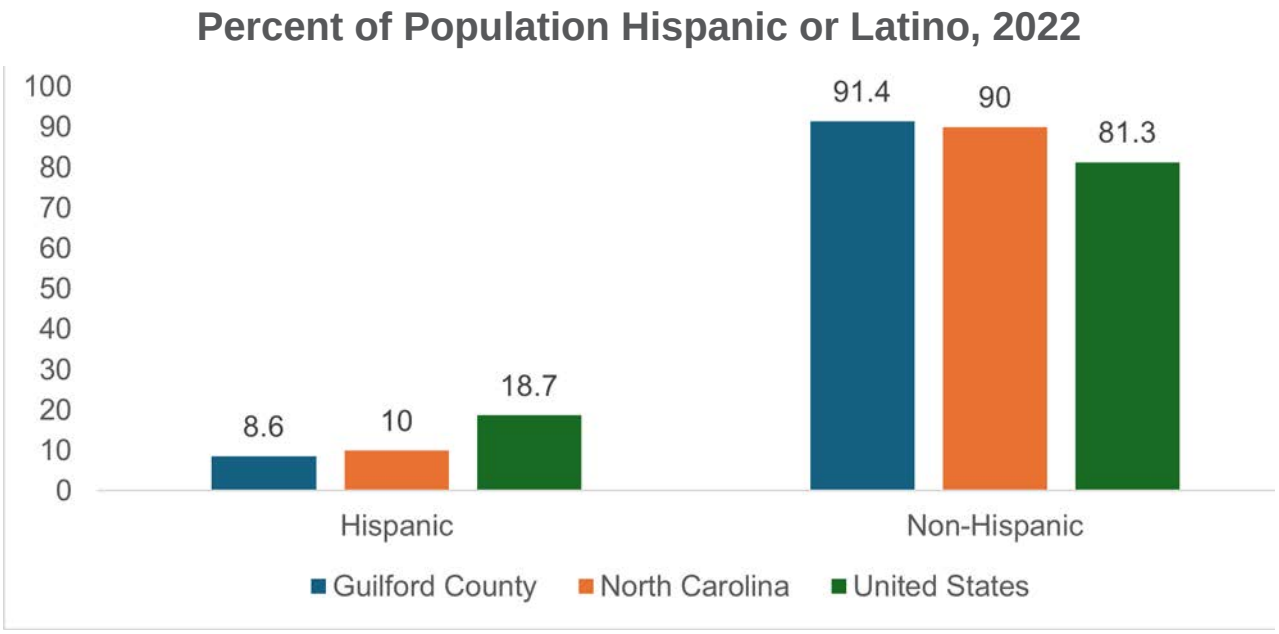


Source: Table DP05 Demographic and Housing Characteristics, American Community Survey, 2018-2022.

Hispanics or Latinos make up 8.6% of the Guilford County population. This is a somewhat lower percentage than the state of North Carolina and less than half of the proportion in the United States.

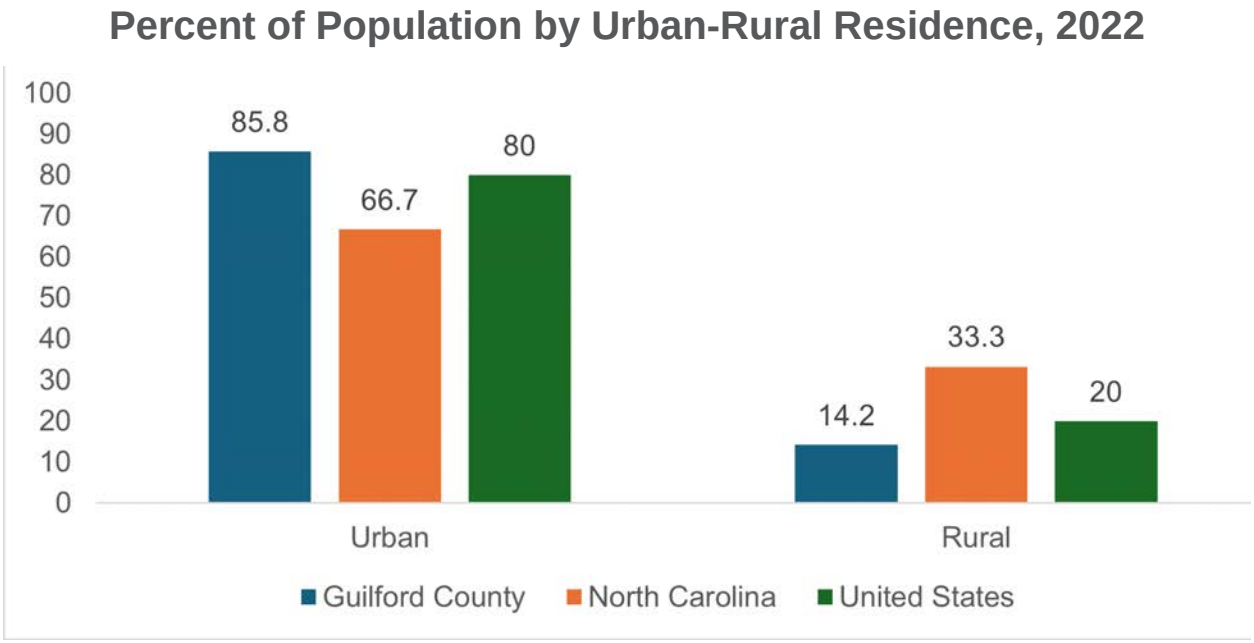
The American Community Survey population data on race and ethnicity available does not fully capture the diversity within Guilford County. For example, according to Guilford County Schools, there are more than 118 languages spoken

in classrooms throughout the district (Guilford County Schools, 2020). More data on the rich diversity within these communities is needed to fully understand the unique health needs and assets that exist and ensure everyone can achieve their best health.



Source: Table DP05 Demographic and Housing Characteristics, American Community Survey, 2018-2022.

Guilford County is highly urbanized. 86% of the Guilford County population lives in urban places, compared to 80% for the United States and 67% for North Carolina. 14.2% of Guilford County residents live in rural areas of the county, amounting to over 76,000 people.

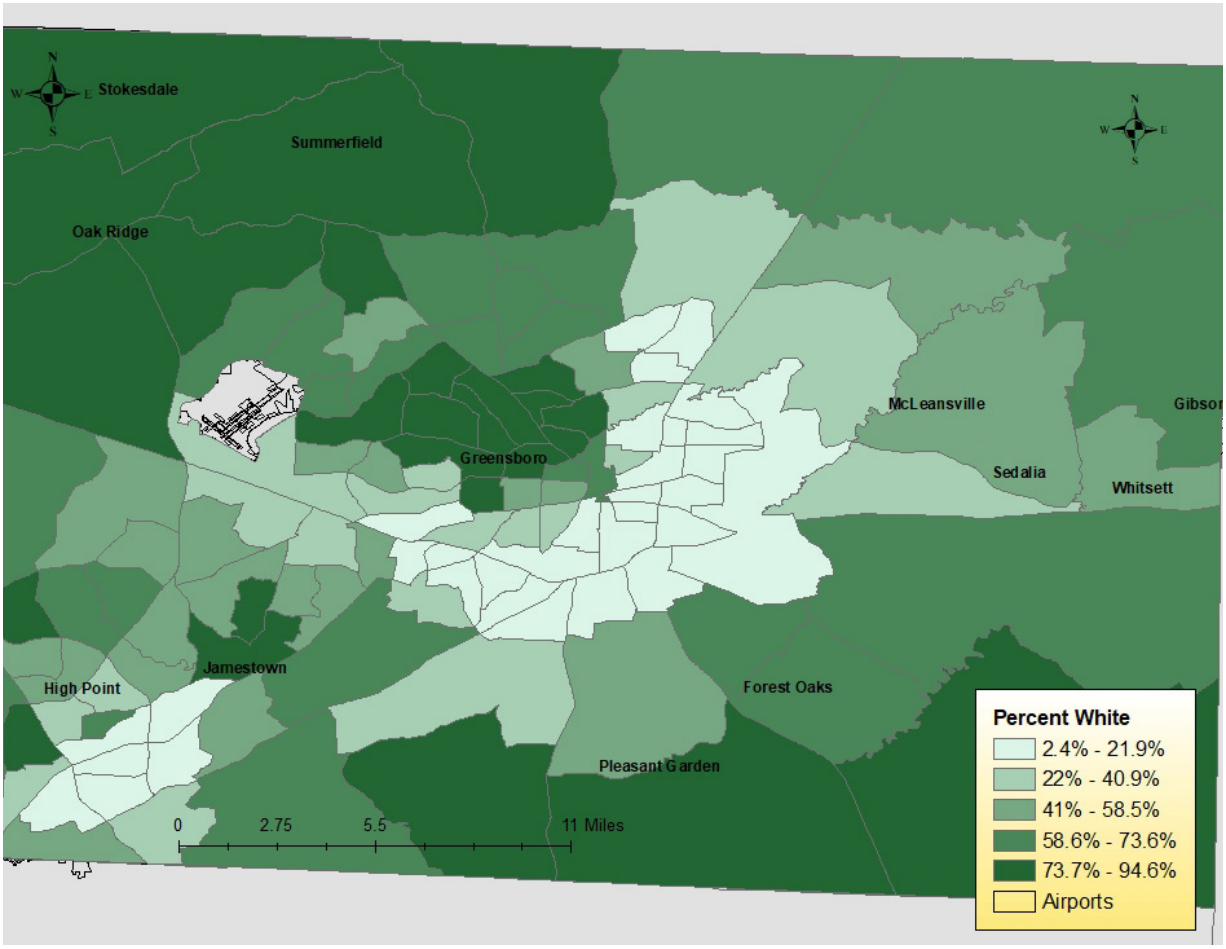


Source: DEC Demographic and Housing Characteristics, US Decennial Census, 2020.

Geographic Distribution of Guilford County Population

The racial and ethnic residents of Guilford County are not distributed geographically evenly across the county. Though White residents make up about 60% of the Guilford County population, some areas, most notable in the Northwest and Southeast parts of the county, have census tracts with proportions of Whites ranging from 74% to 95%. However, some areas of Southeast Greensboro and Central High Point have proportions of White residents ranging from as low as 2.4% to 21.9%.

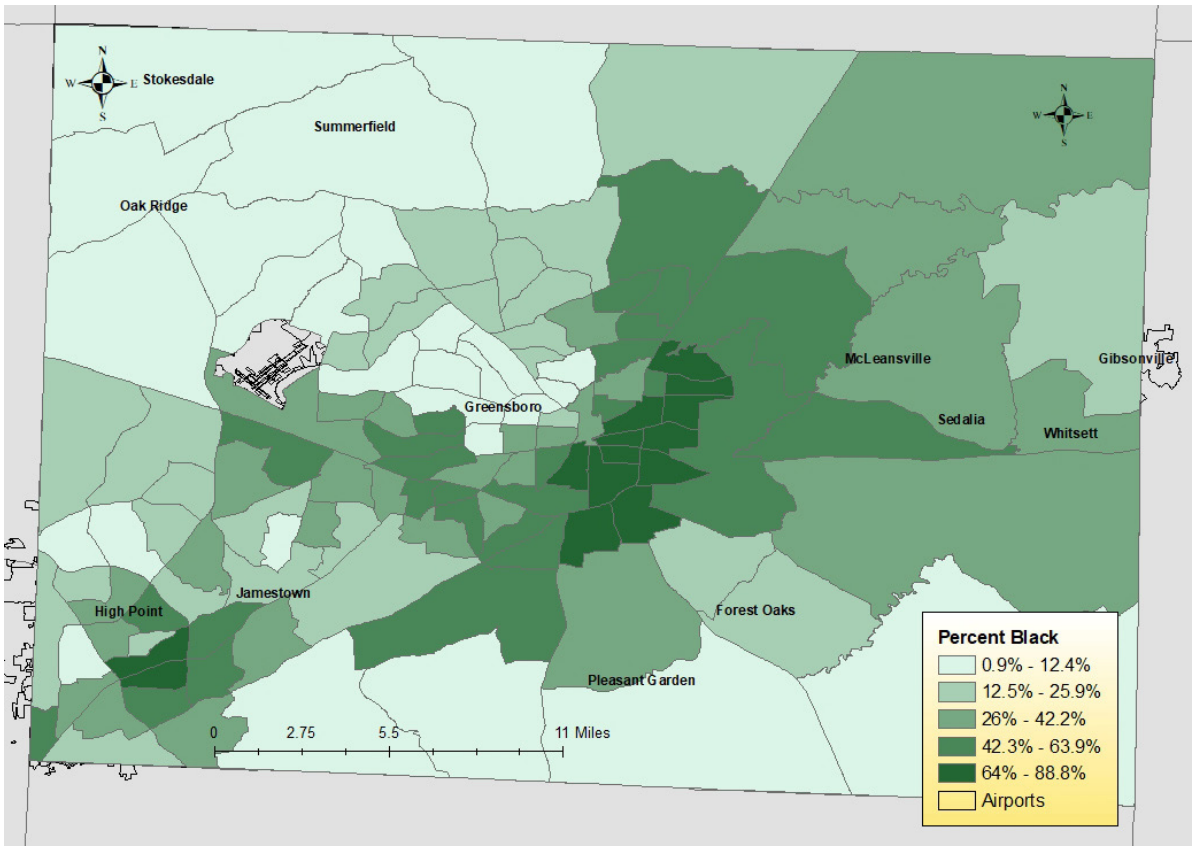
White Percentage of the Guilford County Population



Source: US Decennial Census.

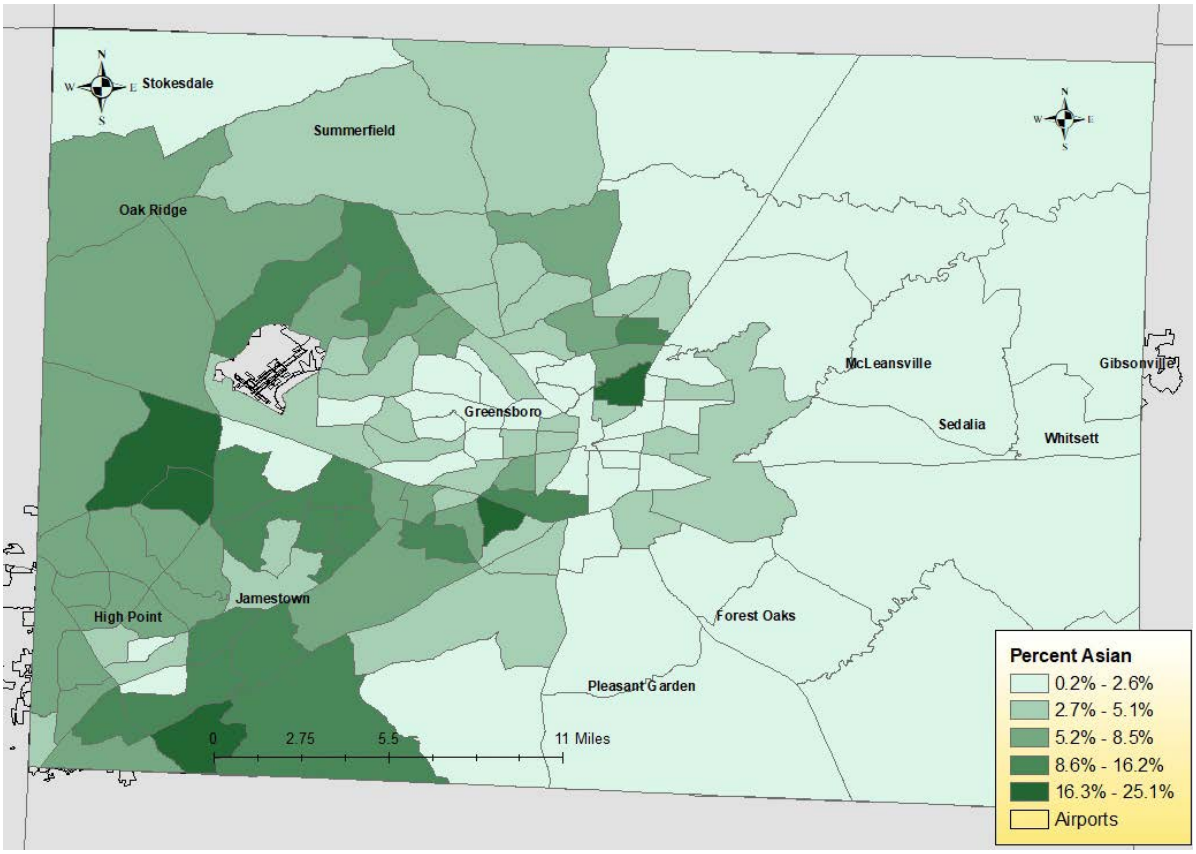
Black/African American residents comprise about 36% of the county population. As with the White population, Black residents are distributed unevenly, residentially concentrated in areas of Southeast Greensboro and Central High Point, with some census tracts having up to 89% Black residents. In rural census tracts in South Guilford and much of the Northwest portion of the county, Black residents comprise as low as 1% to 12% of the population.

Black Percentage of Guilford County Population



Source: US Dicennial Census.

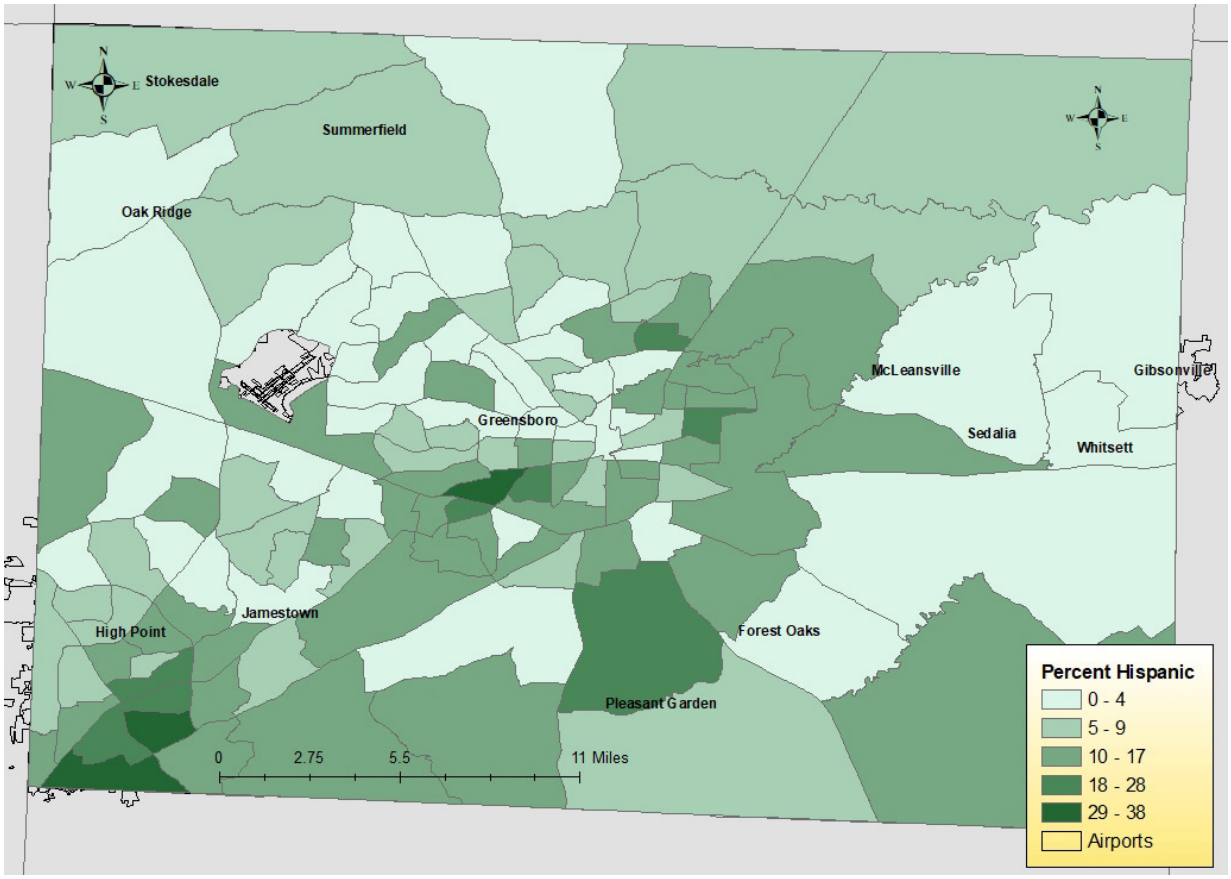
Asian Percentage of Guilford County Population



Source: 2020 Census.

Asian residents make up about 6% of the Guilford County population but tend to be concentrated in Census tracts located in Southwest (SW) Greensboro and SW and western Guilford County, with some tracts having percentages of Asian residents ranging as high as 16% to 25%, while tracts in the eastern half of the county have percentages of Asian residents ranging from 0.2% to 2%. Hispanics make up 8.6% of the county population, but in some Census tracts located in SW Guilford and in areas of SW and East Greensboro, Hispanic residents make up as much as 29% to 36% of the population.

Hispanic Percentage of Guilford County Population



Source: American Community Survey, 2018-2022.

Guilford County Within an Equity Context

Our Intentions: Looking Back to Better Understand Health Equity in Guilford County

This section reflects on select historical policies, movements, and events that have contributed to persistent health disparities in Guilford County. This impact occurs through wealth inequalities, intergenerational trauma, and social and community factors still present where residents live and, in the stories, shared from generation to generation. While many of the events and policies occurred in the past, their impact is ongoing and disproportionately affects many within Guilford County. This historical review is not meant to be comprehensive, but instead the intention is to encourage readers to learn more about Guilford County history and the influence of policies, movements, and events that provide important context to shaping health outcomes going forward.

It is essential to recognize the challenges faced and elevate the enduring perseverance of those within the community who have worked to overcome insurmountable odds. Examples of these challenges included physical displacement,

the deprivation of educational opportunities to those from minority backgrounds, racial violence to both dehumanize and attempt to control minority communities, and discriminatory housing policies that prevented people of color from accumulating wealth and passing it down to future generations. A conscious effort must be made to ensure systemic discrimination is not perpetuated making existing health inequities worse.

Indigenous Lands

The Indigenous peoples of North Carolina have occupied the region for over ten thousand years, with the Keyauwee and Saura tribes being the original inhabitants of the Piedmont area, including present-day Rockingham, Randolph, and Guilford counties (North Carolina Museum of History, n.d.; NC Gen Web, n.d.). The Saura, also known as the Cheraw, is one of many smaller tribes that resided in the area and archeological excavations note remarkable artistic expression in their pottery, utensils, pipes and beads (*Lower Saratown | Ancient North Carolinians*, n.d.).

By 1200 AD, Sauran ancestors had organized agricultural habits and participated in communal clearing of land and the construction of permanent housing. The arrival of Hernando De Soto in 1540 marked a turning point, as European diseases devastated local populations. De Soto referred to the Saura as the Xuala, a name given to them by the Cherokee, meaning the tribe that once lived beyond the Blue Ridge Mountains. Following this period, the Saura relocated to the Dan River Valley, forming villages known as Lower and Upper Sauratown. However, by the late 1700s, their numbers had dwindled due to colonization, disease, warfare, being sold into slavery and assimilation into other tribal groups (*Lower Saratown | Ancient North Carolinians*, n.d.; Butler, 2006).

Indigenous individuals have contributed greatly to Guilford County's prosperity. Founded in 1975, Guilford County is home to Guilford Native American Association, the oldest American Indian urban organization in the state with the mission of providing cultural, economic, and social opportunities to strengthen Native American Cultural heritage. Guilford Native American Association hosts an annual Powwow, the Native American Art Gallery and offers a Workforce Development and Education Program (Guilford Native American Association, n.d).

The Role of Indentured and Slave Labor in Building Communities

The county's racial demographics in the first census of 1790 included about 6,649 Whites, 616 Blacks, and 27 Free Blacks. (Martin, 2024a). Both indentured and enslaved labor played an integral role in North Carolina for farming tobacco and other crops. Indentured servants worked under contracts for a limited time, but over time, the colonies increasingly relied on enslaved Africans, who first arrived in North Carolina between 1759 and 1789 (NC Pedia, n.d).

In 1808, the City of Greensboro was founded and named after a Revolutionary War General Nathanael Greene who led the American forces during the Battle of Guilford Courthouse in 1781 (Greensboro, North Carolina Convention and Visitors Bureau, 2024). Greensboro's growth included the construction of Blandwood Plantation by renowned architect Alexander Jackson Davis. Politician and North Carolina's governor from 1841-1845, James Motley Morehead, resided at Blandwood. He became known as the Father of Modern North Carolina for his advocacy for a statewide rail and water system, humane treatment of those with disabilities, the incarcerated and those struggling with mental illness, public schools and for education and suffrage for free men of color. While taking these positions, Morehead managed his household with 16 enslaved workers according to an 1860 Census record, including Hannah Jones and Tinnan Morehead (Preservation Greensboro, n.d).

Throughout the South, elected officials enacted slave codes that restricted and dehumanized those who were enslaved. The first example in North Carolina was the North Carolina Slave Code of 1715, which required enslaved people to carry a ticket when traveling, prevented them from gathering in groups for any reason, including religious gatherings, and required whites to help capture those who were seeking freedom. In 1741, stricter laws enacted prohibited enslaved people from raising their own livestock and carrying guns without their enslaver's permission. It also limited enslavers' ability to free slaves (NC Pedia, n.d).

In 1830, the North Carolina legislature strengthened an 1818 law prohibiting any enslaved individuals from learning how to read and write to reduce fears that these individuals would revolt if they were educated. This law also prohibited any

free or currently enslaved person from teaching any other enslaved person to read and write. Despite this imposed legal restriction, it was not uncommon for enslaved individuals to secretly educate themselves amidst harsh punishments such as whippings (NC Pedia, n.d).

In 1863, President Lincoln issued the Emancipation Proclamation to end slavery and two years later the 13th Amendment abolished slavery in the United States (Lincoln, 1865). In 2020, the Guilford County Board of Commissioners recognized June 19 as Juneteenth, a county holiday to commemorate the emancipation of enslaved Americans, marking a significant moment in the ongoing struggle for freedom and equality (Guilford County, 2024).

This honors the date June 19, 1865, when U.S. Army General Gordon Granger issued Order No. 3 which declared freedom for all enslaved people throughout Texas. The federal government made it a federal holiday in 2021 (Schaeffer, 2023).

The Reconstruction Era

This section examines select historical figures and legal milestones from Reconstruction era that shaped Guilford County's social landscape. This section highlights both our communities' struggles and triumphs amid racial tensions.

In 1865, Quaker Yardley Warner purchased 35 acres for the Warnersville Settlement, establishing a school for African Americans and selling one-acre plots to foster self-sufficiency among African Americans (Greensboro Historical Museum, 2016). Harmon Unthank, one of the first Warnersville landowners and community leader, oversaw these lot sales. Warnersville became the first planned African American neighborhood, allowing residents to own homes, establish churches, educate their children and run businesses post-emancipation. In the 1880s, Hannah Jones, a formerly enslaved woman from Blandwood Plantation, became a literate head of household by owning a home in Warnersville, eventually buying two more acres. Leaving these assets to her children and grandchildren aided in their future financial stability and served as a protective measure for health (Moloney, 2023).

Albion Tourgée, a Union veteran and judge, moved to Greensboro in the 1880s to advocate for Black civil rights and suffrage. His progressive views, rooted in his religious beliefs, often put him at odds with other local community members. After an unsuccessful congressional bid, he left North Carolina but later became known for his role in the Plessy v. Ferguson case and successfully passed an anti-lynching law in Ohio (Kickler, 2024).

In response to the expansion of rights of African Americans in the South following emancipation, historians also see a surge of hate group membership within Guilford County (PBS, n.d.). In 1887, Eugene Hairston was lynched in Guilford County after being falsely accused of raping a white woman. A mob abducted him from jail and executed him publicly (University of North Carolina at Chapel Hill, n.d.). In 2018, the Guilford County Community Remembrance Project formed, inspired by the National Memorial for Peace and Justice, to address systemic injustices. Partnering with the Equal Justice Initiative, they commemorated Hairston's life to foster community dialogue on racial reconciliation (Equal Justice Initiative, 2023).

The Policies, Laws and Events That Shaped Us

Plessy vs. Ferguson, 1896

In 1896, the Supreme Court ruled in *Plessy v. Ferguson* that Louisiana's law allowing "equal but separate accommodations for whites and colored races" was constitutional. This decision stated that the 14th Amendment did not empower the federal government to prevent private discrimination, leaving victims to seek remedies at the state level. Segregation laws began in states like Florida as early as 1887, mandating separate seating for races. In 1892, Homer Plessy, who identified as "seven-eighths" White, was arrested for sitting in a whites-only railcar, violating the Separate Car Act of 1890. His attorney, Albion Tourgee, argued the law was unconstitutional, but the Supreme Court upheld it, legitimizing racial segregation across American society (Ferguson, 2022). This ruling influenced future challenges to segregation, including an attempt by six men on a Greensboro golf course in 1955.

Brown vs. Board of Education, 1954

Despite the significant historical contributions of the institutions of higher learning previously mentioned, the harsh reality is that African American students were not only forced to attend segregated schools but deprived of their right to have access to the same resources as their White counterparts. A shift began on May 17th, 1954, with the Supreme Court case, Brown vs. Board of Education of Topeka, Kansas that concluded that the separation of students based on race was a violation of the 14th amendment of the Constitution. This decision would create a foundation for the expansion of the Civil Rights of African Americans (The U.S. National Archives and Records Administration, n.d). This led to a shift in the equity of the educational landscape within the United States which led to the broadening of later civil rights movements. Despite various movements towards equality within Guilford County, public schools were not integrated in Greensboro until 1971 (Guilford County Schools, n.d.).

Greensboro Six, 1955

Phillip Cooke, Samuel Murray, Elijah Herring, Joseph Sturdivant, Dr. George Simkins, Jr., and Leon Wolke, also known as the Greensboro Six integrated the Gillespie Golf Course. After playing about 9 holes of golf, the six were escorted off the golf course and charged with trespassing at the Whites Only golf course (Greensboro Parks Foundation, n.d). For this violation, the golfers spent 15 days in jail. This case eventually made it to the federal civil court in the case titled "Simkins et al. vs. City of Greensboro." The court case was lost by one vote, but a related federal court case later ruled that the golf course had to be integrated. The day before the integrated golf course was scheduled to open, it was torched, and the city condemned the course. There is now a marker where the course once stood (Greensboro Parks Foundation, n.d).

Sit In Movement, 1960

Five years later, on February 1, 1960, four Black college freshmen from NC A&T—Franklin McCain, Ezell Blair Jr., Joseph McNeil, and David Richmond—staged a sit-in at a "Whites-Only" Woolworth's lunch counter in Greensboro, requesting service but were refused. When asked to leave, they remained seated despite verbal and physical abuse, such as being spat on and having eggs thrown at them. Their peaceful protest sparked national attention and inspired sit-ins in 55 cities across 13 states, leading to the integration of several lunch counters (Hohenstein, 2024). Students from Bennett College, known as the Bennett Belles, actively joined the protests alongside NC A&T students, also seeking to desegregate the nearby S.H. Kress department store (Adams, 2020). Approximately 40% of Bennett's student body participated in the sit-ins and almost half of their student population experiencing incarceration because of their participation (Adams, 2020).

Title IX of the Education Amendments, 1972

In 1972, Title IX of the Education Amendments passed ensuring that no person "be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance" based on sex. While most are familiar to its application to athletics, Title IX also addresses access to higher education, career education, education for pregnant and parenting students, employment, math and science, sexual harassment, standardized testing, technology and the learning environment (Winslow, n.d.).

Equal Credit Opportunity Act (ECOH), 1974

In 1974, the Equal Credit Opportunity Act (ECOH) passed in 1974 to protect women from being discriminated against by banks or lenders. Two years later, the law was amended to also protect against discrimination due to race, religion, sex, national origin, marital status, age, or for those receiving public assistance as well (Kreiswirth & Tabor, 2016).

Redlining

In the 1930s, the Homeowners Loan Corporation (HOLC) was established to prevent foreclosures by purchasing existing mortgages and offering borrowers extended repayment terms at low interest rates (Wells, 2023). To evaluate mortgage risks, HOLC assessed various factors, including property condition, neighborhood demographics, and access to amenities,

ultimately mapping areas based on perceived risk. Neighborhoods with significant African American populations were often labeled as "risky," even when it was a middle-class single-family neighborhood. This impacted their investment potential and perpetuated historical residential segregation and economic disparities (Mitchell, 2018).

In 1934, the Federal Housing Administration (FHA) was created to promote homeownership among the middle class, further entrenching racial segregation in housing policies. The FHA deemed racially mixed or adjacent neighborhoods to Black communities as risky for development, explicitly stating that neighborhood stability depended on maintaining existing racial and social compositions (Massey, 2015; Mitchell, 2018).

Additionally, racial segregation was enforced through deed restrictions or "covenants" that which gave an outline for obligations that a buyer/renter of a property must assume. These covenants often prohibited the sale or rental of properties to African Americans (Silva, 2020). In the 20th century, many subdivision developers established community associations that made membership essential to homeownership but restricted membership to White homeowners only, further entrenching segregation (Santucci, 2020). These historical practices have lasting impacts on current socioeconomic conditions in many communities.

Urban Renewal, 1960s

Greensboro's first Urban Renewal Project was called The Cumberland Project. The Warnersville Community housed Black owned lots and was filled with Black businesses and schools in the beginning of the 20th century (City of Greensboro, 2016). Resident displacement amongst the original inhabitants limited economic opportunities to escape poverty and achieve homeownership as the houses increase in value over time. This community's destruction contributed to and cemented existing wealth disparities because African Americans were then limited in the ability to transfer wealth across generations. The Economic Stability Section and Education Section of Chapter 4 highlight how these Social Determinants of Health impact health outcomes and inequities.

Simkins vs. Mose H. Cone Memorial Hospital, 1963

During this time in Guilford County, there were medical professionals who were influential in moving the pendulum forward along the pathway to Civil Rights. In the landmark court case, Simkins vs. Moses H. Cone Memorial Hospital, 1963, nine African American doctors and dentists led by the plaintiff Dr. George Simkins Jr. sued the Moses H. Cone Memorial Hospital and Wesley Long Hospital to enable black medical professionals to care for Black patients in Cone facilities. This led to the desegregation of hospitals around the country. This court case is historically salient because it was the first time that the Equal Protection clause within the Fourteenth Amendment was applied to a private entity. It helped set the legal foundation for the 1964 Civil Rights Act which made it illegal for segregation to exist in public accommodations and in employment (Martin, 2024b). In 2016, Dr. Alvin Blount, the lone surviving plaintiff in the Simkins vs. Cone case received an apology from Cone Health and the organization gave $250,000 over 10 years to a scholarship to the Greensboro Medical Society in honor of Dr. Blount and the other plaintiffs (Cone Health, 2016; Goldsmith, 2016).

Greensboro Uprising, 1969

In May 1969, Greensboro faced three days of violence that escalated between city police, the National Guard, and African American student protestors, triggered by the removal of Claude Barnes from Dudley High School's Student Government Association race due to his ties to the Black Power Movement. Despite being taken off the ballot, Barnes received over 600 write-in votes, and students protested after feeling as though their voices were not being heard.

Protests intensified, leading to police using tear gas on May 21 to encourage students to disperse. In response to escalating violence, Mayor H. Philip B. W. Henson requested 150 National Guardsmen. Gunfire erupted, culminating in the tragic shooting of NC A&T sophomore Willie Grimes and the injury of least nine students and several police officers. Following a state of emergency declaration, the National Guard forcibly entered the campus, detaining students for their safety. Although violence subsided, the root issues remained unaddressed. Six months later, the North Carolina State Advisory Committee to the U.S. Commission on Civil Rights convened in Greensboro to evaluate the incident and to offer recommendations (Hawkins, n.d.).

Greensboro Massacre, 1979

In 1979, an anti-Ku Klux Klan rally organized by the Communist Workers Party and African American mill workers was violently interrupted by KKK members and Neo-Nazis, resulting in deaths of five demonstrators and multiple injuries. A year later, six Klan and Nazi members faced trial for murder and rioting. Evidence during the trial revealed that the Greensboro Police and possibly the federal government were aware of the planned violence, as Edward Dawson, a paid informant for the police and former FBI informant, had warned them. Despite this knowledge, the police failed to act and were absent during the chaos. Ultimately, all defendants were acquitted.

In 1984, a federal trial confirmed that authorities were aware of the plan to attack protesters. Consequently, in 1985, a jury ordered five Klansmen, two police officers, and the informant to pay $400,000 for the wrongful death of one of the demonstrators, though they found no conspiracy among the authorities. From 2004 to 2006, a truth and reconciliation process was conducted to reflect on these events and promote healing, inspired by similar efforts in South Africa. An independent commission reviewed the findings and recommendations documented in a report found at the Greensboro Truth and Reconciliation Commission (*The Greensboro Truth and Reconciliation Commission*, 2006).

Guilford Moving Forward

Despite the legacy of adverse race relations and discrimination that has shaped its history, Guilford County is actively working to improve the social climate of its communities. While not a comprehensive list, here are some of the historic and current efforts fostering social change and strengthening connections among diverse communities:

- North Carolina Agricultural & Technical State University (Aggie Activism, The Center of Excellence for Social Justice) has a rich history of civic engagement and activism spanning over 100 years. In 2018-2019, A&T students successfully campaigned to eliminate gerrymandered districts that divided the campus. The new Center of Excellence for Social Justice focuses on creating educational opportunities for students and faculty to foster research, engagement and outreach while promoting collaborative action in critical areas of social, economic, and racial justice.
- The Greensboro Chamber of Commerce created Other Voices in 1993 to improve human relations, especially race relations, in Greensboro. To date, over 690 individuals have participated to promote a vision that encourages full and productive participation by our diverse citizenry in building a leading community open to all.
- The Greensboro Health Disparities Collaborative, which formed in 2003 to better understand and reduce racial and ethnic health disparities, establishes structures and processes that respond to, empower and facilitate communities in defining and resolving issues related to disparities in health.
- Racial Equity Institute is devoted to creating racially equitable organizations and systems through an alliance of trainers, organizers, institutional leadership training and tools that challenge patterns of power and grow equity.
- **One High Point Commission:** The City of High Point published the One High Point Commission on Reparations and Reconciliation Report, in which the Commission outlines restorative policy recommendations targeting six critical areas: housing disparities, health inequities, education gaps, economic opportunities, transportation access, and municipal operations.
- University of North Carolina at Greensboro (African American & African Diaspora Program-AADS) studies Greensboro's history of Black socio-political movements. Students and faculty of the AAAD program engage in issues of social justice locally and abroad. The One High Point Commission on Reparations and Reconciliation report features "Dusk to Dawn: Black Labor, the Law, and the Struggle for Justice in North Carolina," by AADS' Dr. Omar Ali, alumni Ally Beatty and Kaila Dollard, providing a detailed historical account of African American experiences and contributions in High Point.
- RACE GSO is a City of Greensboro initiative that focuses on addressing racial inequities, identifying necessary improvements in city policies and practices, and developing strategies to combat systemic racism in Greensboro.
- YWCA of High Point Latino Family Center serves the local Latino community through El Pueblo, a community access program offering outreach, information and referral services, language and crisis support, free DACA renewals and free tax filing and LEAD, a leadership skills program to help the Latino community grow.

In addition, several organizations in Guilford County support immigrant and refugees by assisting with resettlement and supporting connection and cultural identity, including:

- Since 1997, African Services Coalition empowers immigrants and refugees to build strong community relationships through sustainable service programs, a respectful resource center, and to develop robust networking partnerships.
- Since 1988, Montagnard Association of North Carolina, Inc. has worked to unite and strengthen the fraternal ties of all persons of Montagnard heritage, to create a positive environment for all to meet, to build safe, healthy communities, to inspire education and to preserve our cultural heritage.
- The Center for New North Carolinians promotes integration and access for individuals from another country through connecting them with existing communities within the area. In 2023 1,450 immigrants/refugees were involved in the Center's programming.
- Triad-World Relief provides resettlement services, English classes, immigration legal services, employment services and community connections.
- Faith Action International House serves and advocates alongside over 3,000 new immigrants and refugees and their families from over 60 diverse nations each year with various services including basic needs and legal support, and offers "Stranger to Neighbor" presentations in the community.
- New Arrivals Institute assists refugees and immigrants with self-sufficiency and US Citizenship through education, including their English Language Training Program, cultural orientation, health literacy, employment classes and individual educational counseling.

Through these collaborative efforts, Guilford County is taking significant steps toward a more equitable future.

A Strong Foundation of Public Health Matters

GCDPH has a long history of working in partnership with communities to support public health. This work requires a deep understanding of Guilford County's unique history, an infrastructure to support this work, and a rebuilding of trust within the community. This next section reflects on this history and the future of Public Health based on more recent developments.

The History of Guilford County Division of Public Health

The Guilford County Division of Public Health (GCDPH) holds the distinction of being North Carolina's first full-time health department and the nation's second. According to former Guilford College History Professor, Alexander R. Stoesen's historical compilation, major local health issues at the time included typhoid fever, smallpox, infant mortality, and vaccinations for school children. On May 1, 1911, a delegation of residents requested the Guilford County Board of Commissioners hire "a competent physician" as a health officer to dedicate full-time efforts to the county's health at the request of residents. Dr. G. F. Ross commenced his work on July 1, 1911. In 1912, Dr. William M. Jones succeeded Dr. Ross and under his leadership, the department tackled new issues such as malaria, health education, and children's health. Dr. Jones's discovery of unsanitary food service practices led to the hiring of the department's first part-time health inspector and the American Red Cross provided a nurse. This led to the development of sanitation standards for local schools. In 1918, Spanish Influenza pandemic severely impacted the community, resulting in 156 deaths.

During World War II, Greensboro's military base led to high rates of sexually transmitted diseases, and Guilford County later faced a severe polio epidemic with 205 cases and 5 deaths. From 1949 to 1969, the county's health department made significant strides under Dr. Everett Hewes Ellinwood's leadership, including combating polio with Salk vaccine trials, establishing the county's first mental health clinic, and implementing sanitation inspection rules and new public health services in low-income areas. In 1969, Dr. Sarah Morrow, became the first female health director focusing on children's health, expanding family planning services, and introduced the state's first family planning nurse practitioner. In the 1970s, the county improved community health services with neighborhood clinics, better oil and chemical spill response procedures, and became the first in the North Carolina to require soil evaluations for septic tank permits.

Over the subsequent decades, GCDPH continued to innovate, addressing emerging health issues like HIV/AIDS and persistent challenges such as infant mortality. Organizational changes, including the privatization of the children's acute care clinic into Guilford Child Health (now Triad Adult and Pediatric Medicine, Inc.), were made to better serve the community. During the 2009 H1N1 influenza pandemic, the department implemented mass vaccination clinics and public education campaigns to manage the outbreak. Recognizing the importance preparedness and community engagement in managing widespread health crises, GCDPH started a Public Health Preparedness Program to manage response activities and coordinate with local Emergency Management and the Centers for Disease Control during local, state, and/or federal emergencies. GCDPH has also been proactive, on the front lines of responding to more recent public health threats. Examples include addressing Ebola virus concerns in 2014 by ensuring protocols were in place with health care providers and community education efforts in 2016 to reduce mosquito breeding sites and protect against mosquito bites, due to the emergence of the Zika virus.

In 2020, the COVID-19 pandemic presented unprecedented challenges, and GCDPH responded with a robust and coordinated effort. Under the leadership of Dr. Iulia Vann, appointed Health Director in 2020 after the retirement of previous director Merle Green, the department implemented widespread testing, vaccination campaigns, and public education initiatives to curb the virus's spread. "The pandemic has highlighted the critical role of public health in our community," said Dr. Vann at the time. "Our team's dedication and the community's resilience have been instrumental in navigating these challenging times. Our past has prepared us to continue to be leaders in the future." In 2021, GCDPH was recognized as the North Carolina Public Health Association Health Department of the Year. Preventing disease and promoting health remain core missions of GCDPH, continuing for more than a century after Dr. Ross began.

The Future of Public Health

Foundational Public Health Services

GCDPH, as a local health department, provides essential public health protections and services for community health. In 2022, the Public Health Accreditation Board updated the Foundational Public Health Services (FPHS) framework, identifying key public health areas every community needs. These *foundational areas* focus on preventing disease, ensuring safe food, air, and water, supporting maternal and child health, improving access to clinical care, and preventing chronic diseases and injuries.

Foundational capabilities that support these services include assessment, community partnerships, equity, organizational competencies, policy development, accountability, emergency preparedness, and communication. Importantly, equity was recognized as a foundational capability in 2022, underscoring public health's commitment to informed policies that advance equity (Public Health Accreditation Board, n.d.).

Impact of COVID-19 on Public Health

The COVID-19 pandemic brought to light how chronic underfunding of the public health infrastructure hampers its ability to respond to health emergencies, prevent chronic disease, and fulfill the foundational areas and capabilities. A recent report from the Trust for America's Health highlights the gaps created by this lack of investment, including outdated data systems, insufficient public health laboratory capacity, an under-resourced public health workforce, and the need for improved public health communications (Trust for America's Health, 2023). The report also recommends specific policy actions.

Trust for America's Health recommends the following policy actions:

- Allocating 4.5 billion in annual public health funding to enable state and local health departments to strengthen these foundational capabilities that bolster effective public health systems.
- Modernizing and strengthening local public health by improving data systems, strengthening public health laboratory capacity, and growing and developing a more diverse public health workforce.
- Investing in programs that build defenses against a range of threats, from infectious diseases to weather-related events, to keep our nation secure.
- Addressing health disparities and the root causes of disease by addressing the social determinants of health.
- Investing in programs to prepare for and mitigate climate change impacts.

Source: https://www.tfah.org/report-details/funding-2023/

The Impact of Turnover and COVID-19 on Public Health

Without a strong, robust public health workforce, community health and safety are vulnerable, particularly in the nation's readiness to respond to future pandemics. The 2021 Public Health Workforce Interests and Needs Survey (PH WINS) revealed that from 2017 to 2021, 46% of state and local public health employees left their positions, including 75% of those with five years of experience or less. If this trend continues, over 100,000 staff could depart by 2025 (Leider et al., 2023).

Despite high job satisfaction (79%) and a strong sense of purpose (94%), more than half of public health workers reported symptoms of post-traumatic stress disorder, with a third planning to leave their jobs within a year. Key reasons for this turnover include inadequate pay, limited advancement opportunities, burnout, and organizational climate (de Beaumont Foundation, 2022). To address these challenges, the DeBeaumont Foundation and the Public Health National Center for Innovations estimate that an additional 80,000 positions are needed in state and local public health, including 54,000 for local departments (2021).

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Chapter 3:
Assessment Methodology

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Introduction

The 2023-2024 Guilford County Community Health Assessment (CHA) approach assesses health status, health behaviors, and access to health care, while giving enhanced attention to social determinants of health and issues of health equity.

This approach follows the County Health Rankings Model of Health, a model showing that 50% of variation in health outcomes is due to Social and Economic Factors (40%) and the Physical Environment (10%) (University of Wisconsin Population Health Institute, 2024). Recognizing that a greater focus on the social drivers of health is warranted, the Healthy People 2030 Social Determinants of Health framework also informed the CHA process (US Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2020). Previous assessment cycles have repeatedly documented the disparities that exist in measures of community health by race, sex, income, education, and geography. Because the goal of public health is optimal health for all the public, the current assessment process seeks to bring greater focus to the equity concerns raised by such disparities.

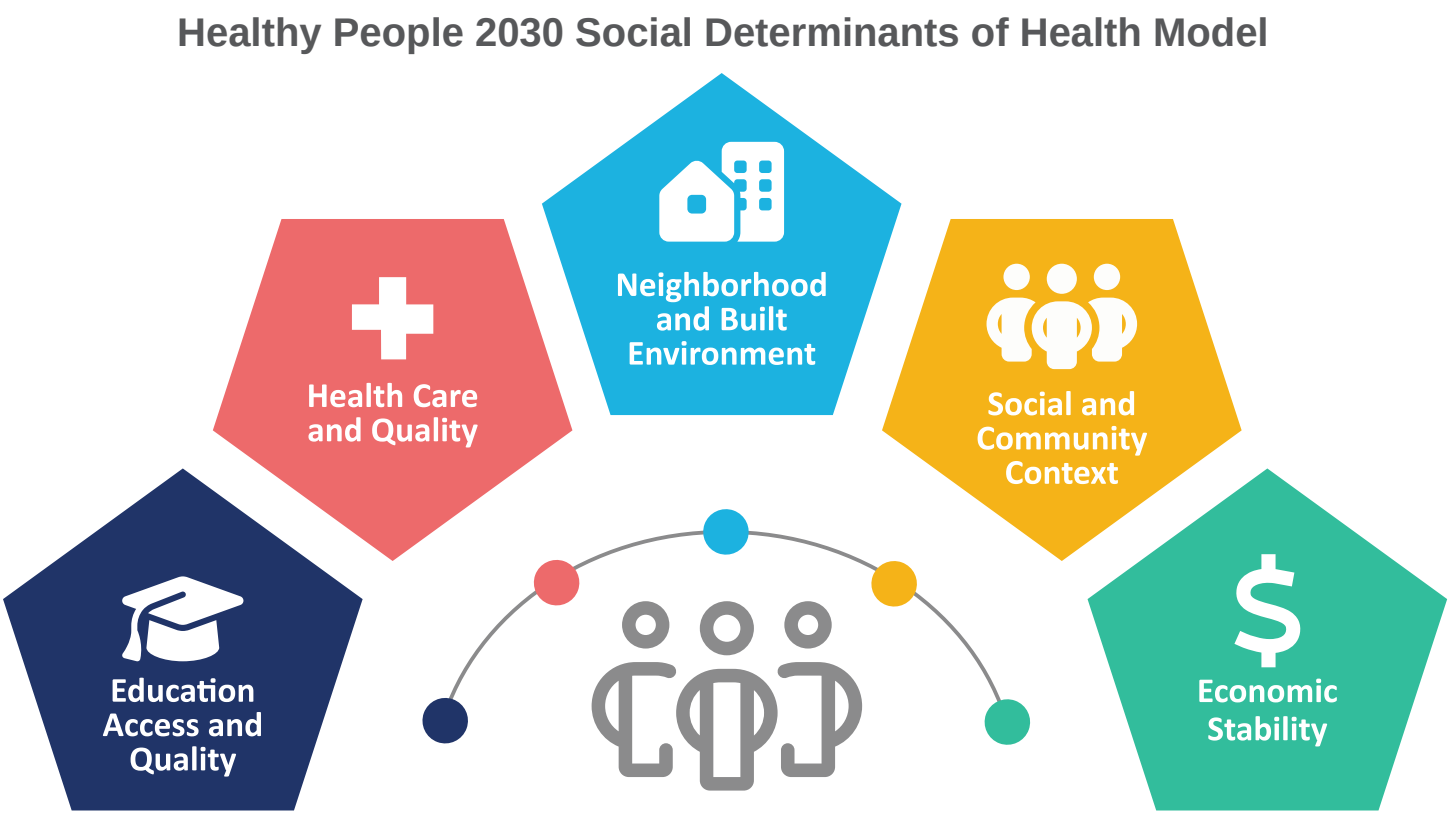


Figure: Healthy People 2030 Social Determinants of Health Model.

County Health Rankings Model of Health

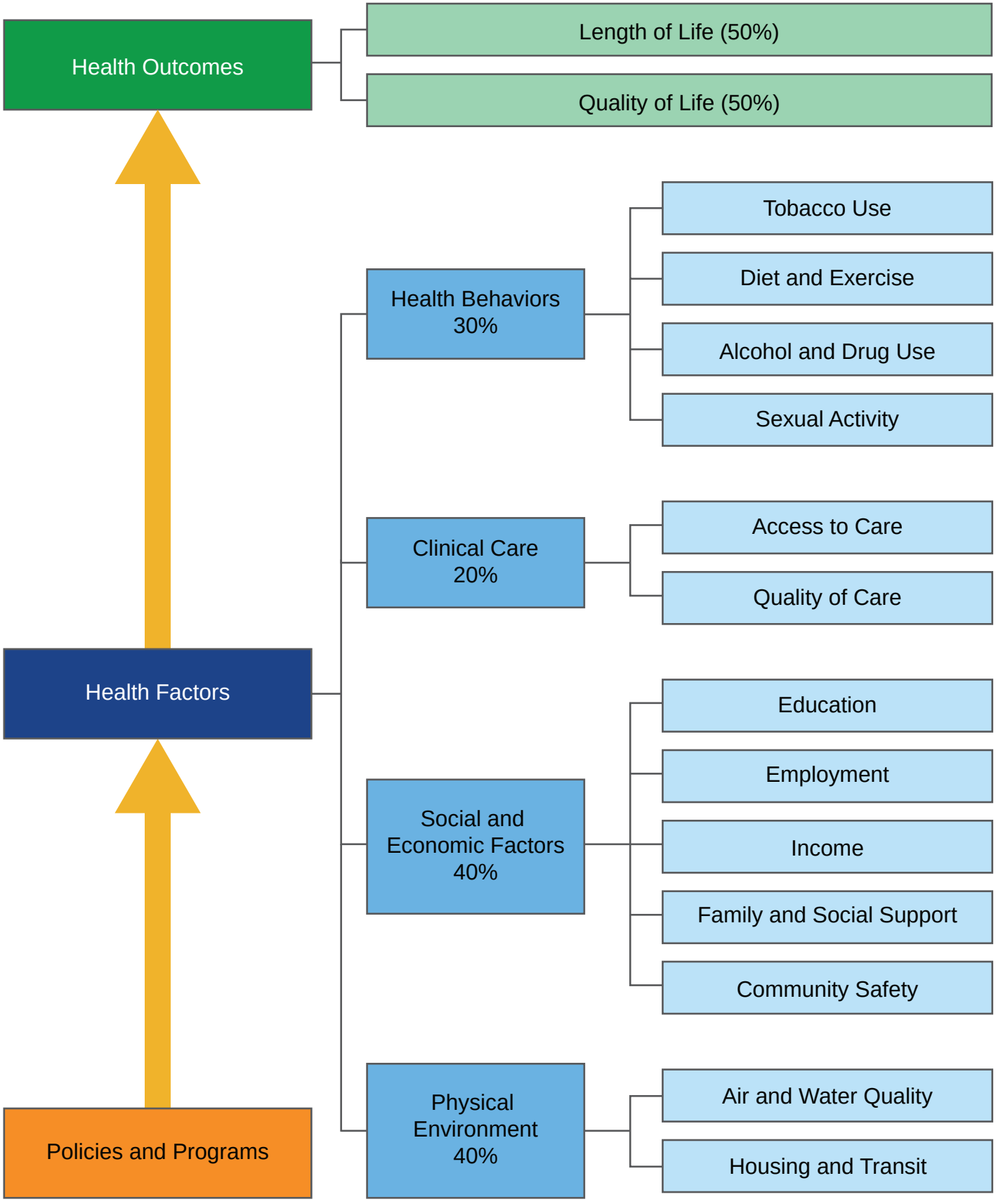


Figure: County Health Rankings Model of Health.

Each Community Health Assessment builds on past work, lessons learned, and knowledge gained. The 2023-2024 CHA is the first conducted post-COVID-19. During the COVID-19 national emergency, normal assessment processes such as community meetings and partner convenings were disrupted. The COVID era was also accompanied by higher-than-normal staff turnover in public health.

A goal of the current assessment process is to engage new public health staff and build future capacity to conduct quality community assessments. Toward that end, public health staff engaged with the latest NCDHHS Division of Public Health CHA Institute and training in the new MAPP 2.0 (Mobilizing for Action through Planning and Partnerships) developed through NACCHO, the National Association of City and County Health Officials, in May 2024 (NACCHO, 2024).

Community Engagement

In addition to building staff capacity post-COVID, a goal of the current assessment is to reengage with the community and rebuild connections with community partners. Fifty staff and 19 volunteers interviewed more than 360 community members through a randomized door-to-door survey, who also were invited to participate in an on-going assessment cohort for future follow-up. GCDPH also convened in-person community meetings in both Greensboro and High Point to engage past and new community partners in the assessment process. These community partners were also invited to participate in a partner survey and encourage those with lived experience to share insights in a community opinion survey.

General Community Health Assessment Timeline

Activity	Spring 2023	Summer 2023	Fall 2023	Winter 2023-24	Spring 2024	Summer 2024	Sept 2024
Create Assessment Design Team							
Collect secondary data							
Team review of secondary data							
Develop Guilford County Community Health Survey (2023 GCCH survey), plan survey							
Conduct randomized 2023 GCCH survey							
Analyze 2023 GCCH survey data							
Community partner meetings							
Partner and opinion surveys							
Priority setting							
Report development							
Report completion							

Secondary Data Collection and Review

Evaluating the health of the community involved the collection and assessment of a wide range of data on measures of health and health-related factors including morbidity and mortality, health behaviors, clinical care, social and economic factors and environmental factors. Guilford County data were collected and compared to three in-state and three out-of-state peer counties (as data were available), the state of North Carolina, the United States and NC Healthy 2030 state goals. Peer counties, selected based on similarity of demographic characteristics, include:

North Carolina peer counties:

- Forsyth County
- Wake County
- Mecklenburg County

Out-of-state comparison counties:

- Fulton County, Georgia
- Leon County, Florida
- Richland County, South Carolina

Mortality, Birth and Reportable Disease Data

Secondary data for mortality and morbidity were obtained from the County Health Data Book published by the North Carolina State Center for Health Statistics. Data reported for leading causes of death and birth outcomes are compiled from birth certificates and death certificates collected by individual counties and reported to the State Center for Health Statistics (SCHS). Reportable communicable disease data are collected from county health departments, hospitals, and testing labs through the NC Electronic Disease Surveillance System (NCEDSS) and compiled for the County Health Databook by the SCHS. *Data limitations*: mortality, birth and reportable disease data in North Carolina are generally complete and reliable due to statutory reporting requirements and uniform collection and reporting methods.

American Community Survey

Data on social and economic determinants of health were drawn from the American Community Survey (ACS), a nationwide, continuous telephone survey administered by the US Bureau of the Census. *Data limitations*: because the ACS employs population sampling methods, it is subject to sampling variability and therefore represents estimates rather than counts. American Community Survey (ACS) (census.gov)

Behavioral Data: CDC Places

In previous assessments, data on health risk factors such as smoking, excessive alcohol use, exercise, and eating habits, were drawn from the Behavioral Risk Factor Surveillance System (BRFSS), a survey sponsored by the Centers for Disease Control and Prevention (CDC). Due to declining numbers of landline telephones in households, BRFSS estimates were discontinued at the county level. The CDC now uses statistical data modeling methods to generate county-level estimates, which are available from the CDC's Places website. *Data limitations:* Data from CDC Places are subject to sampling error since it is based on the BRFSS survey estimates and potential error can be introduced through the modeling procedures. (https://www.cdc.gov/places/index.html).

County Health Rankings

County Health Rankings and Roadmaps (CHR) is a project and website of the Robert Wood Johnson Foundation. County Health Rankings provides data for and ranks all the United State counties based on metrics organized by the County Health Rankings Model of Health. CHR reports data from a wide range of county-specific sources of data, including US Census data and modeled BRFSS data (https://www.countyhealthrankings.org/). Data limitations: Data from the County Health Rankings using modeled BRFSS data are subject to the same limitations as those from CDC Places, including sampling error and error introduced by the modeling procedures used.

NC State Data Dashboards

A variety of specialized data such as violence, drug overdoses and early childhood data are available from NC state data dashboards and websites.

Violent Deaths Dashboard: The North Carolina Violent Death Reporting System (NC-VDRS) provides detailed information on violent deaths to not only understand the "who, when, where, and how" but also "why" these deaths occurred. These surveillance data can improve understanding of the causes and circumstances of violent deaths to inform and tailor violence prevention in the state.

NC Opioid and Substance Use Action Plan (NCOSUAP) Dashboard provides integration and visualization of state, regional, and county-level metrics for partners across NC to track progress outlined in the NCOSUAP.

NC ECIDS Data Reports Dashboards**:** The North Carolina Early Childhood Integrated Data System (NC ECIDS) is the primary source for early childhood integrated data for selected education, health, and social services programs to inform answers to policy and program questions. NC ECIDS shares the number of children who receive multiple early childhood services from participating programs.

NC DETECT**:** The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is a statewide syndromic surveillance system. NC DETECT collects data on hospital emergency room visits and data from emergency response agencies. It is an important source of data relating to drug overdoses and gun violence.

Review and Assessment of Secondary Data

The Design and Implementation Team met on multiple occasions to review the secondary data collected for the assessment during the winter of 2023-2024 and the spring of 2024. The team reviewed data on life expectancy, leading causes of death, maternal and child health, communicable disease, health risk factor behaviors, access to clinical care, preventive care, and social determinants. Data were presented with comparisons for in-state and out-of-state peer counties, NC, the US, and state objectives where appropriate. Health-related metrics were examined in terms of trends over time and were reviewed for disparities by race, sex, age, and geographic location in the county whenever sub-group data were available to inform an equity analysis. For each measure, team members provided an assessment of its significance, whether the data measured represents a concern or constitutes a strength.

Primary Data Collection

Guilford County Community Health Survey (2023 GCCH Survey)

During the fall of 2023, Guilford County Public Health partnered with the North Carolina Institute for Public Health (NCIPH) to conduct a randomized, in-person survey of county residents. The survey team employed the Community Assessment for Public Health Emergency Response (CASPER) methodology. The CASPER methodology uses a two-stage randomization process to select a sample that can be interviewed in a relatively short time and produce statistically significant results. The World Health Organization (WHO) and CDC developed this methodology for assessment of vaccination coverage in developing countries. It was later adapted by the CDC and the NC Office of Emergency Response for rapid assessment of needs after natural or man-made disasters. NCIPH also subcontracted with Spatial Data Consulting to guide in-person survey data collection. NCIPH is a part of the University of North Carolina at Chapel Hill's Gillings School of Global Health.

The NCIPH support team generated two sampling frames based on the CDC's Social Vulnerability Index or SVI, an index of 16 measures in four domains of socioeconomic status, household characteristics, racial and ethnic minority status, and housing type and transportation (Agency for Toxic Substances and Disease Registry, 2020). One sampling frame included Guilford County Census tracts that scored in the highest quartile on the SVI Index as having a high degree of vulnerability (the census tracts shaded in the darkest brown in the map below - Social Vulnerability Index by Census Tract, Guilford County). The second sampling frame included all the other census tracts in the county. Sufficient surveys were conducted in each sampling frame to generate statistically significant (at the $p = 0.1$ significance level) results for each sampling frame separately or combined for overall county estimates.

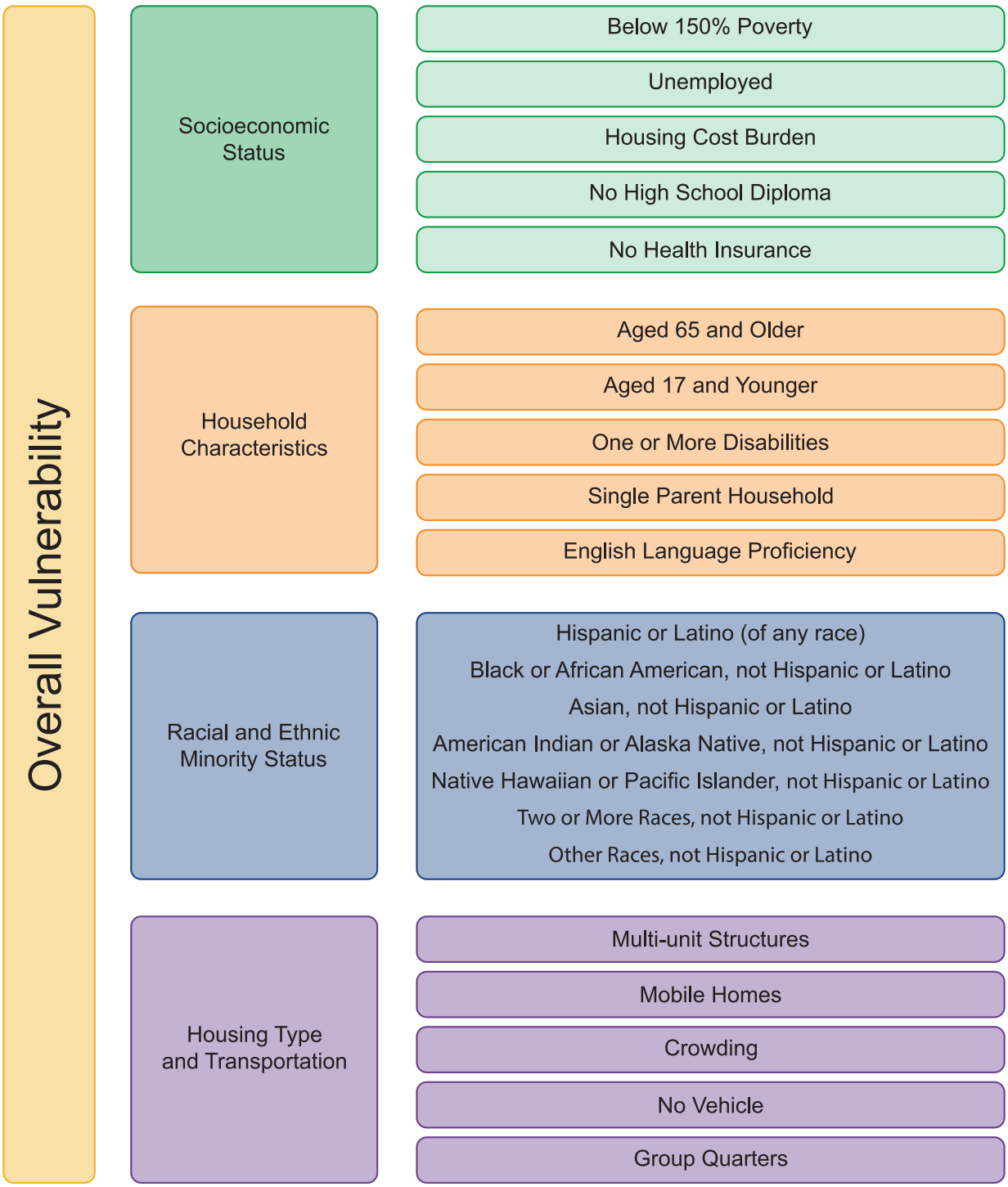
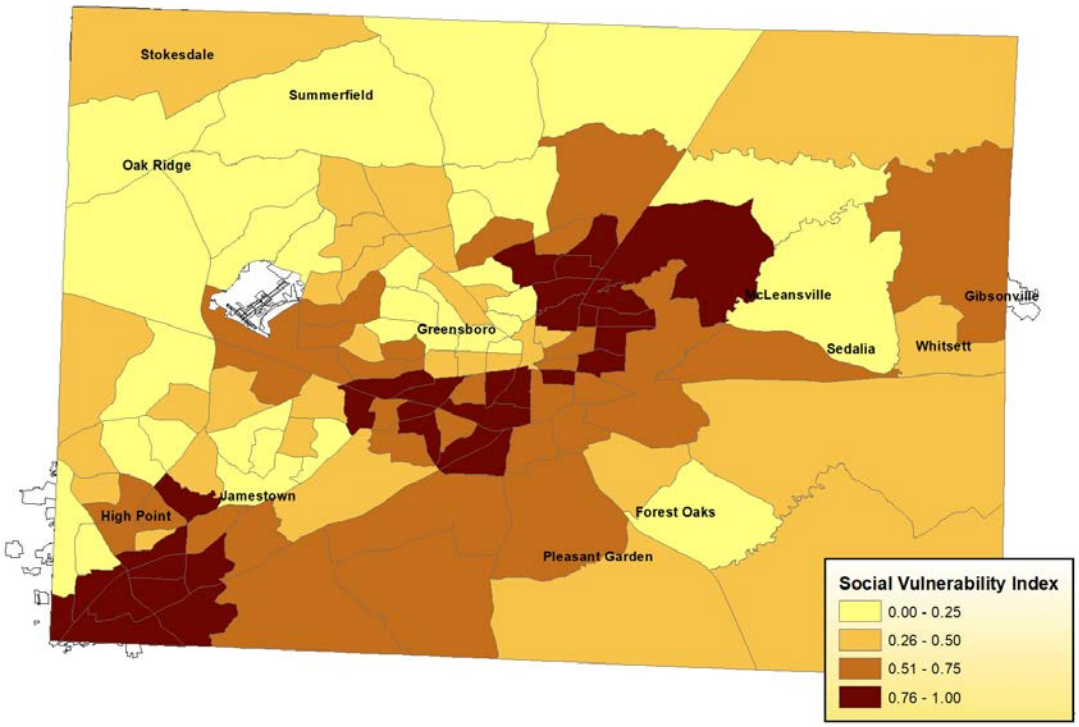


Figure: Social Vulnerability Index Measures.

Social Vulnerability Index by Census Tract, Guilford County



Source: Source: CDC/ATSDR 2016-2020.

Guilford County Census Tracts by SVI Index Quartiles

The 2023 GCCH survey included questions about health status, risk factor behaviors, and access to care but went beyond these questions to include items regarding stressors, social and emotional support, caregiving, childcare, discrimination, transportation, housing and food security, and emergency preparedness. The survey was developed, reviewed, tested, and finalized in the summer of 2023. Prior to the in-person survey, randomly selected households received postcards with information about the upcoming survey and were given an opportunity to complete the survey by mail or online. With technical assistance provided by the NCIPH team, teams of Guilford County Public Health and county staff and community volunteers conducted the survey over two three-day periods in October of 2023, each period devoted to conducting surveys in one of the SVI-based sampling frames. More information about the CASPER methodology and survey results can be found in the **2023 Guilford County Community Health Survey Report** (see Appendices).

Selecting Health Priorities

Selecting health priorities involves a process of triangulation of multiple data streams to identify overlapping areas of agreement regarding the priority health and health-related issues facing Guilford County. Triangulation commenced with consideration of the priority health issues identified in previous community health assessments. The review of the most recent secondary data, conducted in the winter and spring of 2024, was added. Additional consideration was given to community meetings held in High Point and Greensboro in June of 2024 where responders weighed in on their assessment of community issues through a "penny for your thoughts" exercise and a discussion of community assets.

At the community meetings in June 2024, the Assessment and Design Team also launched a partner survey and a community opinion survey for additional community engagement and to inform future Community Health Improvement Plan development. Past, current, and potential community partners were invited provide information about community health improvement efforts using a streamlined version of the Partner Survey provided in MAPP 2.0. The Team also requested input through a community opinion survey to encourage those with lived experience to share their insights on the status of the community's health. Upon completion of the CHA report, the team will do a complete analysis of these data.

In July 2024, the CHA Assessment Design and Implementation Team triangulated findings from the secondary data, the2023 GCCH survey, community meetings, and community opinion survey rankings in the context of previous CHA priorities to determine the health priorities for the 2023-2024 Guilford County Community Health Assessment.

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Chapter 4:
Social Determinants of Health

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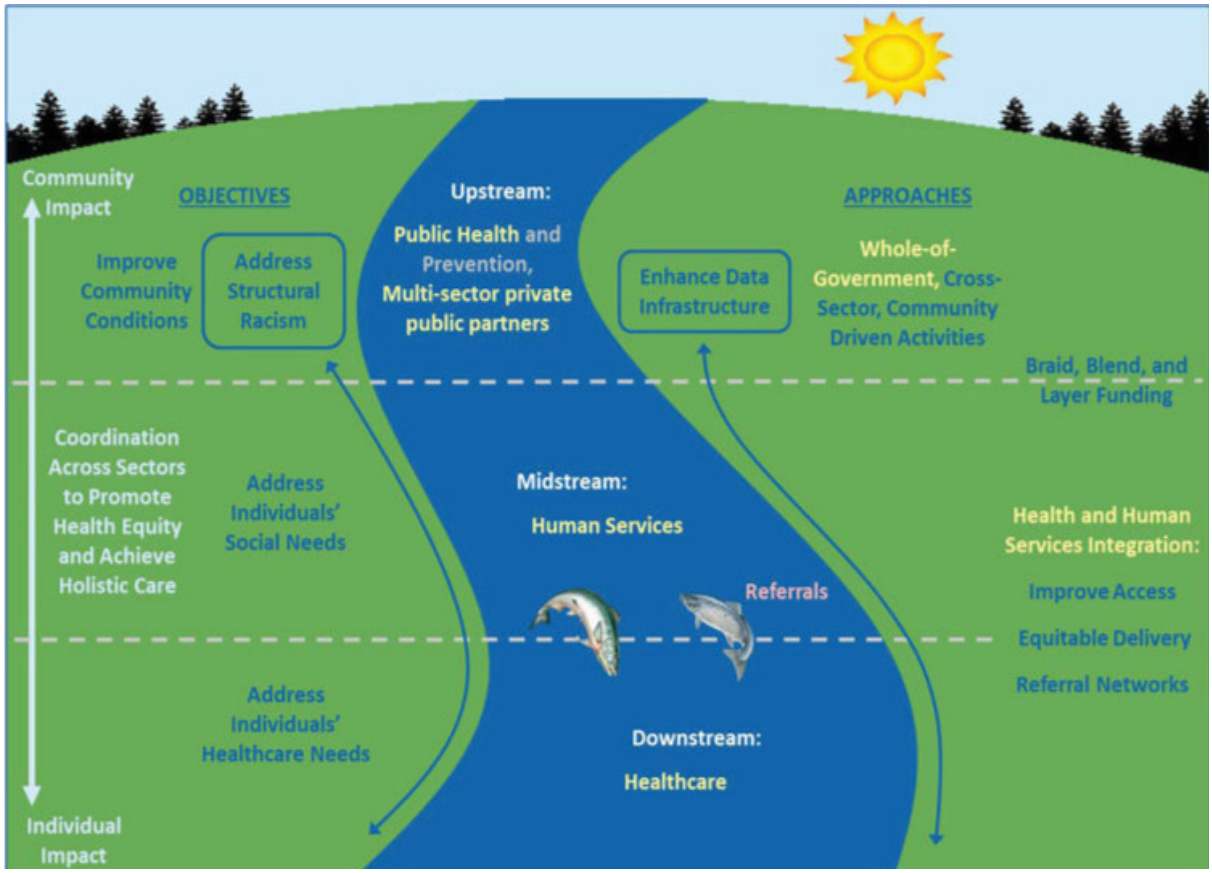
"Long-term sustainable improvements in the health and well-being of North Carolinians will only occur by addressing the social, economic, and place-based challenges that keep people from achieving optimal health."

Healthy NC 2030, A Path Toward Health (NCIOM, 2020)

Understanding the social determinants of health that contribute to the differences in health outcomes in Guilford County can inform how we address the health inequities in Guilford County.

Social Determinants of Health Ecosystem

Public health and community partners can learn from the Centers for Disease Control and Prevention's (CDC) approach to embed work around the social determinants of health (SDOH). The CDC has adapted Castrucci and Auerbach's SDOH Ecosystem model in their approach (Hacker et al., 2022; Castrucci & Auerbach, 2019). This model demonstrates the importance of working *upstream* collaboratively on the social and community conditions for greater community impact while also working across sectors at the *midstream* and *downstream* levels to improve access, referral, and implications at the individual and family level.



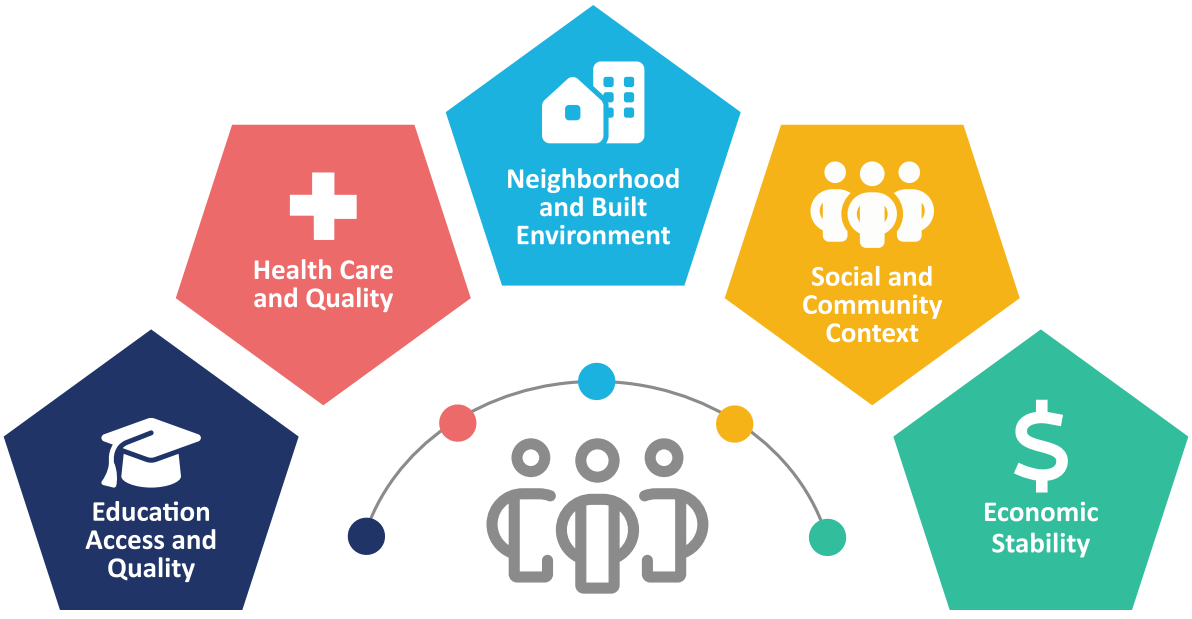
Social Determinants of Health Ecosystem.

Underlying these SDOH "are public policies that influence opportunities for education, employment, and safety; shape our communities; and promote or discourage various behaviors" (NCIOM,2020.) Mobilizing for Action through Planning and Partnerships (MAPP 2.0) guidance recognizes that acknowledging societal and structural power imbalances that perpetuate health inequities and building new ways to build equity and community power-sharing could also support this work (NACCHO, 2024). This would require significant reflection, commitment, and intentional action over a long period of time.

To collectively address the social and structural conditions that affect health equity, the CDC is also building the SDOH into the internal work of the agency. This work will occur across the following pillars: Data and Surveillance, Evaluation and Evidence Building, Partnerships and Collaboration, Community Engagement, Infrastructure, and Capacity and Policy and Law.

CDC's Six Pillars of the CDC's work to address SDOH.

This chapter shares local data about select social determinants of health indicators using CDC's five key social determinants of health domains. Please note that information on Access to Health Care is covered separately in Chapter 5, as a Health Priority.



CDC's Five Key Social Determinants of Health (CDC, 2024).

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Income provides economic resources that shape choices about housing, education, childcare, food, medical care, and more. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress. As income and wealth increase or decrease, so do opportunities for health.

County Health Rankings

Section 1: *Economic Stability*

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Why is Economic Stability Important?

The connection between economic stability and numerous health outcomes is well established. As income increases, so does health and life expectancy. While the differences are most distinct between those with highest and lowest incomes, they also occur between among those within middle incomes as well (Braveman et. al., 2009).

Research suggests that those with more income tend to have jobs that are more stable and flexible with benefits, which can increase access to health care and health insurance. They can afford healthier lifestyles and benefit from positive neighborhood conditions that support good health.

Adults with lower incomes live shorter lives, report poorer physical and mental health and have higher rates of chronic diseases. Individuals with lower incomes have less access to health care, are more likely to be uninsured or underinsured and may face challenges with deductibles, copays and other costs. Poverty also has a profound effect on child health outcomes including low birth weight, infant mortality, chronic conditions like asthma, environmental exposure and adverse childhood experiences (ACES) (Woolf, et. al. 2015; Council on Community Pediatrics, 2016).

Individuals and families dealing with economic instability also often face multiple structural challenges that also impact

health, including substandard housing, fewer employment options, less access to healthy foods, green space and environments that support active living, challenges with transportation and lower resourced schools. Those who face economic instability may also face chronic stress which can have a cumulative effect on physical and mental health (Woolf, et. al. 2015).

This section shares select local economic data that influences what economic stability looks like in Guilford County, including economic self-sufficiency, median income and differences in income, as well as measures like poverty, unemployment, childcare costs and main industries and occupations in Guilford County.

When individuals and families have the financial resources to provide for their basic needs, such as food, housing and needed medical care, they can strive to live to their full potential.

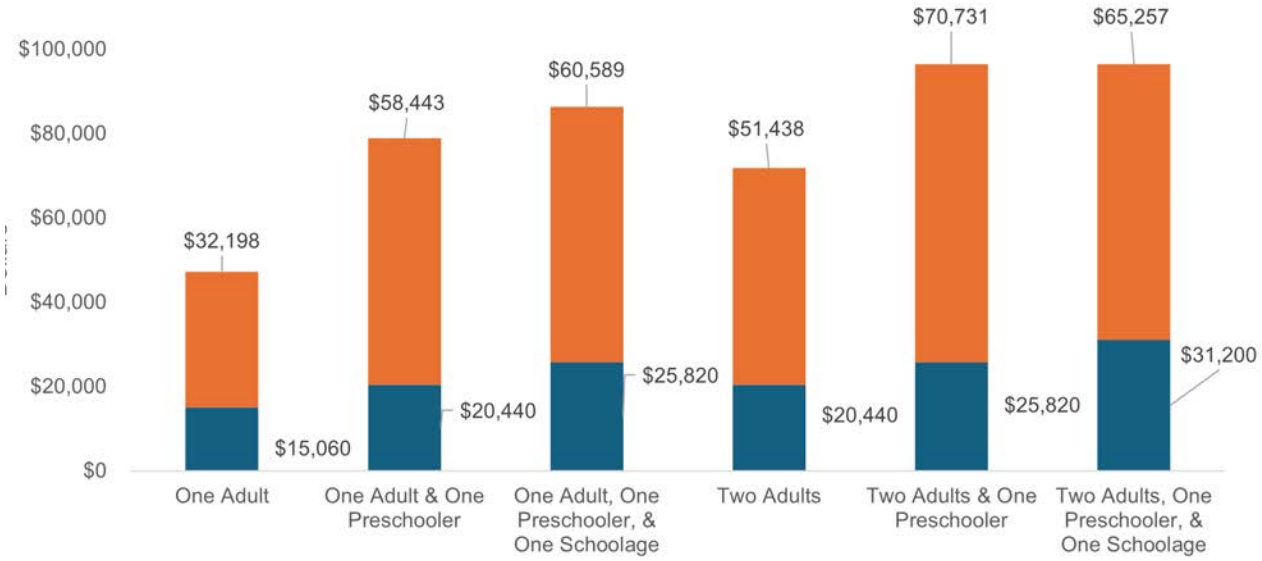
> Economic stability means that people have the resources essential to a healthy life.
>
> The Network for Public Health Law

Economic Self-Sufficiency

Because the Federal Poverty Level (FPL) guidelines were developed in the 1960s and may not be an adequate measure of the real costs of living, the University of Washington's Center for Women's Welfare provides an alternative to the traditional poverty measure called the Self-Sufficiency Standard. This measure defines the real cost of living for working families identifying the minimum income necessary to meet basic needs without public or private assistance. Considering family composition and geographic location, the self-sufficiency standard calculates the costs of six basic needs including housing, childcare, food, transportation, health care, miscellaneous, as well as emergency savings contribution, taxes and tax credits.

The following chart shows income needed to be self-sufficient for different families in 2023 as compared to the 2024 Federal poverty guidelines. According to the self-sufficiency standard, one adult needs about $32,000 annually while two adults need approximately $51,000. That standard understandably increases for households with children. Regardless of the size of the family, the gap between the estimated self-sufficiency income and the FPL guidelines is dramatically different.

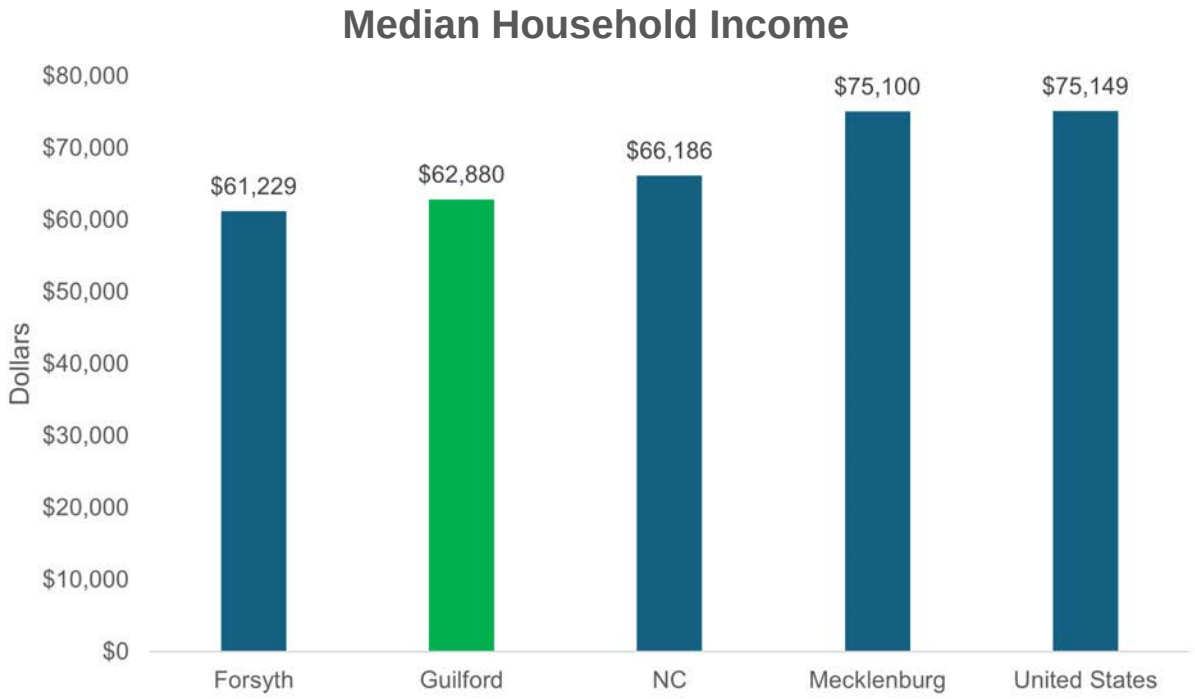
Guilford County Self Sufficiency Standard 2023 Compared to the Federal Poverty Guidelines 2024



Source: Center for Women's Welfare, University of Washington School of Social Work, 2021 and Office of the Assistant Secretary for Planning and Evaluation, 2023.

Median Household Income

The median income is the income at which half of households in a county earn more and half of households earn less. In Guilford County, the median household income was $62,880, lower than NC the US and much lower than Mecklenburg and Wake counties.



Source: County Health Rankings, 2023; American Community Survey, 5-year estimates, 2018-2022.

Median Household Income Varied Considerably by Race, Ethnicity and Gender

The median household income in Guilford County was also less than NC and US for almost all races and ethnicities except for Whites. Within Guilford County and for NC and US data as well, there are also considerable differences in median household income by race, ethnicity and gender. Median household incomes of Whites were double or almost double those of all other races and ethnicities except Asians. In 2022, male full-time year-round workers had median earnings of $55,721. Female full-time year-round workers had median earnings of $45,201.

Building a Healthy Community

Community members responded with the following when asked, “What is one thing that would make your community a healthier place?” regarding economic stability.

- “Affordability for regular working people to meet basic needs, childcare, and after -school activities”
- “Making it affordable to live. We’re having to choose between housing and food.”
- “I wish everything would go down again-inflation and food costs and housing and everyone would be kind.”
- “I am very concerned about families dealing with food insecurity and housing costs.”

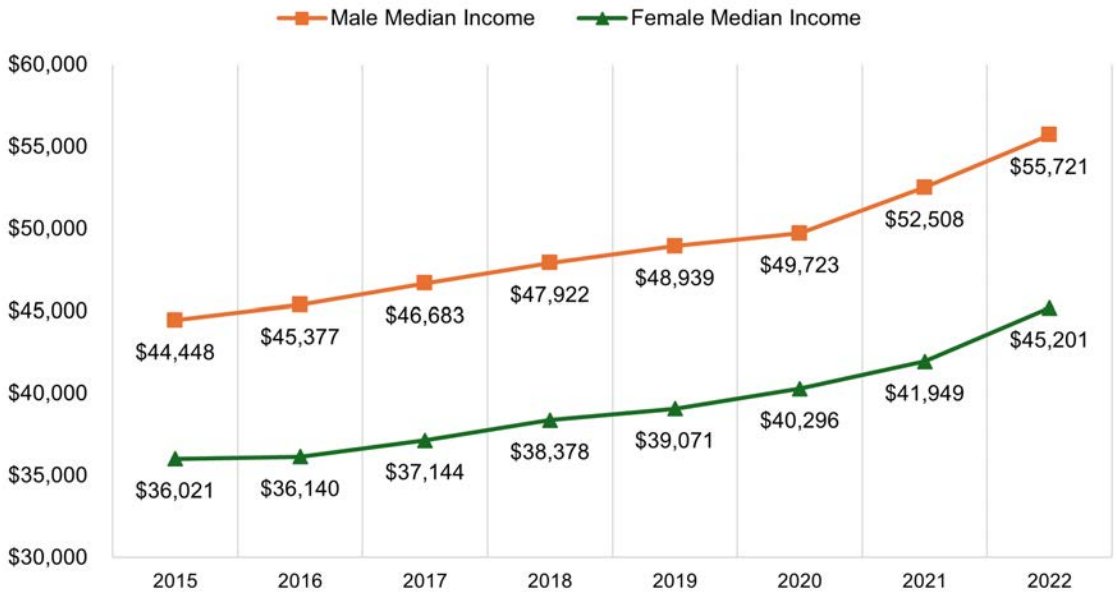
2023 Guilford County Communtiy Health Survey

Median Household Income by Race/Ethnicity

	Non-Hispanic White	Black	Asian	American Indian or Alaska Native	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race	Hispanic or Latino
Guilford County, NC	$102,350	$56,739	$87,907	$41,507	-	$41,673	$73,875	$54,002
North Carolina	$93,735	$58,462	$122,456	$52,061	$70,486	$52,116	$72,206	$56,618
United States	$103,092	$63,338	$123,165	$64,062	$85,121	$64,894	$80,092	$69,470

Data Source: US Census Bureau, American Community Survey. 2018-2022.

Guilford County Median Income (2015-2022)

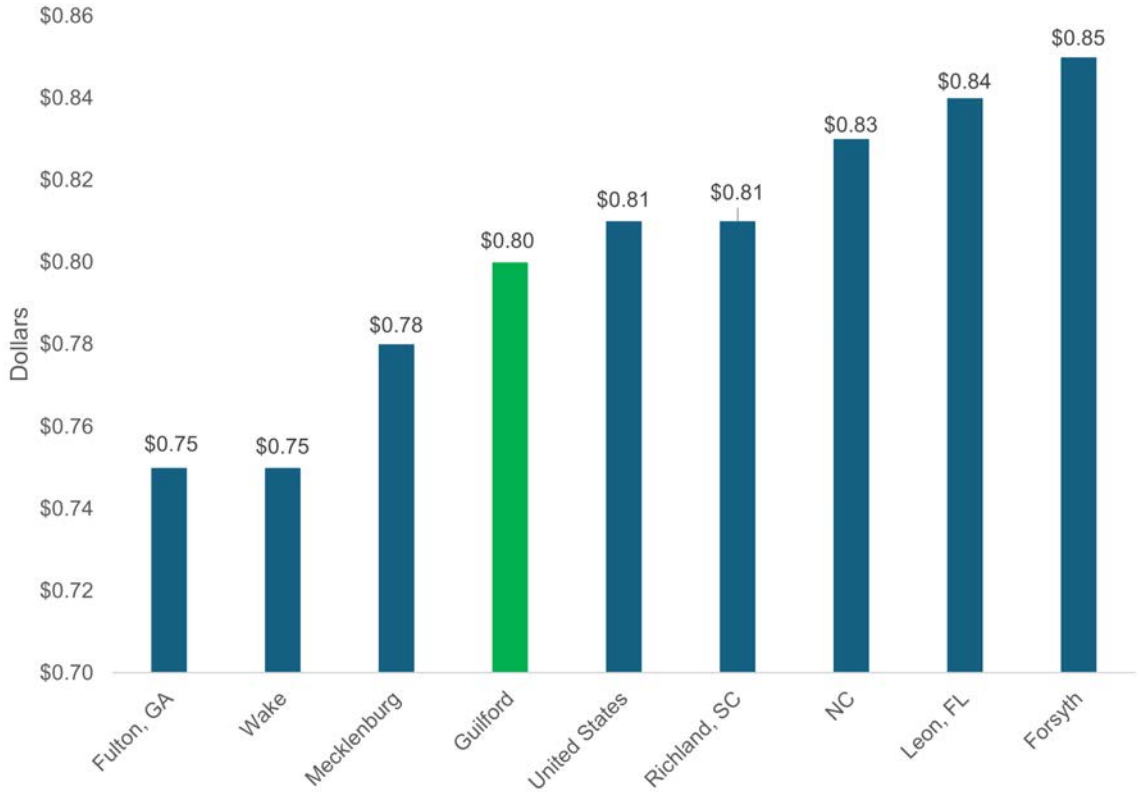


Data Source: US Census Bureau, American Community Survey. 2018-22.

Gender Pay Gap

The gender pay gap is ratio that compares women's median earnings to men's median earnings for all full-time, year-round workers, presented as cents on the dollar. In Guilford County, women earned an average of $0.80 for every $1.00 men earned in annual income, which was lower than lower than North Carolina, the United States and several comparison counties.

Ratio of Women's Median Earnings to Men's Median Earnings for All Full-time, Year-Round Workers, 2017-2021

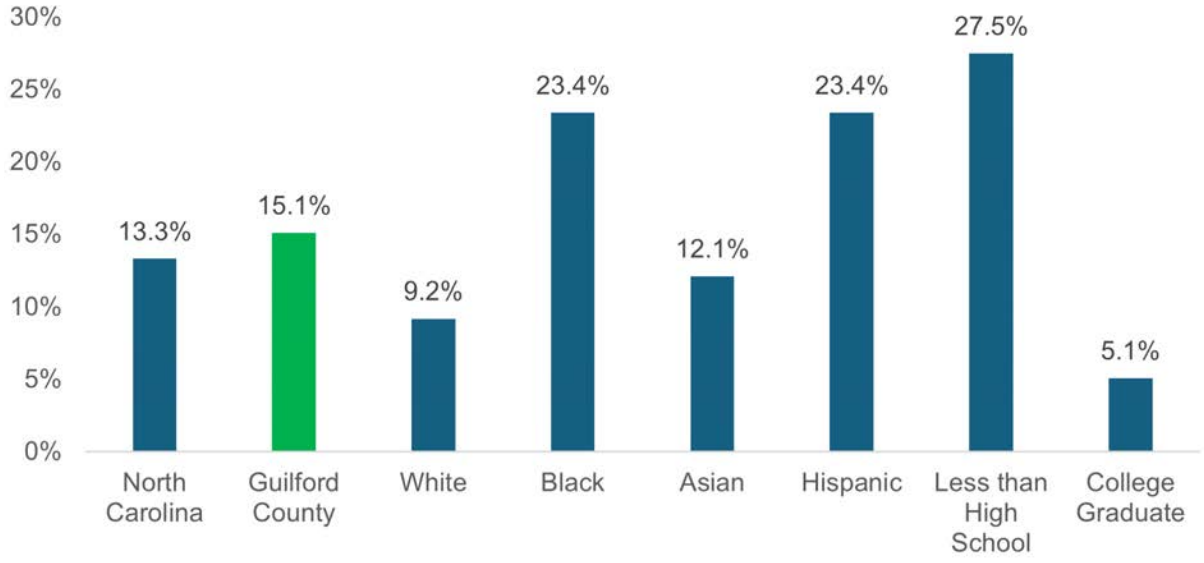


Source: County Health Rankings, 2023; American Community Survey, 5-year estimates, 2017-2021.

Poverty

According to the US Census, about 15% of Guilford County's population lives below 100% of the Federal Poverty Level (FPL), higher than North Carolina. Black, Asian and Hispanic residents in Guilford County have higher poverty rates than Whites. Those individuals with less than a high school education also have higher poverty rates than college graduates.

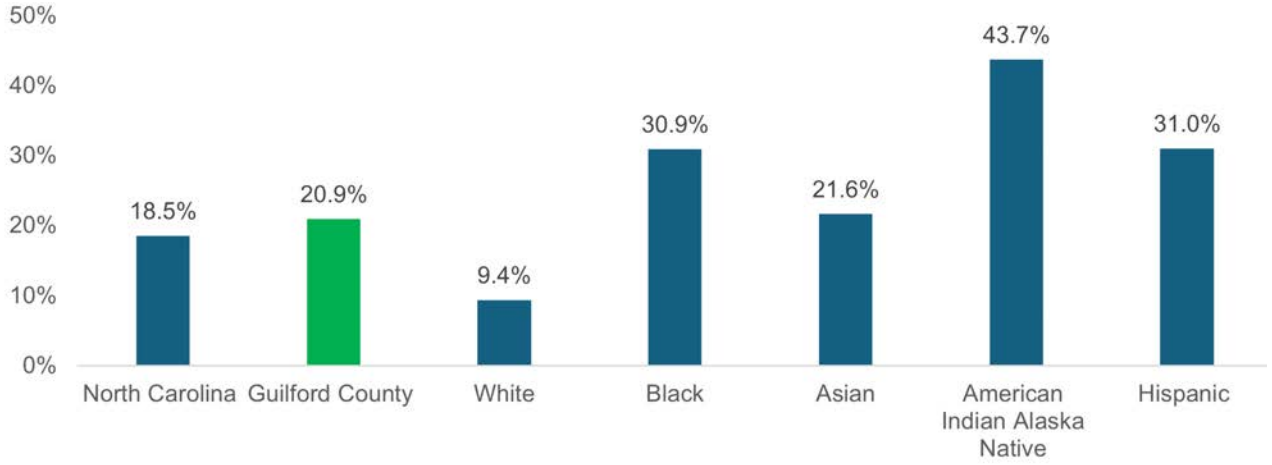
Percent of Population Below 100% of the Federal Poverty Level, 2018 - 2022



Source: US Census Bureau; American Community Survey, 2018-2022.

One of five children lives below the FPL in Guilford County, also higher than North Carolina. Significant racial and ethnic disparities also exist—the child poverty rate among Asians is two times the rate of Whites, while for Black, Hispanic and American Indian children it is three or more times the rate of Whites.

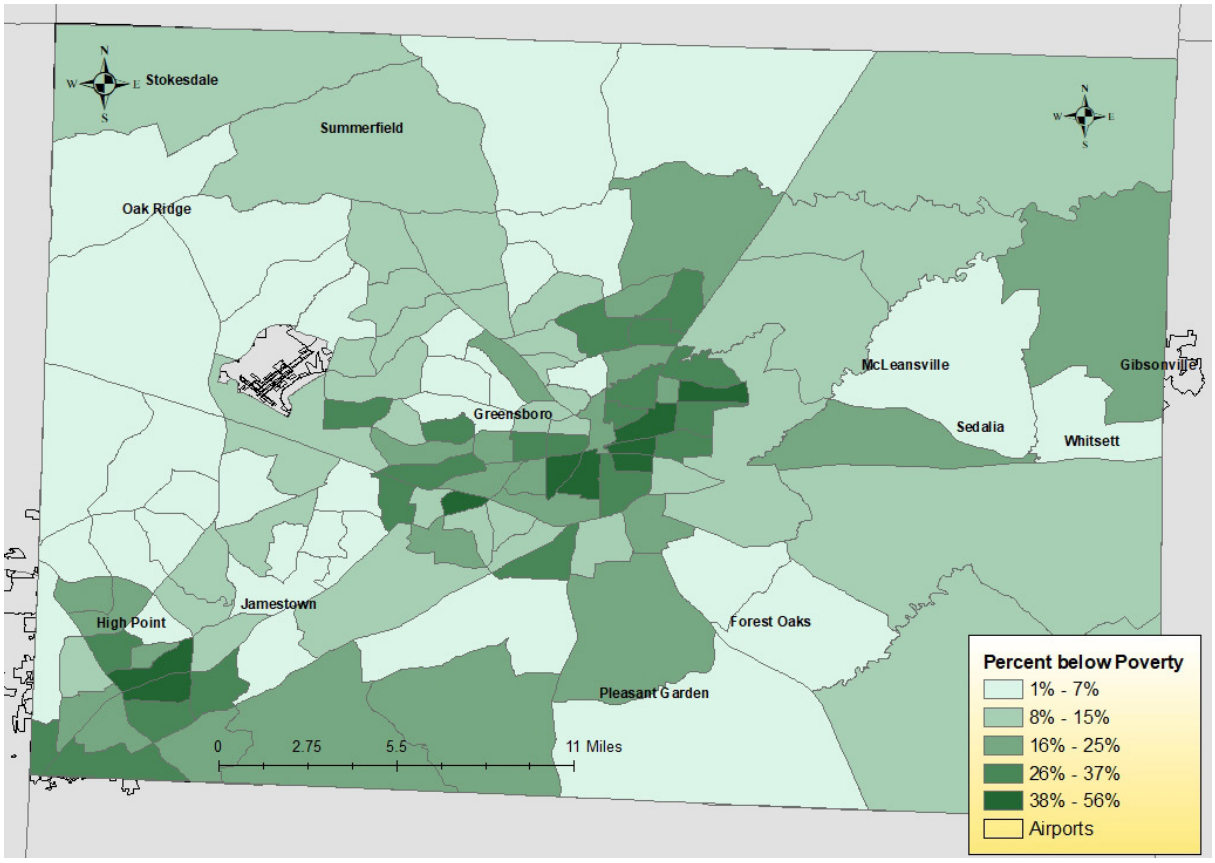
Percent of Children Below 100% of the Federal Poverty Level, 2022



Source: US Census Bureau; American Community Survey, 2018-2022.

The following map which shows the percentage of the population living below the FPL by Census tract illustrates differences economic vulnerability within the county.

Percent of the Population Living Below the Federal Poverty Level



Source: American Community Survey, 2018-2022.

Guilford County currently exceeds the Healthy NC2030 target of reducing the percentage of individuals living below 200% of the FPL to 27%, at 30.9%.

Unemployment

Unemployment is a Healthy NC 2030 Indicator. Guilford's unemployment racial disparity is worse than the 2030 target of a 1.7 or less Black/White ratio.

As the next two charts illustrate, Guilford County unemployment rates follow NC and US trends. While Guilford County unemployment peaked at 8.4% in 2020, it dropped below pre-pandemic levels in 2023 to 3.9%. From 2018-2022, the unemployment rate for Whites was 3.9%, as compared to 7.2% for Blacks and 3.3% for Hispanics.

Healthy North Carolina 2030 Indicators

Individuals below 200% of Federal Poverty Level

2030 Target = 27%

Guilford = 30.9%

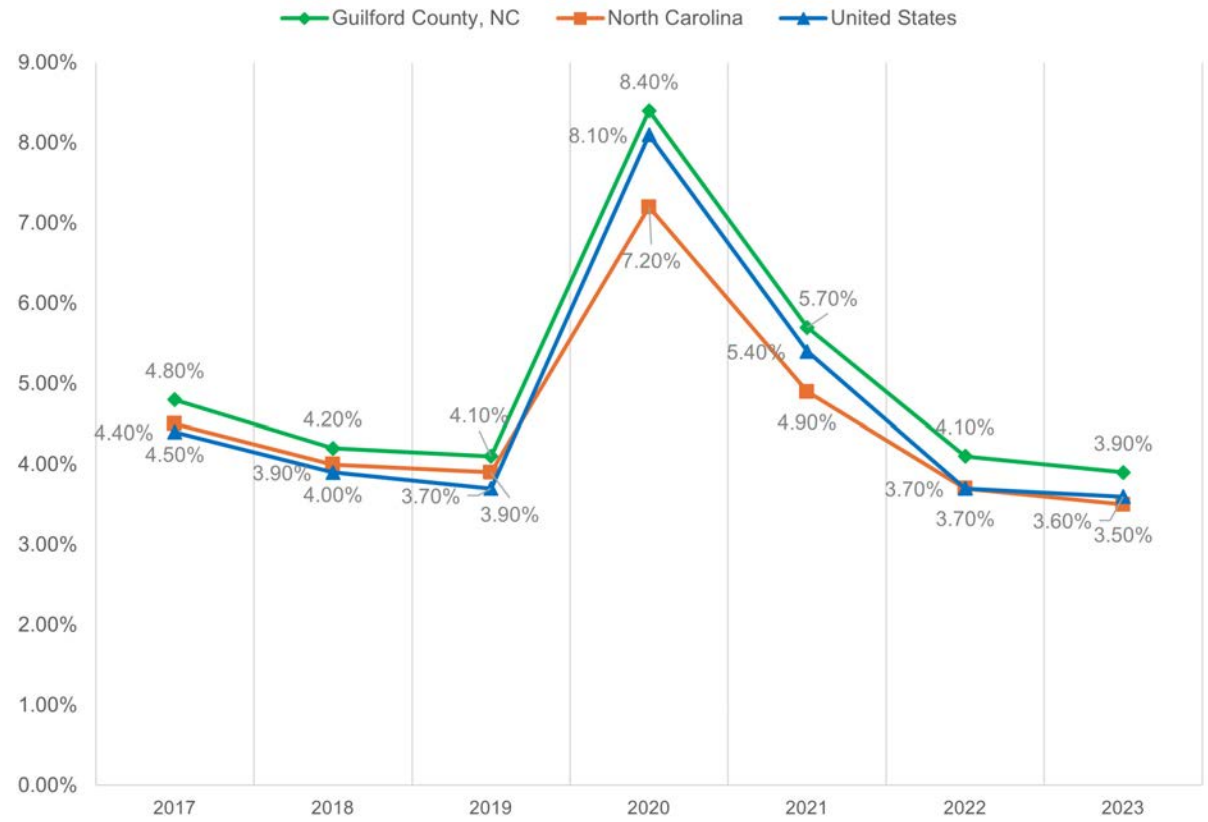
Unemployment:

2030 Target = Reduce racial disparity to 1.7 ratio or less

Guilford Black/White ratio = 1.8

Census Bureau, 2021

Average Annual Unemployment Rates, 2017-2023

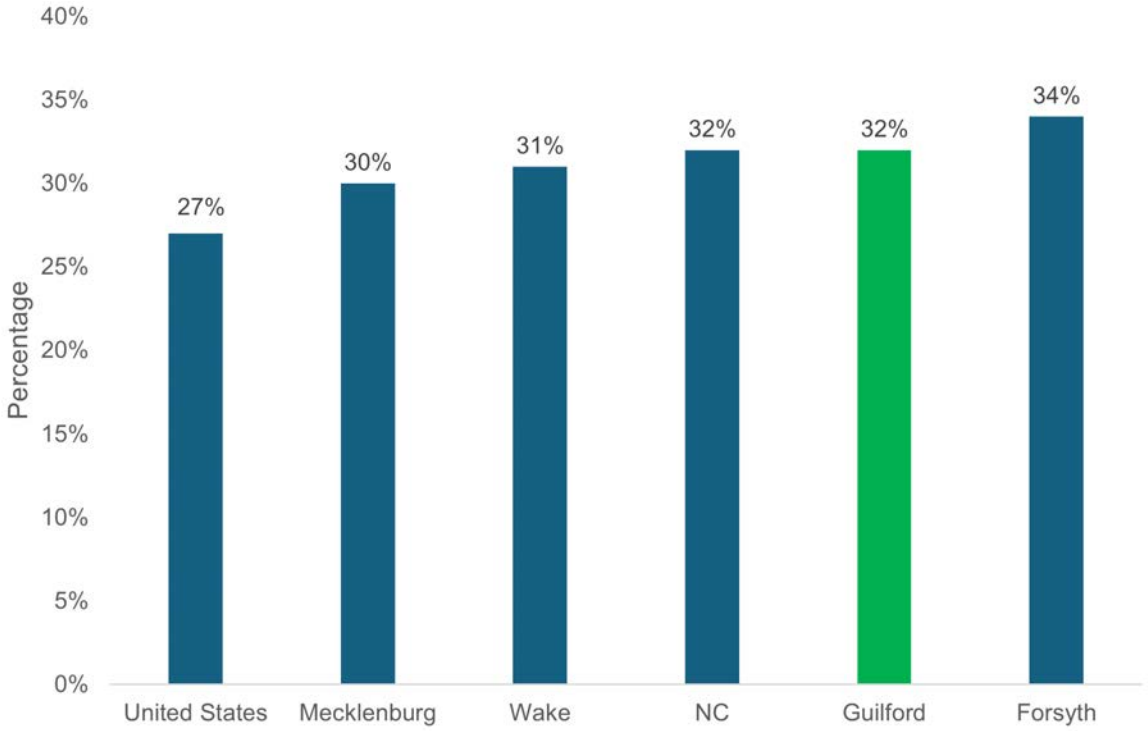


Source: US Department of Labor, Bureau of Labor Statistics. 2024.

Childcare Cost Burden

Parents and communities need safe, affordable and accessible childcare not only to support children's health and development but to enable parents to participate in the workforce and better their family's economic health. Assessing potential childcare costs for a household with two children as a percent of the median household income, on average families in the United States spend about 27% of their income on childcare. In Guilford County, the average household spends 32% of its income on childcare for two children. According to MIT's Living Wage Calculator, typical 2024 childcare costs in Guilford County are estimated at $11,041 annually for one child and $19,338 annually for two children (Glasmeier, 2019).

Child Care Cost Burden as a Percent of Median Household Income



Source: County Health Rankings, 2023; Glasmeier, 2019.

Industries and Occupations

Main Industries in Guilford County

According to American Community Survey, there are an estimated 263,584 civilians employed in Guilford County. The table below provides estimates of the number employed by main types of industry. The industries with the largest number of employees include educational services, health care and social assistance, followed by manufacturing, retail and professional, scientific and management and administrative and waste management services.

Civilian Employed Population ages 16 Years and Older by Industry

Type of Industry	Number of Employed Civilians Ages 16 and Older	Percent
Educational services and health care and social assistance	64,573	24.5%
Manufacturing	33,384	12.7%
Retail trade	30,462	11.6%
Professional, scientific and management and administrative and waste management services	27,135	10.3%
Arts, entertainment and recreation and accommodation and food services	23,514	8.9%
Finance and insurance and real estate and rental and leasing	18,675	7.1%
Transportation and warehousing and utilities	18,469	7.0%
Construction	12,862	4.9%
Other services, except public administration	12,788	4.9%

Type of Industry	Number of Employed Civilians Ages 16 and Older	Percent
Wholesale trade	8,701	3.3%
Public administration	7,908	3.0%
Information	3,772	1.4%
Agriculture, forestry, fishing and hunting and mining	1,341	0.5%

Source: American Community Survey, 2022, 5-year estimates.

Occupations by Number of Jobs and Median Annual Wage in Guilford County

The table below highlights the estimated total employment rounded to the nearest 10 for 21 standard occupation classifications in the Greensboro-High Point Metropolitan Statistical Area, with the median annual wage. These data from U.S. Bureau of Labor Statistics exclude self-employed.

	Occupation (Standard Occupational Classification)	Total Employment	Median Annual Wage
1	Transportation and Material Moving	44,320	$36,510
2	Office and Administrative Support	43,250	$40,420
3	Production	34,760	$38,570
4	Sales and Related	34,460	$35,150
5	Food Preparation and Serving Related	31,710	$27,270
6	Educational Instruction and Library	20,320	$49,940
7	Business and Financial	19,310	$68,510
8	Management	19,160	$104,810
9	Health Care Practitioners and Technical	19,080	$76,570
10	Installation, Maintenance and Repair	16,580	$49,690
11	Construction and Extraction	13,760	$47,260
12	Health Care Support	13,710	$34,580
13	Building and Grounds Cleaning and Maintenance	9,730	$30,840
14	Computer and Mathematical	7,230	$89,920
15	Protective Service	7,230	$43,350
16	Personal Care and Service	5,350	$28,920
17	Architecture and Engineering	5,210	$80,200
18	Arts, Design, Entertainment, Sports and Media	3,740	$49,530
19	Community and Social Service	3,650	$50,460
20	Life, Physical and Social Science	1,800	$69,080
21	Legal	1,770	$71,950

Source: U.S. Bureau of Labor Statistics, Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates, May 2023.

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Education plays a pivotal role in shaping the health and economic stability of communities. Education is a cornerstone of individual and community development, influencing a wide array of outcomes including health, economic stability and overall quality of life.

Section 2: *Education*

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Why is Education Important?

Education plays a pivotal role in shaping the health and economic stability of communities. Education is a cornerstone of individual and community development, influencing a wide array of outcomes, including health, economic stability and overall quality of life.

Education is a fundamental determinant of health and socioeconomic status. National and local studies consistently reveal that higher levels of education correlate strongly with improved health outcomes, increased life expectancy, and economic stability (Cutler & Lleras-Muney, 2006; Egerter et al., 2011; Montez & Cheng, 2022). Individuals with higher educational attainment are more likely to adopt health-promoting behaviors, access quality health care, and experience lower rates of chronic illnesses. Conversely, those with lower educational levels often face higher health risks and economic challenges.

The connection between education and health is particularly significant for addressing health disparities in Guilford County. Communities with lower educational attainment often experience higher rates of health issues and a reduced overall quality of life (County Health Rankings, 2024). By improving educational outcomes, Guilford County can make substantial strides in enhancing public health.

Economic Implications of Education

Education is a key driver of economic self-sufficiency and community prosperity. Higher levels of education lead to:

- **Increased Employment Opportunities**: Higher educational attainment improves an individual's chances of securing stable and well-paying jobs. Education provides the skills and knowledge necessary for competing in a dynamic job market (Jackson, Johnson, & Persico, 2016).
- **Higher Earnings**: On average, individuals with higher education levels earn more over their lifetimes compared to those with less education. This increased earning potential contributes to economic stability and reduces poverty rates (Montez & Cheng, 2022).
- **Economic Growth**: A well-educated workforce drives economic development by fostering innovation, productivity, and competitiveness. Communities with higher educational attainment are better positioned for long-term economic success (Cutler & Lleras-Muney, 2006).

In Guilford County, addressing educational disparities and improving access to quality education can lead to significant economic benefits. Investing in education supports both individual success and broader community and economic development.

Educational Landscape in Guilford County

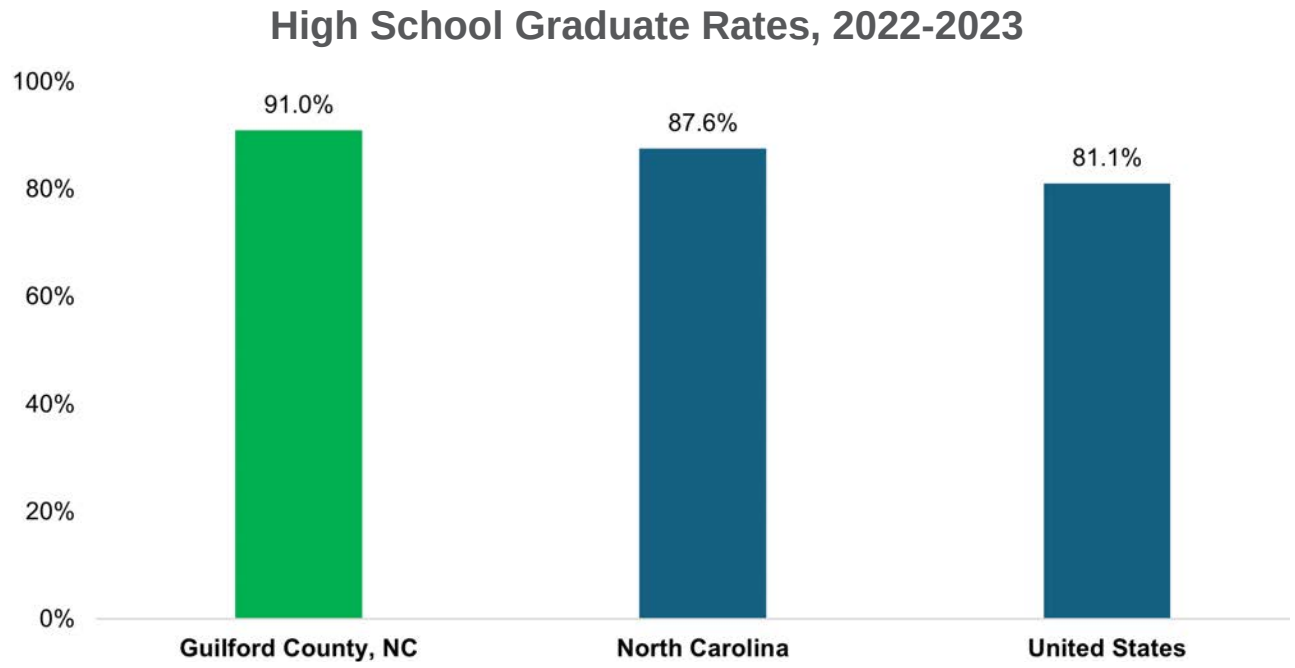
Understanding the dynamics of educational attainment and access in Guilford County is essential for addressing health disparities and promoting economic growth. This section examines select local education indicators such as high school graduation rates, educational attainment, school funding adequacy and early education measures. A deeper analysis of how education influences health outcomes and economic opportunities in Guilford County can provide insights into the broader implications for community health.

Current and Future Directions

Education is a key factor in health and economic stability, influencing individual and community prosperity. In Guilford County, the link between education and various outcomes highlights the need to address disparities and invest in quality education. The following current and future efforts to create a more equitable educational system benefit both individual and community well-being:

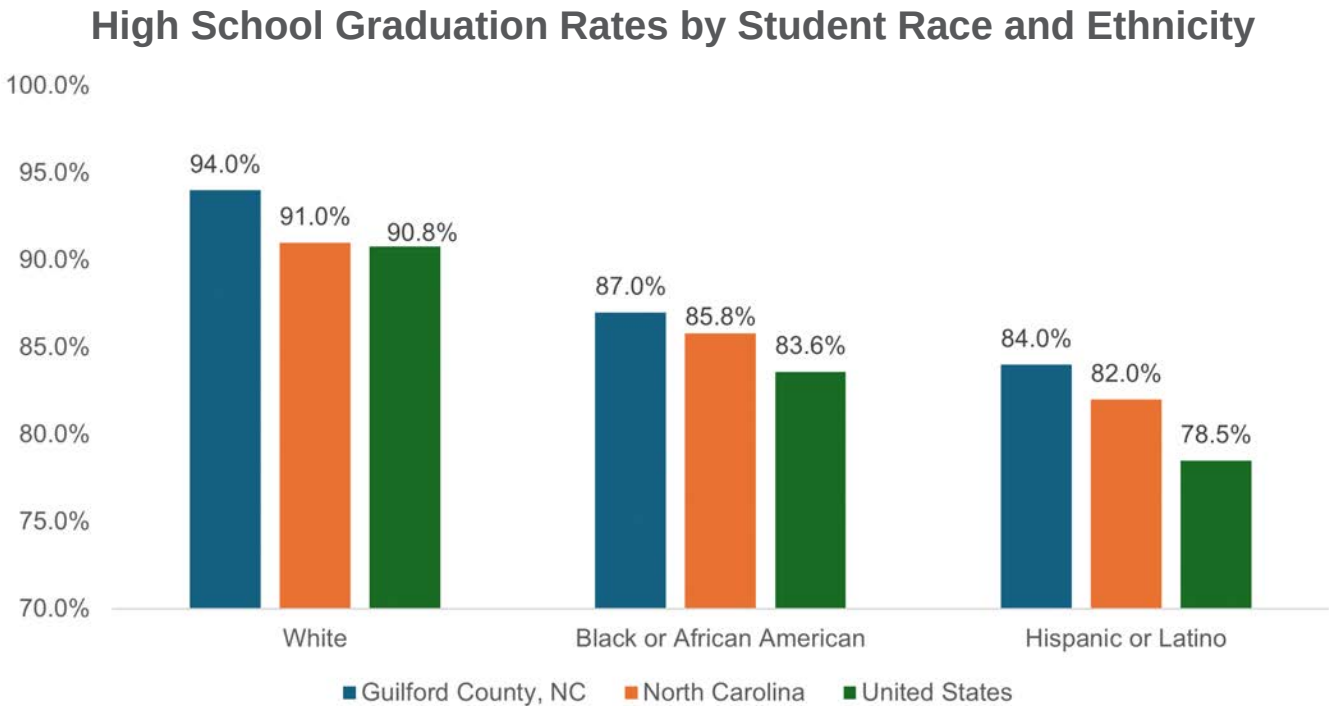
- **School Funding and Facilities:** The 2022 bond provides $1.7 billion for addressing infrastructure needs, including new schools and renovations. This funding is crucial for improving educational facilities. Closing the funding gap, especially in underserved areas, is key to improving outcomes (Guilford County Schools, 2022).
- **Expand Early Childhood Education:** Investing in pre-K programs lays a strong foundation for future success.
- **Address Educational Disparities:** Educational disparities among different demographic groups are evident. Addressing these gaps through tailored programs can improve equity.
- **Encourage Community Collaboration:** Strengthen partnerships between schools, businesses, and community groups to support education.

High School Graduation Rates



Source: Source: NC Department of Public Instruction, 2022-2023.

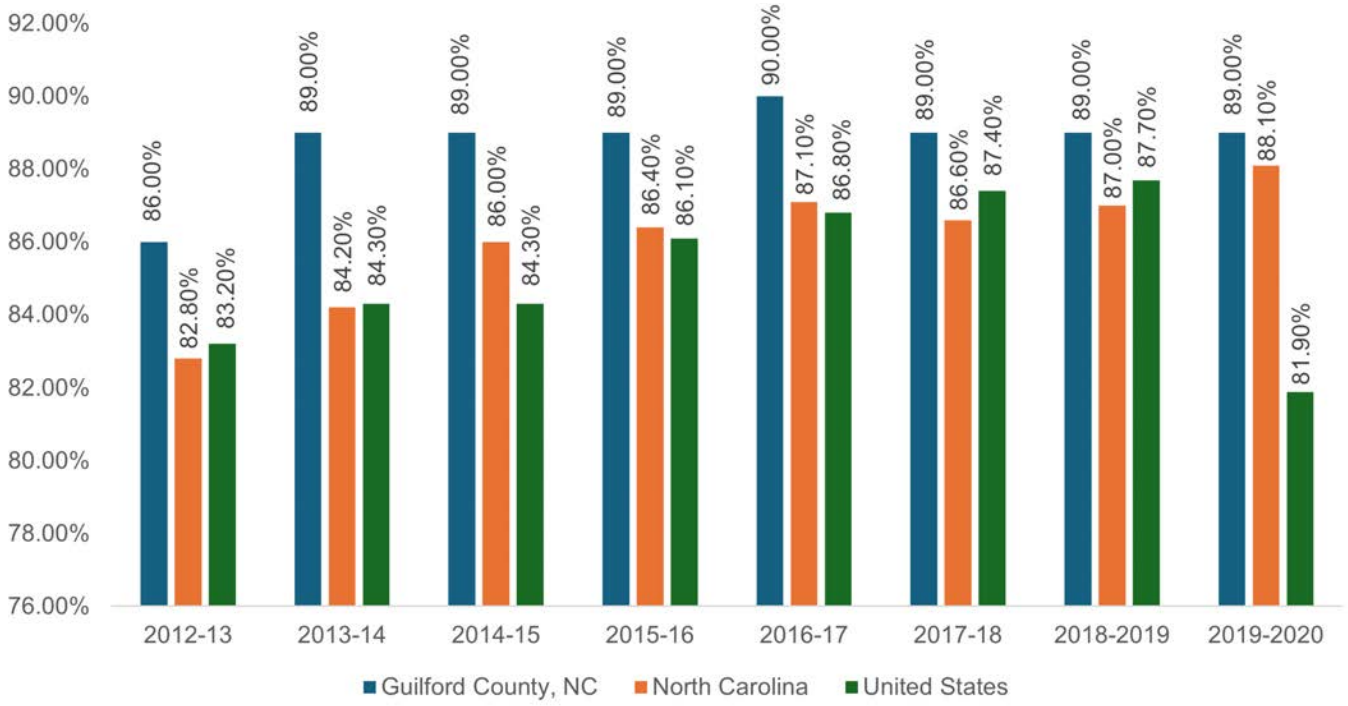
Guilford County's four-year cohort graduation rate stands at 91%, surpassing the statewide average of 87%. However, as seen in the following chart, Black student (87%) and Hispanic students (84%) had lower graduation rates than White students (94%). (US Dept of Education, ED Facts).



Source: US Department of Education, ED Facts; Additional data analysis by CARES, 2021.

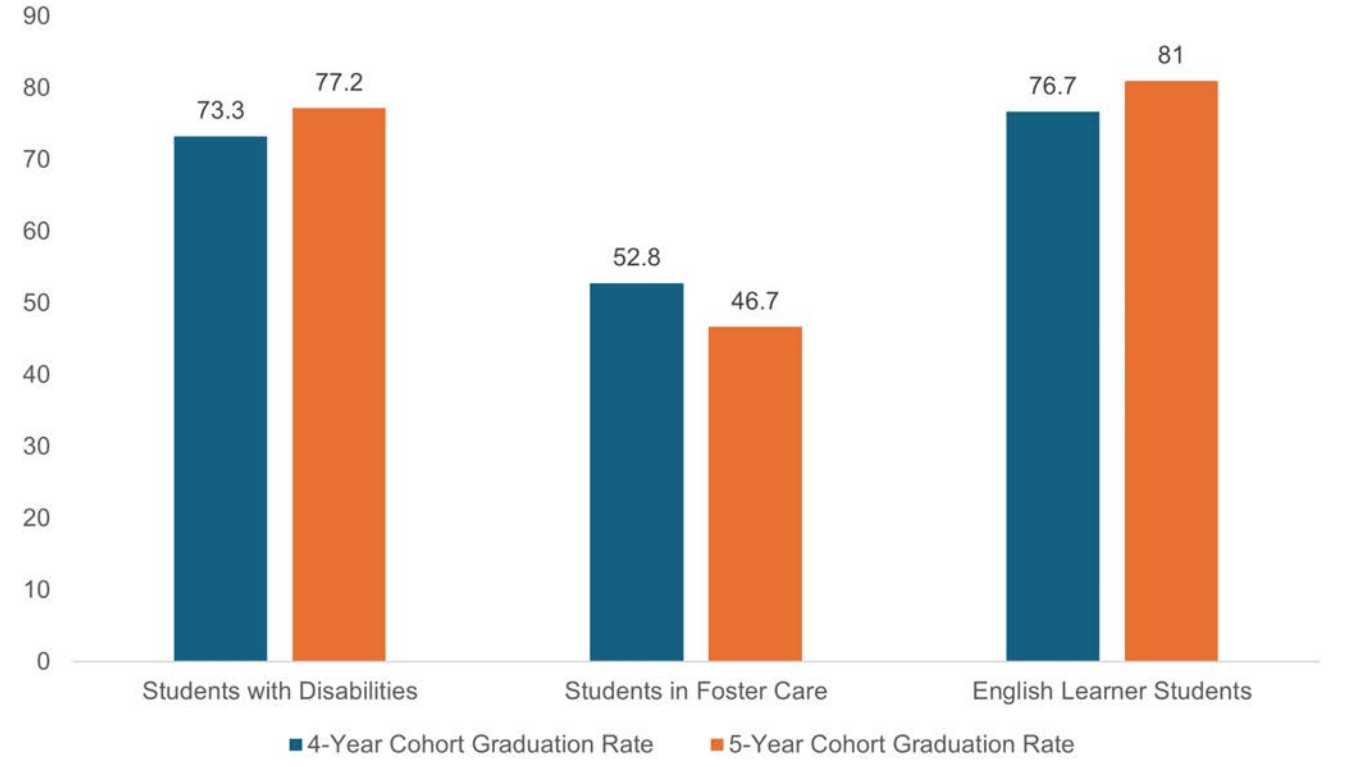
The following chart displays high school graduation rate over an 8-year period for Guilford County, North Carolina and the United States. While there was some fluctuation in graduation rates from year to year, Guilford County's graduation rates were consistently higher than state and national rates.

High School Graduation Rates by Year, 2012-13 through 2019-2020



Source: US Department of Education, ED Facts; Additional data analysis by CARES 2020-2021.

Graduation Rates among Special Demographic Groups



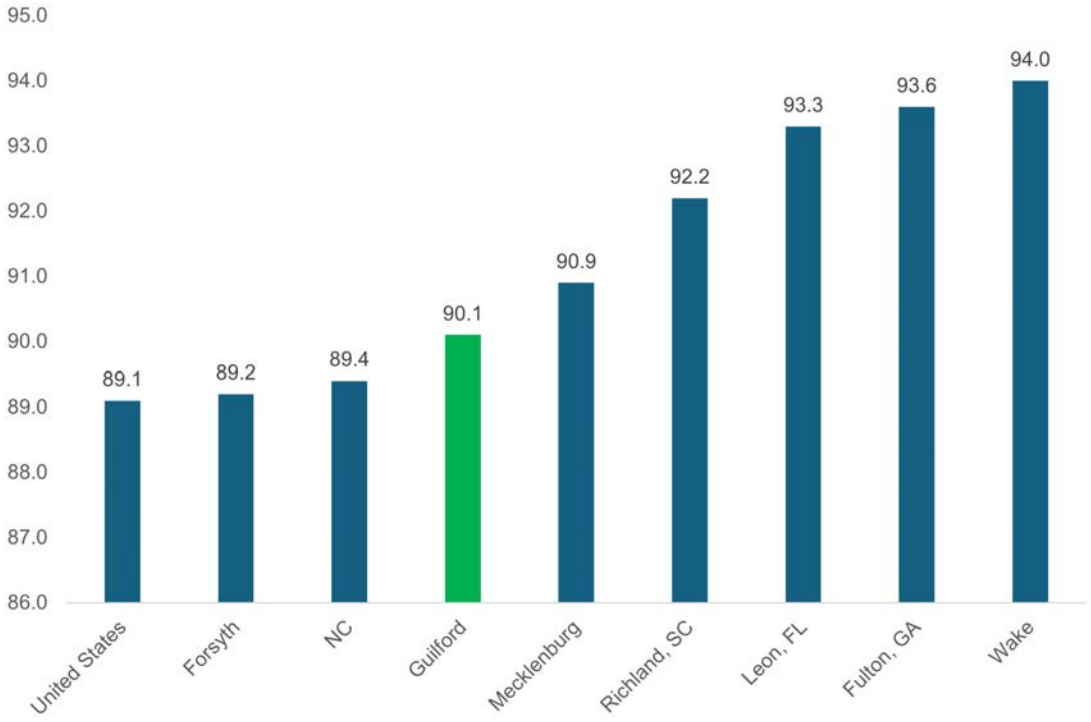
Source: NC Department of Public Instruction, 2022-2023.

Students with disabilities, students in foster care and students who are English learners have lower graduation rates than the general student population. Students in foster care have considerably lower graduation rates. Support for students with disabilities, foster care students and English language learner (ELL) students is critical for closing achievement gaps.

Educational Attainment

High School Completion or Equivalent: About 90% of Guilford County adults aged 25 and older in Guilford County have completed high school or obtained an equivalent credential such as a GED. This is a slightly higher graduation rate than NC and the US, but several comparison counties had better graduation rates, allowing there is room for improvement.

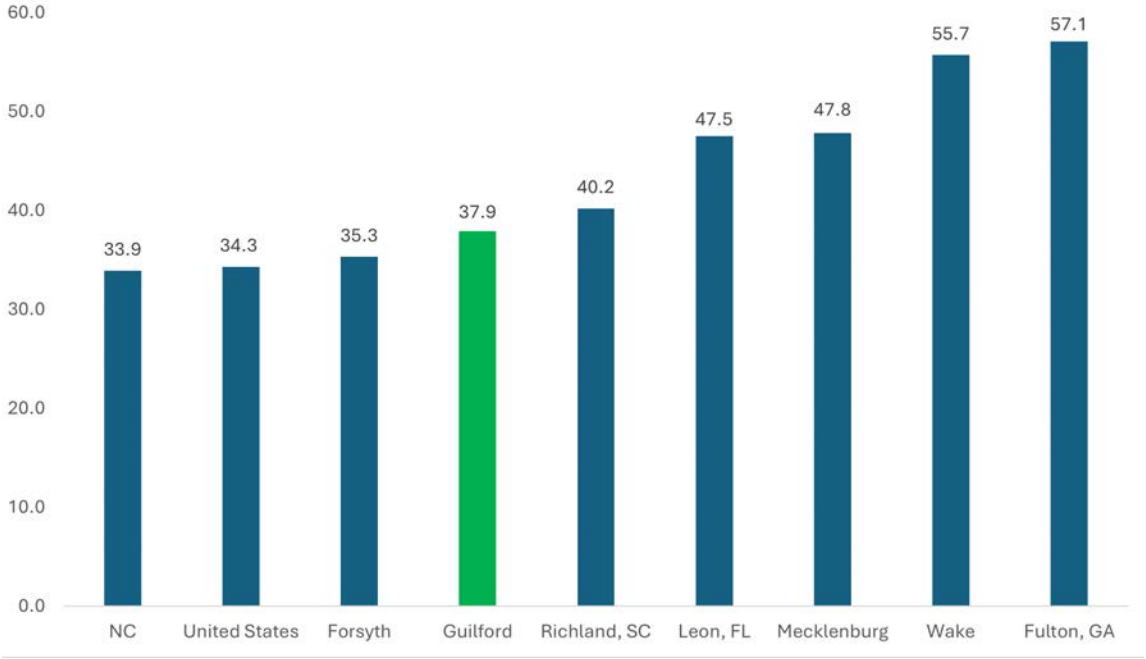
Percent of Adults Ages 25+ Completing High School or Equivalent, 2018-2022



Source: Table S1501, Educational Attainment, American Community Survey, 2018-2022.

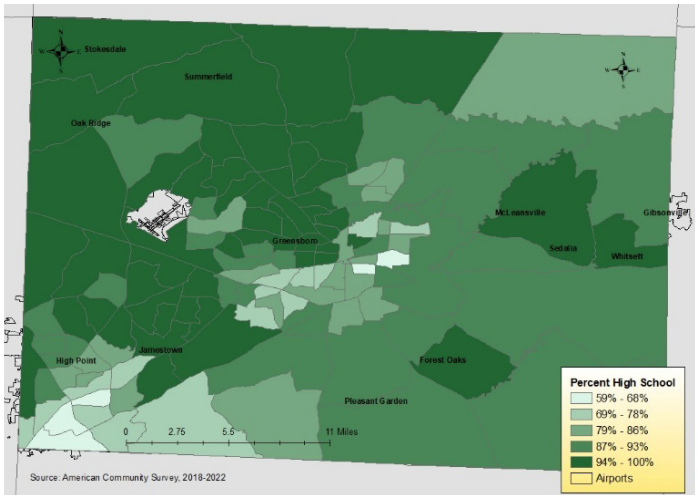
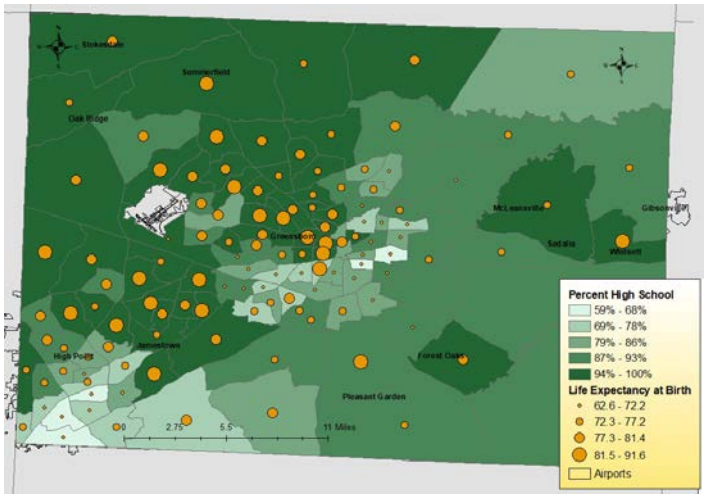
Higher Education: 37.9% of Guilford County adults hold a bachelor's degree (BS or BA) or higher. This metric indicates a substantial segment of the population with advanced educational qualifications, which can contribute to higher earning potential and better health outcomes. Guilford County's Bachelor's degree completion percentage is higher than NC and the US, but other comparison counties have markedly higher percentages who have completed a BA or BS degree or higher.

Percent with Bachelor's Degree or Higher, 2018-2022



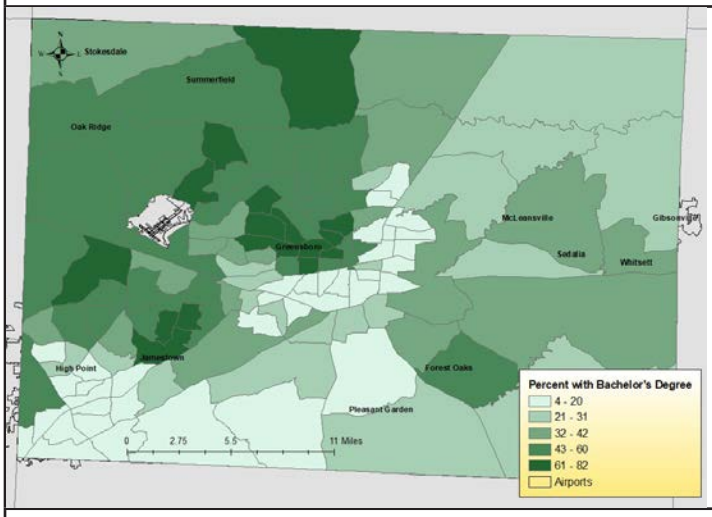
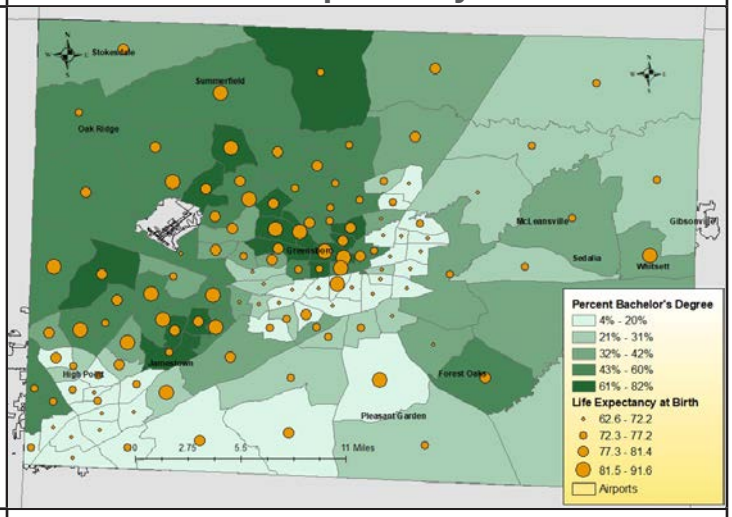
Source: Table S1501, Educational Attainment; American Community Survey, 2018-2022.

Geographic Distribution of Educational Attainment in Guilford County

Percent of the Population Over the Age of 25 with a High School Diploma or Equivalent	Percent of the Population Over the Age of 25 with a High School Diploma or Equivalent with Life Expectancy at Birth
	
Source: American Community Survey, 2018-2022.	*Source: American Community Survey, 2018-2022; Life Expectancy data from NC SCHS 2016-2020.*

The first map above displays the percentage of adults who have completed high school by census tract. While 90% of Guilford County residents complete high school, in some areas of NW Guilford the percentage ranges from 94% to virtually 100%. However, in some census tracts, the percentage is as low as 59% to 66%. The second map overlays the

percent of high school completion with life expectancy at birth represented as circles graduated in increasing size as life expectancy increases. A clear relationship is observed with residents living in areas with higher percentage of high school completion having higher life expectancy.

Percent of the Population Over the Age of 25 with a Bachelor's Degree or Higher	Percent of the Population Over the Age of 25 with a Bachelor's Degree or Higher with Life Expectancy at Birth
	
Source: American Community Survey, 2018-2022.	*Source: American Community Survey, 2018-2022; Life Expectancy data from NC SCHS 2016-2020.*

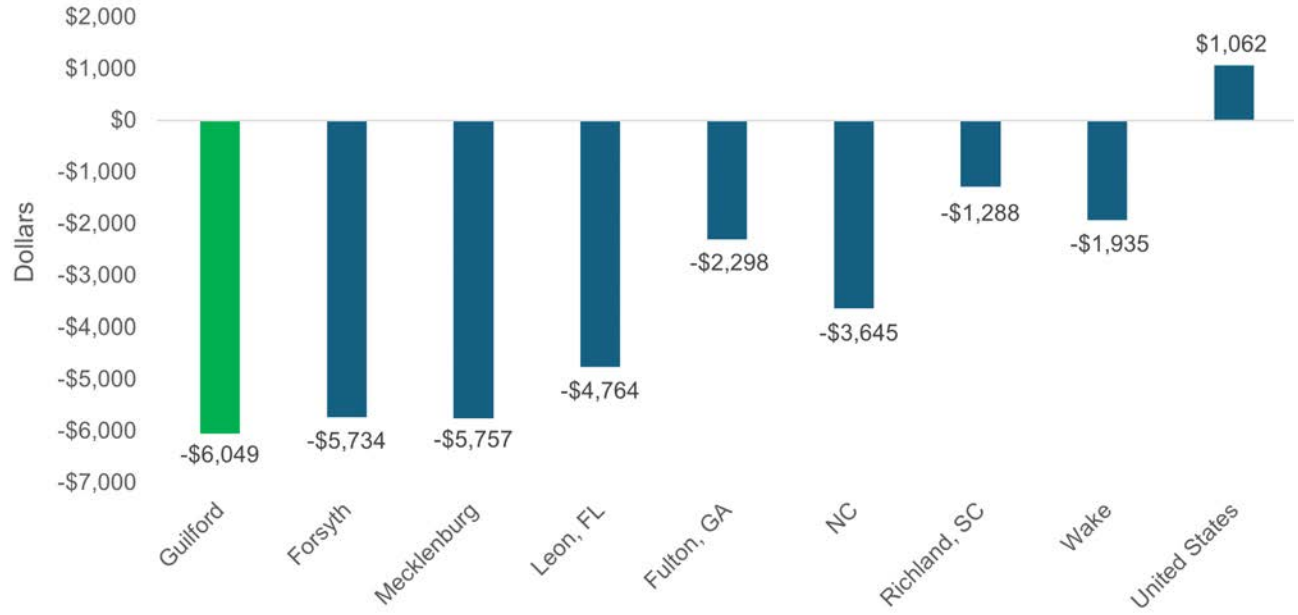
The map above to the left shows the percentage of Guilford County residents who have completed a BA or BS degree or greater by census tract. Overall, in the county, 37.9% of adult residents have completed a bachelor's degree. However, major differences in attainment in higher education depend on the area of the county. In some tracts primarily located in NW Guilford, percentage are as high as 61% to 82%, but in tracts located in SE Greensboro, High Point and southwest areas of the county, the percentage with a bachelor's degree are as low as 4% to 20%. The second map that overlays life expectancy over BA and BS completion shows a general pattern of higher life expectancy with higher educational attainment.

School Funding Adequacy

Per-Pupil Spending

Research highlights that increasing per-pupil spending, particularly for children from low-income families is associated with higher educational attainment and reduced poverty. Guilford County's per-pupil spending is $6,321 below the estimated amount required to achieve average U.S. test scores. This funding gap presents a significant challenge for ensuring equitable educational outcomes.

Comparison of School Funding Adequacy, 2020



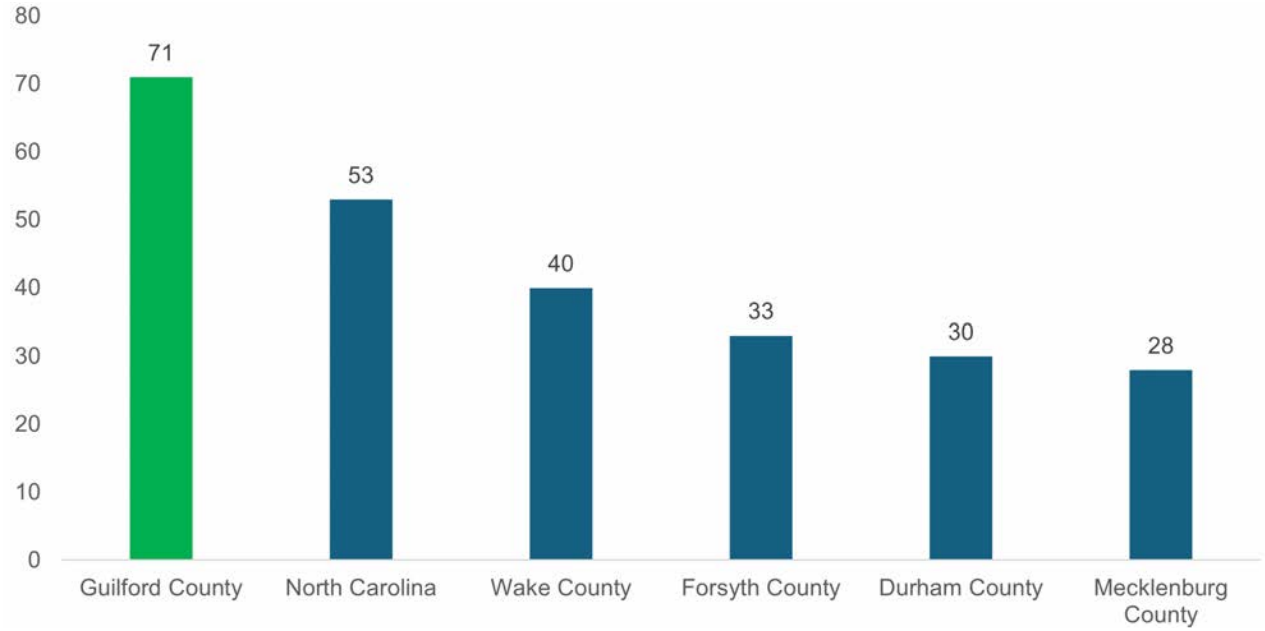
Source: County Health Rankings, 2023; School Finance Indicators Database, 2020; Report, Public Schooling in America.

Early Education and Literacy

Pre-K Enrollment

Participation in pre-K programs is important to improve children's readiness for kindergarten and success in school. The North Carolina Early Childhood Action Plan includes the goal that 75% of eligible low income 4-year-olds in each county will be enrolled in the public NC Pre-K Program by 2030. Compared with NC and other comparison counties, Guilford County is showing success in enrolling eligible 4-year-olds into the NC Pre-K program, nearly achieving the 2030 objectives.

Percent of Eligible 4-Year old Children Enrolled, 2023

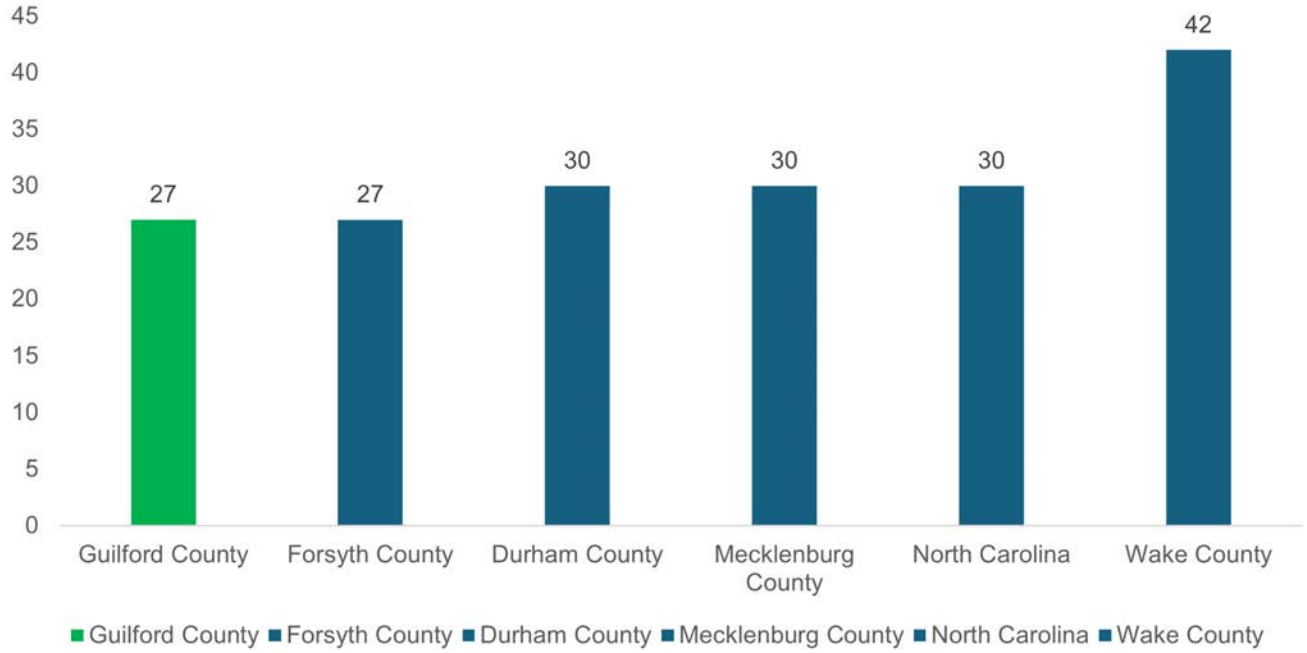


Source: NC Division of Child Development and Early Education, 2023, My Future NC dashboard.

Early Education Reading Proficiency

Proficiency in reading by the third grade is a strong indicator of future academic success. Improving literacy rates in early education is essential for long-term educational achievement. A goal of the North Carolina Early Childhood Action Plan is to increase the percentage of public-school students in grades 3 to 8 earning scores of level 4 or 5 on end-of-grade reading exams to at least 74%. As seen in the following chart, Guilford County and all its comparison counties are a long way from achieving this goal, but at 27% reading at a College and Career-ready level, Guilford County trails behind the state and most of its comparison counties.

Percent of Students in Grades 3-8 Reading at College and Career Ready Level at End of Grade Reading Exam, 2023



Source: NC Division of Child Development and Early Education, 2023, My Future NC dashboard.

Building a Healthy Community

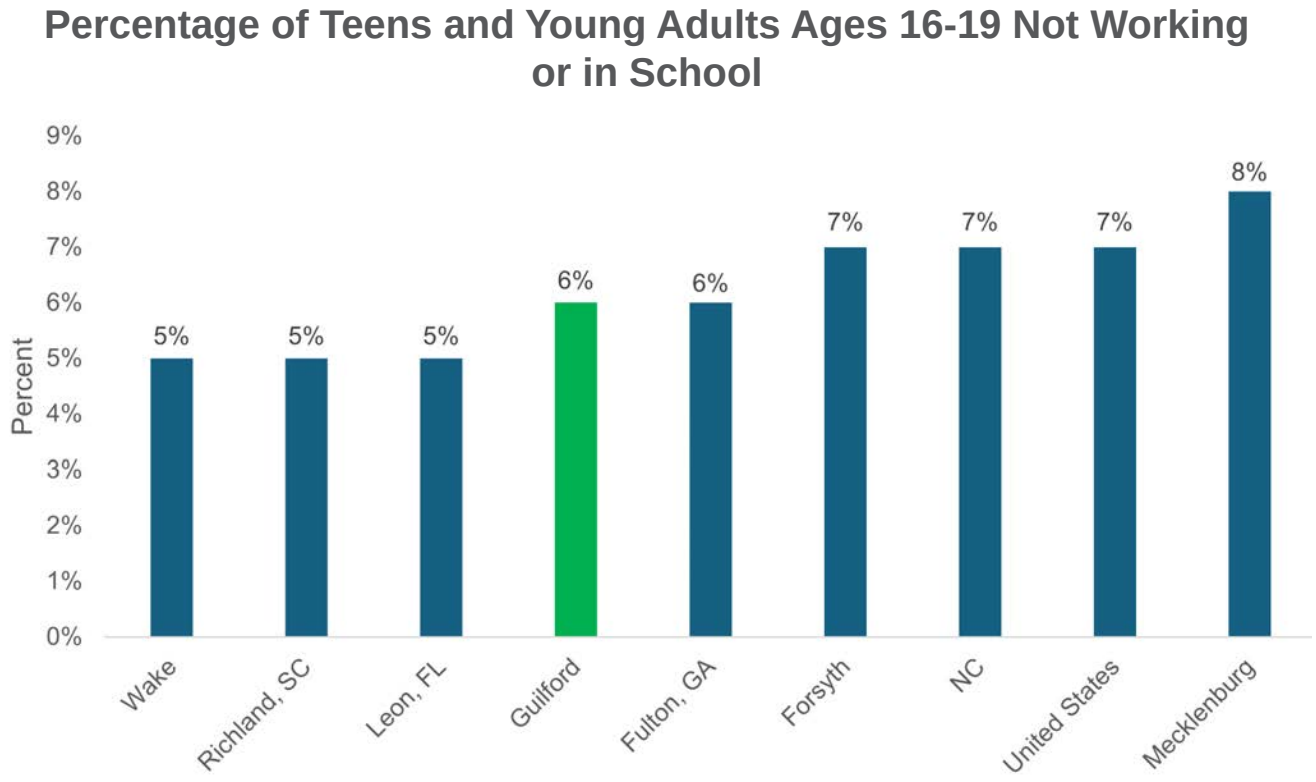
Community members responded with the following when asked, “what is one thing that would make your community a healthier place?” regarding access to education:

- Schools, community colleges, and universities [that] provide education and extracurricular programs that support youth development and lifelong learning.”

Education and Employment

Percentage of Teens and Young Adults Not Working or in School

Tracking this percentage helps assess the engagement of young individuals in productive activities, whether in school or in the workforce. In Guilford County, 6% of teens and young adults (age 16-19) were neither working nor in school, slightly lower than NC, the US and falls between comparison counties.



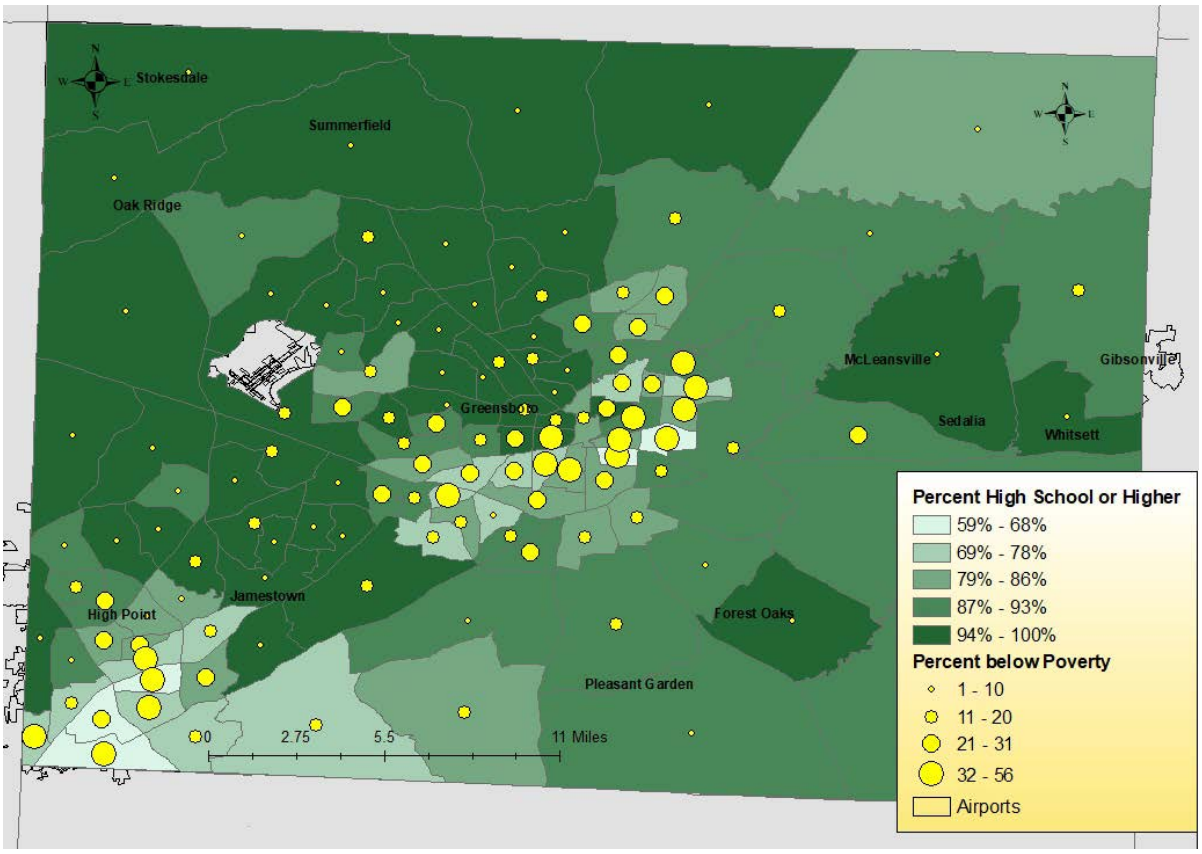
Source: County Health Rankings, 2023; ACS 5 Year Estimates, 2017-2021.

Education and Income

Achieving greater levels of educational attainment translates into greater opportunities for employment and employment that provide higher earnings. Completion of vocational programs or college degree programs confer eligibility to apply for many higher-paying jobs that are not open to those with less education, often jobs that include benefits like health insurance.

The following two maps illustrate the relationship between education and income in Guilford County. The following map displays the percentage of adults who have completed at least a high school education or GED by census tract with darker green shading indicating a higher percentage of completing high school. This is overlaid with circles showing increasing levels of poverty. Residents of tracts with lower rates of high school completion tend to have higher rates of poverty.

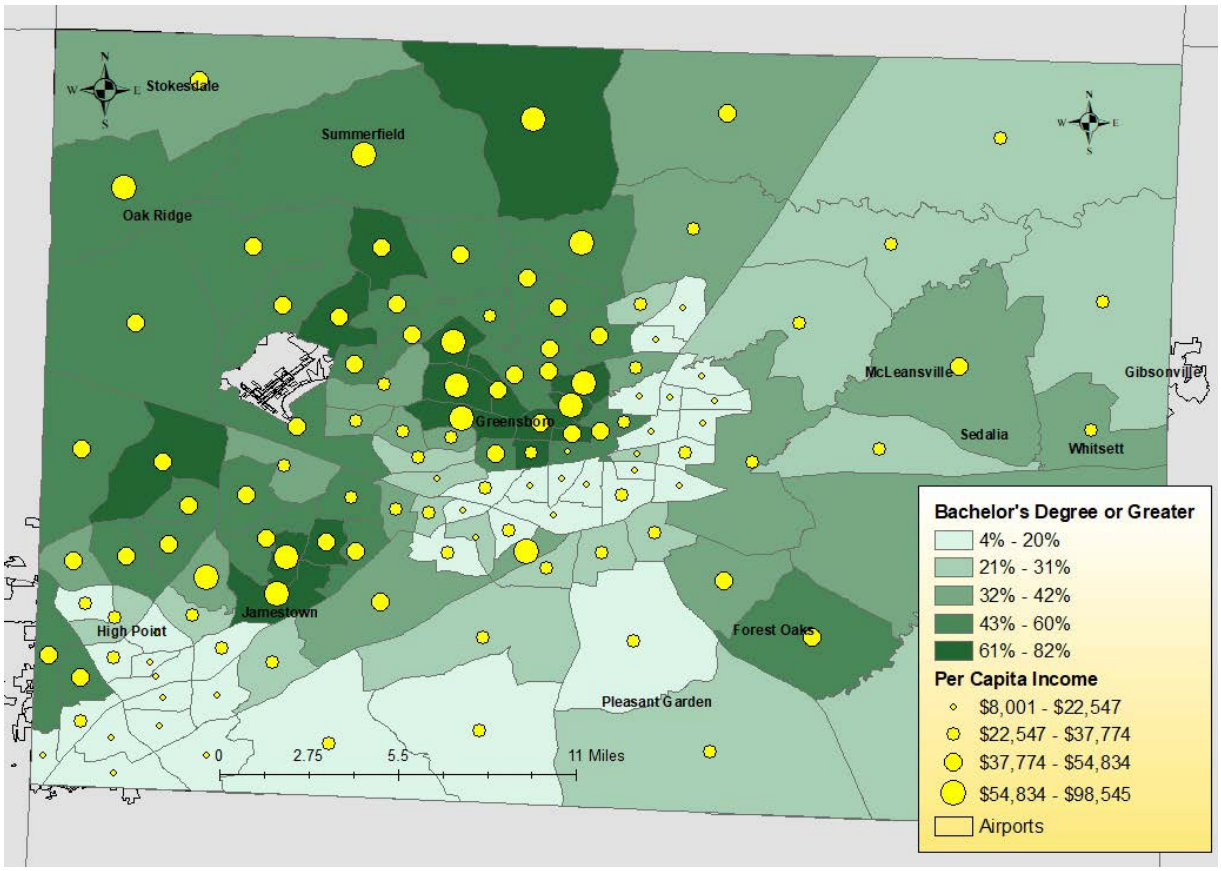
Percent of the Adult Population Completing High School or Equivalent, with Percent Below Poverty, by Census Tract, 2018-2022



Source: American Community Survey, 2018-2022.

The next map shows circles with increasing levels of per capita income superimposed over a census tract map displaying increasing percentages of adult residents with a BS or BA Degree or greater. People living in census tracts characterized by higher levels of educational attainment tend to have greater levels of per capita income.

Percent of the Adult Population with a BS or BA Degree or Greater, with Per Capita Income, by Census Tract, 2018-2022



Source: American Community Survey, 2018-2022.

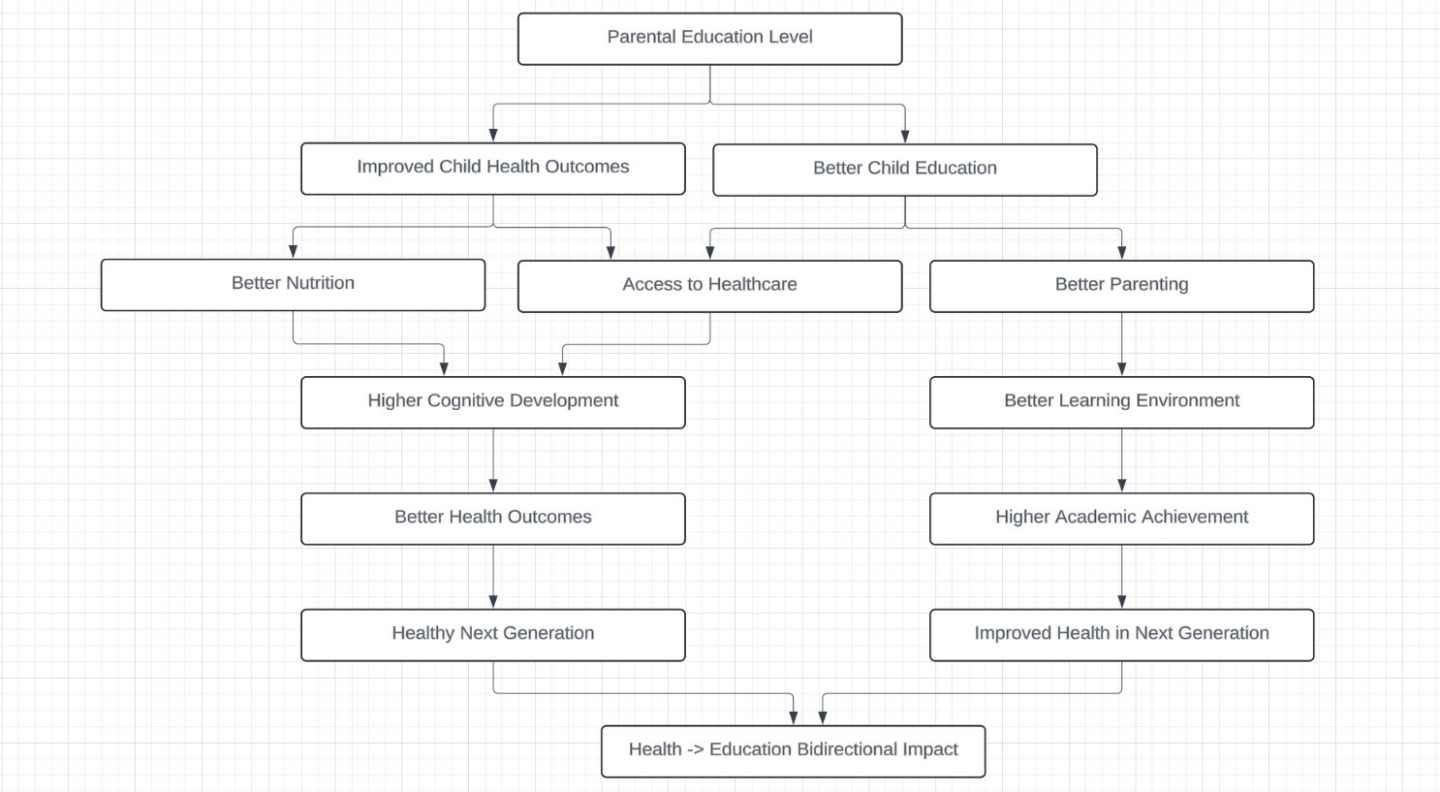
Intergenerational Effects

Education impacts not only individuals but also their children. Parents' educational levels, particularly maternal education, are likened to better health and educational outcomes for their children.

Bidirectional Association

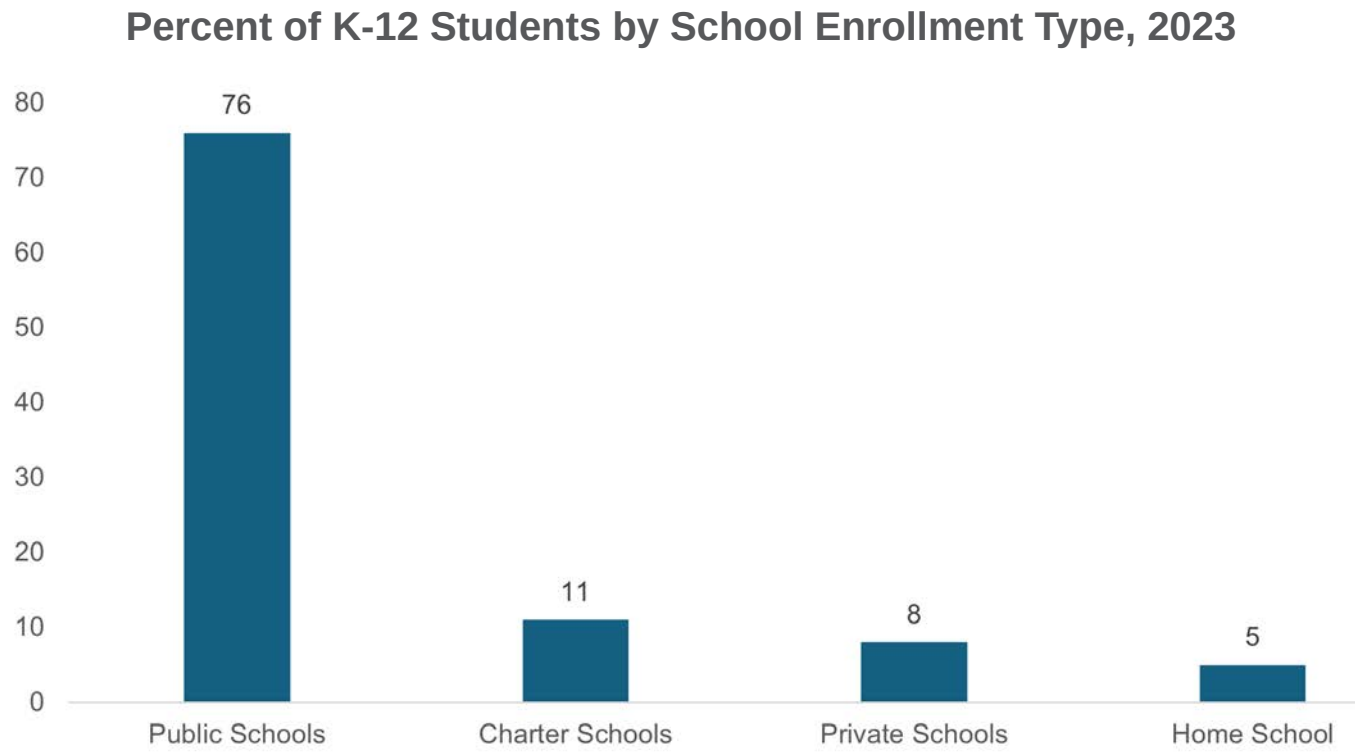
The relationship between education and health is bidirectional:

- **Education Impacts Health:** Higher education levels lead to better health outcomes.
- **Health Impacts Education:** Good health supports better educational attainment and performance.



Public and Private School Enrollment

Guilford County enrollment data provides insights into the capacity and demand within the educational system. During the 2022-2023 school year, 88,117 students were enrolled in kindergarten through 12th grade. Of these students, 76% were enrolled in public schools, followed by 11% in charter schools, 8% in private schools and 5% were being home-schooled.



Source: My Future NC dashboard.

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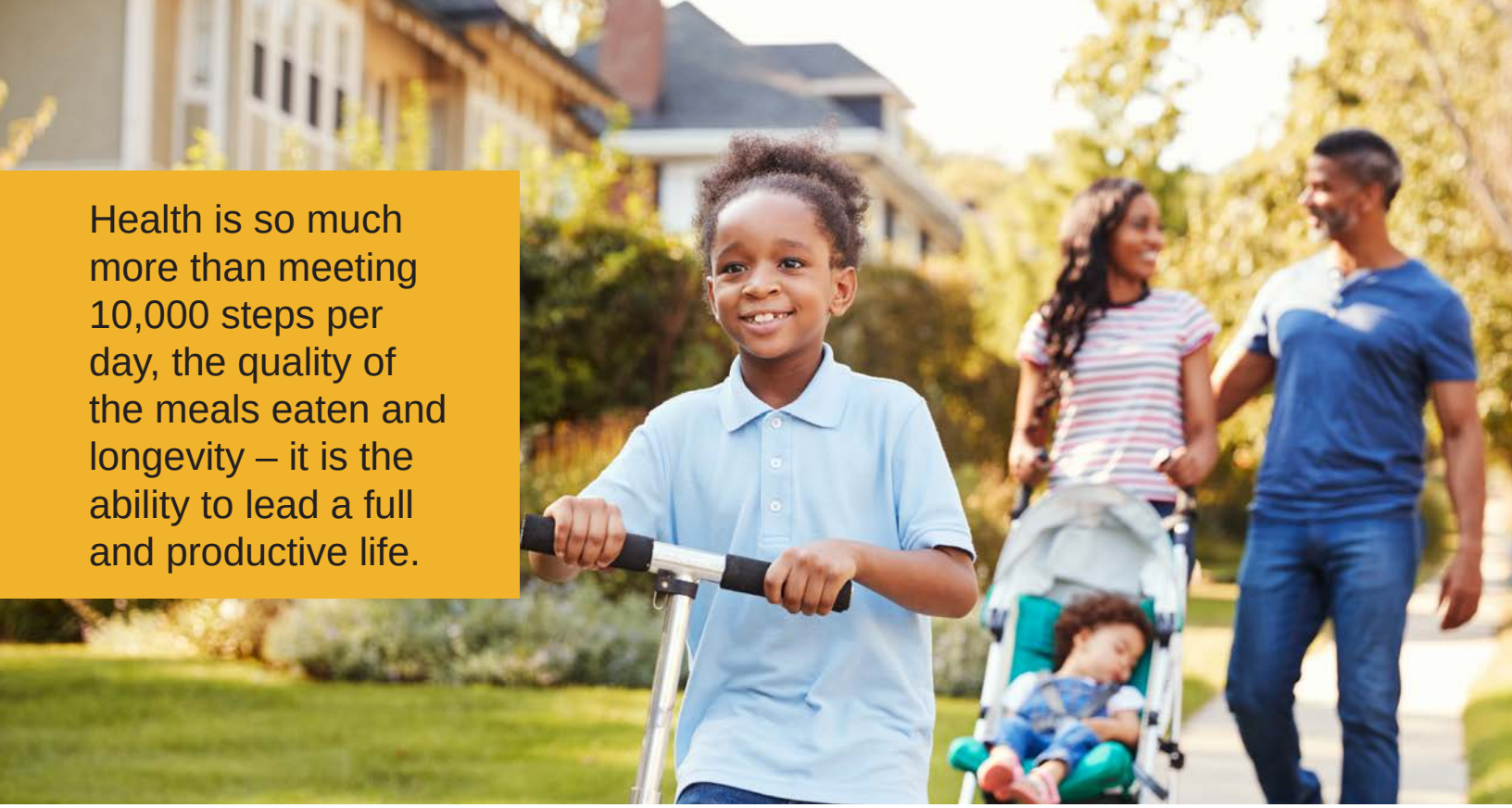

Section 3:
Neighborhood and Build Environment

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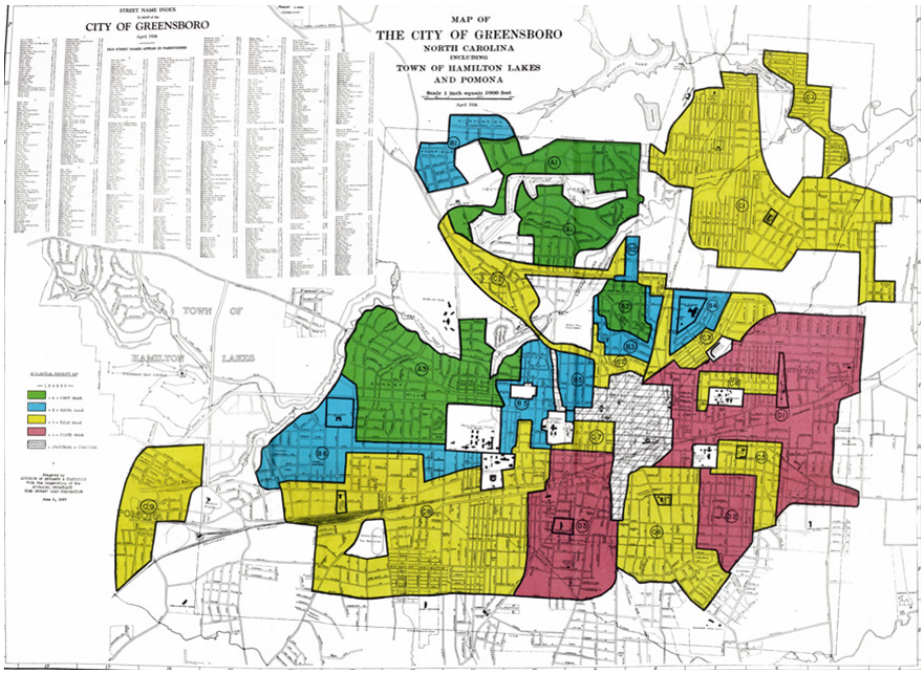
Why are Neighborhoods and the Built Environment Important?

Health is so much more than meeting 10,000 steps per day, the quality of the meals eaten, and longevity – it is the ability to lead a full and productive life. While biology, genetics, and personal choices influence well-being – social, economic, and environmental factors have the biggest impact on health. Not everyone has the same opportunity for a safe place to live. The built environment can be defined as the "human-made surroundings that influence overall community health, including the individual behaviors that drive health." This can include various types of physical elements, such as homes, sidewalks, and public transportation" (NACCHO, 2024). In the United States, many individuals live in neighborhoods with higher levels of violence, unsafe environmental conditions, and health and safety hazards. Racial/ethnic minorities and individuals with lower incomes are more prone to living in areas with these risks, and some individuals encounter health hazards at work (Healthy People 2030, 2021; 2023 NCDHHS, 2023).

As mentioned in Chapter 1, a person's life expectancy and their health status can vary greatly depending on where they live. In Guilford County, life expectancy can differ by as much as 29 years from one neighborhood to the next (*read more in Chapter 1*) and similar differences in health-related outcomes across geographic areas can be found for leading causes of death. Considering how neighborhood-level factors are or have contributed to health disparities provides a deeper understanding of the impact of the current neighborhood environment. This includes examining the history of discriminatory practices and policies in housing and their lasting impact on the health of our community.

Research has shown that discriminatory policies and practices, like the 1930s housing policy known as redlining, bias in education, employment discrimination, and injustices in the judicial system have created a social structure in which Black, Indigenous, and communities of color have been and continue to be, "systematically denied opportunities to prosper and thrive" (Moloney, 2022; Domonoske, 2016; 2023 NCDHHS, 2023; Nelson & Ayers, n.d.). As detailed in Chapter 2: About Guilford County, the federal government introduced and launched the Homeowner's Loan Corporation (HOLC) and the Federal Housing Administration (FHA) in the 1930s which largely excluded low-income urban neighborhoods (Maloney, 2022; Domonoske, 2016).

As an example, the HOLC developed color-coded maps that evaluated neighborhoods in over 200 cities across the United States. These two programs had one thing in common – the practice of redlining and discrimination in the mortgage market against racial and ethnic minorities, living in low-income neighborhoods (Maloney, 2022; Domonoske, 2016). The redlining policy prevented African American families from buying homes in primarily white neighborhoods by appraising their neighborhoods as too risky for mortgages and insurance (Maloney, 2022; Domonoske, 2016; Nelson & Ayers, n.d.). Evidence shows that this policy decreased property values of African American neighborhoods and, consequently, perpetuated segregation (2023 NCDHHS, 2023; Nelson & Ayers, n.d.).



Source: Mapping Inequality, 2024; Redlining map of 1936.

Despite desegregation, the 1968 prohibition on housing discrimination and other strides to make Guilford County a fair and welcoming home for all, many policies and practices continue to uphold a system of oppression that undermines many communities' ability to access goods and services that directly impact their health (Jan, 2018; Perry et al., 2018; 2023 NCDHHS, 2023; Nelson & Ayers, n.d.). For example, discriminatory housing policies keep formerly redlined areas segregated and make it harder for residents in these neighborhoods to buy homes and build wealth (Jan, 2018; Perry et al., 2018).

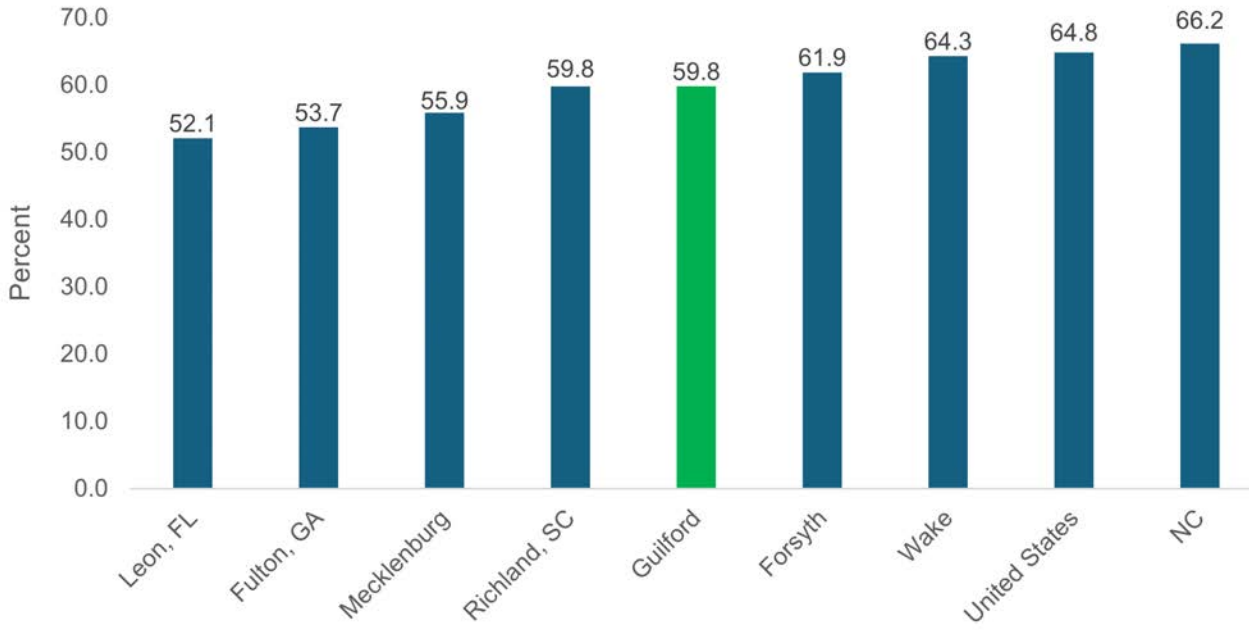
The demographic, environmental and economic impacts of redlining and continued residential segregation are stark (Jan, 2018; Perry et al., 2018). Most neighborhoods formerly designated as "hazardous" are still predominately minority and lower income. Homes in formerly redlined neighborhoods are chronically undervalued, reducing the wealth that homeowners in these neighborhoods can accumulate. And residents of formerly redlined areas are more likely to be exposed to extreme heat waves, air pollution and other environmental hazards (Jan, 2018; Perry et al., 2018; Moloney, H., 2022; Mohottige, D., et al, 2023; Nelson & Ayers, n.d.).

This chapter highlights select local data on the built environment that impacts health, including housing, community safety, water and air quality, transportation, and the food environment. Interventions and policy adjustments at the local, state and national levels can play a crucial role in mitigating health and safety threats and advancing public health. For instance, enhancing community infrastructure by incorporating sidewalks and bike lanes can offer opportunities for walking and biking, thereby enhancing safety and overall well-being (Healthy People 2030, 2021; 2023 NCDHHS, 2023).

The State of Housing in Guilford County

Homeownership

Percentage of Owner-Occupied Housing Units, 2018-2022



Source: American Community Survey, 2018-2022.

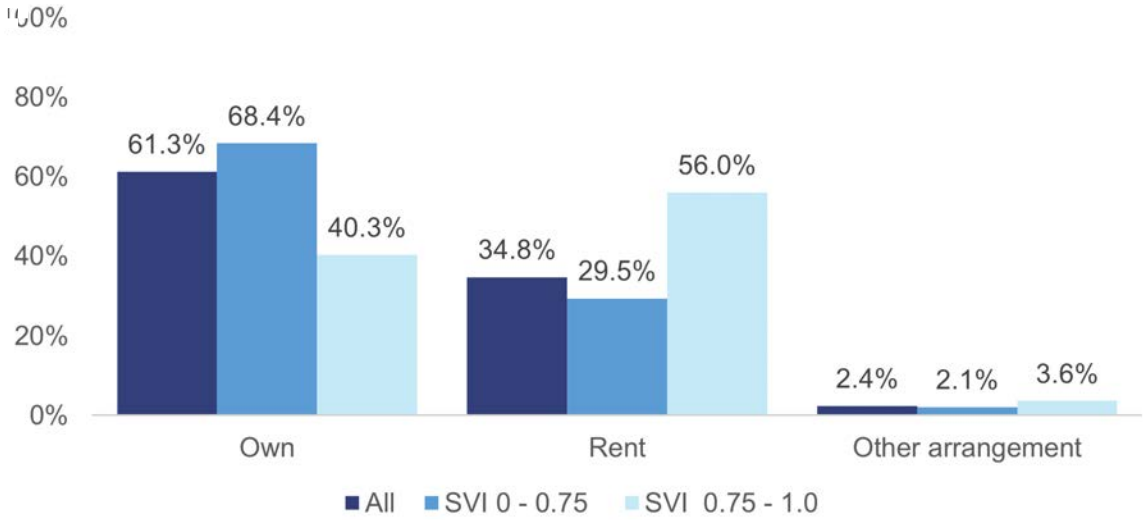
In the past 10 years, there has been a slight decrease in owner-occupied housing in Guilford County. The data shows that 59.8% of housing units were owner-occupied, a lower percentage compared to NC, the US and some peer counties. A persistent racial and ethnic disparity is observed during that time, with lower rates of owner-occupancy among Blacks and Hispanics as compared to Whites. Hispanic homeownership has increased from 39.5% to 49.4% during that same time (*see table below*).

Population	Owner Occupied 2007-2011	Owner Occupied 2017-2021
Guilford	62.9%	59.5%
White	74.1%	70.6%
Black	43.1%	42.7%
Hispanic	39.5%	49.4%

Source: American Community Survey, 2018-2022.

Data from the 2023 Guilford County Community Health Survey (GCCH Survey) mirror ACS homeownership data, with 61.3% of respondents reported owning their home overall, while 34.8% reported renting. Those in the Lower SVI sample (68.4%) were significantly more likely to own their home than those in the Higher SVI sample (40.3%). There were also significant differences in age, education level, race and ethnicity.

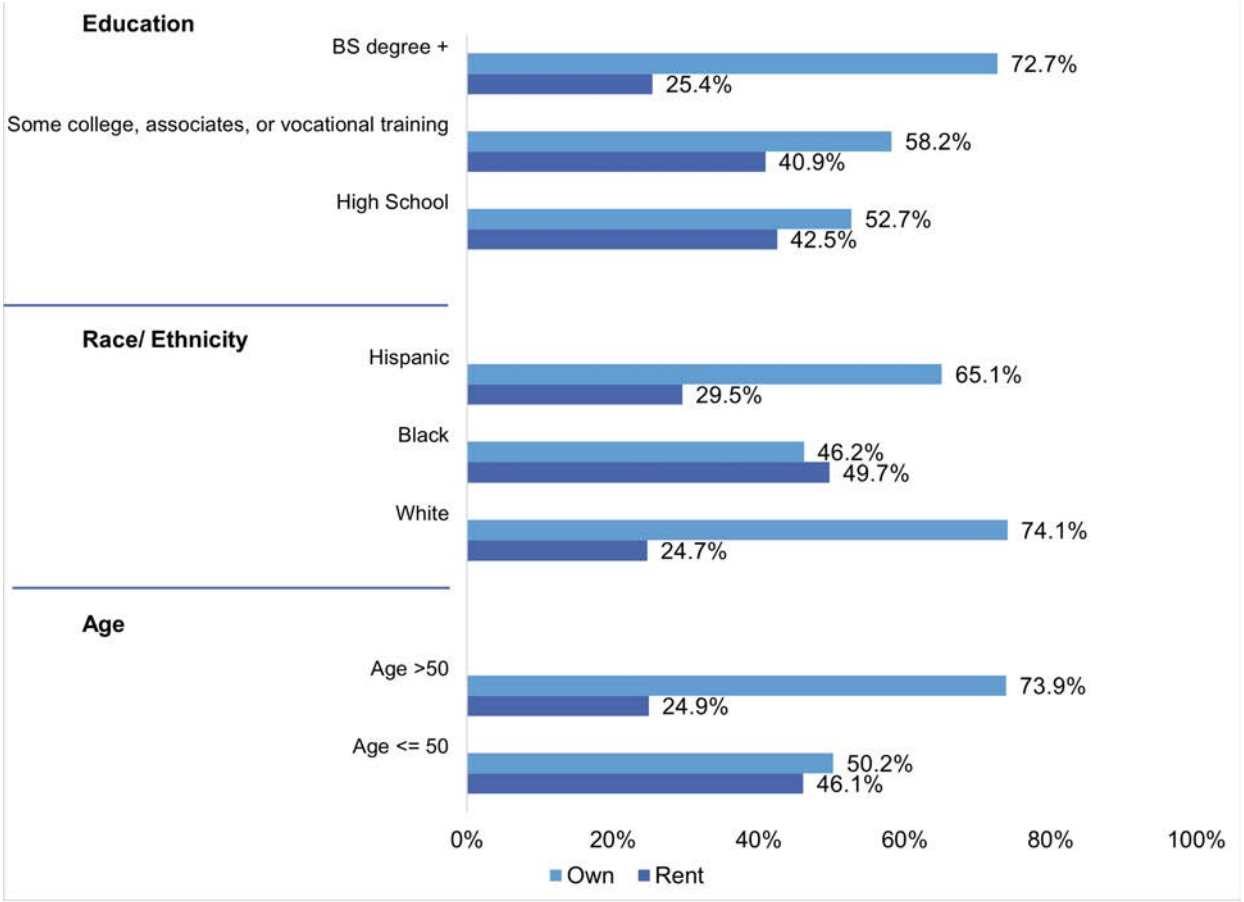
Do you Own or Rent Your Home?



Source: 2023 Guilford County Community Health Survey, 2023.

Those over the age of 50 were significantly more likely to own their own home than those 50 and under (73.9% vs. 50.2%). In addition, 74.1% of White respondents reported owning their own home, compared to 65.1% of Hispanic respondents and 46.2% of Black respondents. Homeownership increases with educational attainment, with the highest homeownership among those with a bachelor's degree or more (72.7%), followed by those with some college, an associates or vocational degree (58.2%) and then those with a high school education or less (52.7%)

Differences in Homeownership



Source: 2023 Guilford County Community Health Survey, 2023.

The median-home valuation is also markedly different by race, with a difference of $99,100 between the median value of White and Black homeowners.

Home Values	White	Black
Owner-Occupied Median Value	$283,700	$184,600

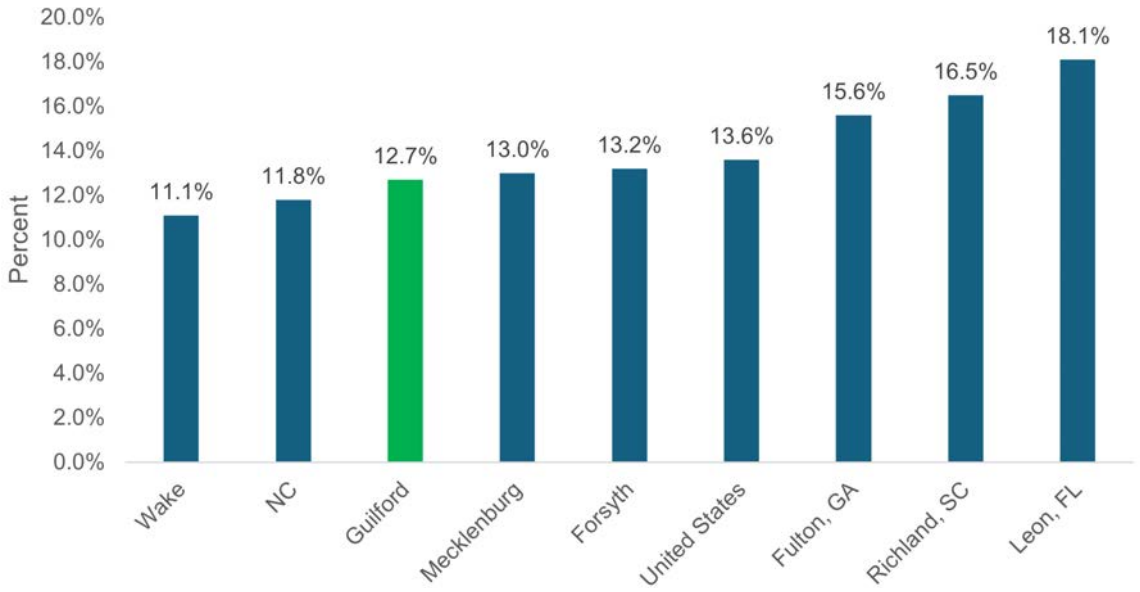
Source: American Community Survey, 2018-2022.

Housing Security and the Cost of Housing

Severe Housing Cost Burden

Severe housing cost burden is defined as the percentage of households that spend 50% or more of their household income on housing. In Guilford County, 13% of households spend half or more of their income on housing. The percentage of households spending half their income on housing is lower than in the US and most comparison counties. Differences in home values and the percentage of both owner- and renter-occupied households spending 30% or more of their income on housing exemplify the racial wealth divide between Whites and Blacks.

Percentage of Households that Spend 50% or More of their Household Income on Housing (2018-2022)



Source: American Community Survey, 2018-2022.

According to recent data from the NC Housing Coalition, 32% of Guilford County families are "cost-burdened," or spend more than 30% of their income on housing (65,211 households). Monthly fair market rent in Guilford County has doubled in the last five years and Guilford County ranks #6 in North Carolina for evictions among renter households. In fiscal year 2022-2023, 849 families faced foreclosure, and 16,097 families faced an eviction filing (NC Housing Coalition, 2024).

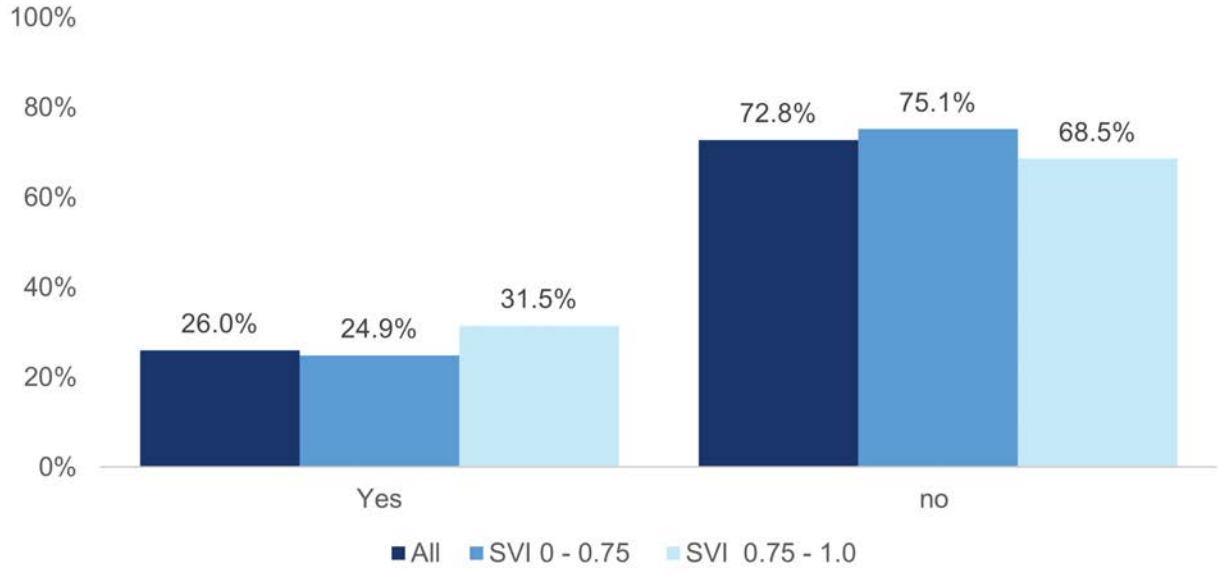
Guilford County

$1,170 monthy Fair Market Rent

- 13% increase in the last year (2023-2024)
- 52% increas in the last five years (2019-2024)

Source: NC Housing Coalition

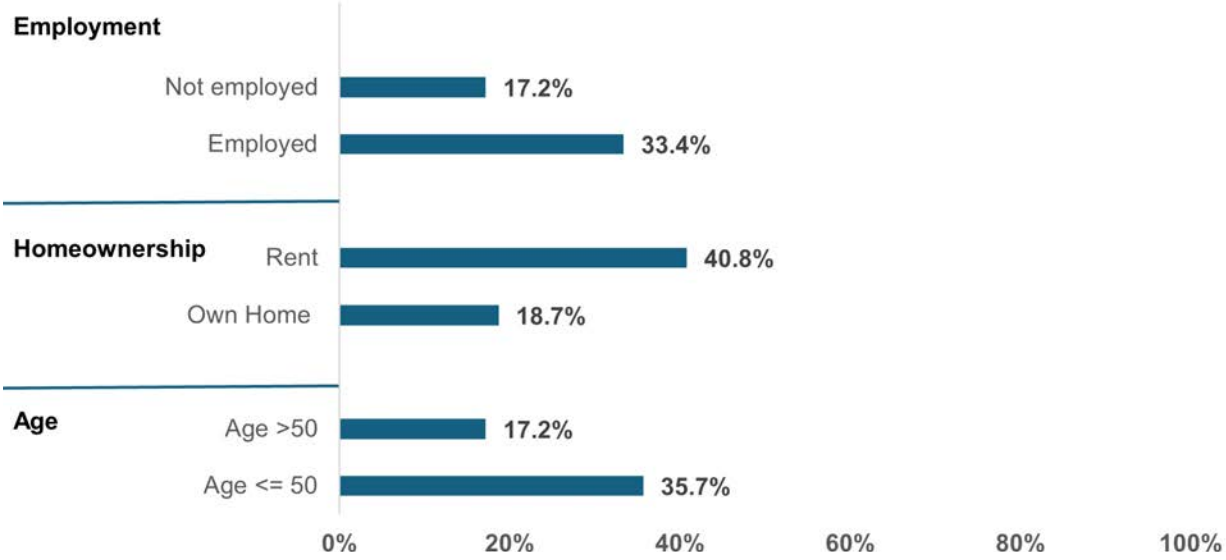
Worried about Having Enough Money to Pay Rent or Mortgage in the Past Year



Source: 2023 Guilford County Community Health Survey, 2023.

One in four (26%) of 2023 GCCH survey respondents also reported being worried about having enough money to pay their rent or mortgage in the last year, regardless of their social vulnerability. Respondents 50 and younger, those who rent and those employed full, or part time were more likely to report being worried about housing expenses.

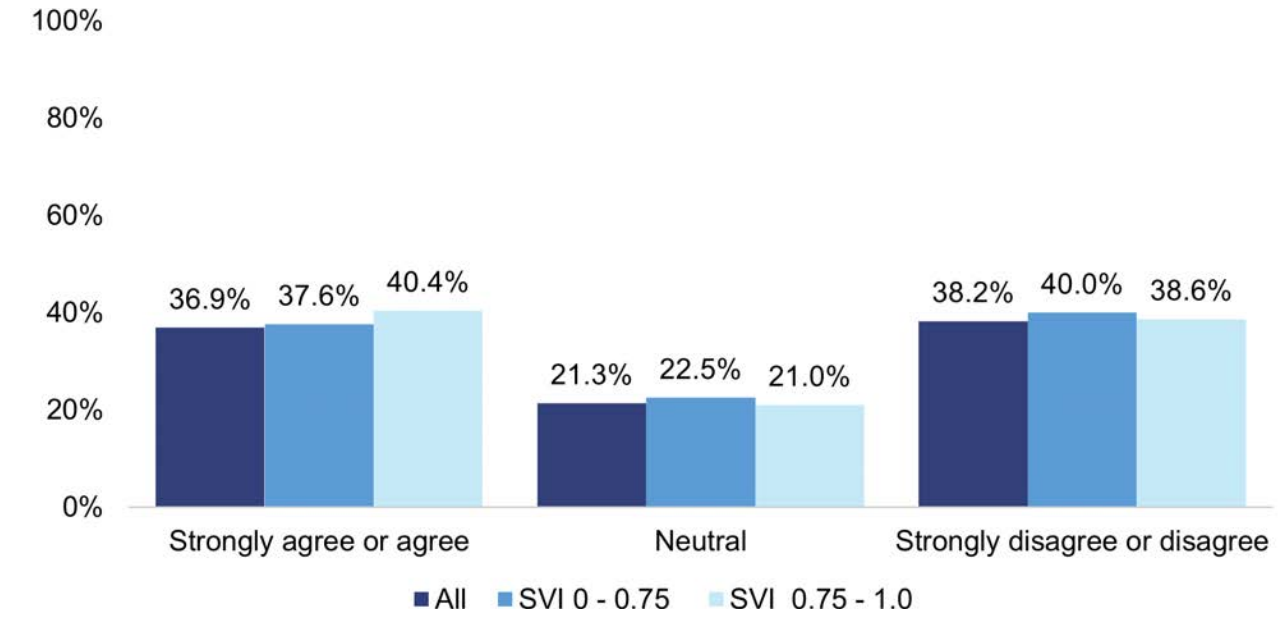
Worried about Having Enough Money Pay Rent or Mortgage in the Past Year, Differences by Subgroup



Source: 2023 Guilford County Community Health Survey, 2023.

Community Perception About Affordable Housing

Only about a third of 2023 GCCH Survey respondents agreed or strongly agreed (36.9%) with the statement that there is affordable housing that meets the needs of my community, with 38.2% strongly disagreeing or disagreeing. White respondents, those who were employed and renters, were significantly less likely to agree there is affordable housing that meets the needs of my community.



Source: 2023 Guilford County Community Health Survey, 2023.

Unhoused Individuals and Families in Guilford County

According to the Point in Time Count conducted by the Guilford County Continuum of Care, there were 452 unhoused individuals and 288 households in 2023. The Count is a federally mandated "census" of the total population experiencing homelessness in Guilford County.

Approximately 19% were children under the age of 18, 71% were ages 18 to 64 and 10% were 65 years of age or older. 70% were Black, African American or African, 18% were White and 10% identified as multiple races. 108 of these individuals are chronically homeless (Guilford County, NC, 2024).

Severe Housing Problems

Healthy NC2030 has established the target of reducing the percentage of households with severe housing problems to 14%. Severe housing problems are defined as having at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. From 2015-2019, the most recent data available, 16% of Guilford County households had at least one housing problem and Guilford County is mid-range compared to peer counties. Problems with substandard housing are more prevalent in low-income neighborhoods.

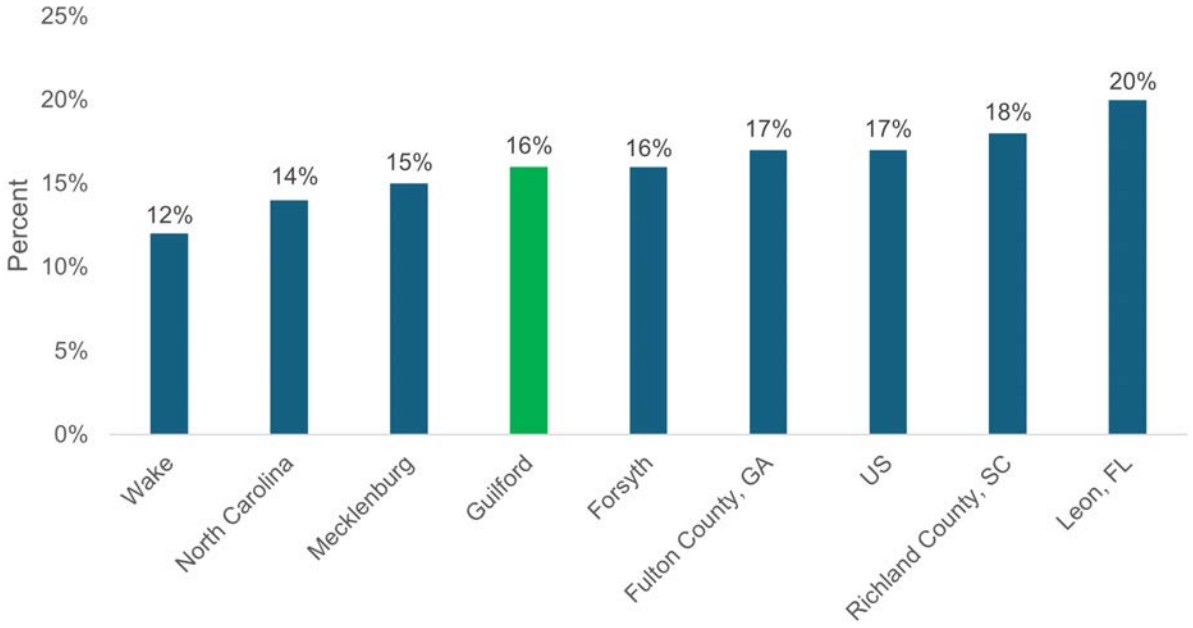
Healthy North Carolina 2030

Severe Housing Problems

2030 Target = 14%

Guilford County = 16% (2015-2019)

Percent of Households with at Least One of Four Severe Housing Problems (2015-2019)

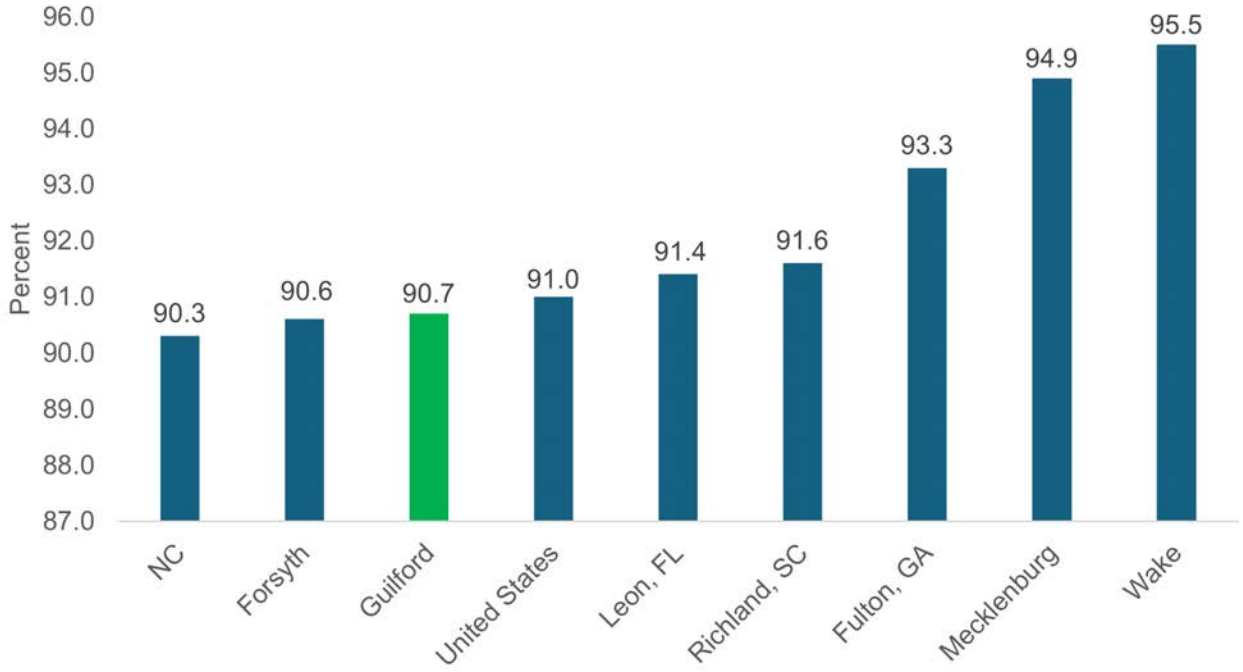


Source: County Health Rankings 2023, RWJF; US Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy CHAS (2015-2019).

Broadband Access

In Guilford County, 90.7% of households had a broadband internet connection. Guilford County had a slightly higher rate of Broadband Internet connection than the state but lower than most of the comparison counties.

Percentage of Households with a Broadband Internet Connection Through Subscription, 2022



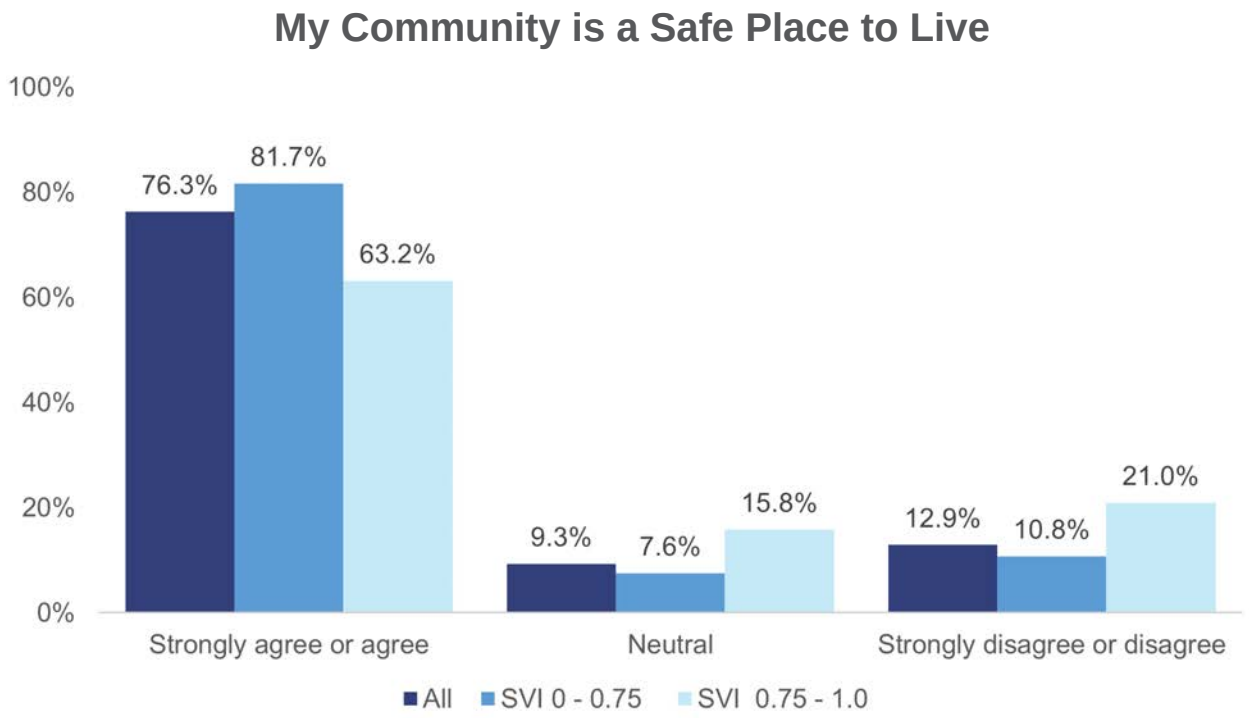
Source: County Health Rankings, 2023; American Community Survey, 2022.

In 2022 Guilford County conducted a broadband study to identify high-speed internet gaps and opportunities in Guilford County and develop a plan to optimally identify and allocate Federal funds (e.g., American Rescue Plan, Infrastructure Bill) to address gaps. Modeling to analyze broadband gaps revealed that 49% of the population have needs related to availability, affordability, or adoption. Areas with more significant need face technical and geographic barriers in rural areas, or socio-economic barriers in urban areas as described in the Guilford County Broadband Strategy Executive Summary.

Community Safety

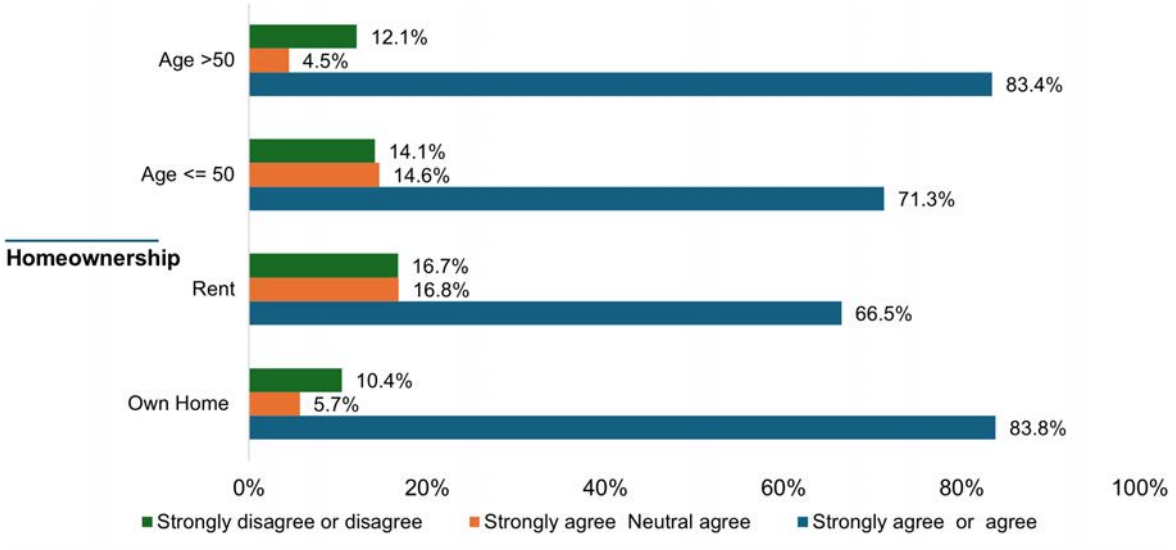
Community Perception on Safety

When asked if they agreed 76.3% of 2023 GCCH survey respondents agreed or strongly agreed that the community is a safe place to live, with Lower SVI survey respondents significantly more likely to agree or strongly agree that the community is a safe place to live compared to Higher SVI survey respondents (81.7% compared to 63.2%). There were significant differences in agreement that the community is a safe place to live by younger and older residents and by home ownership status, with older residents and homeowners more likely to agree that the community is a safe place to live.



Source: 2023 Guilford County Community Health Survey, 2023.

My Community is Safe Place to Live, by Subgroup

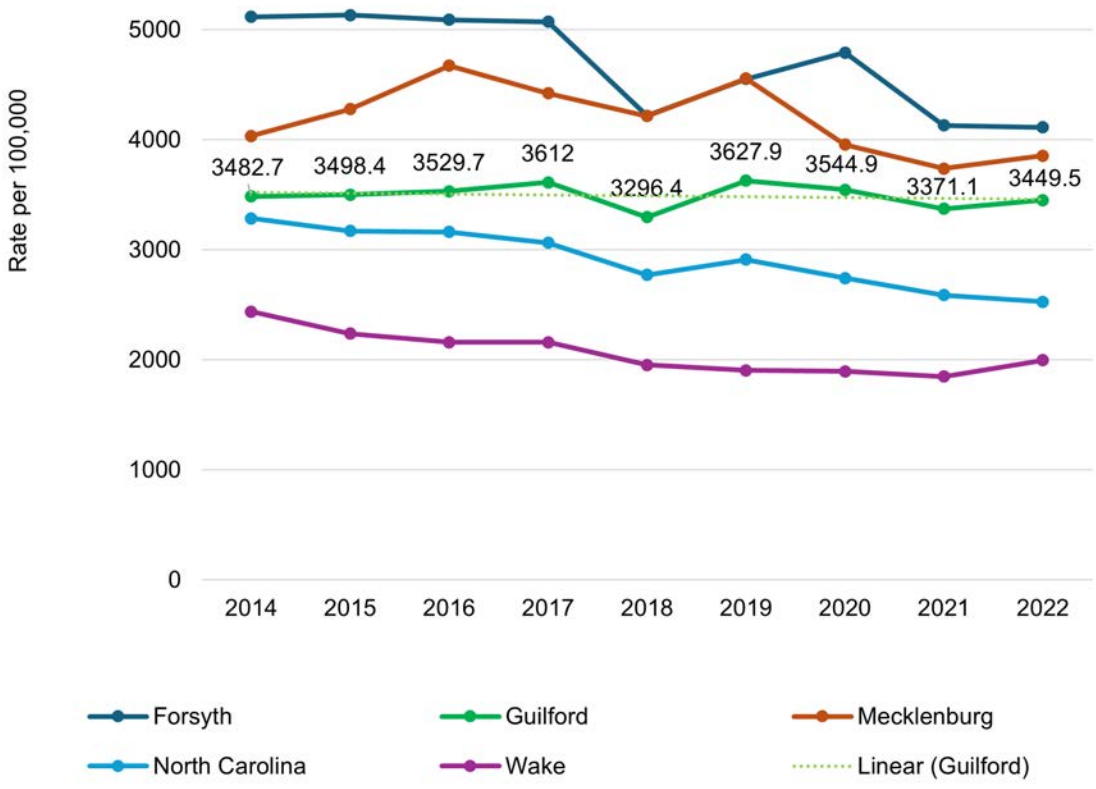


Source: 2023 Guilford County Community Health Survey, 2023.

Crime Index Rate

The Crime Index rate includes the total number of murders, rapes, robberies, aggravated assaults, burglaries, larcenies and motor vehicle thefts per 100,000 population (excluding arson). From 2014 to 2022, Guilford County's Crime Index rate was higher than NC and Wake County, but lower than Forsyth and Mecklenburg counties. Guilford County's crime index rate has been variable but has decreased from 3,482.7 per 100,000 population in 2014 to 3,449.5 in 2022.

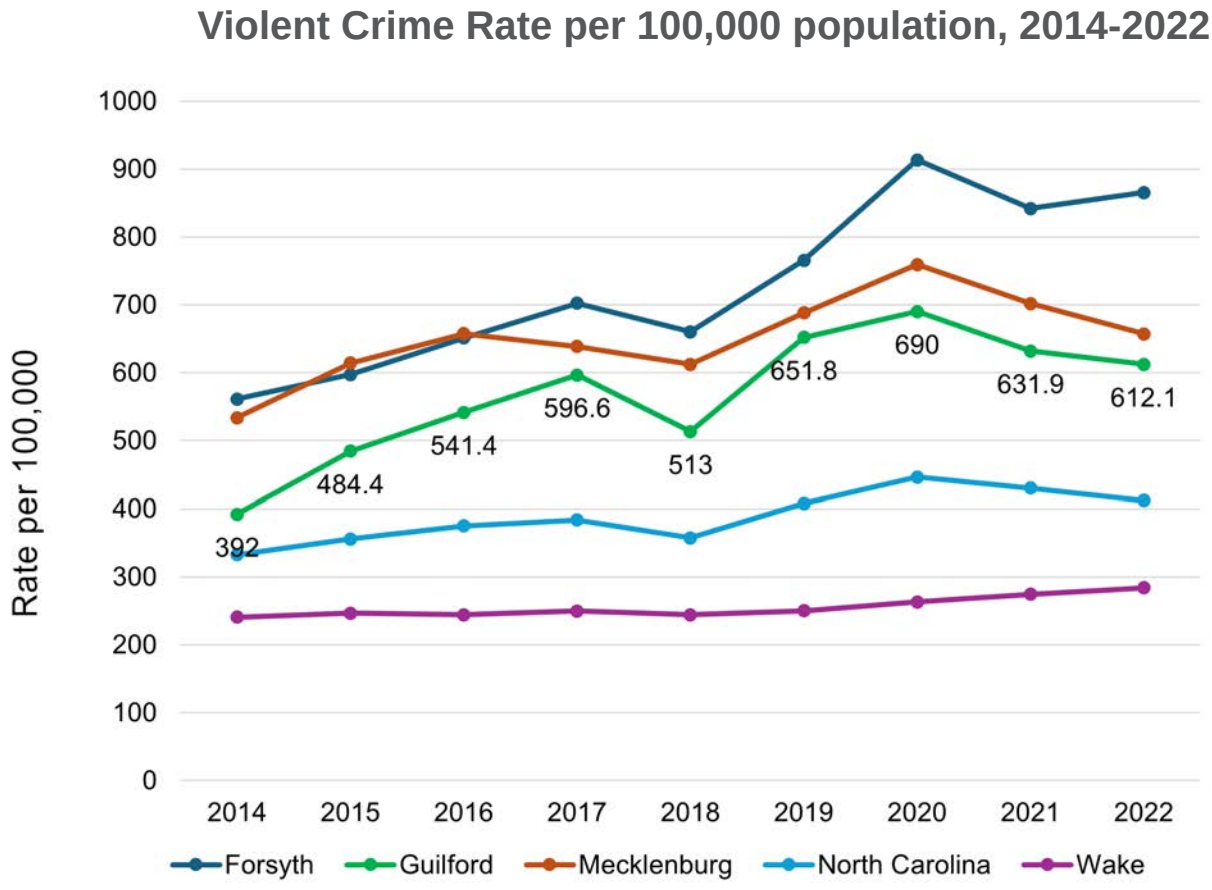
Crime Index Rate per 100,000 population, 2014-2022



Source: North Carolina State Bureau of Investigation, Annual Summaries, 2014-2022.

Violent Crime Data

The Violent Crime rate includes the total number of violent offenses per 100,000 population, including murder, rape, robbery and aggravated assault. From 2014 to 2022, Guilford County's violent crime rate was mid-range compared to NC and comparison counties. Guilford County's violent crime rate has increased from a rate of 392 per 100,000 population in 2014 to 612.1 per 100,000 in 2022.



Source: North Carolina State Bureau of Investigation, Annual Summaries, 2014-2022.

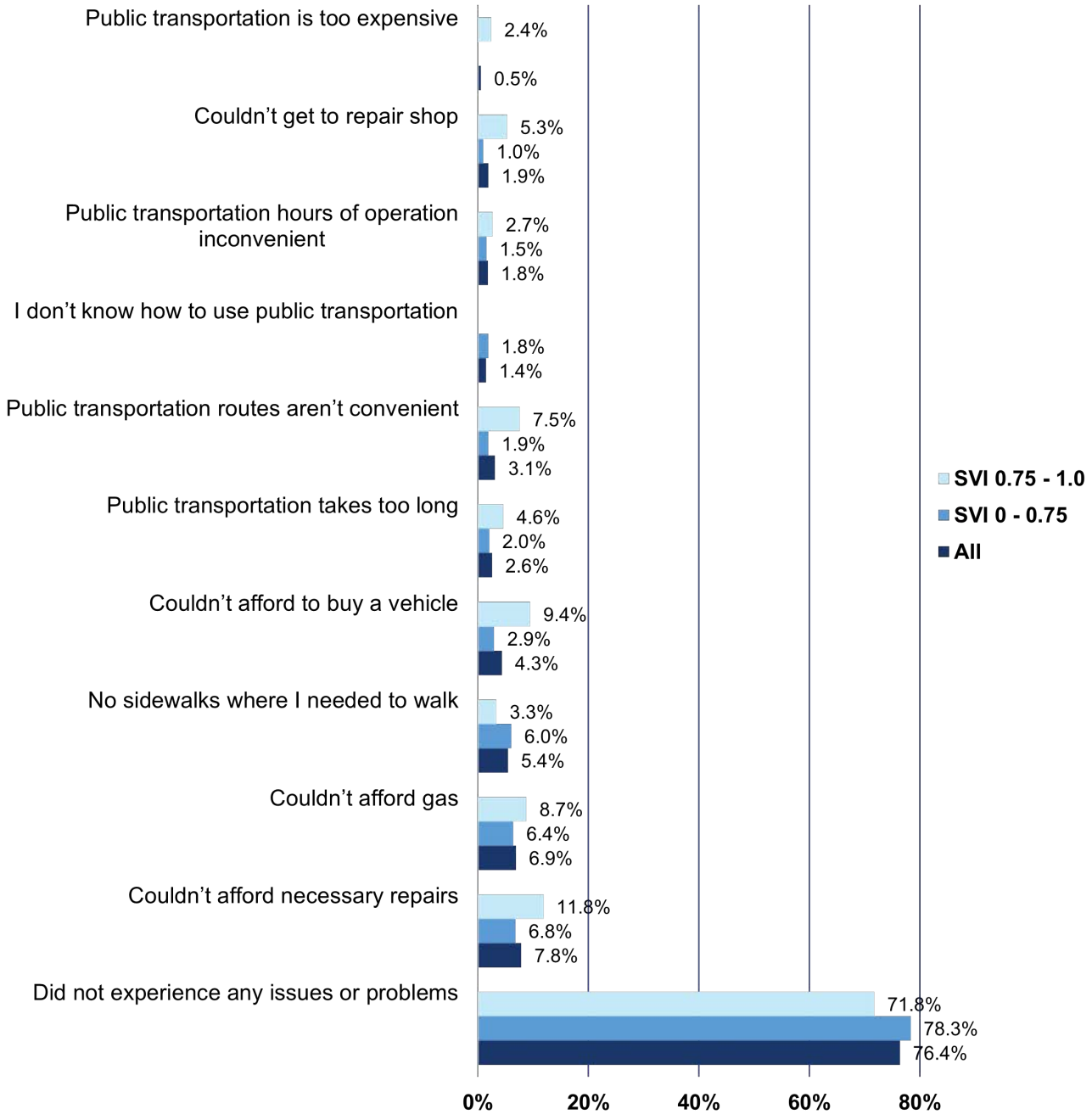
Creating a community that is safe, inclusive and free from violence is essential for good health (also see Chapter 6: Firearm (Gun) Violence and Injury) and a safe community should be free from hate crimes motivated by bias. The federal definition of a hate crime is a crime motivated by bias against race, color, religion, national origin, sexual orientation, gender, gender identity, or disability and can include crimes against persons, property or society (US Department of Justice, 2024).

In 2022, 11,634 hate crime incidents involving 13,337 offenses were reported by 14,631 law enforcement agencies in the United States. Between 2020 and 2022, the number of reported hate crimes in North Carolina increased from 186 incidents to 330 incidents, a 77.4% percentage increase. Race, ethnicity or ancestry was the most common bias motivation category, at 56.7%, followed by religion 23.3% and sexual orientation at 16.4% and 2.4% disability (US Department of Justice, 2022). The FBI Crime Data Explorer documents 67 hate crime offenses reported during that same time in Guilford County (Federal Bureau of Investigation, 2023).

Transportation

In the 2023 GCCH Survey respondents were asked if they experienced any issues with transportation within the past 12 months. While 76.4% of survey respondents reported they did not experience any issues with transportation, 23.6% did. For those who did, issues included cost of necessary repairs and gas, lack of sidewalks where respondents needed to walk and inability to afford to buy a vehicle. A smaller percentage reported issues with public transportation, including inconvenient routes and hours, the length of time needed to and lack of knowledge of how to use this service use the service and expense. Respondents in the higher SVI sample were significantly more likely to report they couldn't afford to buy a vehicle, couldn't get to repair shop and/or public transportation routes aren't convenient for them.

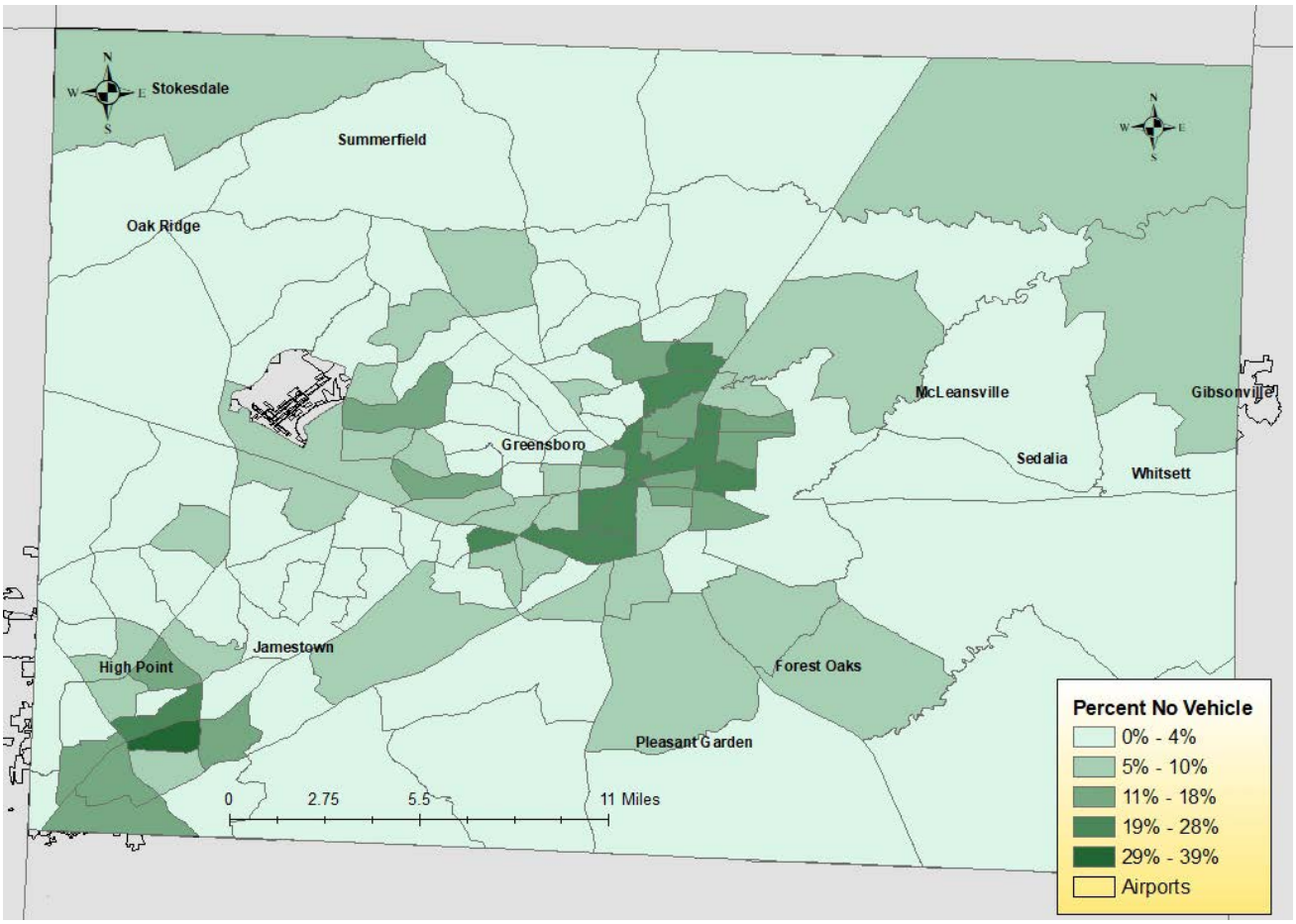
Have you Experienced Any of the Following Issues with Transportation in the Past 12 months? (Select all that Apply)



Source: 2023 Guilford County Community Health Survey, 2023.

The following map illustrates the geographic differences of households with no transportation available by census tract.

Percent of Households with No Vehicle Available, by Census Tract



Source: American Community Survey, 2018-2022.

Water Quality

The Guilford County Environmental Health Division (EH) plays a critical role in protecting water quality in Guilford County. EH oversees the construction, repair and abandonment of water supply wells for both residential and commercial sites in Guilford County. To ensure proper placement, design, construction, repair, monitoring and abandonment of on-site sewage disposal systems, the Onsite-Wastewater Program oversees site evaluations, permitting and inspections of these systems. In fiscal year 2023-2024, this program issued permits for 1,438 onsite septic systems that were installed. In addition, the EH Health and Environmental Risk Assessment (HERA)Team actively monitors 701 active hazardous sites with over 4,117 monitoring wells, as of July 2024, in Guilford County, for leak detection compliance and incident management, the county program is one of its kind in the state. The HERA Team also monitors ground water levels with eight groundwater monitoring wells around the county.

Air Quality

Particulate matter (PM2.5) is very small particles in air that are 2.5 micrometers that can move into the lungs and cause many serious health effects, including heart and lung disease. Children, the elderly and those with heart or lung disease, asthma, or chronic illness are most sensitive to this pollutant. Measured as the average daily density of fine particulate matter in micrograms per cubic meter. An annual average of 6.8 micrograms per cubic meter of fine particulate matter was measured in the air in Guilford County, lower than the Environmental Protection Agency primary annual average standards of 12.0 micrograms per cubic meter.

Air Pollution – Particulate Matter

Source: County Health Rankings, 2023; CDC National Environmental Public Health Tracking Program.

Natural Environment

Natural environments have profound health benefits. They provide opportunities for outdoor recreation, provide space for social connections and enjoying the health benefits of nature, including resident wildlife (Nguyen et al., 2021). See Chapter 8 – Healthy Eating and Active Living on one of Guilford County's strengths, the many parks, greenways and recreational centers that offer opportunities for physical activity in a natural environment**.**

Tree Canopy

A good tree canopy offers shade, help cools the surroundings and can reduce the negative effects of urban heat islands (See Chapter 11: Climate Change and Emergency Preparedness). In addition to reducing heat illness and death, spending time increases immune function and reduces high heart rate and blood pressure. It also improves air quality, assists with stormwater filtration and wildlife habitat (EPA,2024). In 2023, the City of Greensboro Office of Sustainability and Resilience was awarded $825,000 from the US Department of Agriculture's Forest Service to Keeping the Green in Greensboro, NC: A Tree Canopy & Equity Prioritization. This five-year reforestation project is studying the city's tree canopy to make it more equitable (City of Greensboro, 2024).

Food Environment

The Food Environment Index (FEI) measures the access of individuals within a specific area to healthy foods and income on a ranking from 1-10 with 0 being the worst and 10 the best. It uses two factors commonly used interchangeably – food security and access to healthy food – to describe how far individuals must go to have access to healthy foods, how many places there are for healthy foods to be purchased and the inability of individuals to receive healthy food options because of cost. Guilford County, overall, has a FEI of 7.4 – slightly higher than the US average (7.0) and Forsyth County (6.7). Research has demonstrated that health disparities are influenced by a social dynamic process described as "growth, purchase, preparation, consumption and sharing – or absence – of food within communities can shape how people living in urban food deserts interact with food" (Cannuscio C., 2010).

To provide more context, healthy dietary behaviors are supported by access to healthy foods and grocery stores are a major provider of these foods. The FEI is important to note because food insecurity and lack of access to affordable, nutritious foods are associated with poor dietary quality and increased rates of obesity, chronic diseases and shorter

life expectancies – especially among older adults (Cindy W. Leung, 2014; Mohottige, D., et al, 2023; Odoms-Young et al, 2024). As of 2021, there were 117 grocery establishments in the report area, a rate of 21.61 per 100,000 population and an increase from 19.21 per 100,000 population since 2010.

Rate of Grocery Establishments per 100,000 population

Location	2018	2019	2020	2021
Guilford County, NC	20.88	20.88	21.61	21.61
North Carolina	18.5	18.5	18.77	18.74
United States	19.35	19.35	18.79	15.29

Data Source: US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2021.

Not all neighborhoods are built the same, nor do they have access to the same resources. The following table describes the percentage of the low-income population with low food access. Low food access is defined as living more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket, supercenter, or large grocery store. This indicator is relevant because it further underscores that place matters, as it highlights the populations and geographies facing food insecurity. Despite the growth in the number of grocery stores, an estimated 20.11% of the low-income population in the report area have low food access (35,598 people) (USDA ERS, 2018). Note: Low-income status is given to census tracts that have a poverty rate of at least 20 percent or a median family income at or below 80 percent of the metropolitan area.

Report Area	Total Population	Low Income Population	Low Income Population with Low Food Access	Percent Low Income Population with Low Food Access
Guilford County, NC	488,406	177,009	35,598	20.11%
North Carolina	9,535,483	3,360,489	715,209	21.28%
United States	308,745,538	97,055,825	18,834,033	19.41%

Data Source: US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2019.

The Rise in Fast Food Restaurants in Guilford County

From 2010 to 2020, the number of fast-food restaurants in Guilford County increased by 21% (from 71 to 86.83 per 100,000 population). This is important because the prevalence of fast-food restaurants provides a measure of both access to healthy food and environmental influences on dietary behaviors. Fast food restaurants are defined as limited-service establishments primarily engaged in providing food services (except snack and nonalcoholic beverage bars) where patrons generally order or select items and pay before eating (US Census Bureau, County Business Patterns. Additional data analysis by CARES. 2021).

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Many people face challenges and dangers they can't control - like unsafe neighborhoods, discrimination, or trouble affording the things they need. This can have a negative impact on health and safety throughout life. Positive relationshisp at home, at work, and in the community can help reduce these negative impacts.

U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2020

Section 4:
Social and Community Context

Contributors:

Rebecca Oakes, MPH, Community Health Educator
Laura Mrosla, MPH, MSW, Community Health Educator

Why is Social and Community Context Important?

The social and community context in which people live plays a critical role in shaping their health outcomes. Social and community factors such as economic stability, education, social connections, discrimination and neighborhood environments create the foundation for how individuals experience health and well-being. Communities that foster strong social networks and provide equitable access to resources contribute to better physical and mental health, resilience and overall life satisfaction. Conversely, communities facing systemic barriers, such as poverty, social isolation or discrimination often see higher rates of chronic diseases, mental health challenges and limited access to quality health care.

Understanding social determinants, such as housing stability, transportation and social support is essential for identifying the root causes of health inequities in our communities. Addressing these issues through community partnerships and collaborative interventions creates pathways for improving overall health outcomes. When communities are supported with accessible social services, economic opportunities and inclusive environments, individuals are more likely to thrive.

This section reviews data and information that impact Guilford County's social and community context, including the role of interpersonal relationships, civic participation, the role of third places and perceptions about community conditions, discrimination and other factors that can affect community connection and cohesion.

The Importance of Interpersonal Relationships and Connection

Strong social ties and support from family, friends and the community protect mental well-being, physical health and cultivate a sense of connection. Supportive relationships foster connections, can provide access to helpful networks and can foster opportunities for growth (Berkman, L.F., 2000; Uchino, B.N., 2006). These connections and the sense of unity or cohesion they can bring can come from numerous different sources, such as biological or chosen family, work, neighborhood identity, faith communities, service groups, schools, colleges and communities of identity.

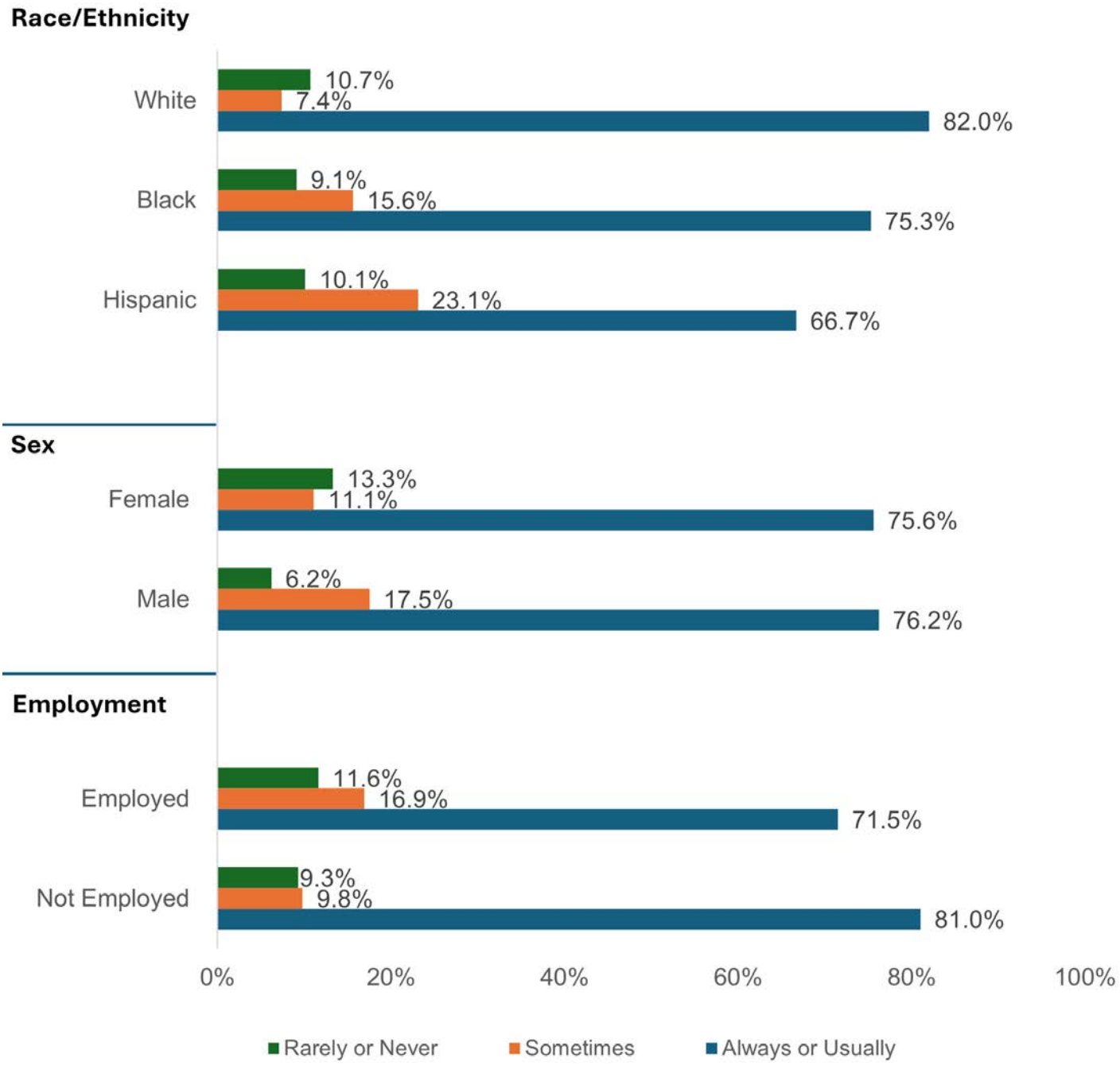
> This is a medicine hiding in plain sight: social connection.
>
> Dr. Vivek Murthy, U.S. Surgeon General

Social and Emotional Support

In the 2023 Guilford County Community Health Survey (GCCH Survey), respondents were asked about their support systems. Three of four respondents (74.5%) said that they "always" or "usually" get the social and emotional support that they need; however, 10.4% report they rarely or never do.

Significant differences existed by gender, race, ethnicity and employment. White survey respondents were more likely to report always or usually getting the social and emotional support that they need (82.0%) compared to Black respondents (75.3%) and Hispanic respondents (66.7%). Respondents who were not employed were more likely to report having the social support they need as compared to employed respondents (81.0% compared to 71.5%). Female survey respondents were more than twice as likely as males to report that they rarely or never get the social and emotional support that they need (13.3% compared to 6.2%). The percentage of survey respondents reporting that they always or usually get the social and emotional support that they need declined from 82.5% in 2016 to 74.5% in 2023 and the percentage saying they rarely or never get the needed support increased from 6.5% to 10.4%.

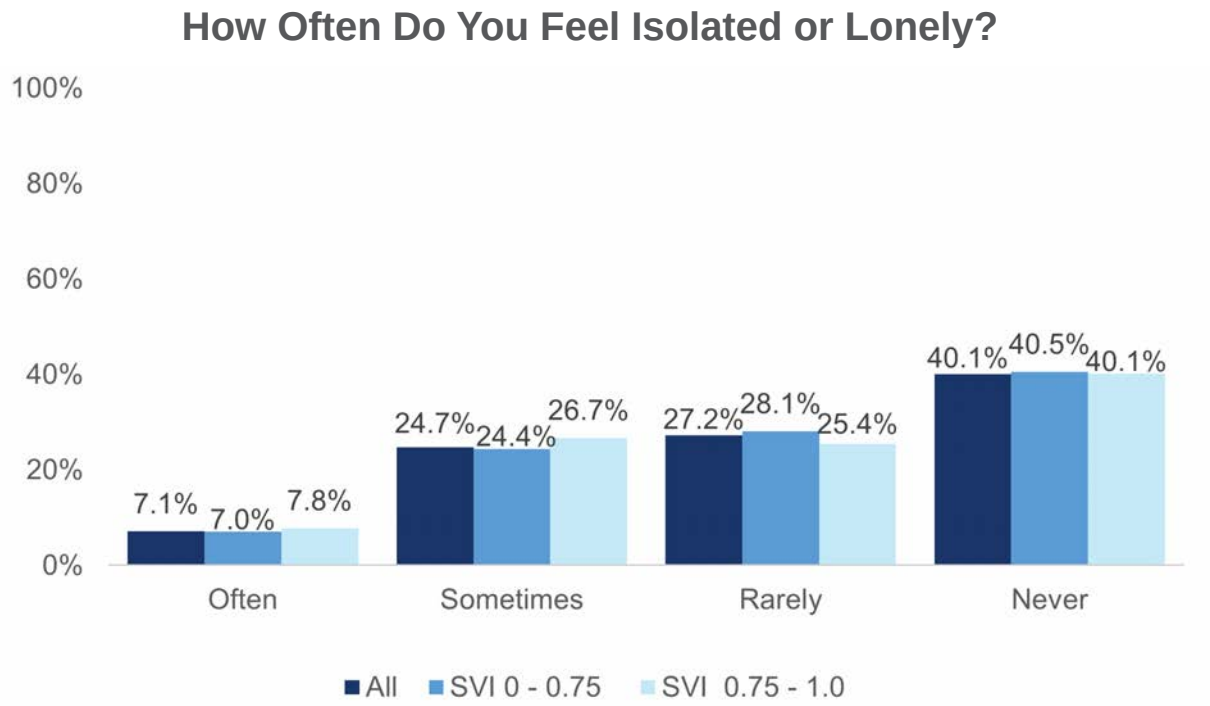
How Often You Get the Social and Emotional Support You Need



Source: 2023 Guilford County Community Health Survey.

Isolation

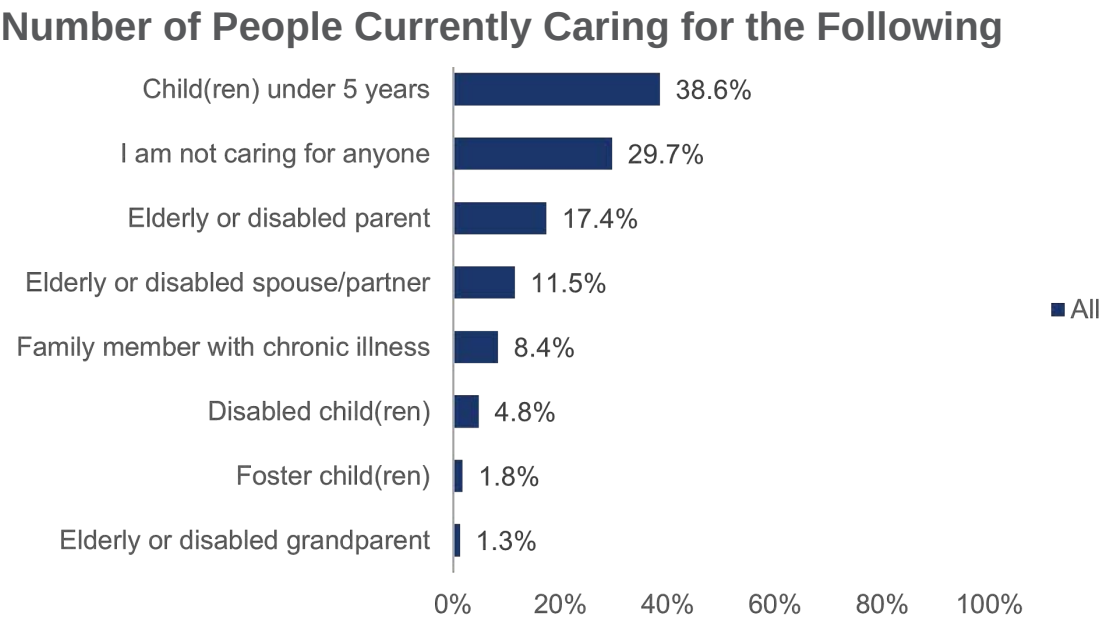
Isolation and loneliness can increase a person's risk of chronic disease, depression, mortality and cognitive decline. In the 2023 GCCH Survey, respondents were asked how often they felt lonely or isolated. While 67.3% of all respondents reported they rarely or never felt isolated or lonely, 31.8% said they often or sometimes felt isolated or lonely. Survey respondents who rented their homes reported that they sometimes or often feel isolated or lonely at a higher rate than respondents who owned their homes (40% compared to 28.8%).



Source: 2023 Guilford County Community Health Survey.

Caregiving

Caregiving can include but is not limited to caring for children, grandchildren, older adults and adults with disabilities. In the 2023 GCCH Survey, respondents were asked about their role as caregivers. Almost 30% reported they were currently caring for someone else besides themselves in their home. Those under 50 and under were more likely to be in a caregiving role as compared to those over 50 (45.5% vs. 16.9%). The majority of that 30% were caring for children under the age of 5 (38.6%), and many also reported caring for an elderly or disabled parent (17.4%) or partner (11.5%), or family member with a chronic illness (8.4%). Those over 50 years of age were more likely to report caring for an elderly or disabled spouse/partner or a family member with a chronic illness. Research shows that caring for individuals with chronic conditions can cause mental and physical health challenges for the caregiver (Family Caregiver Alliance, 2023). Commonly reported types of care included daily care (51.1%), household assistance (35.2%), financial management (29.1%) and medical care (26.3%).



Source: 2023 Guilford County Community Health Survey.

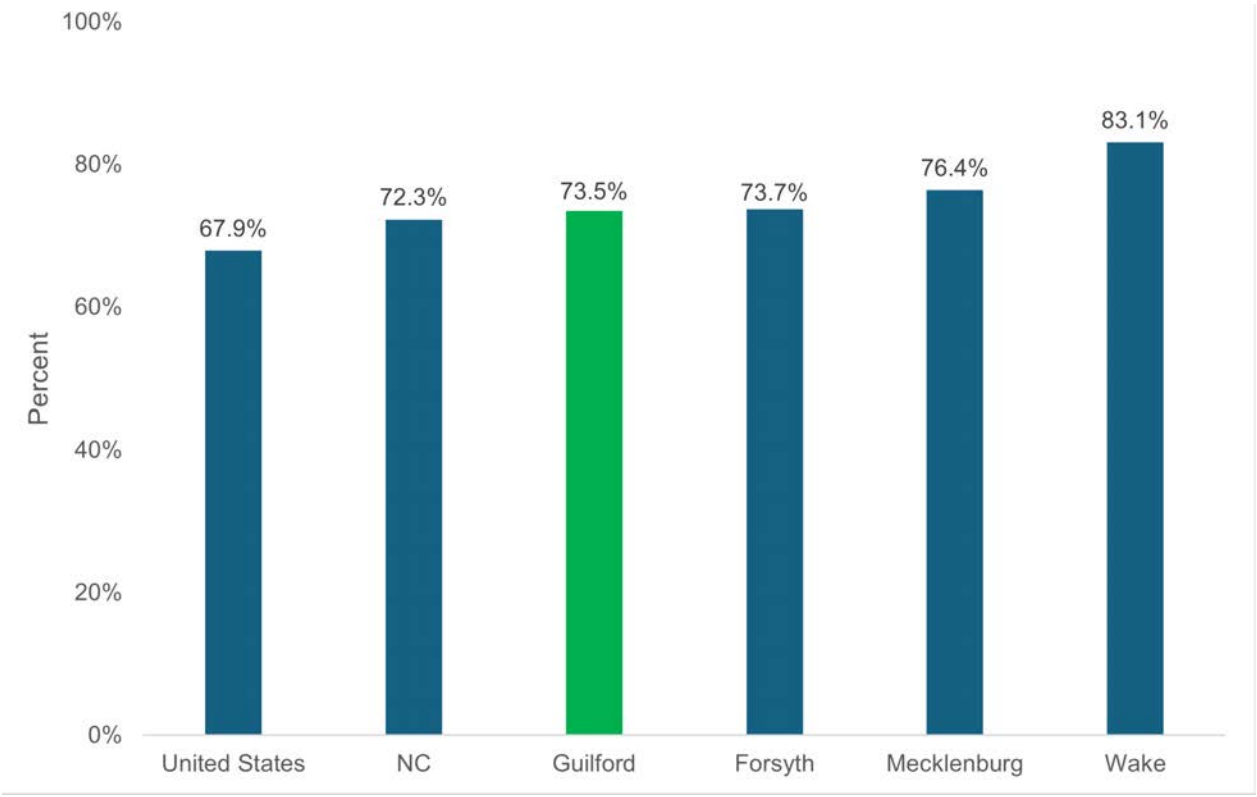
Civic Participation

Civic participation can include activities like voting, joining a membership organization, or volunteering or activities with a common interest or connection. Civic participation provides tangible benefits to the community, fostering increased social cohesion and resource sharing (National Research Council, 2014). It also provides health benefits for those who are participating through increased social capital, greater access to expanded networks and support (Kim, et.al., 2015).

Voter Participation

In Guilford County, 73.5% of the citizen population who were 18 years old or older voted in the 2020 U.S. Presidential Election, higher than the US and North Carolina, but less than Mecklenburg and Wake Counties.

Percentage of Citizen Population aged 18 or Older Who Voted in the 2020 US Presidential Election

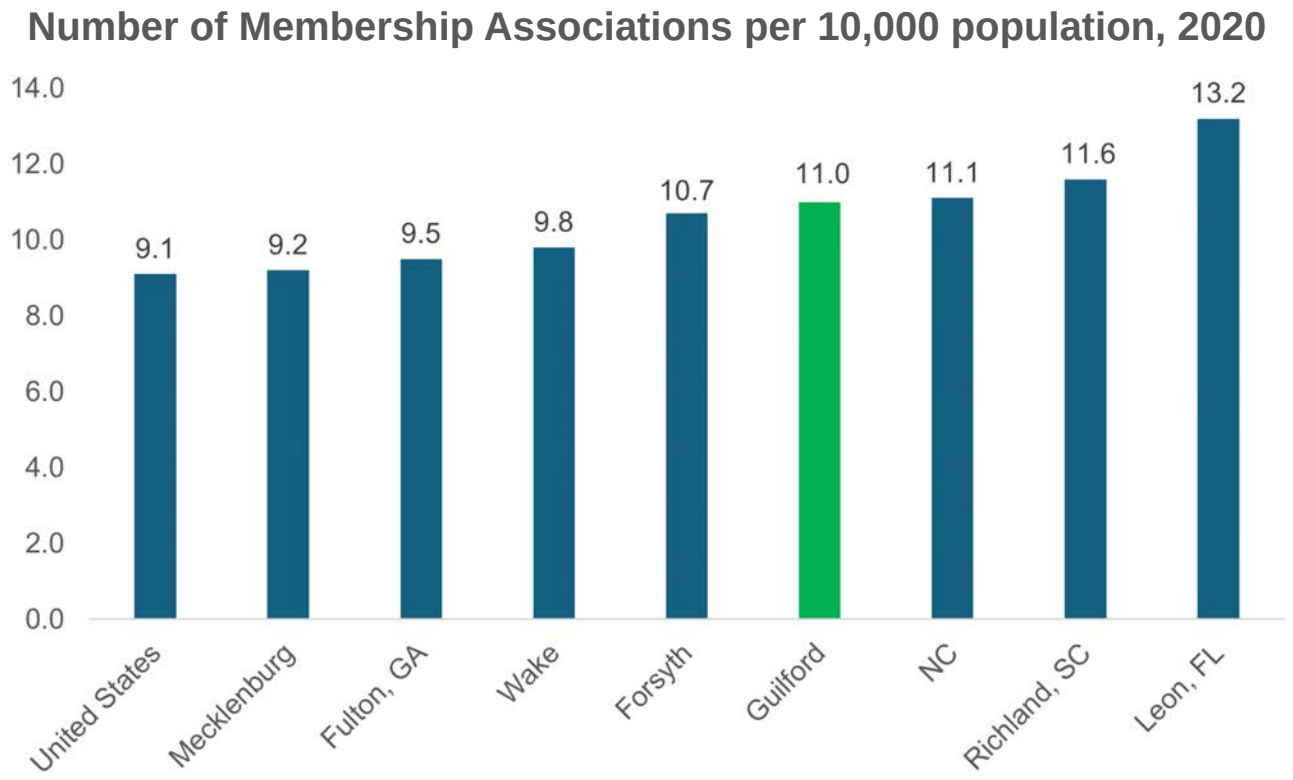


Source: County Health Rankings, 2023; MIT Election Data and Science Lab; American Community Survey, 2020 & 2016-2020, five-year estimates.

According to the NC State Board of Elections, 285,416 citizens voted in the 2020 election. Of those, 67% were one stop early voters, 17% voted by mail, about 15% voted on election day and the remainder voted provisionally (NC State Board of Elections, n.d.).

Social Associations

As a measure of civic participation, the County Health Rankings tracks the number of membership organizations per 10,000 population. These include civic, political, religious, sports and professional organizations. Guilford County has a higher number of membership organizations per 10,000 population as compared to the United States and several comparison counties, at 11.0 membership organizations per 10,000 people.



Source: 2023 County Health Rankings; County Business Patterns.

Volunteerism

Volunteerism and service work is another type of civic participation that can support and empower the well-being of the community and its members. National data from an AmeriCorps study found that at the height of the COVID-19 pandemic, formal volunteering dropped 7% nationally from 30% to 23.2% between 2019 to 2021. Informal volunteering, such as doing a favor for a neighbor, remained stable at about 51% during that time (AmeriCorps, 2022).

This has important implications for nonprofit organizations. Volunteers are often essential to the success of community nonprofit organizations that do so much good work in Guilford County. Locally, The Volunteer Center strengthens the community by creating meaningful volunteer connections, promoting volunteerism, supporting nonprofits and building partnerships. The Guilford Nonprofit Consortium, a collaborative of local nonprofit organizations, also supports their work by fostering mutual assistance and opportunities for education, collaboration, networking, celebration and advocacy.

The Role of Third Places

A term first described by American sociologist, Ray Oldenburg, third places play a vital role in shaping social and community well-being. These spaces, such as coffee shops, libraries, parks, community centers, senior centers and local gyms, provide informal yet essential gathering spots where people can connect, relax and build relationships. In many communities, third places act as hubs of social interaction, fostering connections across diverse groups and offering a sense of belonging and community engagement (Oldenburg, R, 1999, Rhubart, D. et.al, 2022).

What are Third Places?

Physical spaces designed for gathering, connecting, and sharing resources - to promote social interaction and build community trust, which supports health and well-being for all.

Glasner, 2023

The significance of third places is profound when it comes to promoting mental health and social cohesion (Finlay, J. et. al, 2019). They provide a neutral ground where people from various backgrounds can engage in dialogue, form support networks and share experiences. For marginalized populations, such as the elderly, low-income individuals, or those experiencing social isolation, third places often become vital sources of social interaction, helping to combat loneliness and improve emotional well-being.

In terms of public health, third places offer more than just social benefits. They are often locations where individuals access health resources, engage in physical activity and participate in health-promoting programs. A community with abundant and accessible third places tends to see stronger social bonds, lower stress levels and more resilient individuals who are better equipped to face challenges.

In Guilford County, ensuring that these spaces are safe, inclusive and accessible to all can impact individuals' social environment and overall health outcomes. Whether it is creating more public spaces in underserved neighborhoods or fostering environments that encourage participation, supporting third places is a crucial component in building healthier, more connected communities.

> Third places serve as opportunity structures that facilitate social capital formation and transmit knowledge, information, and aspirations that enable upward social mobility at both the individual and community levels. As such, third places have the potential to serve as equalizers in disadvantaged and marginalized communities, such as rural areas and communitiese with large shares of racial/ethnic minorities and/or high poverty rates.
>
> Rhubart et al., 2022

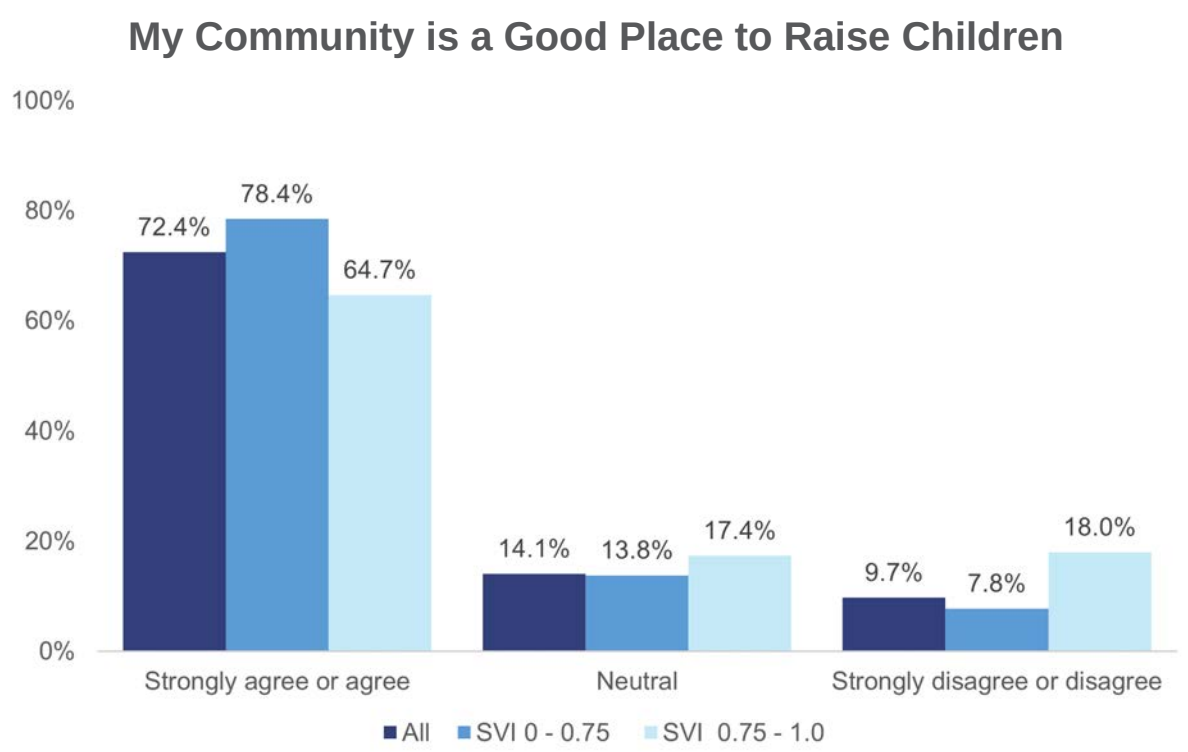
Community Conditions, a Sense of Belonging and Safety

Perception of Community Conditions

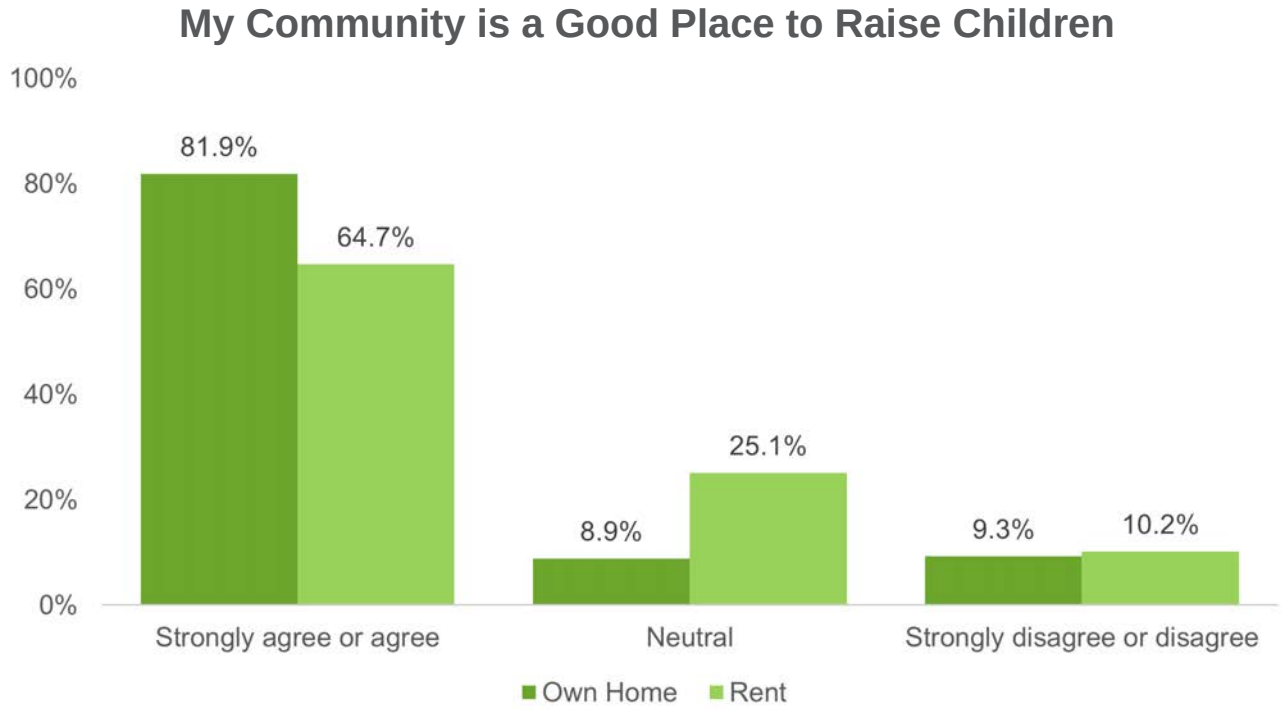
In the 2023 GCCH Survey, respondents were asked about their perceptions about community conditions, including whether their community was a good place to raise children, to age and was a welcoming place for people of all races and ethnicities.

My Community is a Good Place to Raise Children

72.4% of all survey respondents agreed or strongly agreed that the community is a good place to raise children with about 10% disagreeing or strongly disagreeing. Respondents from the Lower SVI survey respondents were significantly more likely than Higher SVI respondents to agree or strongly agree that the community is a good place to raise children and less likely to disagree or strongly disagree. Respondents who rent their homes were less likely than homeowners to agree or strongly agree that the community is a good place to raise children (64.7% compared to 81.9%) and were more likely to report being neutral on the question (25.1% compared to 8.9%).



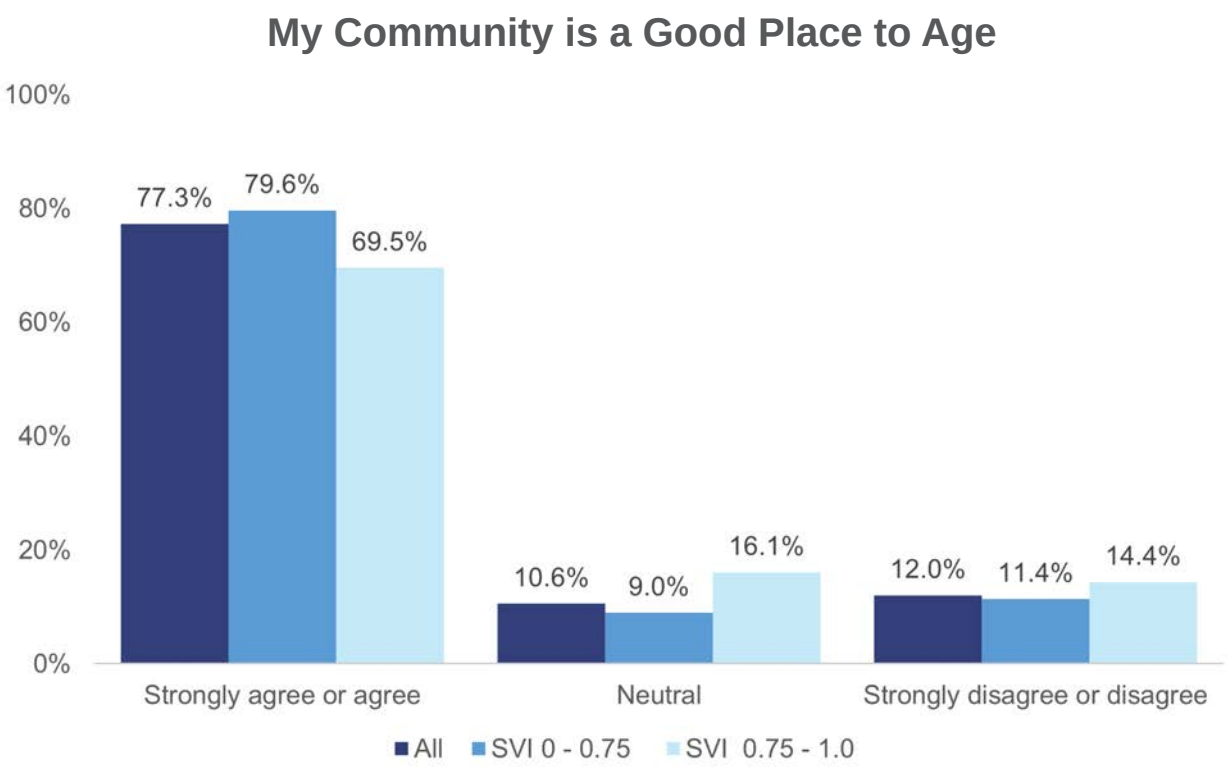
Source: 2023 Guilford County Community Health Survey.



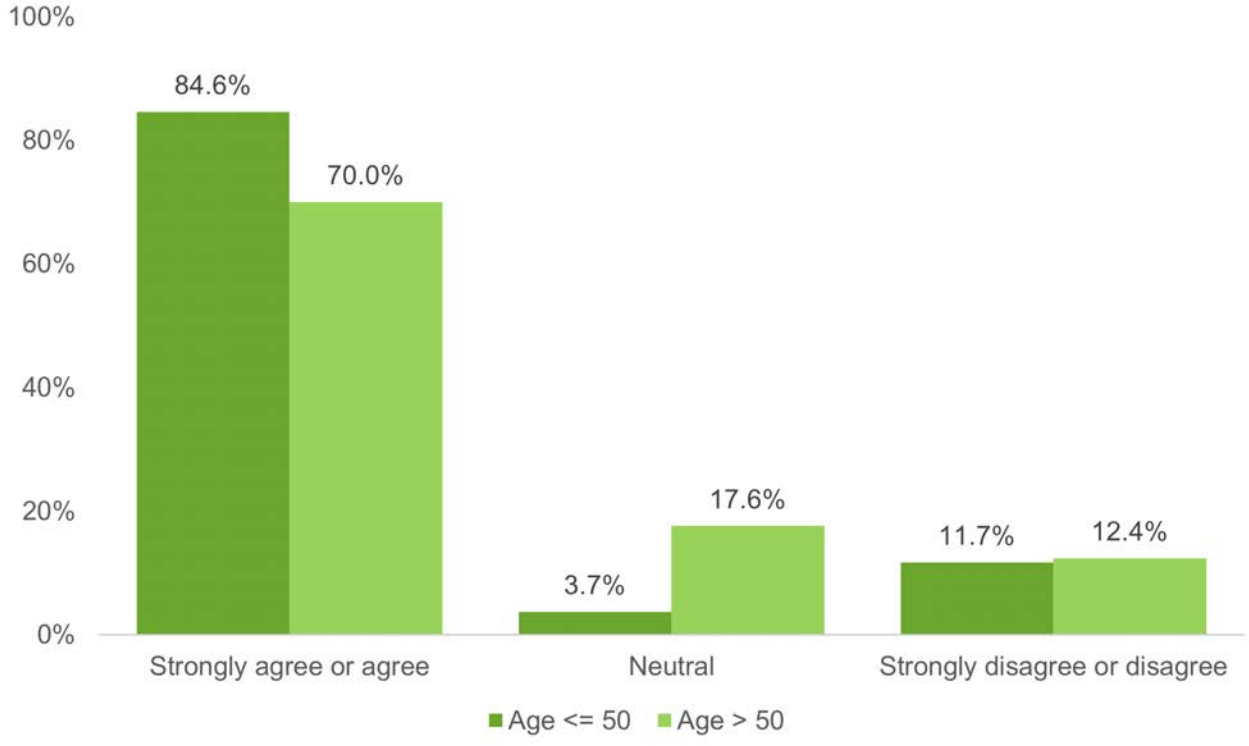
Source: 2023 Guilford County Community Health Survey.

My Community is a Good Place to Age

Over three fourths of respondents overall (77.3%) agreed or strongly agreed that the community is a good place to age. Almost 80% of Lower SVI respondents agreed or strongly agreed with this statement compared with 69.5% of Higher SVI respondents (notable difference). Older survey respondents over the age of 50 were significantly more likely to agree that the community is a good place to age than those ages 50 or younger (84.6% compared to 70.0%).



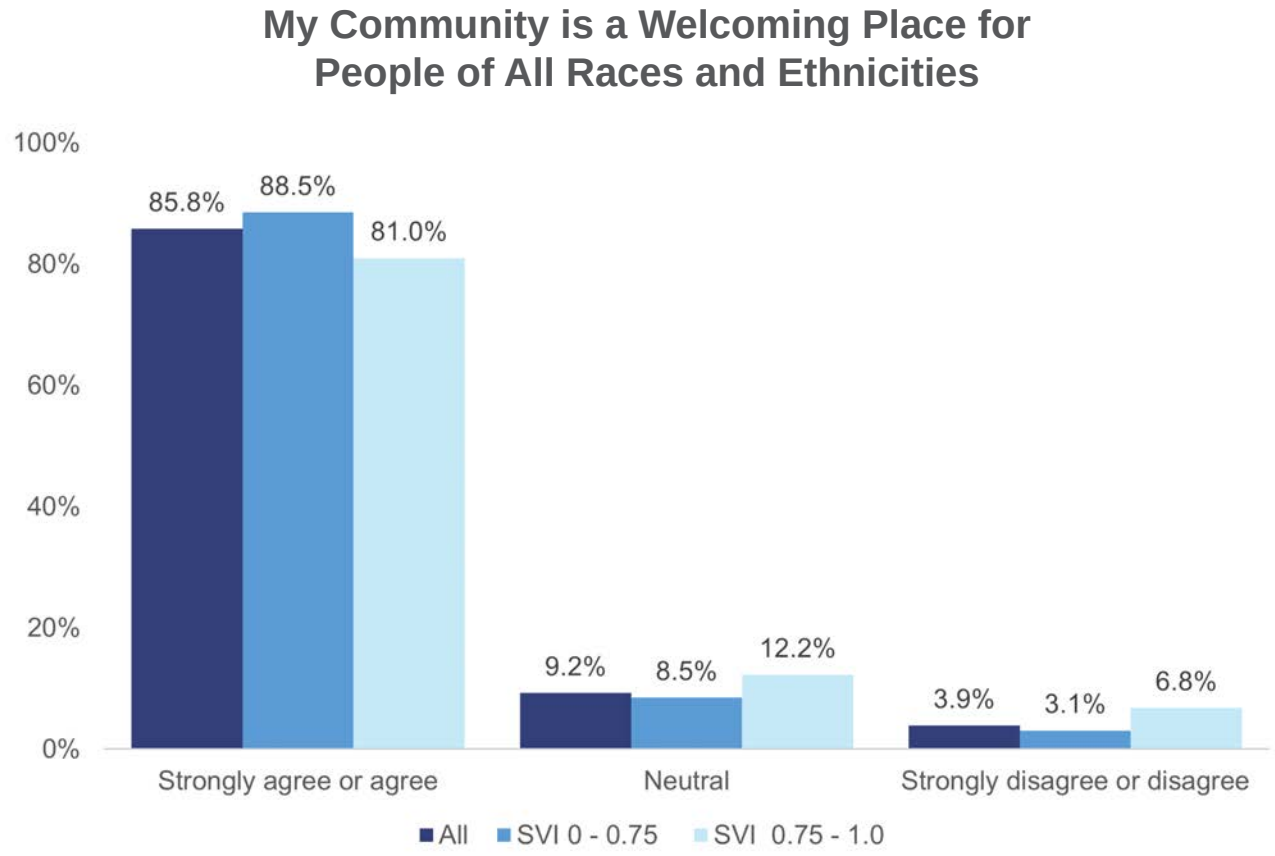
Source: 2023 Guilford County Community Health Survey.



Source: 2023 Guilford County Community Health Survey.

Perception of Community as Welcoming Place

In the 2023 GCCH Survey, 85.8% of all survey respondents agreed or strongly agreed that the community is a welcoming place for people of all races and ethnicities, with only 3.9% disagreeing or strongly disagreeing with that statement.



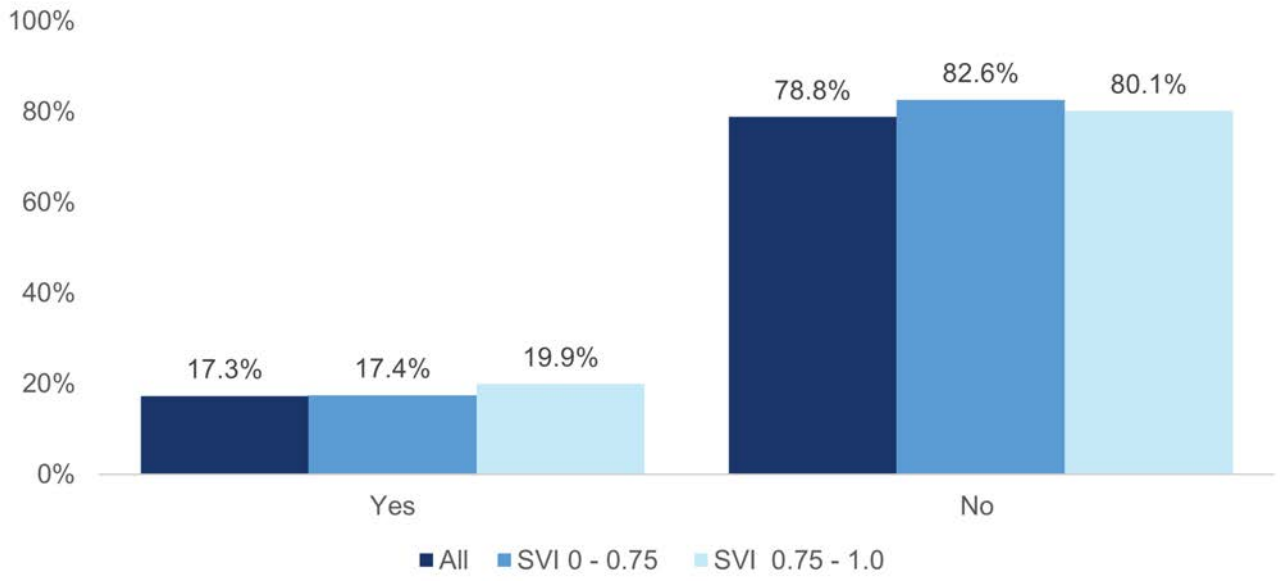
Source: 2023 Guilford County Community Health Survey.

Discrimination

Individual discrimination includes negative interactions between individuals based on individual characteristics, while structural discrimination are conditions or policies that limit resources or opportunities of less privileged groups (Lukachko, A. et.al, 2014, Krieger, N., 2000). Research has documented the negative effects on health and trauma associated with racial discrimination (Polanco-Roman, et.al., 2016). Discrimination can undermine community cohesion, deter economic growth and perpetuate existing inequalities.

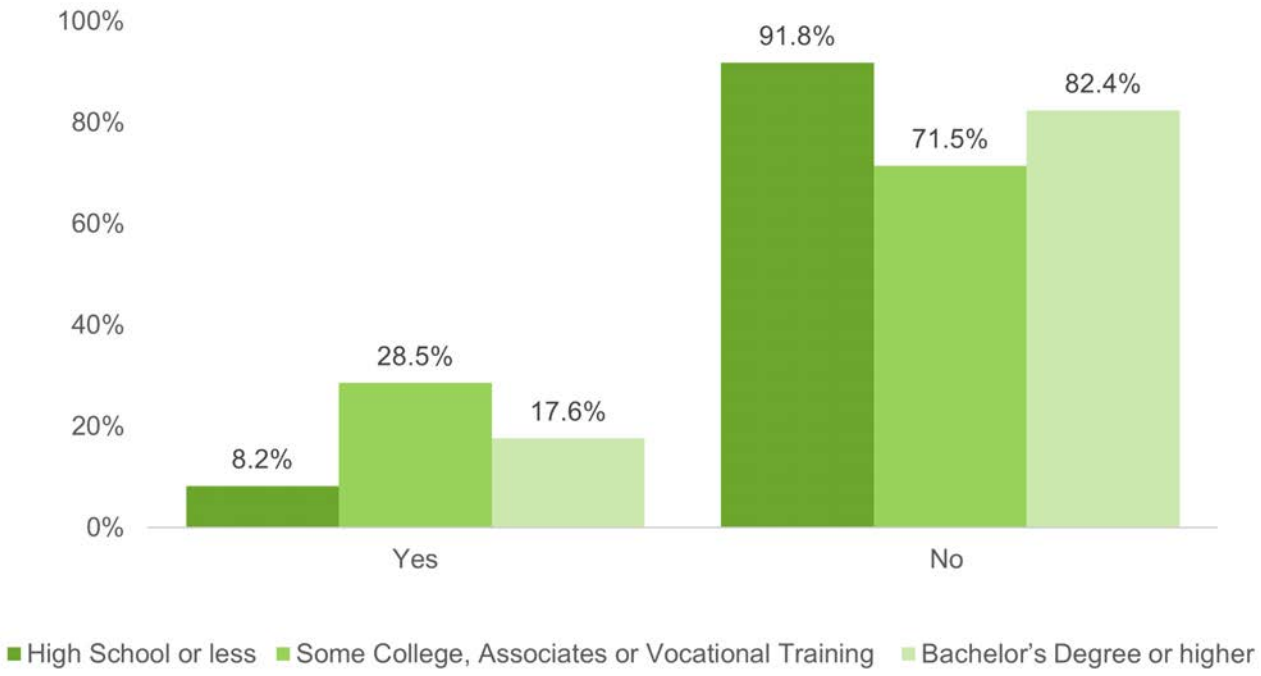
Chapter 2 reflected upon the historical impact of discrimination on Guilford County. To get a better understanding of current experiences, 2023 GCCH Survey respondents were asked if they had experienced discrimination in the past 12 months. 78.8% of respondents said they had not experienced discrimination in the past 12 months while 17.3% said they had (N=65). Those with some college, associate or vocational degrees were more likely than those with a high school education or less and those with a bachelor's degree or greater to report that they had experienced discrimination in the past 12 months.

Participants who Reported Experiencing Discrimination in the Past 12 months



Source: 2023 Guilford County Community Health Survey.

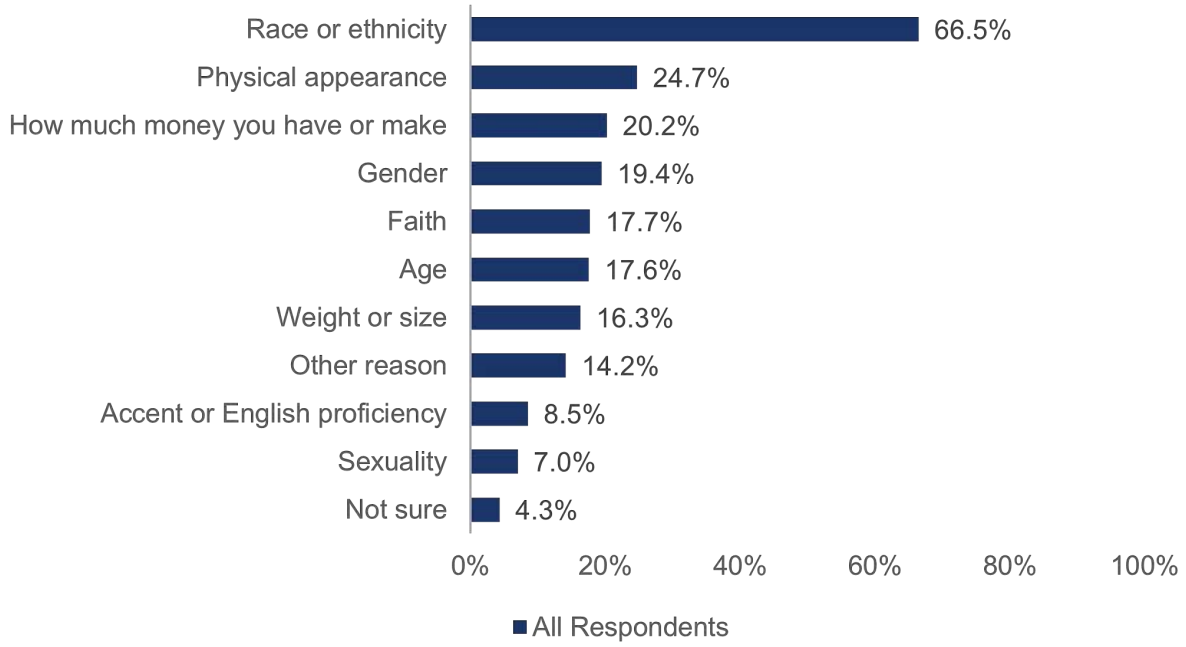
Participants who Reported Experiencing Discrimination in the Past 12 months



Source: 2023 Guilford County Community Health Survey.

Of those who reported experiencing discrimination in the past 12 months (N=65), racism was most often mentioned as the reason contributing to that, followed by physical appearance, how much money you have or make and gender.

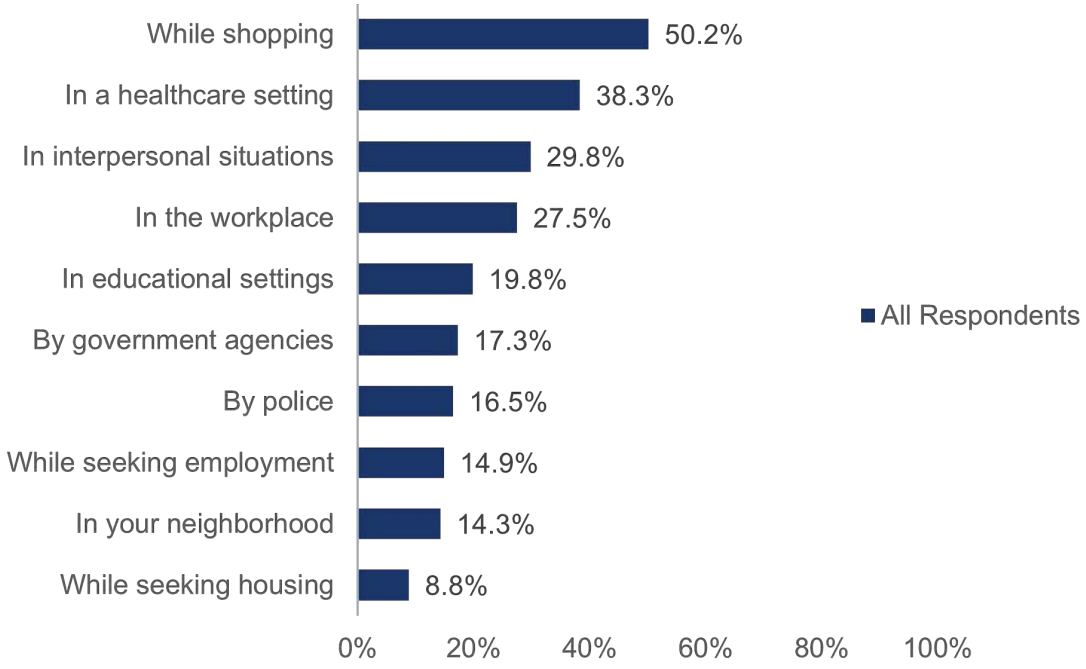
Reasons Identified as Contributing to Discrimination Experienced



Source: 2023 Guilford County Community Health Survey.

For those reporting discrimination (N=65), the most common settings were while shopping, in a health care setting, in interpersonal situations and in the workplace. A higher percentage of survey respondents in the lower SVI sample shared that they experienced discrimination in interpersonal situations (37.2% vs. 14.7% - statistically significant) and in a health care setting (46.9% vs. 21.9% - notable) while higher percentage of those in the higher SVI group identified discrimination while seeking employment (28.5%).

Situations in Which Discrimination Was Experienced



Source: 2023 Guilford County Community Health Survey.

Fostering social cohesion, trust and a sense of belonging enhances community engagement and participation in health-promoting activities, ultimately creates a healthier, more connected society. Focusing on social and community context can move toward a future where everyone, regardless of their background, has the opportunity to live a healthy, fulfilling life.

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An Introduction to Health Priorities

The following six chapters (Chapters 5-10) provide more detail about the health priorities identified in the 2023-2024 Guilford County Community Health Assessment:

- Access to Health Care
- Firearm (Gun) Violence and Injury
- Behavioral Health - Drug Overdose and Mental Health
- Healthy Eating and Active Living
- Maternal and Child Health and Infant Mortality
- HIV and Other Sexually Transmitted Infections

These chapters describe each of the priorities in more depth, including:

- The importance of the issue,
- How Guilford County is doing over time and compared to the nation, state, and comparison counties,
- Health disparities that exist as data are available,
- The Story Behind the Curve, which describes some of the root causes or conditions that influence the issue,
- Turning the Curve: Areas for Action, which highlights efforts or opportunities to address the issue and
- Select community resources and assets focusing their efforts to make a difference. While not a comprehensive list of resources, these and other assets are instrumental in addressing these priorities.

This chapter structure incorporates key components from the Results Based Accountability Framework based on the work from Mark Friedman in Trying Hard is Not Good Enough (Friedman, 2005).

Reference

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Chapter 5:
Access to Health Care

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Why is Access to Health Care Important?

According to the Institute of Medicine, access to health care means having "the timely use of personal health services to achieve the best health outcomes" (Institute of Medicine, 1993). Access to quality health care when needed promotes and maintains good health, prevents and manages illness, reduces unnecessary disability and premature death, improves quality of life and is essential for health equity for all community residents.

Access to care includes having:

- Health insurance that facilitates payment for health care service,
- Access to the full range of preventive and clinical services when needed, and
- A regular source of care that can work with patients to optimize long-term health status (Agency for Health care Research and Quality, 2021).

Though health insurance does not remove all barriers to receiving needed health care services, those with health insurance are more likely than those without insurance to have a regular primary care provider, to receive preventive care, dental care, chronic disease management, and mental health services. Those without insurance are often diagnosed at later, less treatable disease stages than those with insurance and have worse health outcomes and higher death rates (Clancy, C., et al., 2013).

Besides inadequate or no health insurance, barriers to health care may include high costs of care, lack of available services, and discrimination in health care settings. Access to care can vary by race or ethnicity, socioeconomic status, age, sex, and residential location.

How is Guilford County Doing?

Ability to pay is the most important factor that determines whether people have access to needed health and medical services in the United States' market-based health care system. Most must rely on health insurance to cover those costs, which includes an assortment of plans through employers, the marketplace and government-based coverage. Many working-age persons have employer-provided health insurance or pay for insurance coverage out-of-pocket. Government covers large segments of the population through Medicare coverage for those over 65, Medicaid for those meeting low-income requirements and coverage for those serving in the armed forces and veterans. A portion of the population does not fall into any of these categories, not being able to afford private-pay insurance or receive government-supported insurance and will have difficulty access and paying for needed health and medical care. Because of the importance of insurance coverage, the NC Institute of Medicine identified the percentage of the population without insurance as a Healthy NC 2030 indicator for population health. As of 2022, 11.5% of the Guilford County population had no form of health insurance, with a 2030 target of 8%.

Healthy NC 2030 Indicator

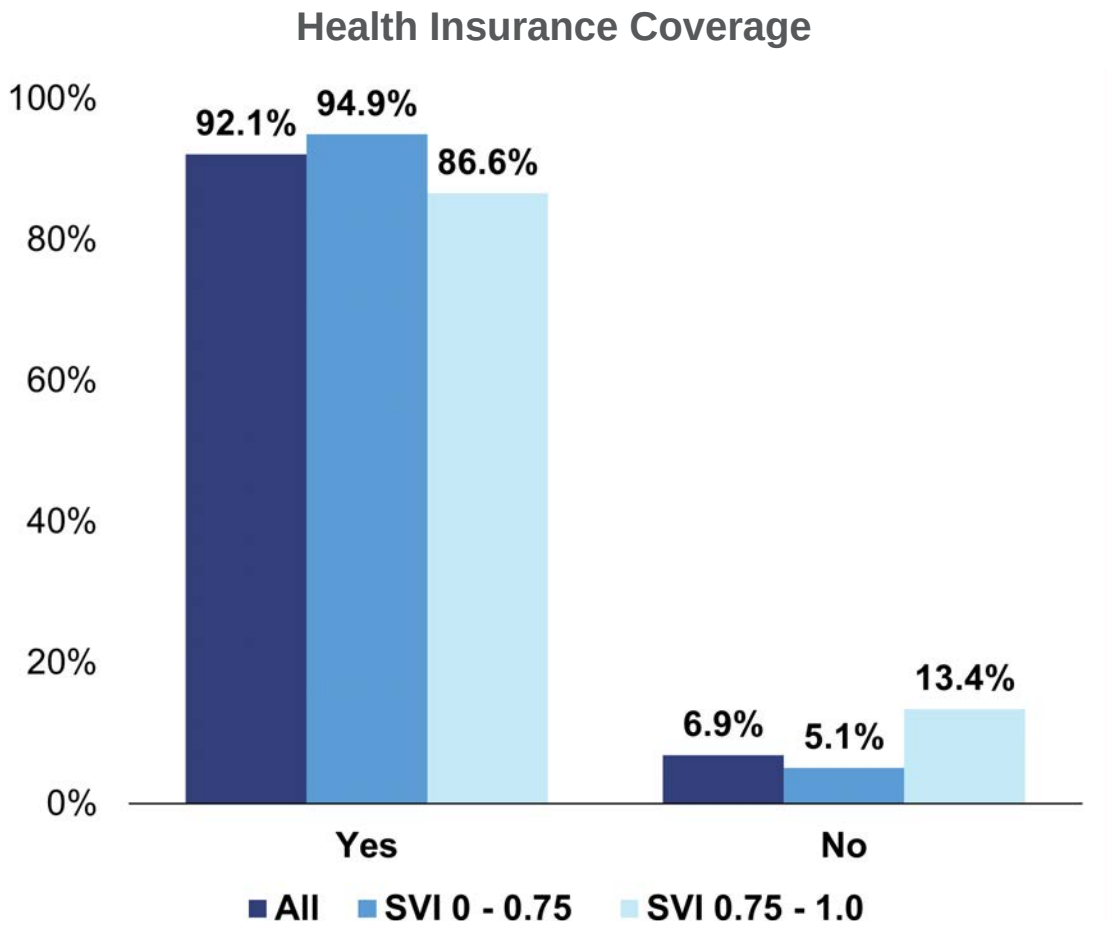
Uninsured 2030 Target: 8%

Uninsured in Guilford County in 2022: 11.5%

Building a Healthy Community

Community members responded with the following when asked, "what is one thing that would make your community a healthier place?" regarding access to health care:

- "More affordable access to health care services."
- "Have more docs available so you don't have to wait two months for a specialist."



The 2023 Guilford County Community Health Survey (2023 GCCH Survey), a randomized in-person community survey of Guilford County, residents included a question about health insurance coverage. Overall, 6.9% of respondents indicated that they had no form of health insurance. In the survey strata of residents of census tracts characterized by low Social Vulnerability Index (SVI) scores, 5.1% reported no form of insurance. However, in the High SVI tracts, 13.4% of respondents reported having no insurance.

Access to Care: Access to Primary Care

Regular, routine visits to the doctor and dentist can help identify risk factors and problems before they become serious and help identify health issues early, allowing for earlier treatment and better outcomes. The NC Institute of Medicine identified the ratio of primary care physicians to the population as a key indicator of the health of residents of the state. Guilford County had a ratio of 1:1,260 in 2020, better than the state ratio of 1:1,410. The ratio represents the number of individuals served by one physician in a county, if the population was equally distributed across physicians. Guilford's ratio of dentists to population was 1:1,650, about the same as the state ratio of 1:660 (County Health Rankings, 2023; Area Resources Files, US DHHS).

Healthy NC 2030 Objective

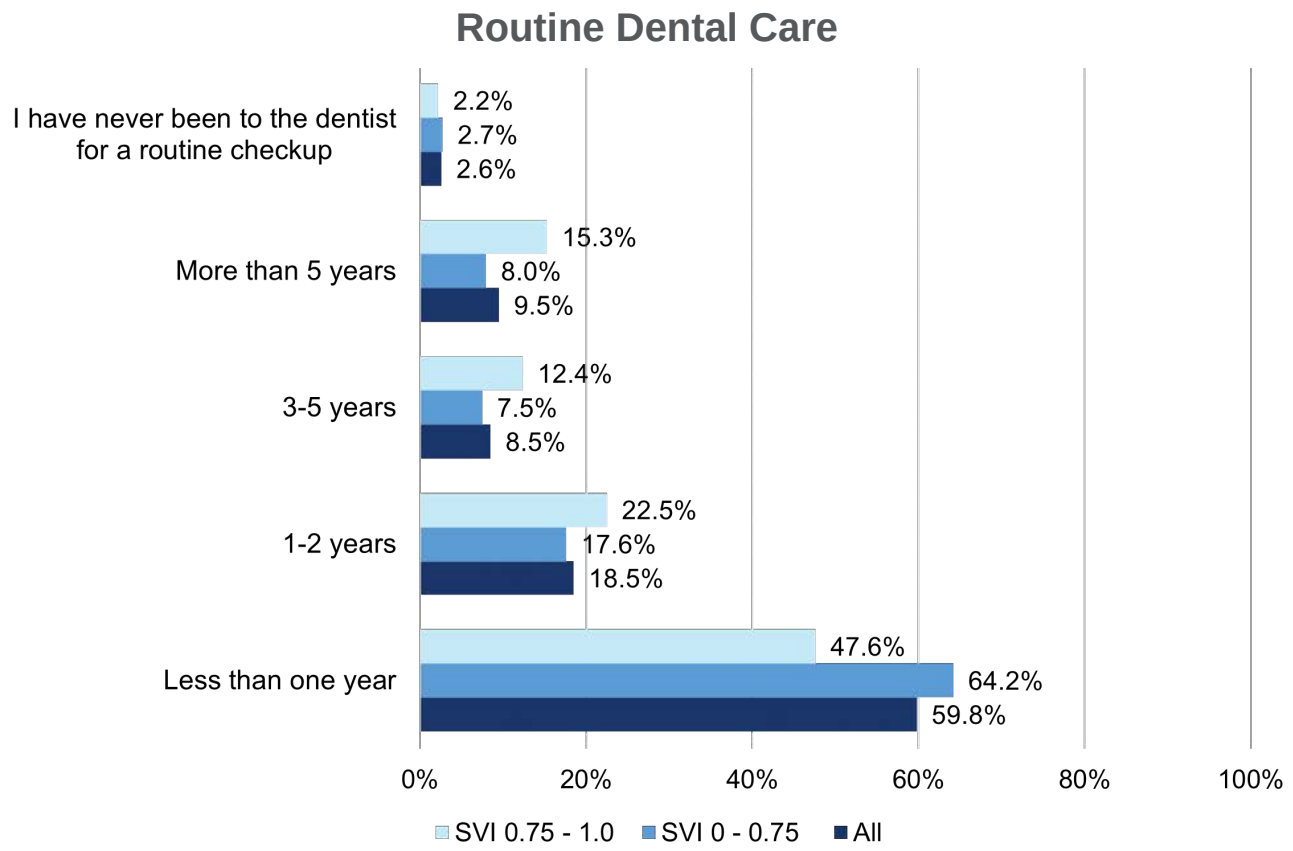
Primary Care Clinicians

2030 Target = 25% decrease for counties above 1:1,500 providers to population

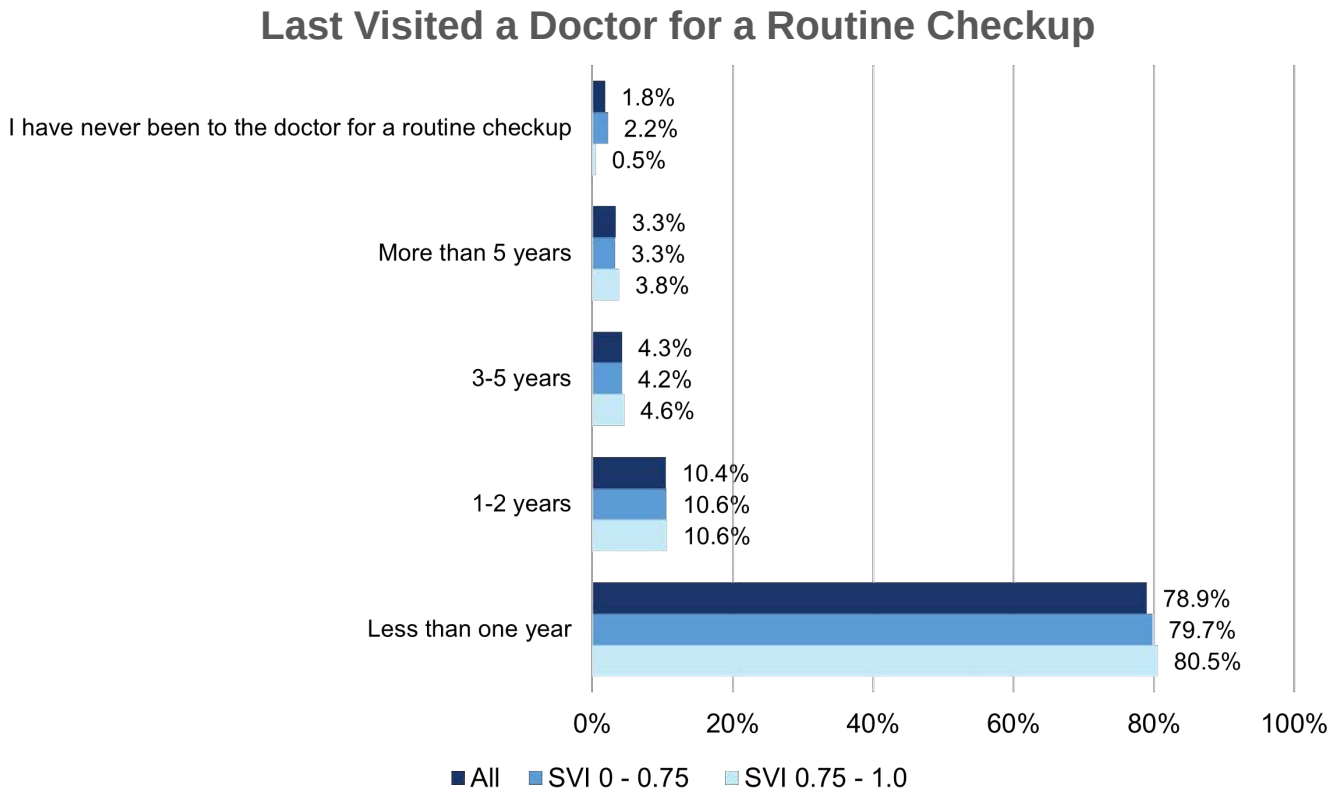
Guilford County = 1:1,260 (2020)

The 2023 GCCH survey found that nearly two-thirds (64.2%) of respondents in low SVI census tracts reported a routine dental care visit in the previous year, compared to less than half (47.6%) of high vulnerability respondents. 15.3% of high SVI respondents reported not going to the dentist for routine care in over 5 years, compared with 8% of those in low SVI tracts. About 4 out of 5 respondents in both low and high SVI census tracts reported visiting a

doctor in the previous year, with about 90% of all respondents seeing their doctor within the previous two years.

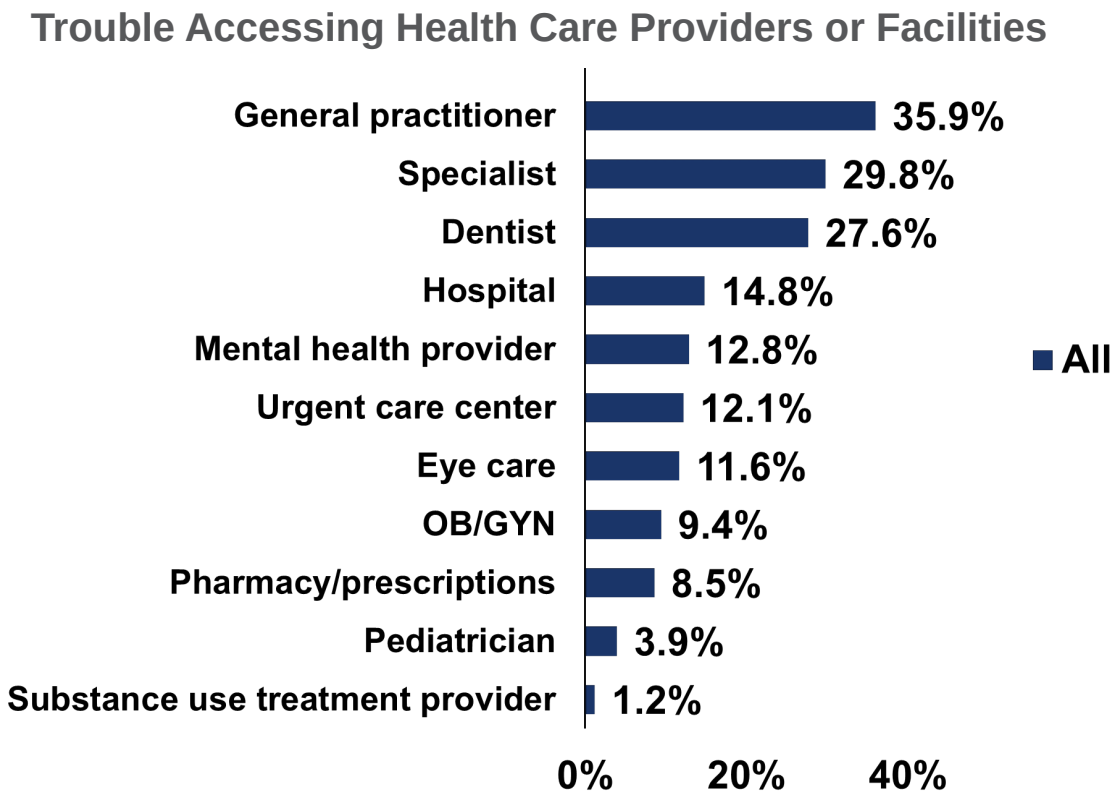


Source: Guilford County Community Health Survey, 2023.



Source: Guilford County Community Health Survey, 2023.

Access to Care: Barriers to Care



Source: Guilford County Community Health Survey, 2023.

While 70.4% of all survey responders reported no barriers to health care for themselves or household members, about 30% of respondents reported trouble accessing certain providers and facilities. Of those having difficulty, about a third (35.9%) reported issues with seeing a general practitioner, while 29.8% reported issues with seeing a specialist and 27.6% reported a barrier accessing dentist care.

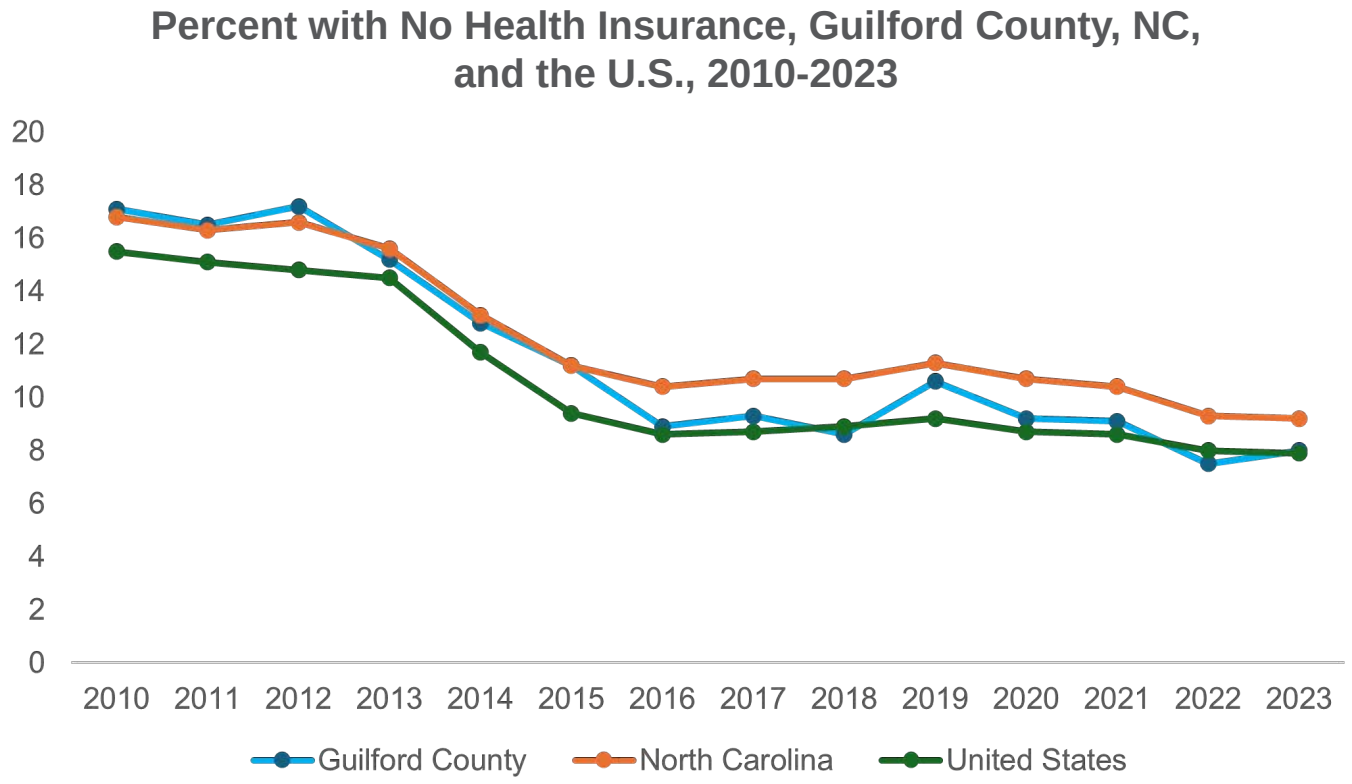
Access to Care: Medical Debt

Residents needing medical care but lacking insurance or adequate income for pay may incur medical debt, and this can also occur among residents whose insurance does not cover all the costs of hospitalization and medical care. According to credit bureau and census data reported by the Urban Institute, North Carolina is 4th highest among states for medical debt. In 2023, 7% of Guilford County households had medical debt in collections, compared with 5% nationally. Medical debt can lead to significant financial hardships for individuals and families, depleting savings, forcing families to take out loans, make cuts to expenditures for necessities, or delay of needed medical care out of concern about taking on further debt. It can also have negative impacts on credit scores, the ability to obtain loans, and cause stress due to aggressive debt collection practices. This problem is more acute among non-White residents, with 10% of non-White households with medical debt in collections compared with 6% of White households (Andre et al., 2017).

How Does Guilford County Trend Over Time?

The Affordable Care Act (ACA), was signed into law in 2010 but went into effect in stages over four years, expanding access to health care through subsidies for health insurance costs and through expansion of Medicaid, among other provisions. As can be seen in the following chart, uninsured rates started declining in 2012 in the US, NC and Guilford

County. Because NC declined to opt-in to the Medicaid expansion program, the state lagged the nation in reductions in the percentage with no insurance. The NC legislature approved Medicaid expansion in 2023, making it the 40th state to do so. Uninsured rates in the state, including Guilford County, may be expected to decrease further, though there will continue to be a part of the population who have incomes too high to qualify for Medicaid but too low to be able to afford to purchase private-pay insurance and who do not work for an employer who provides health insurance.



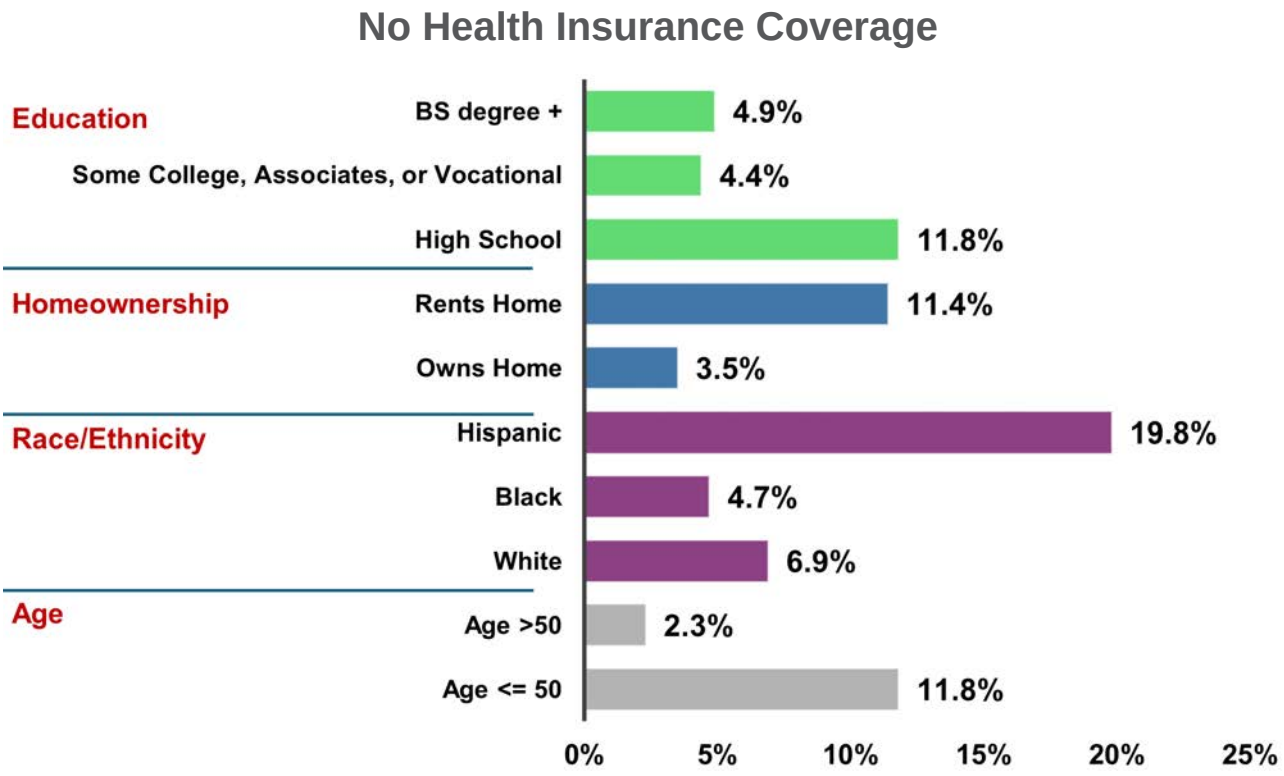
Source: American Community Survey, US Census Bureau.

Disparities in Access to Health Care

According to data from the American Community Survey, Hispanic and Black residents of Guilford County are more likely to be uninsured than White residents. Persons with less than a high school education are much more likely to be unemployed than are college graduates.

Guilford County Population	Percent of Total Population with No Health Insurance
White	4.3%
Black	7.1%
Hispanic	25.3%
Male	8.2%
Female	6.9%
Less than High School	23.8%
College Graduate	4.8%

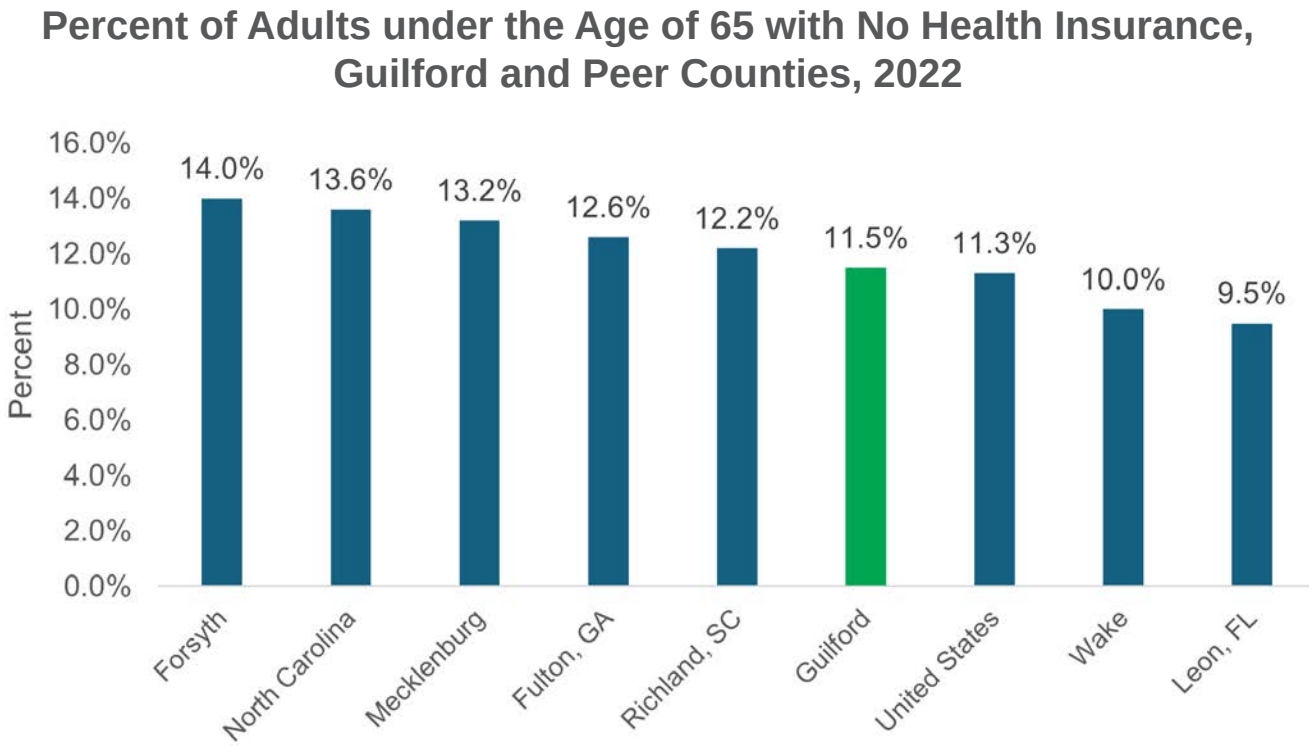
Source: US Census Bureau; Table S2701, Selected Characteristics of Health Insurance Coverage in the United States, American Community Survey, 2022.



Source: Guilford County Community Health Survey, 2023.

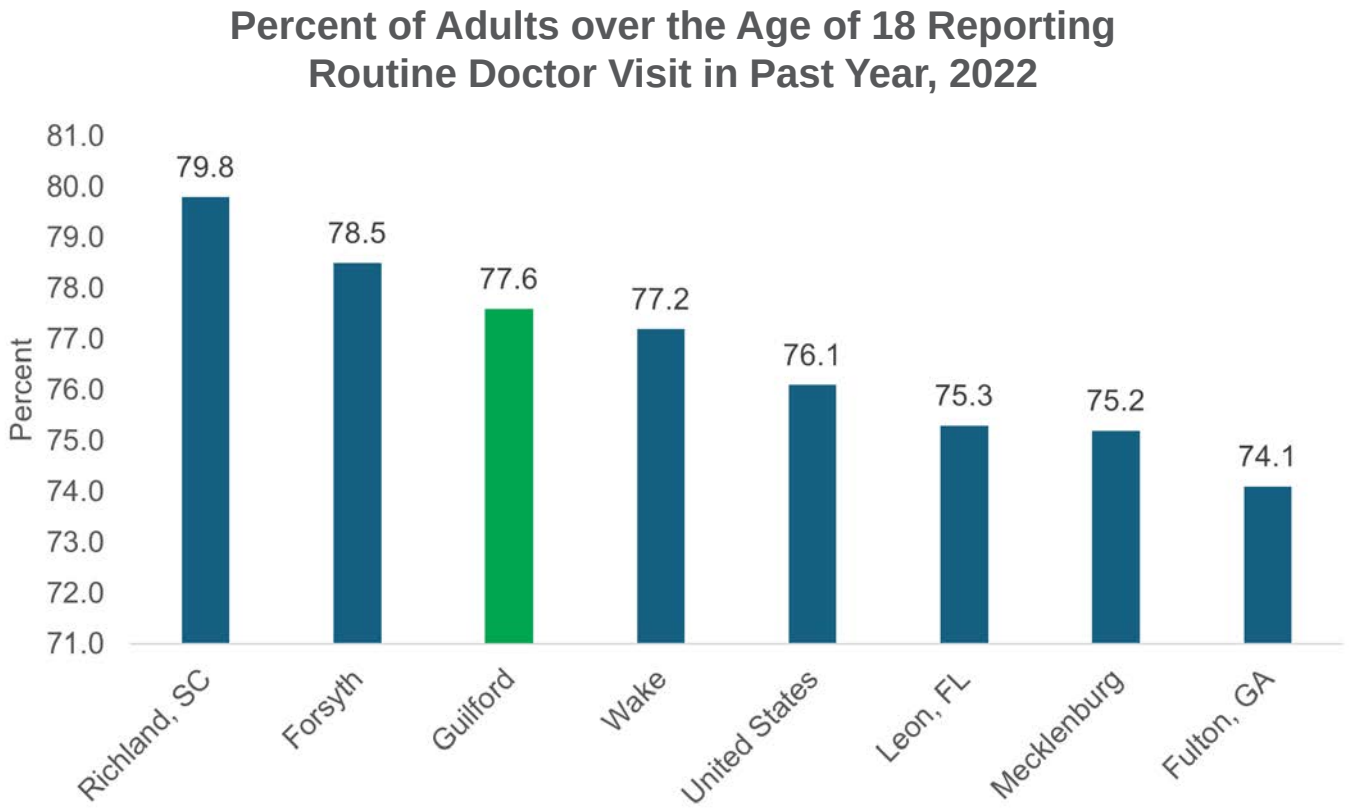
The 2023 GCCH Survey revealed similar disparities. Those with lower education attainment, Black and Hispanic residents, those renting their homes and younger persons under the age of 50 were more likely to report that they had no health insurance.

How Does Guilford County Compare to Others?



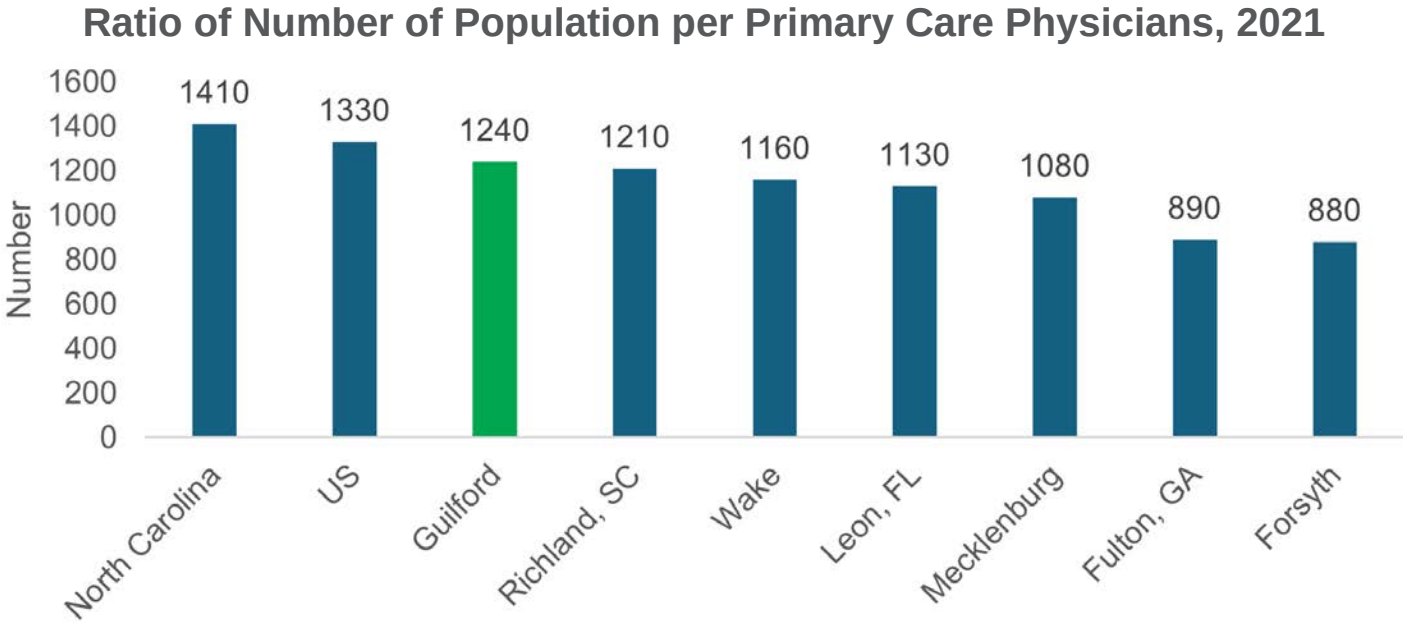
Source: County Health Rankings, 2023; US Census Bureau's Small Area Health Insurance Estimates (SAHIE).

The percentage of Guilford County residents with no insurance coverage is lower than NC and some in-state and out-of-state comparison counties but is higher than some peer counties.



Source: CDC Places, modelled estimates from BRFSS data.

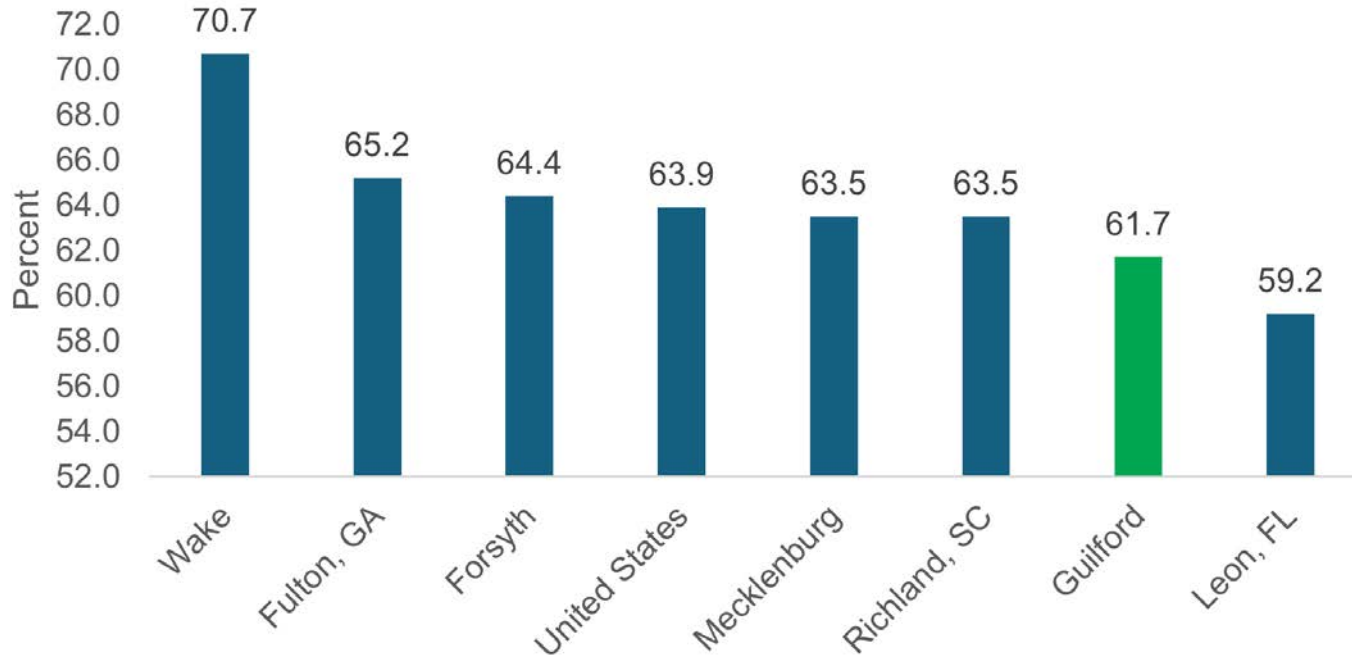
The percentage of adults in Guilford County going to a doctor for a routine visit was higher than the US and some comparison counties.



Source: County Health Rankings, RWJF, 2023; Data from the Area Health Resource Files, 2021-2023. US Department of Health and Human Services, Health Resources and Services Administration.

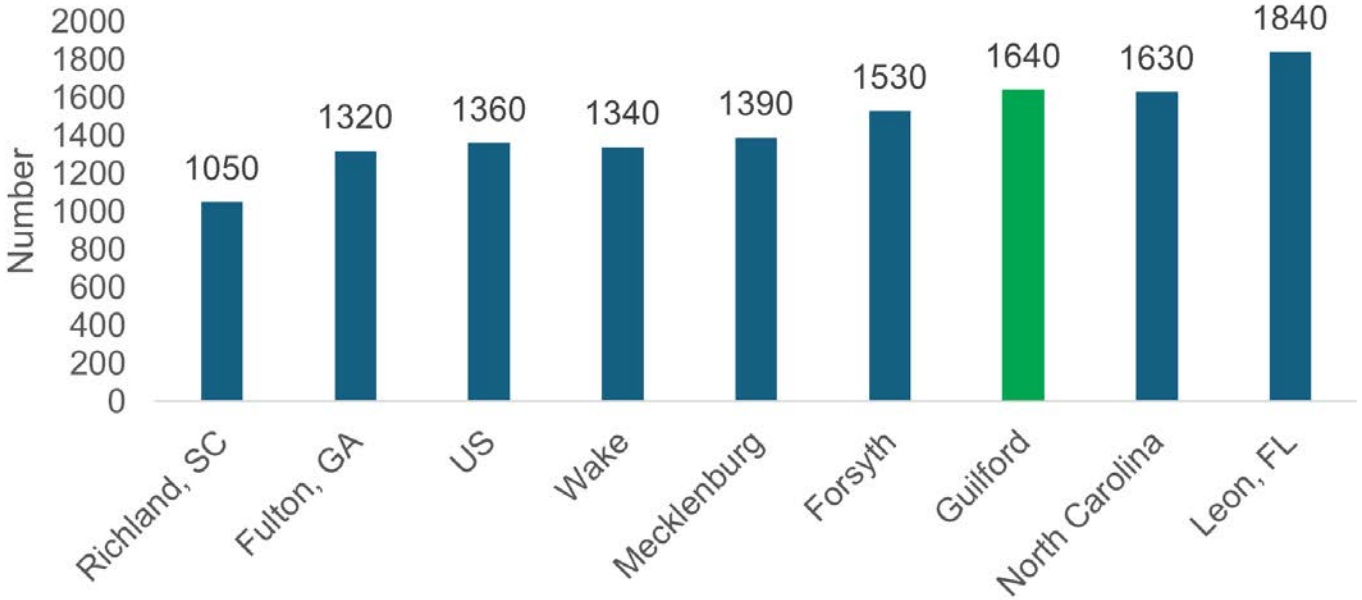
As measured by the ratio of population to the number of primary care physicians, Guilford County residents have better availability of doctors than NC and the US but not as good as comparison counties.

Percent of Adults Who Visited a Dentist in the Previous Year, 2022



Source: CDC Places; modelled estimates from BRFSS data.

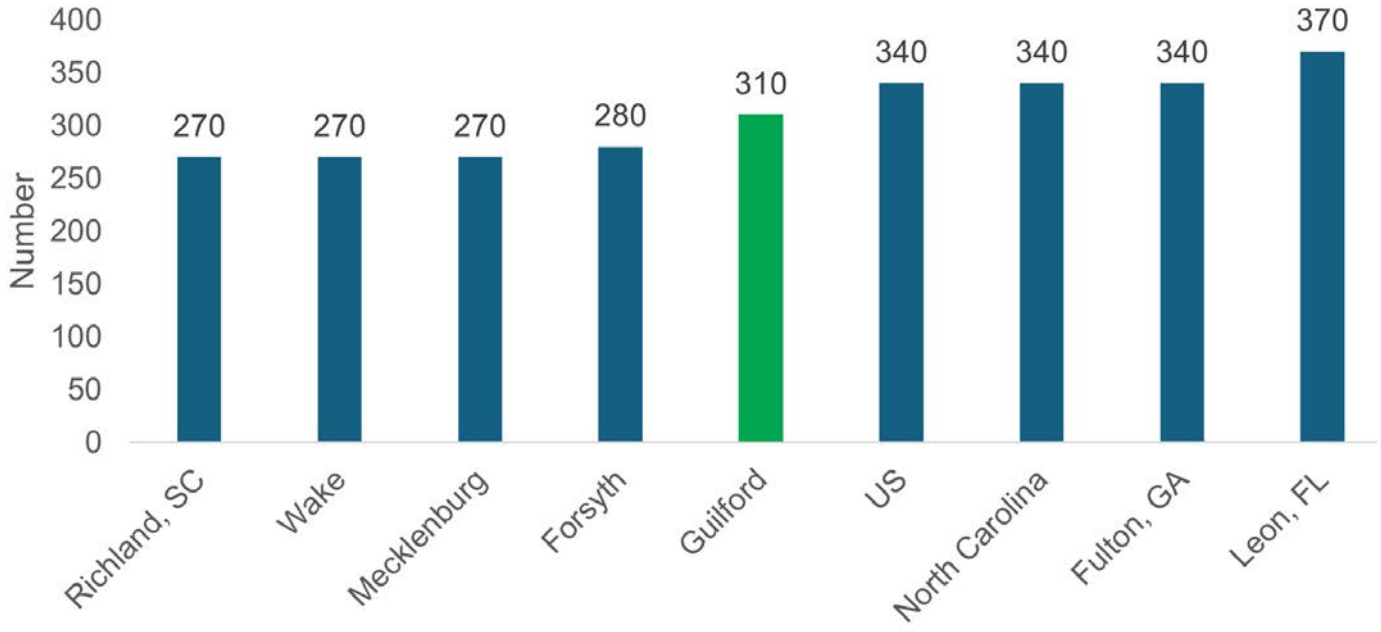
Ratio of Number of Population per Dentist, 2022



Source: County Health Rankings, RWJF, 2023; Data from the Area Health Resource File, 2021.

Guilford County has one of the lowest percentage of residents reporting visiting a dentist in the previous year compared to the US and comparison counties. The population-dentist ratio represents the number of individuals served by one dentist in a county if the population was equally distributed across dentists. As measured by the ratio of population to the number of dentists, there was one dentist per 1,650 residents in Guilford County. Guilford County dentist availability that is about the same as NC and better than most comparison counties.

Ratio of Number of Population per Mental Health Provider, 2022



Source: County Health Rankings, RWJF, 2023; Data from the Area Health Resource File, 2022.

The ratio shown in the graph above represents the number of individuals served by one mental health provider in a county if the population was equally distributed across providers. As measured by the ratio of population to the number of mental health providers, Guilford County residents have mental health provider availability that is about mid-range among peer counties, NC and the US.

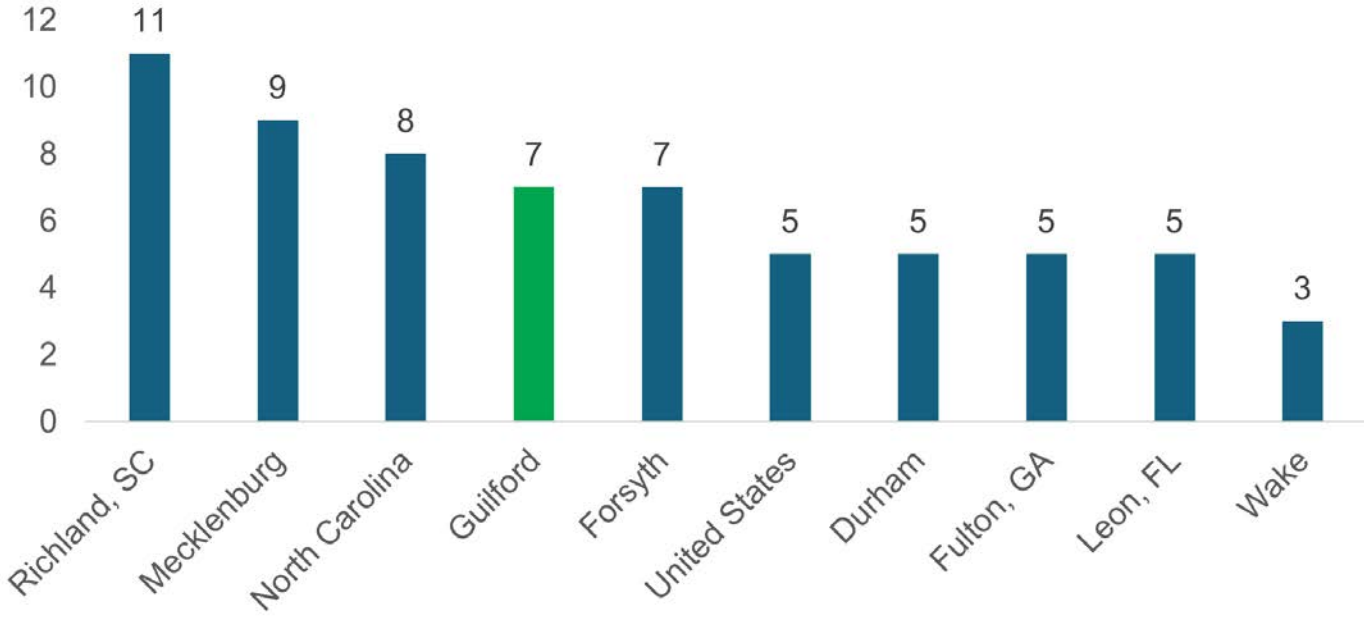
Health Care Professionals Shortage Areas

The Health Resources and Services Agency (HRSA) identified several low-income areas of Guilford County as health professional shortage areas for primary care physicians, dentists and mental health providers (HRSA, 2019). About one third of county residents live in areas of the county with few dental providers.

How do we Compare on Medical Debt?

According to data collected by the Urban Institute from credit bureau records and census data, Guilford County has a higher proportion of residents with medical debt in collections than the U.S. overall, and higher than some comparison counties, though not as high as NC and other comparison counties.

Percent with Medical Debt in Collections, by Comparison County, NC and US



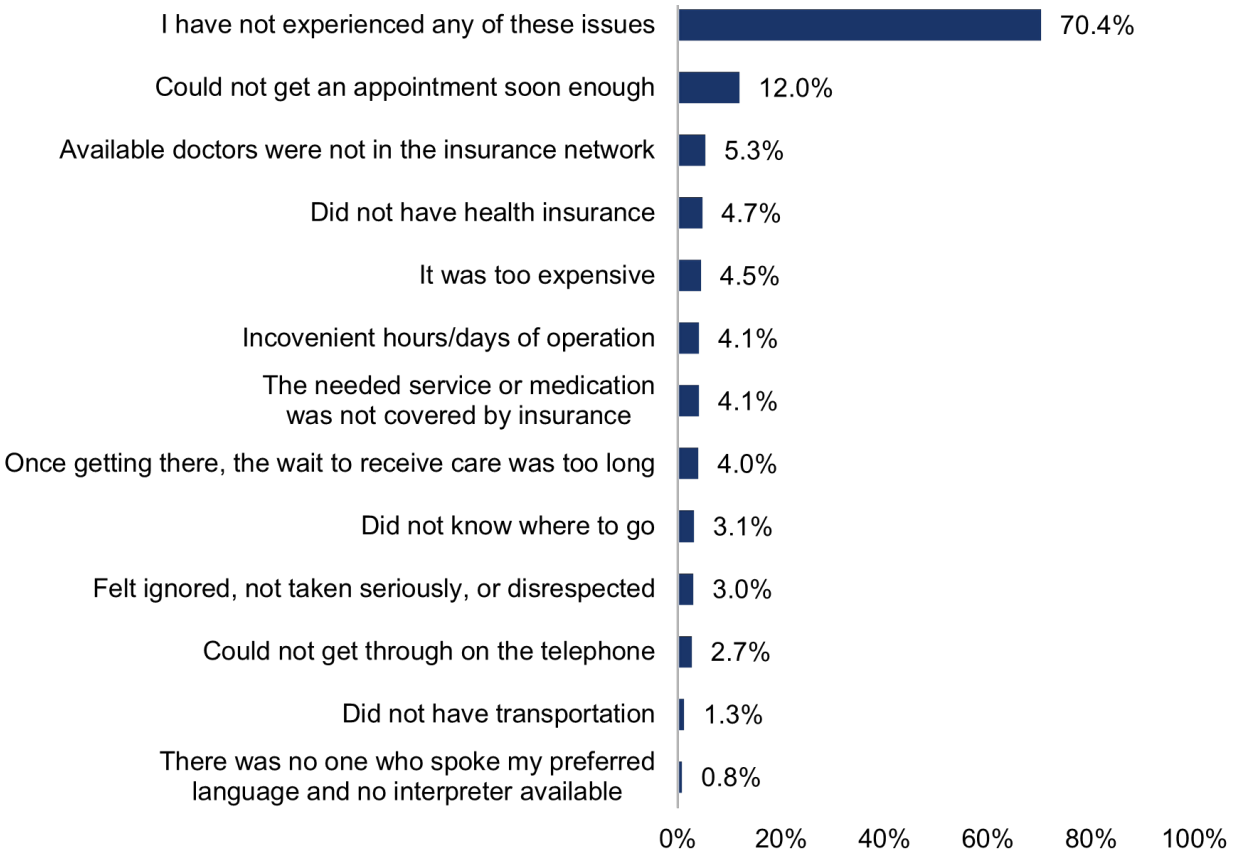
Source: Andre, J., Santillo, M., Martinchek, K., Braga, B., & S.-M. (2017, December 6). Debt in America: An Interactive Map. Urban.org.

The Story Behind the Curve

Affordability of care and lack of health insurance are leading reasons why people may not seek or receive the health care services they need. In the market-based health care system that exists in the US, much of the effort to improve the health of the population has focused on extending health insurance coverage to more people. The Affordable Care Act of 2010 expanded insurance coverage by providing subsidies to increase affordability of coverage, by expanding Medicaid coverage, and by prohibiting insurance companies from denying coverage to patients with pre-existing conditions. North Carolina opted in to the Medicaid expansion program in 2023, so it is expected that uninsured rates in the state will decline as more eligible persons are added to the Medicaid rolls, but a portion of the population will continue to have difficulty affording or obtaining health insurance.

Besides health care cost affordability and lack of health insurance coverage, other reasons that Guilford residents may have problems accessing needed health care services include living in areas of the county with limited numbers of health care providers, transportation challenges in getting to health care facilities, language difficulties in communicating with health care providers, perceived bias and discrimination by providers among some residents, and long wait times to get an appointment or see a physician. The following chart shows the responses to the 2023 Guilford County Community Health Survey question about barriers to health care.

Barriers to Health Care for Participants or Household Members



Source: Guilford County Community Health Survey, 2023.

70.4% of all 2023 GCCH Survey responders reported no barriers to health care for themselves or household members. The most common barriers reported were not being able to get an appointment soon enough, available doctors were not in the insurance network, not having health insurance and that insurance was too expensive. Survey respondents in high SVI areas were more likely to report problems with transportation (8.2% compared with 3.5% among low SVI respondents.)

Turning the Curve: Areas for Action

North Carolina was not initially one of the states that approved expansion of Medicaid eligibility under the Affordable Care Act, but beginning in December of 2023, adult NC residents ages 19 through 64 earning up to 138% of the federal poverty line may be eligible, a development that is likely to increase insurance coverage among Guilford County residents. Educational outreach to inform potentially eligible residents can help to reduce the numbers of people who experience financial difficulties paying for health insurance coverage and health services costs. In fact, through March 2024, almost 24,000 residents in Guilford County and over 400,000 statewide have already enrolled (NC Department of Health and Human Services, 2024).

The problem of medical debt is expected to improve over the next couple of years. In July 2024, NC Governor Roy Cooper and the NC Department of Health and Human Services announced new actions leveraging the state's Medicaid program that will eliminate $4 billion in medical debt for 2 million families across the state. All 99 eligible hospitals across the state have signed on to the arrangement, which was approved by the Centers for Medicare and Medicaid Services (CMS). Medicaid enrollees with outstanding medical debt dating back to 2014 will have all outstanding medical debt removed. Additionally, others not enrolled in Medicaid with incomes at or below 350% Federal Poverty Level who have medical debt more than two years old dating back to 2014 will have this debt relieved. Other provisions call for the capping of interest rates on medical debt by hospitals and the end of reporting medical debt to credit agencies. These agreements will improve the financial situation and health care access and well-being of many Guilford County residents (NC Department of Health and Human Services, n.d.).

Community Assets

Medical Services

Guilford County has an extensive health care system that includes public health authorities and a network of hospitals, health systems, and primary care, dental, mental health, and specialized health service providers.

Hospitals and Health Systems

The following acute care hospitals have facilities in Guilford County.

Hospital Name	Affiliation	Number of Beds	Specialty Services
High Point Medical Center (High Point)	Atrium Health Wake Forest Baptist - Advocate Health	351	Cancer Center, Heart Center, Women's Center, Joint Replacement Center, Neuroscience Center, Emergency Center, Diabetes Health and Wellness Center, Transitional Care Clinic
Wesley Long Hospital (Greensboro)	Cone Health	175	Bariatrics, Cancer Care, Diabetes Education, Emergency Services, Gastroenterology/Endoscopy, General Surgery, Imaging Services, Nutrition Counseling, Orthopedic Surgery, Outpatient Pharmacy, Sleep Disorders,Urology, Wound Care
Moses Cone Hospital (Greensboro)	Cone Health	628	Birth Center, Emergency Department, Internal Medicine Center, Heart and Vascular Center, Inpatient Rehabilitation Center, Neurosciences, Orthopedics, Pediatrics (Inpatient and ICU), Stroke Center, Trauma Center, (Level II), Urgent Care Center
Behavioral Health Hospital (Greensboro)	Cone Health	80	Adult, Child and Adolescent Inpatient Services, Screening and Diagnosis, Outpatient Behavioral Health Care, Integrated Behavioral Health
Kindred Hospital (Greensboro)	Kindred	101	Long Term Acute Care for extended stay, subacute care for short-term in-patient care and rehabilitation
Fellowship Hall (Greensboro)	None	96	Substance Abuse Treatment that includes Detoxification, Residential Treatment, Partial, Intensive Outpatient Program, Outpatient Treatment, Family Therapy

Guilford County Department of Health and Human Services

The Public Health Division of the Guilford County Department of Health and Human Services (GCDHHS) offers a range of services addressing child health, women's health, environmental health, health promotion/disease prevention, and clinical services.

Federally Qualified Health Centers

Guilford County is home to six Federally Qualified Health Centers (FQHCs), including TAPM Family Medicine at East Market, Family Medicine at Arlington Street, Guilford Child Health at Wendover, Guilford Child Health-High Point, TAPM Family Medicine at Brentwood, and High Point Regional Adult Health. The services provided by these medical entities vary. In many cases these FQHCs typically provide integrated health care including dental care, pharmacy services, primary care, and behavioral and mental health care. These FQHCs are health centers that are community based that provide primary care within underserved areas and receive federal funding from the United States Health Resources and Services Administration. For patients, a sliding fee is required to provide care for the medical services rendered which is based on what the patient is able to pay.

Access to Primary and Specialty Care

Other key community partners work together with hospitals, Public Health and physician practices to assure that residents of our community who may be uninsured or underinsured can access primary and specialty care. The Guilford Community Care Network manages the Orange Card and Guilford Adult Dental Access Programs, helping residents access specialty care and avoid preventable hospitalizations and emergency department visits. This program is available for patients who are at or below 200% of the Federal Poverty Level (FPL). Guilford County has several clinical sites designed to serve low-income patients. Triad Adult and Pediatric Medicine is a federally qualified health center that offers affordable care at multiple sites to insured and uninsured patients. The Community Clinic of High Point, Mustard Seed Community Health, Cone Health's Congregational Nursing Program, Cone Center for Children, Cone Health Community Health & Wellness Center, and the Sickle Cell Medical Center are all dedicated to offering access to patients who may otherwise face financial difficulties in finding care. Both Cone Health and High Point Medical Center offer patient financial assistance to help low-income residents access affordable health care through these systems.

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Chapter 6:
Firearm (Gun) Violence and Injury

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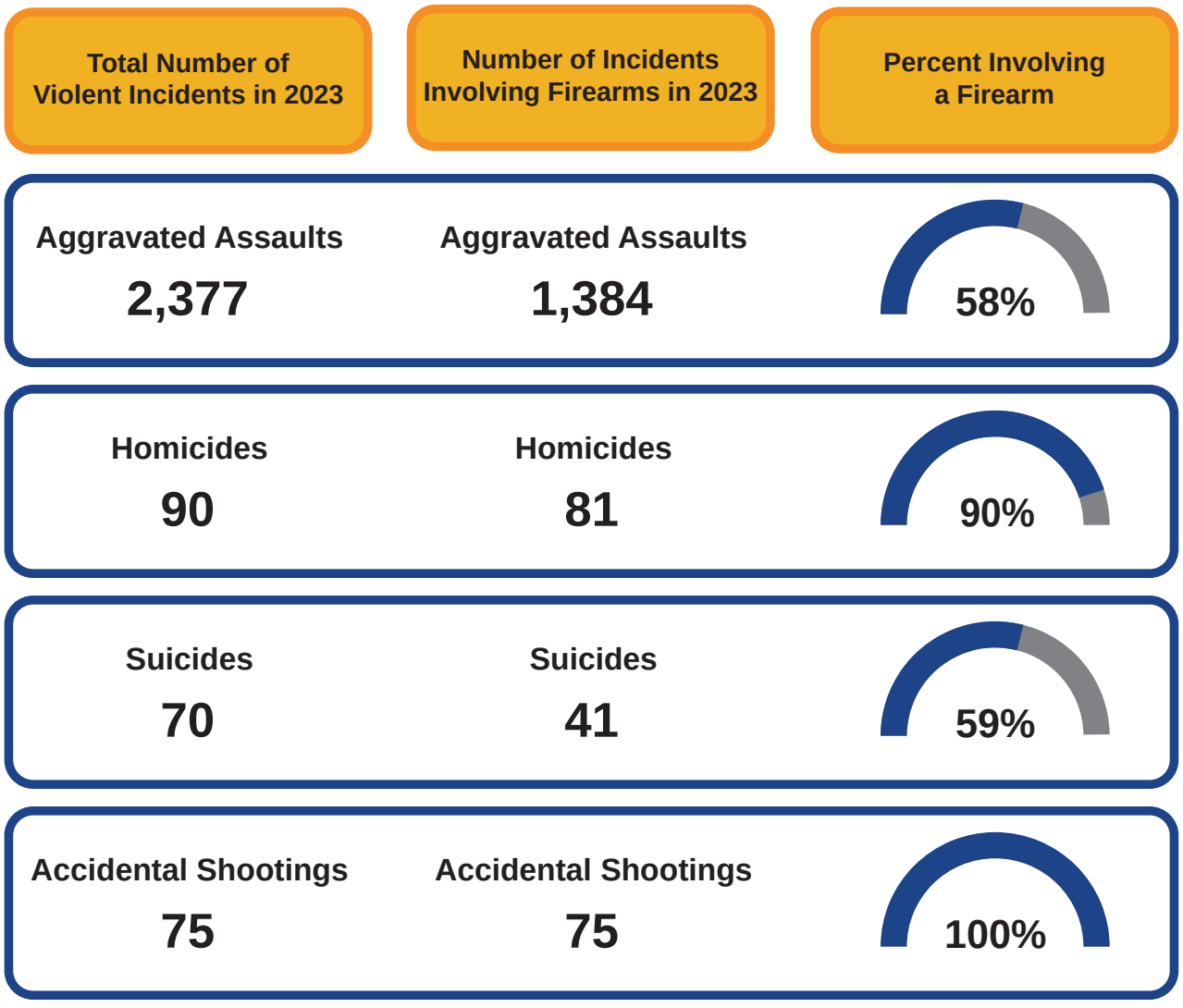
Why is this issue Important?

In recent years, firearm violence has become a critical public health issue in the United States, harshly impacting communities nationwide (Office of the Surgeon General, 2024). The urgency of this issue was emphasized in 2024 when the U.S. Surgeon General issued an advisory declaring firearm violence a public health emergency. According to national statistics, in 2022, there were 48,204 firearm-related fatalities, encompassing suicides, homicides, and accidental discharges. This figure represents an alarming increase of over 8,000 deaths compared to 2019 and more than 16,000 additional deaths compared to 2010. Additionally, firearm-involved injury has become the leading cause of death for children and adolescents, ages 1-19 (Office of the Surgeon General, 2024).

Gun Violence Statistics in Guilford County, 2023



Source: Kyle Ambrose, Crime Analyst, Guilford County Sheriff's Office. Data from Guilford County Sheriff's Office, High Point Police Department, and Greensboro Police Department.

Gun violence is a priority health issue in Guilford County for several reasons:

- **Prevalence:** Guilford County experienced a total of 2,612 violent crime incidents in 2023, with 1,581 or 60% involving firearms in 2023. These incidents include 1,384 aggravated assaults, 81 homicides, 41 suicides, and 75 accidental shootings. These numbers are not mere statistics; they represent a profound loss of life and a deepening crisis that impacts individuals, families, society as whole.

- **Prevention: "**Gun violence is preventable, not inevitable" (CDC, 2024). Focusing on implementing evidence-based prevention strategies at all levels is crucial to reducing violence and working towards achieving health equity, where everyone can live free from gun violence.
- **Health Impact:** Beyond immediate physical injuries, firearm violence contributes to long-lasting psychological trauma for surviving victims as well as strained health care resources and economic burdens. Victims of gun violence, including survivors and witnesses, may experience mental health disorders such as anxiety, depression and Post Traumatic Stress Disorder (PTSD). Experiencing violence at an early age can impact a child's future health behaviors, as adverse childhood experiences (ACES) often lead to lasting social and health consequences (Office of the Surgeon General, 2024; Holloway et al., 2023; Song, Z., et al., 2023).
- **Economic Burden:** Addressing gun violence is essential not only for public safety but also for the economic health of Guilford County. Gun violence imposes a significant economic burden on the community. The costs associated with medical treatment for injuries, law enforcement and legal proceedings can quickly escalate, straining local resources. Additionally, communities affected by gun violence often experience decreased property values and reduced business investment, further impacting the local economy (Everytown, 2022; Song, Z., et al., 2023).
- **Disparities:** Certain populations are *disproportionately* impacted by different types of firearm violence. Race, age, gender and socio-economic status represent some of the demographics in which we observe these differences. Prioritizing community-focused interventions within at-risk communities encourages health equity, and addresses root causes of violence (Zagorski, 2022).

The CDC identifies various types of firearm-related injuries, which can be fatal or non-fatal, including:

- **Intentional Self-Inflicted**: Deaths or injuries resulting from self-inflicted firearm use
- **Interpersonal Violence**: Homicides or non-fatal assaults involving a firearm.
- **Legal Intervention**: Firearm injuries caused by police or law enforcement agents acting in the line of duty.
- **Unintentional**: Fatal or non-fatal firearm injuries that occur accidentally, such as during cleaning, mishandling, or accidental discharges without evidence of intent to harm.

Furthermore, The Johns Hopkins Center for Gun Violence Solutions indicates that firearm-related homicides can be further categorized into several forms, including domestic, intimate partner and family violence, community violence, and mass shootings.

According to the U.S. Surgeon General's report, Firearm Violence: A Public Health Crisis in America, in 2022, over half (56.1%) of all firearm deaths were due to suicide, while 40.8% were the result of homicide. The remaining deaths were attributed to legal intervention, unintentional injuries, and injuries of unknown intent.

The State of Firearm Violence in Guilford County: An Observation of Trends Over Time

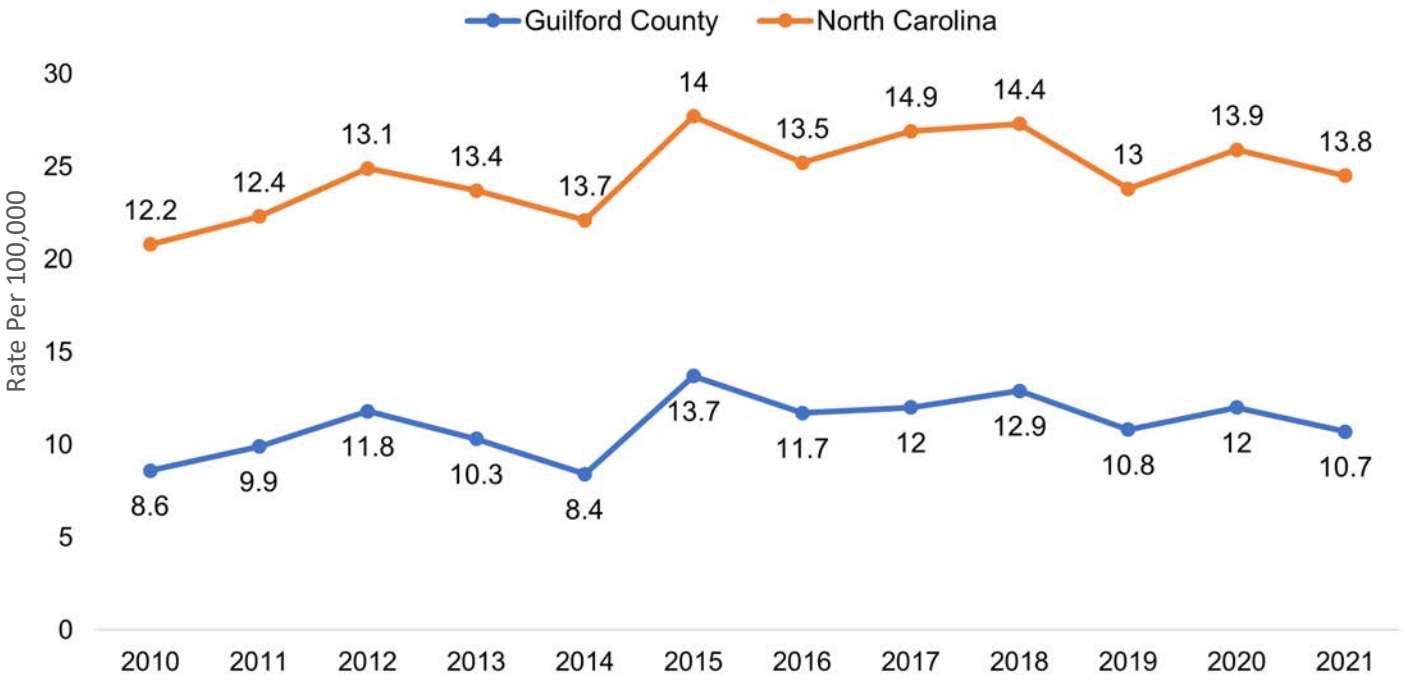
Suicide Trends in Guilford County

As shown in the chart below, the suicide mortality rates in Guilford County have fluctuated over the years, showing an unstable trend. As of 2021, the county's rate stands at 13.8 per 100,000 population, slightly exceeding the targets set by the state's Healthy North Carolina 2030 initiative. This indicates a need for continued focus on mental health resources and intervention strategies to effectively address the root causes and risk factors associated with suicide death. (See Chapter 7: Behavioral Health).

The table below provides a detailed breakdown of suicide mortality rates by demographics, including gender and race. It reveals that the suicide mortality rate for men in Guilford County is nearly five times higher than that for women. Additionally, the rate for White individuals is nearly three times greater than that for Black individuals.

From 2017 to 2021, a total of 303 suicide deaths were reported, with over half or approximately 55% involving firearms. This underscores the urgent need to promote safe firearm ownership, responsible storage and proper usage, as well as reducing access to lethal means. Firearms are the most lethal of suicide methods, and continue to be the one of the most common methods used in suicide attempts. Educating families, communities, and organizations about safe storage practices and limiting access to lethal means is crucial for saving lives.

Suicide Mortality Guilford County and NC, 2001-2021
Per 100,000



Note: Rates are not age-adjusted. Source: Data provided by the NC Center for Health Statistics.

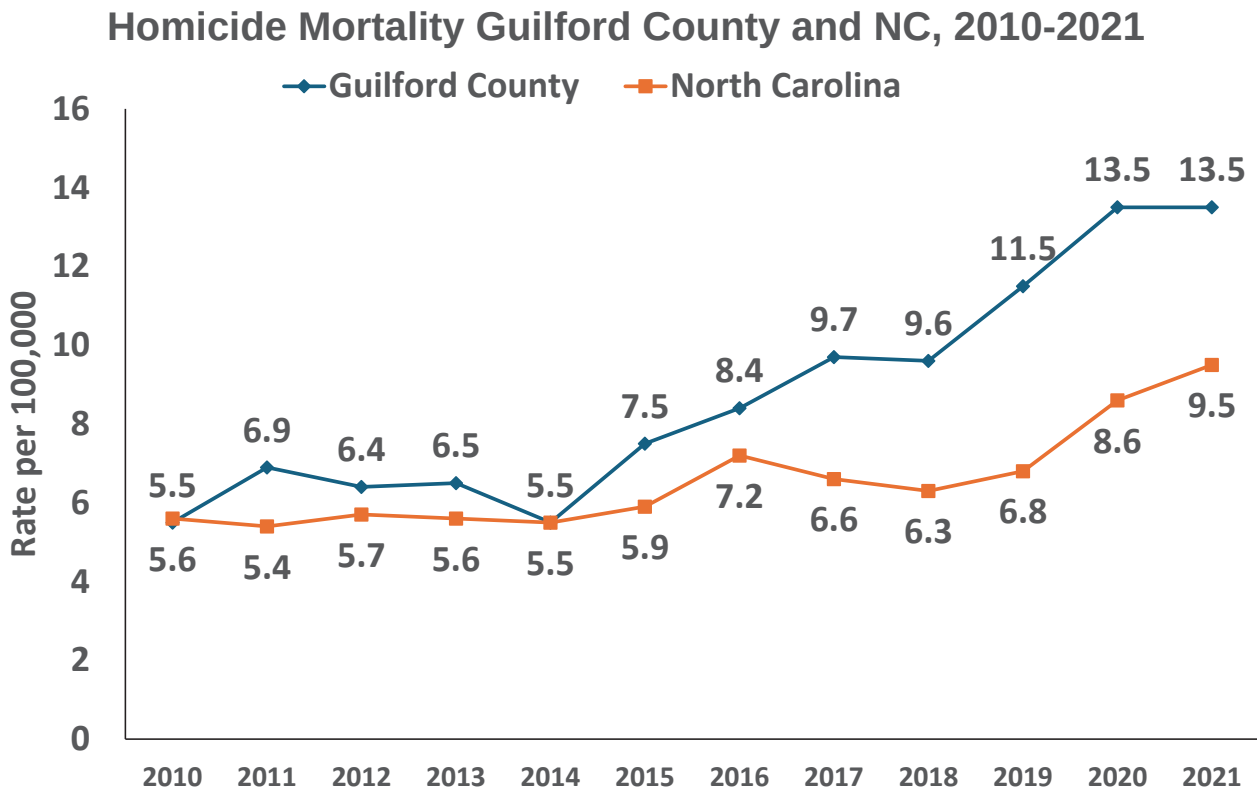
2017-2021 Age-adjusted Suicide Mortality Rate per 100,000

Men	Women	White	Black
19.4	4.4	16.7	5.7

303 Suicide Deaths	55.4% were Firearm-related

Source: NC Violent Death Reporting System Data Dashboard, 2024.

Homicide Trends in Guilford County



Note: Rates are not age-adjusted. Source: Data provided by the NC Center for Health Statistics.

The homicide mortality rate in Guilford County has steadily risen over the past several years, experiencing a significant increase from 9.6 deaths per 100,000 population in 2018 to 11.5 in 2019, and further to 13.5 in 2020. As of 2021, this rate remained unchanged at 13.5 deaths per 100,000. This trend underscores the growing concern regarding violent crime and community safety in the county.

2017-2021 Age-Adjusted Homicide Mortality Rate per 100,000

Men	Women	White	Black
11.8	4.0	3.2	23.9

313 Homicide Deaths	83.7% were Firearm-related

Source: NC Violent Death Reporting System Data Dashboard, 2024.

The table above illustrates the disparities in homicide mortality rates across two key demographics, including gender and race. It reveals that men experience a significantly higher homicide mortality rate of approximately 11.8 deaths per 100,000 population, compared to 4.0 for women. Furthermore, the rate for Black individuals is over seven times greater than that for White individuals.

Of the 313 reported homicide deaths, 83.7% involved firearms, highlighting the urgent need for interventions aimed at reducing firearm violence.

The significant disparity in the homicide mortality rate among Black men emphasizes the need for health equity-focused approaches to reduce community violence. This requires collaboration and engagement within communities that are disproportionately affected by violence and its lasting impacts. By prioritizing these efforts, we can work towards more equitable outcomes and foster safer communities in Guilford County.

Violent Crime and Community Safety

More detail on crime rates and community perceptions of safety are in Chapter 4 under Neighborhood and Built Environment.

How Does Guilford County Compare to Others?

The chart below compares the age-adjusted suicide mortality rate in Guilford County, which surpasses that of three out of four similar North Carolina counties, including Wake, Durham and Mecklenburg. As noted earlier, the Healthy North Carolina 2030 initiative sets a target rate of 11.1, which Guilford County is just shy of achieving as of 2021.

Healthy North Carolina 2030 Indicator

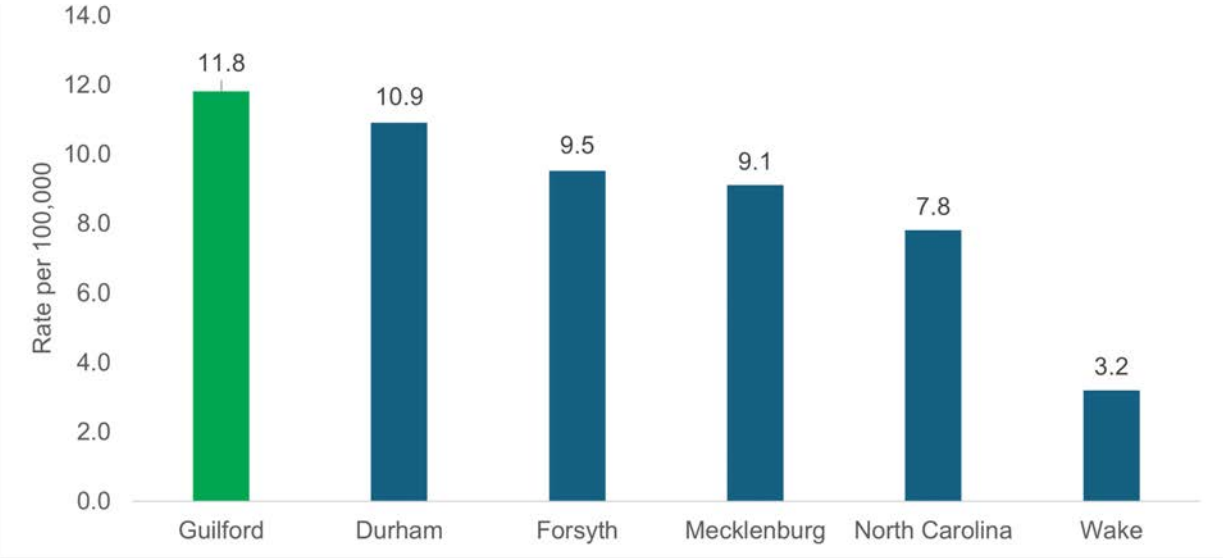
Suicide

2030 Target = 11.1 suicides per 100,000 population

Guilford County = 11.4 (2017-2021)

The age-adjusted homicide mortality rate of 11.8 per 100,000 population in Guilford County surpasses that of all comparison counties listed in the chart below and exceeds the state average. This comparison not only reflects the conditions within the local community but also emphasizes the need for comprehensive strategies that will enhance safety measures. Moreover, the significantly lower homicide rates in peer counties are encouraging, demonstrating that community safety and secure neighborhoods are achievable goals within our state.

Age-adjusted Homicide Mortality Rates per 100,000 Population, Guilford County, NC, and Peer Counties, 2017-2021



Source: County Health Databook, NC State Center for Health Statistics.

The Story Behind the Curve

To address firearm violence, we must understand the root causes of the issue. It is essential to recognize that neighborhoods, communities or certain populations experiencing higher rates of violence are not *inherently* violent. Rather, these patterns reflect broader systemic issues and inequities (Zagorski, 2022, Buggs et.al., 2022).

Health and Systemic Inequities

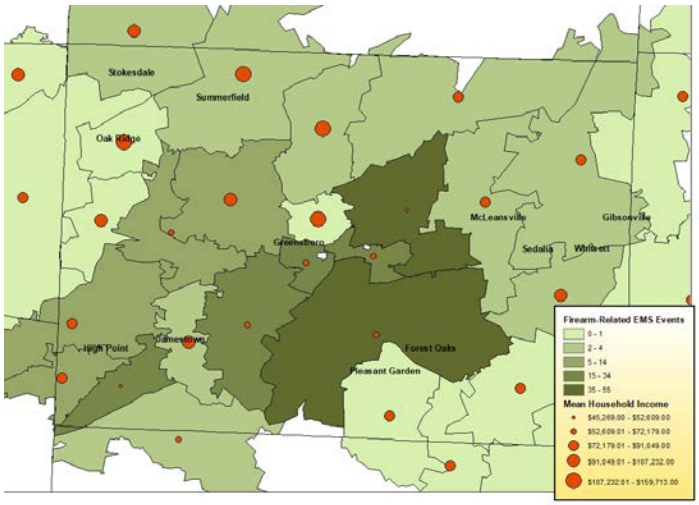
Generations of inequities have shaped the landscape of firearm violence. Socioeconomic factors such as poverty, lack of access to quality education and inadequate housing conditions create environments where violence, including firearm-

related incidents, are more likely to occur. In settings all over the world, individuals from low-income communities, young people and people of color tend to be over-represented in homicides and non-fatal shootings, both as victims and perpetrators (Buggs et.al., 2022).

> “Gun violence is an underrecognized social determinant of health.”
>
> Zagorski 2022

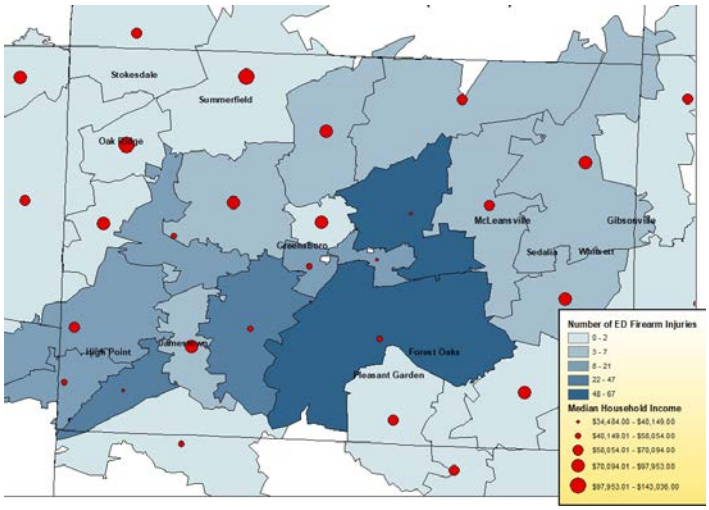
The data in this section highlights the relationship between firearm violence and social determinants of health including poverty, economic stability and employment based on social vulnerability (see Chapter1: Understanding Guilford County’s Health Using a Health Equity Lens).

2022 Firearm-involved EMS Events and Median Household Income, 2017-2021



Source: NC Detect, 2022; American Community Survey, 2017-2021.

2022 Firearm-involved Emergency Department Visits and Median Household Income, 2017-2021



Source: NC Detect, 2022; American Community Survey, 2017-2021.

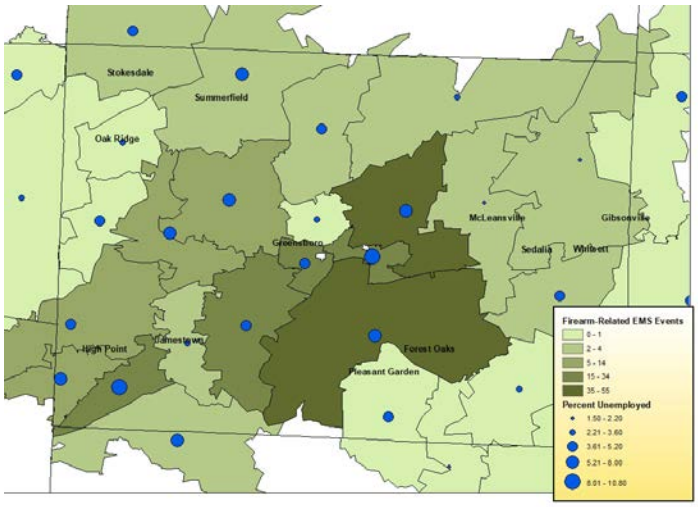
The maps above illustrate the relationship between firearm-related Emergency Medical Services (EMS) events and median household income, a key indicator of economic stability. Darker shaded areas represent areas in Guilford County with higher frequencies of firearm-related incidents, as indicated by EMS data. Notably, these areas correspond to households with incomes in the lower ranges of $34,484 to $40,149 and $40,149.01 to $58,054.

Similarly, when examining the link between economic stability and the incidence of violence or firearm-related events, unemployment emerges as another critical indicator. The maps below illustrate this connection: darker shaded areas signify regions with higher rates of emergency department visits related to firearms. The circles also show elevated unemployment rates based on upon size, categorized as follows: 3.7-5.2%, 5.3-8.0%, and 8.1-10.8%.

> “Firearm violence is a health equity issue.”
>
> Zagorski 2022

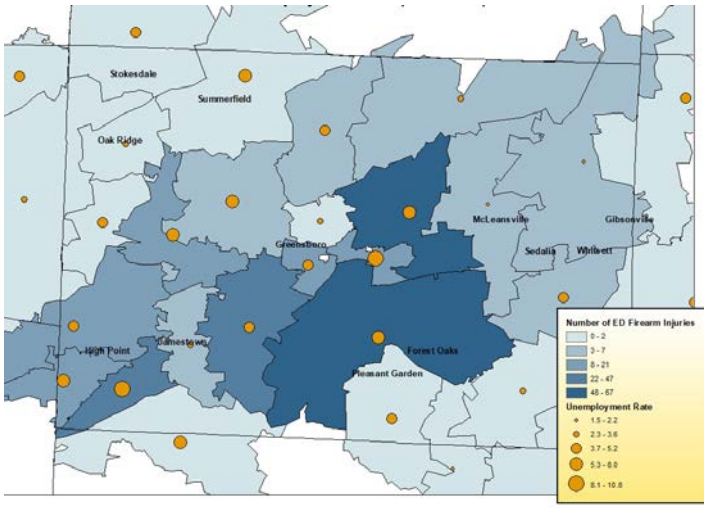
Other patterns between various social determinants of health and the increased incidence of violence, particularly the access to quality education and access to quality mental and clinical health care. These interconnected issues highlight the need to tackle the root causes of violence through a comprehensive and collaborative approach that involves health care networks, mental health providers, social services and community-based organizations (NCDHHS, 2022).

2022 Firearm-involved EMS Events and 2017-2021 Unemployement Rate



Sources: NC Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT), 2022, American Community Survey, 2017-2021.

Firearm-involved Emergency Department Visists (2022) and Percent Unemployed by Zip Code



Sources: NC Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT), 2022, American Community Survey, 2017-2021.

Turning the Curve: Areas for Action

Evidence indicates that there are powerful strategies to reduce firearm injuries and deaths and enhance community safety. These recommended strategies are centered around the following:

- **Firearm Safety Education**: Promoting safe firearm storage and educating communities on the importance of reducing access to lethal means
- **Community-based Intervention**: Enhancing community-based programs by providing resources and tools to support and expand current evidence-based models and approaches to community violence
- **Collective Impact:** Developing comprehensive, trauma-informed approaches to address communities disproportionately impacted by the burden of experiencing one or more social determinants of health

The following accounts highlight the significance of integrating comprehensive, evidence-based strategies to reduce and prevent violence.

Preventing Tragedies with Safe Storage

Micah, a 12-year-old seventh grader, was excited for the first day of school. After spending the summer working with his grandfather mowing lawns, he had saved up for a new pair of football cleats, hoping to make the team.

After a week of tryouts, the results were posted in the cafeteria. Micah's excitement quickly turned to despair when he saw his name wasn't on the list. Tears filled his eyes, and his classmates quickly noticed, mocking him for his emotions. For weeks, they called him a "cry baby," leaving pacifiers and bottles at his locker. Micah felt increasingly isolated and humiliated, often skipping class to avoid school.

One evening, while his dad was in the shed, Micah remembered that his father kept a handgun in a shoebox in his closet. Overwhelmed by feelings of rejection and embarrassment, he sought out the firearm, thinking it might offer an escape from the laughter that haunted him. Just as he found the gun, his father opened the door. "Son, what are you doing?" he exclaimed. In that moment, Micah dropped the firearm to the floor and ran into his dad's arms.

According to national statistics, firearms were the leading cause of death for children and teens ages 1–17 in 2022 (Office of Surgeon General, 2022). Education on safe firearm storage and reducing access to lethal means is crucial in this story because it highlights how accessible firearms can lead to tragic outcomes, especially in moments of mental or emotional distress. Had safe storage practices had been in place—such as securing firearms in locked containers—Micah might not have had the opportunity to access the firearm. Furthermore, education on the importance of secure firearm storage could empower families to take proactive measures, reducing the risk of suicide or unintentional injury among vulnerable individuals, particularly youth.

Incorporating these themes into the narrative emphasizes the broader message that responsible firearm ownership and education can play a vital role in preventing tragedies like Micah's, ultimately fostering safer communities and protecting young lives.

The Complexity of Preventing Violence

Devin was adjusting to life at home with just his mother after his older brother left for college. The house felt quieter, leaving him feeling a bit lost. To fill the void, he befriended Victor, a popular neighbor known for his trendy clothes but also for getting into trouble.

One afternoon, Victor asked Devin if he wanted to walk to the store around the corner. When they arrived at the store, Devin noticed Victor approach a group of four guys from the neighborhood. They were a rougher crowd, but Victor seemed completely at ease. "What's up, gang", Victor exclaimed. One of the guys replied, "I got the package for you today as he handed Victor a tattered brown bag. Devin became curious as he watched Victor tuck the bag into his pocket. "If we are still on for the job tonight, I may have an extra set of eyes," Victor said pointing to Devin. Devin became even a bit concerned as he hadn't discussed "a job" with Victor.

On the way back, Devin asked, "What were you talking about back there?" Victor pulled him aside and revealed a handgun from the bag. Devin's heart raced; he had never seen a firearm up close. "What do you need that for?" he asked, a mix of shock and concern in his voice. Victor just grinned and put the gun away.

Devin walked home feeling confused and troubled. That night, he couldn't shake the image of the handgun from his mind. The thrill of hanging out with Victor clashed with the fear of where this path might lead him.

This story highlights the need for violence prevention initiatives focused on firearm safety and education, community-based programming and improved resources in several ways:

- **Safe firearm storage**: Devin's encounter with Victor and the handgun illustrates how easily people can encounter firearms, especially in environments in which firearms are not secured safely. This underscores the importance of secure storage and improved measures to reduce unlawful access to firearms for youth and those who may be at risk of violence, as an offender or victim.
- **Firearm education:** Devin's confusion and concern about the handgun signify a lack of knowledge about firearms and their potential dangers. Comprehensive education on firearm safety, the risks associated with gun violence, and conflict resolution can empower people to make informed choices.
- **Lack of Community Resources and Programming:** The story reflects Devin's feelings of isolation and lack of direction after his older brother left for college. This gap can make young people more susceptible to negative influences. Community initiatives such as mentoring programs, and sports and recreation opportunities may provide engaging activities and support that can help fill this void, steering youth away from risky behavior.
- **Situational awareness/ Awareness of Consequences**: The narrative emphasizes the need for youth to understand the serious implications of associating with firearms and gangs. Violence prevention initiatives should include discussions about the long-term consequences of such choices, helping teens recognize the potential dangers.

By addressing these elements through focused initiatives, communities can work towards reducing the likelihood of violence and promoting safer environments for youth to live.

The Importance of Collaboration: Highlighting Community Assets and Current Initiatives

Addressing firearm violence requires comprehensive strategies that emphasize collaboration and partnerships among various sectors including law enforcement agencies, public health organizations, community-based organizations, educational institutions, health care providers, faith-based organizations, and local support groups (Office of the Surgeon General, 2024; Johns Hopkins Bloomsburg School of Public Health,2021).

A growing network of organizations is uniting to pursue a common goal: to reduce community violence and enhance community safety through collaborative efforts. This collective approach fosters stronger connections and shared resources, leading to more effective solutions.

- **Guilford County Division of Public Health (GCDPH)**:The Guilford County Division of Public Health (GCDPH) is dedicated to protecting and enhancing the health and well-being of the community and environment. In 2022, GCDPH hired a violence prevention community health educator to work with local community partners and law enforcement to collaboratively identify strategies to reduce gun violence, educate residents, monitor emerging trends, and implement critical tools to prevent incidents of firearm violence in the community.
- **City of Greensboro Office of Community Safety (OCS):** The Office of Community Safety is a cooperative effort between the residents of Greensboro, City of Greensboro leadership, and the Greensboro Police Department to develop a safe and healthy neighborhood through collaborative planning, community action, and policy advocacy.
- **High Point Community Against Violence:** High Point Community Against Violence (HPCAV) is a key partner in the violence prevention network in Guilford County. HPCAV aims to foster a safer environment for all residents. The organization collaborates with law enforcement and offers support to previous offenders.
- **Guilford County Family Justice Center:** The Guilford County Family Justice Center (FJC) serves as a comprehensive resource for victims of domestic violence, sexual assault, child abuse, and elder abuse. At each location, professionals from 15 different disciplines work together to provide consolidated and coordinated safety, legal, social, and health services to individuals and families in need. The FJC also plays an important role in community outreach and education, collaborating with local organizations and volunteers to raise awareness and provide support across the county.
- **One Step Further - Gate City Coalition II:** The Gate City Coalition Program (GCC2) employs a Cure Violence-like health model, viewing violence as a learned behavior that can be prevented through disease control strategies. GCC2 enhances the livability and safety of high-risk neighborhoods in Guilford County by implementing violence prevention activities and fostering community cohesion through youth mentoring and sustainability initiatives. Key services include community mobilization, outreach, violence interruption, public education, gang reduction, mediation, rapid response to gun violence or homicides, and support services for employment, housing, and education.
- **The Center for Health Equity at Cone Health:** In 2022, Cone Health established its Center for Health Equity to tackle the significant 15-year life expectancy gap in Greensboro, which varies by ZIP code. The center has set an ambitious goal to reduce this disparity by five years over the next five years. To achieve this, the Center brings together experts and influencers from both clinical and non-clinical backgrounds, all focused on improving health care for underserved and historically marginalized communities. The Center has identified five key areas to focus on including community violence, cardiometabolic diseases, cancer, infant mortality, and opioid use. Through this collaborative effort, the Center aims to develop effective strategies to address and reduce these critical health disparities.
- **High Point Peacemakers:** The High Point Peacemakers is a Christian nonprofit organization dedicated to reducing violence and promoting safety in the community. Their proactive mission emphasizes educating the public about the effects of violence on youth, mobilizing community action, and providing support to those affected. The Peacemakers envision a coordinated approach to violence prevention and intervention, focusing on detecting

and interrupting conflicts, supporting high-risk individuals, and shifting community norms. By collaborating with stakeholders such as law enforcement and educators, and offering outreach programs, they strive to cultivate a culture of peace in the Triad.

- **Mothers Standing Against Gun Violence:** Mothers Standing Against Gun Violence is a community of women and mothers who have experienced the loss of a loved one to firearm violence. Their mission is to raise awareness about the impact of firearm violence and advocate for justice. They provide a supportive environment for grieving mothers and families, organize community walks with law enforcement and first responders to spotlight unsolved cases and gather information, and foster connections within the community**.**
- **Community-Based Violence Intervention and Prevention Initiative (CVIPI):** The Community-Based Violence Intervention and Prevention Initiative (CVIPI) is a collaborative, grant-funded effort involving the Greensboro Police Department, the University of North Carolina at Greensboro, North Carolina A&T State University, and RTI International. The initiative aims to reduce violent crime in high-crime neighborhoods, ultimately lowering overall crime rates in Greensboro. CVIPI employs a systematic approach that includes data analysis and feedback from residents and partners, focusing on the strategic implementation of comprehensive, evidence-based violence intervention and prevention methods.

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Chapter 7:
Behavioral Health

The World Health Organization (WHO) defines mental health as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to contribute to his or her community.”

Pan American Health Organisation, 2022

Section 1: Drug Overdose

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Reviewer:

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The World Health Organization (WHO) defines mental health as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to contribute to his or her community” (Pan American Health Organisation, 2022). Such definitions underscore the importance of mental health and its relationship to a fundamental sense of well-being. The term “Behavioral Health” is often used to describe the connection between our behaviors and this fundamental sense of well-being. Practitioners working in Behavioral Health offer therapies designed to help individuals cope with issues such as depression, anxiety and addiction to alcohol or drugs. Many issues contribute to behavioral health outcomes – everything from an individual’s genetic predisposition to family function, stigma, and community support, to policies like alcohol taxation and available behavioral health care providers and evidence-based treatment.

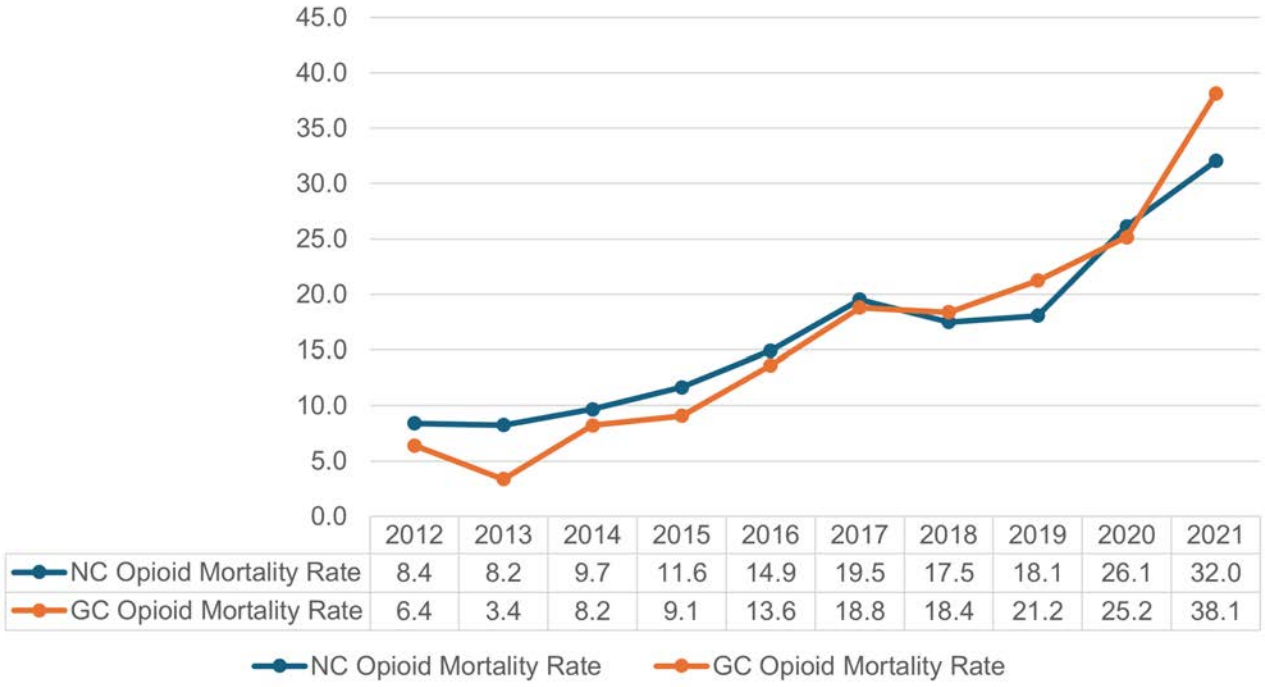
Why are Drug Overdoses Important?

The United States has been experiencing an overdose crisis for over two decades. Deaths from drug overdoses increased by 622% from 2000 to 2020. Every year since 2020, we have had over 100,000 deaths annually due to drug overdose, primarily opioid overdoses. Drug overdose is the leading cause of death for people under 50 years old. Guilford County has been directly affected by this crisis. Guilford County’s opioid overdose death rate has been higher than the state average since 2018. Between 2012 and 2021, the number of drug overdose deaths in Guilford County increased from 53 to 249 deaths, of which 206 were opioid drugs.

Due to the recent national settlements with prescription opioid distributors and manufacturers, and the fact that opioids are involved in over 80% of overdose deaths, opioids have taken the spotlight when it comes to substance use and overdose, but that is only part of the picture. Most drug overdoses are polysubstance, meaning they involve one or more other drugs. Death certificates for drug overdose deaths often include combinations of both opioid drugs and other drugs, most commonly cocaine, but also including methamphetamines, benzodiazepines, antiepileptics and alcohol.

How does Guilford County Trend over Time?

Opioid Overdose Mortality Rates, Guilford County and North Carolina, 2012-2021, Rate per 100,000

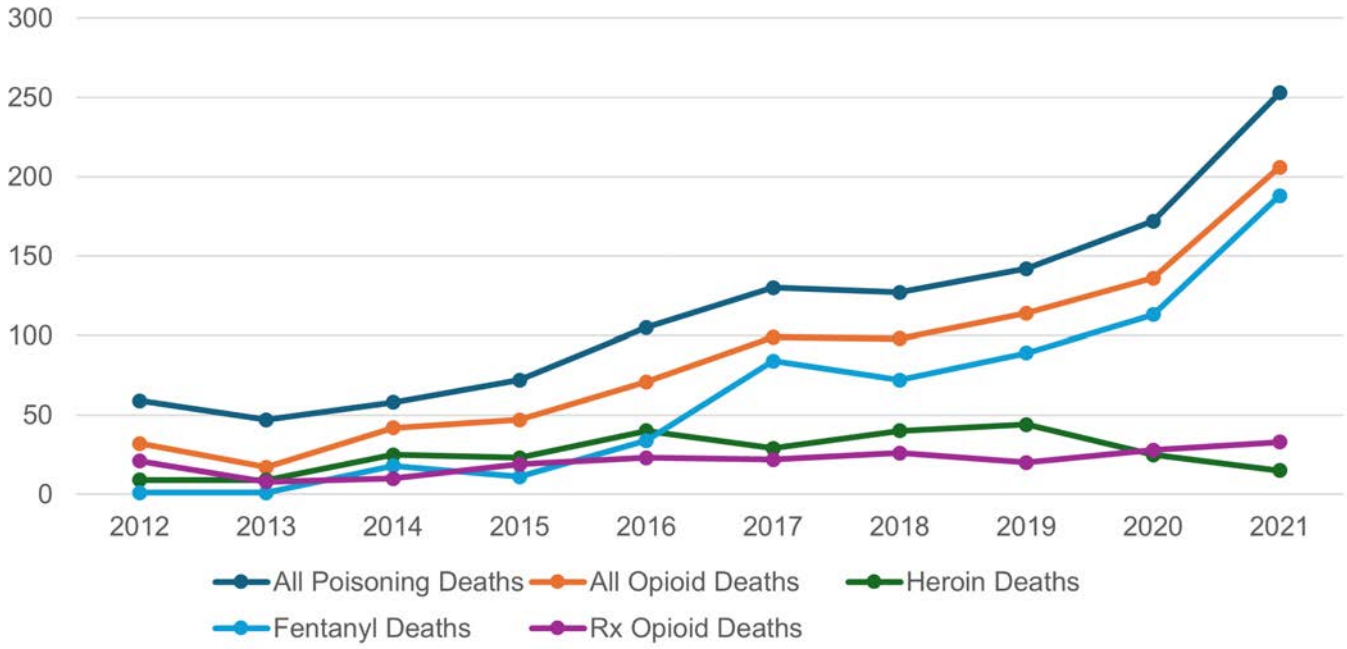


	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NC Opioid Mortality Rate	8.4	8.2	9.7	11.6	14.9	19.5	17.5	18.1	26.1	32.0
GC Opioid Mortality Rate	6.4	3.4	8.2	9.1	13.6	18.8	18.4	21.2	25.2	38.1

Source: NC DHHS, Injury Epidemiology, Surveillance and Informatics Unit.

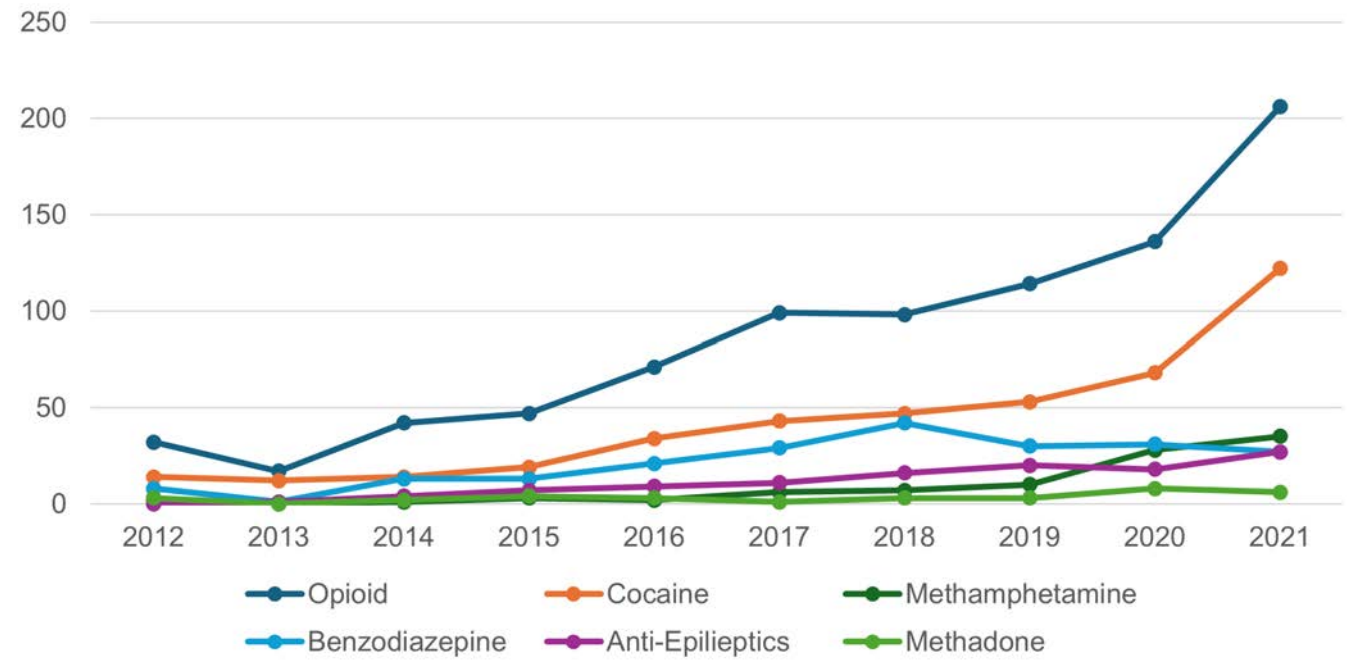
Opioid overdose mortality in Guilford County increased dramatically over the last ten years, following a similar trend in the state overall. Opioid overdose deaths comprise the largest portion of poisoning mortality in Guilford County. In 2012, most opioid overdose deaths in the county were due to overdoses of prescription opioid medications, followed by heroin overdoses. As the synthetic opioid fentanyl became more widely available, there was a decline in deaths due to heroin, but an increase in the proportion of opioid deaths due to fentanyl, while the numbers of overdose deaths climbed.

Poisoning Deaths, Opioid Poisoning Deaths and Types of Opioid Poisoning Deaths (Heroin, Fentanyl and Rx Opioids), 2012-2021



Source: NC DHHS, Injury Epidemiology, Surveillance and Informatics Unit.

Substances Contributing to Overdose Deaths, 2012-2021



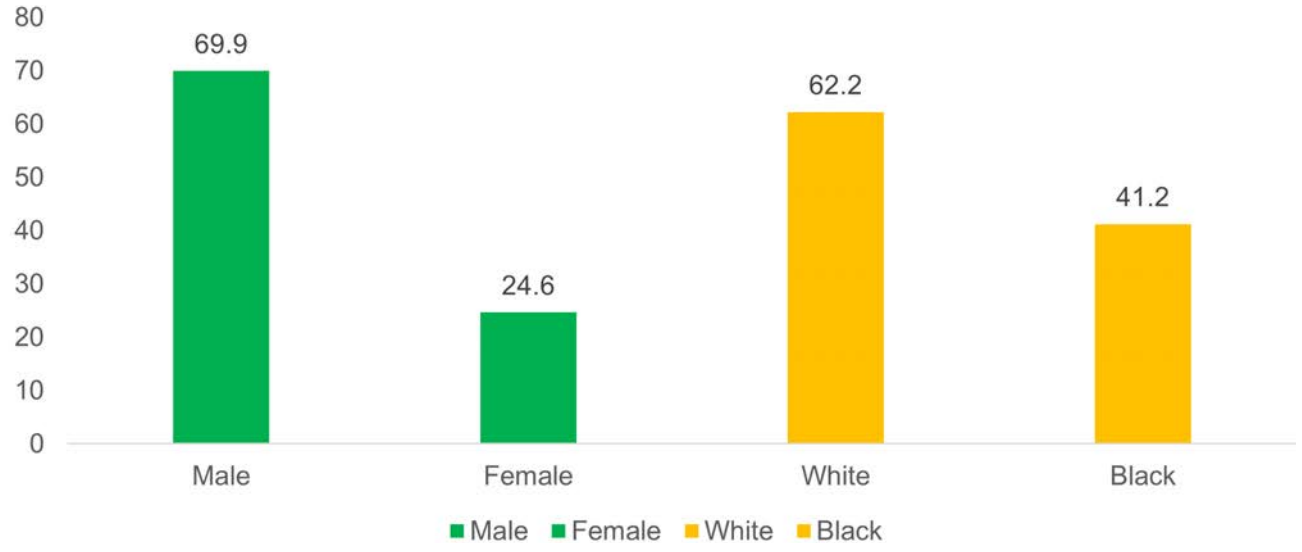
Source: "Medication and Drug Overdose in Guilford County," Injury Epidemiology, Surveillance and Informatics Unit, NC DHHS.
Note: Counts are not mutually exclusive. Deaths may include multiple substances as contributing factors.

Opioid drugs are the most common, and lethal, drugs contributing to the rise in overdose mortality in Guilford County especially the synthetic opioid fentanyl; However, it is important to recognize that opioids are often taken in combination with other drugs. Other drugs listed as contributing factors to drug overdose deaths on death certificates include cocaine, methamphetamines, benzodiazepines, anti-epileptic drugs and methadone. The contribution of cocaine to drug overdose deaths in the county has been increasing since 2013.

Disparities in Overdose Mortality in Guilford County

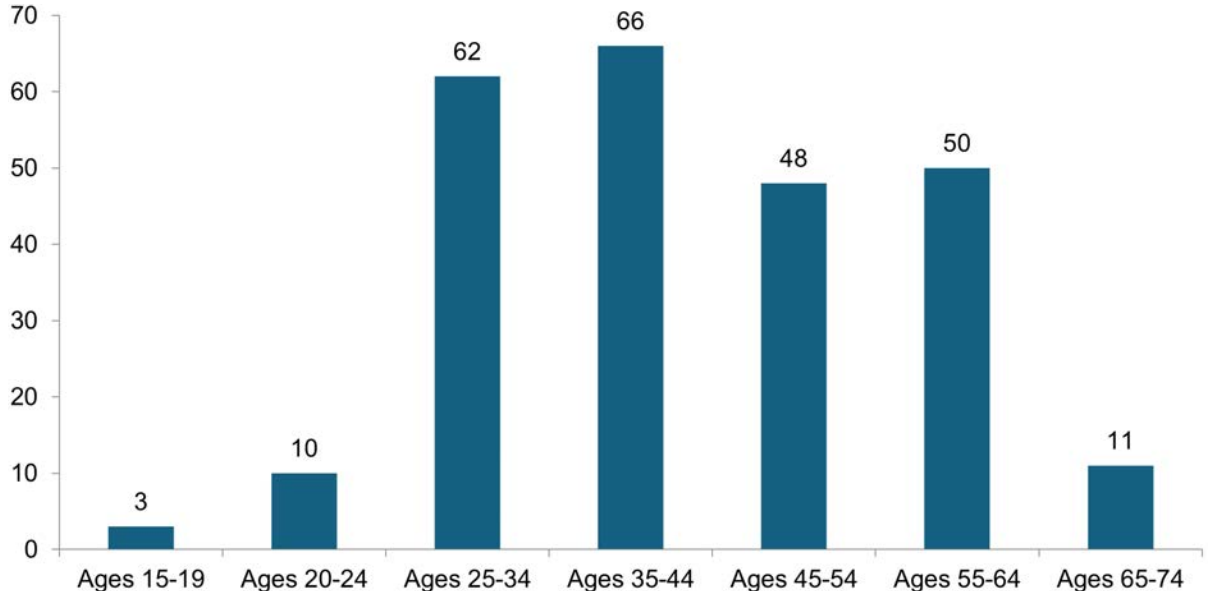
Overdose mortality in Guilford County varies substantially by both sex and race. The overdose mortality rate among men was more than twice that among women in 2021 (69.6 deaths per 100,000 for men compared to 24.6 for women). Overdose mortality rates among White residents were higher than among Black residents (62.2 for Whites compared to 41.2 for Blacks). Overdose mortality occurred to a greater extent among young adults ages 25 to 44, but overdoses are also common among adults between the ages of 45 and 64.

Drug Overdose Mortality by Sex and Race, Guilford County, Rates per 100,000 popuation, 2021



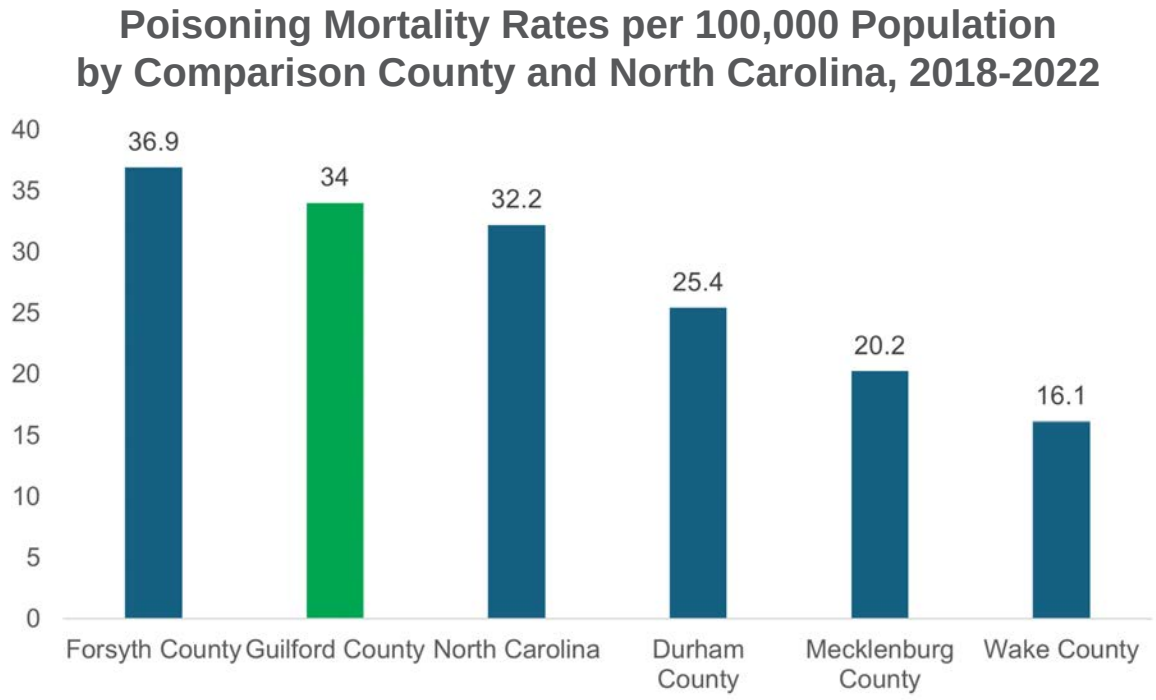
Source: NC State Center for Health Statistics, NC Mortality File, 2021
Note: Includes fatal overdoses from all types of medications and drugs, whether unintentional or intentional.

Poisoning/Drug Overdose Deaths by Age Group, Guilford County, 2021 Number of Deaths, N=250



Source: Data provided by the NC Center for Health Statistics, NC Mortality File, 2021.
Note: Includes unintentional and intentional drug overdose deaths.

How does Guilford County Compare with NC and Peer Counties?



Source: County Health Databook, NC State Center for Health Statistics.

The following chart shows the rate of deaths per 100,000 people from poisoning. Poisoning can be from any toxic or poisonous substance but is primarily comprised of deaths due to drug overdoses or drug poisoning. Over the five-year period from 2018 to 2022, Guilford County ranked second to Forsyth County in the rate of poisoning mortality compared to peer counties and NC.

The Story Behind the Curve

What is driving the increase in overdoses and overdose deaths?

The modern drug overdose crisis is a complex issue with many contributing factors. The most significant being the release of the prescription medication Oxycontin by Purdue Pharma in 1996. Oxycontin was heavily marketed and advertised as a non-addictive opioid painkiller. Similar prescription opioid pills followed in the years after Oxycontin's release. By the year 2000, drug overdose deaths had begun to rise significantly and began to be tracked separately from poisioning deaths. It became apparent that Oxycontin and other prescription opioid drugs were not "non-addictive" as they were advertised to medical providers and patients. This was the first of three waves of our current overdose crisis.

Prescription pill overprescribing, addiction, and overdose continued to be a problem throughout the 2000s and 2010s, leading to legislation in North Carolina and other states. North Carolina enacted the STOP (Strengthen Opioid Misuse Prevention) Act in 2017 to discourage prescribing of opioid pills and make pills more difficult to get (North Carolina Medical Board, 2017). This legislation did not curb overdose deaths and pushed us into the second wave of our overdose crisis.

Brittany's Story

Limited health care access and medication supply chain problems created by the pandemic also contributed to increased overdose deaths. For example, Brittany has had a prescription for Adderall for years to treat her ADHD. It helps her keep a regular sleep schedule and stay focused at work. During the COVID pandemic there was a shortage of Adderall and Brittany struggled to get her prescriptions filled regularly, even after checking with nearly a dozen pharmacies. Though she would never have considered it previously, Brittany is beginning to struggle at work and is desperate for some quality sleep, so she turns to the street to purchase her usual dosage of Adderall.

The pills she obtains look just like the ones from the pharmacy. However, Brittany suffers an overdose due to one of the illicit pills unexpectedly containing fentanyl. Thankfully Brittany's roommate was able to call 911. Paramedics arrived to give Brittany naloxone to stop the overdose, and she will be okay. This situation could easily have ended differently, with Brittany becoming another name on the growing list of overdose deaths.

This story exemplifies one of the many ways in which the COVID pandemic caused an increase in overdose as well as some of the unique problems created by a contaminated supply of street drugs. It also points out that anyone can be at risk of a drug overdose given the right circumstances.

When pills became harder to obtain, many people who were addicted turned to heroin. Heroin is chemically similar to opioid pills, provides similar effects, is easier to obtain, and is about one fifth of the cost of prescription pills on the street market. By the time we reached 2020, we had entered the third wave of the overdose crisis: the age of Fentanyl.

Fentanyl is a powerful synthetic opioid that is now commonly mixed into the supply of street drugs. At first, Fentanyl was mostly mixed in with heroin but in recent times it has been proven to be mixed into non-opioid street drugs (like methamphetamine, cocaine, and counterfeit prescription pills) as well. Fentanyl is 80-100 times stronger than morphine so injesting a very small amount can be enough to cause an overdose, expecially for people who are opioid naive. A person is considered opioid naive when their body does not have a tolerance for opioids. This could be because they have never used opioids before, or because they have not used opioids for a period of time, usually a month or longer.

The COVID pandemic and the increasing adulteration in the supply of street drugs in the United States has fueled increasing overdose deaths since 2019 (NYU Web Communications, 2022, CDC, 2024). Harm reduction research shows that when people have access to naloxone, methods of testing their drugs for contaminants (test strips, reagent liquids, or FTIR spectrometer machines) and avoid using drugs when they are alone, their risk of overdose death decreases significantly (National Harm Reduction Coalition, 2019, Wu, 2023).

The COVID pandemic brought on challenges for everyone, including mental and physical illness, grief, and increased levels of stress and isolation as well as other social changes. Due to these changes and added stressors, many people turned to substances to cope. People who had not used substances before, or who had been sober from substances began using. People who were already using substances began to use larger amounts or in different ways, and were more likely to be using alone, with no one to call for help should an overdose or other complication occur (Conway, 2022, Chacon 2021). For anyone seeking help for their substance use, appointments with providers and in-patient treatment were more difficult to get due to closures, and limited space or hours for services that were already overwhelmed prior to the pandemic (Abramson, 2021).

There are challenges to obtaining drug overdose related data. These data are normally collected from hospitals, emergency medical services, and organizations distributing naloxone and other harm reduction supplies. However, there are lots of overdoses that are missed. As of September 2023, Naloxone is available over-the-counter, and has been becoming more widely available with Standing Orders making naloxone easier to get in North Carolina and elsewhere. Many overdoses are not reported and unaccounted for. If no one calls 911, if a layperson on scene uses naloxone and the person wakes up from their overdose and never seeks any medical care for it, it will not be included in any of our data. Situations like this happen daily. Therefore, the number of overdoses in Guilford County is almost certainly underreported.

Turning the Curve: Areas for Action

Substance use is a spectrum that ranges from abstinence to experimentation and various forms of occasional use to problematic use. This spectrum is a non-stigmatizing way to view and discuss substance use. There are harm reduction measures that can be taken to help people stay safe no matter where they fall on the substance use spectrum.

Harm Reduction (Naloxone, Testing Strips)

Harm reduction is any strategy, program, or tool that decreases the amount of harm done by something we know is risky. Abstinence from substances is a form of harm reduction, but that may not be realistic for many people. Education about contaminants in the drug supply, and access to things like naloxone and drug checking supplies are critical. Even if someone is only experimenting for the first time or using a substance occassionally, they could be at risk of overdose because contaminants like fentanyl can be 80-100 times stronger than morphine, so a very small amount would be enough to cause an overdose (Des Jarlais, 2017).

Opioid drugs are often used in combination with other substances, including alcohol, the most commonly used recreational drug. Mixing opioids and alcohol increases the risk for overdose because they are both depressant drugs. Knowing the risks of mixing alcohol with things like opioids or other substances is imperative.

Understanding and preventing binge drinking is also important. Alcohol is the most socially accepted drug we have (along with tobacco and nicotine products) and excessive consumption is often socially normalized or even praised. Encouraging responsible use is a more realistic goal for some people than total abstinence. Binge drinking is defined as consuming five or more drinks on an occasion for men or four or more drinks on an occasion for women. In the 2023 Guilford County Community Health Survey, about 21.2% of all respondents reported that they had engaged in binge-drinking alcoholic beverages one or more of the past 30 days and 22.2% reported using one or more type of tobacco or nicotine products. Persons under the age of 50, men and those who were employed full or part-time were more likely to report binge drinking in the past 30 days. Respondents who were men, had less than a bachelor's degree, or rather than own a home had higher percentages of tobacco or nicotine use.

Access to Best Practice Recovery and Treatment (Recovery Spectrum)

For tobacco/nicotine and opioids use, there are medications to help curb use of these. They are known as MAT (Medication Assisted Treatment). For tobacco/nicotine these include medications like Chantix, Nicorette, and others. For opioids, it includes medications like Buprenorphine and Methadone (Walters, et.al., 2024). There is still a lot of stigma and misinformation about the medications that causes people to be hesitant to use or recommend them, though research has proven them to be very effective when used correctly (Wakeman et al., 2020). Usually this stigma involves the idea that these drugs are "exchanging one addiction for another" when the reality is that these medications are to be used short or long-term to curb the cravings for the substance, and help stabilize the mental state of the patient so they can focus on things like family, work, housing, hobbies, etc. Some people stay on MAT for a short period of time while others use it for longer periods. The treatment plan is usually tailored to the person's individual needs and treatment goals.

Current Initiatives and Assets

Opioid Settlement

In July 2021, to address the harm caused by the opioid epidemic and bring vital resources to local communities, Attorney General Josh Stein negotiated a $26 billion settlement for the State of North Carolina. This settlement resolves opioid litigation with three drug distributors, McKesson, Cardinal Health, and AmerisourceBergen, and one manufacturer, Janssen Pharmaceuticals, Inc., and its parent company Johnson & Johnson.

As a result of the settlement, local county and municipalities will receive the following settlements over an 18-year period (2022-2038):

- Guilford County - $40,750,701
- City of High Point – $6,367,847
- City of Greensboro – $2,492,468

Source: North Carolina Opioid Settlements, 2024. Please note: the amounts listed here could change in the future if more opioid-related litigation occurs.

Diverse partnerships are a key part of addressing overdose in Guilford County. While there have been partnerships in the past, an opportunity to create significant partnerships to affect change has presented itself in the form of national opioid settlement money that began flowing into the county in 2023. The Memorandum of Agreement (MOA) that Guilford County signed on to in order to access funds requires wide reaching collaborative strategic planning and creation of an official plan of specific strategies to which the county will dedicate opioid dollars (Guilford County, 2024).

The initial strategies that Guilford County has already allocated funds for includes:

- **Community engagement and education:** This includes creation of the Drug and Injury Prevention program which hosts the Guilford Overdose Prevention and Education Collective (GOPEC), provides community education and outreach about substance use and overdose, shares information about local resources and helps make those connections, assists in strategic planning efforts for opioid settlement funds, and distributes overdose prevention supplies such as Naloxone and test strips for Xylazine and Fentanyl.
- **Harm Reduction:** Includes partnerships with organizations like Guilford County Solution to the Opioid Problem (GCSTOP) to initiate and expand programs that prevent overdose death as well as preventing the spread of communicable diseases such as Hepatitis C and HIV. Programs include a Syringe Service program which distrubutes naloxone and sterile use supplies to people who use drugs (PWUD), a justice-involved program that provides support and resource connections to people being released from the local jails, a Post Overdose Response Team which reaches out to people 24-48 hours after an overdose to offer support and resources, and a low barrier clinic which provides Suboxone (a medication to treat opioid use disorder) free of cost to patients.
- **Residential treatment:** Includes providing funds to relocate and expand the current Daymark residential drug treatment facility to a site on Lee's Chapel road in Greensboro, and renovate the old, vacated Daymark site to be a residential treatment facility focusing on pregnant and parenting women. Women with children under the age of 12 will be able to obtain in-patient drug treatment while their children live with them on site.

While not an exhaustive list, other additional community resources include:

Guilford County Solution to the Opioid Problem (GCSTOP) is a community-based nonprofit organization with the mission of reducing opioid-related mortality in Guilford County. GCSTOP provides post-overdose response, support to individuals involved in the justice system, and community outreach services. All services are provided at no cost to program responders.

The Guilford County Formerly Incarcerated Transition (FIT) program connects justice-involved persons (JIP) with chronic medical conditions, mental illness and/or substance use disorder to patient-centered primary care, assisting with additional insurance, medication assistance and medically related services. Administered by Triad Adult and Pediatric Medicine (TAPM), specially trained community health workers build trust and act as a peer navigator for reentry with a special focus on opioid use disorder.

Alcohol and Drug Services (ADS) is a non-profit organization that provides prevention and treatment services to individuals and families impacted by addictive disease, including prevention and early intervention services, education, individual and group counseling, and special medical services to residents of the Piedmont Triad and Central North Carolina.

The North Carolina Survivor's Union is a community-led statewide grassroots organization made up of people who are directly impacted by drug use. They host a Health Hub that includes Hepatitis C testing, a Syringe Service Program, no-cost Plan B emergency contraceptive, naloxone, drug testing/checking services, peer support services, a no-cost wound care room and opened a low-barrier suboxone clinic in July 2024.

Caring Services, Inc. is a non-profit organization that provides a holistic continuum of care to individuals who are ready to make a commitment to their recovery from substances through multi-dimensional approaches to rehabilitation, including transitional housing, supportive living, outpatient treatment, relapse prevention, education, employment assistance, health and leisure, substance abuse intensive outpatient program and improved family relationships.

Fellowship Hall is a hospital that specializes in treatment for substance abuse disorders, and the treatment of co-occurring disorders. Fellowship Hall provides detoxification, residential treatment, intensive outpatient programs, as well as traditional outpatient services and family therapy.

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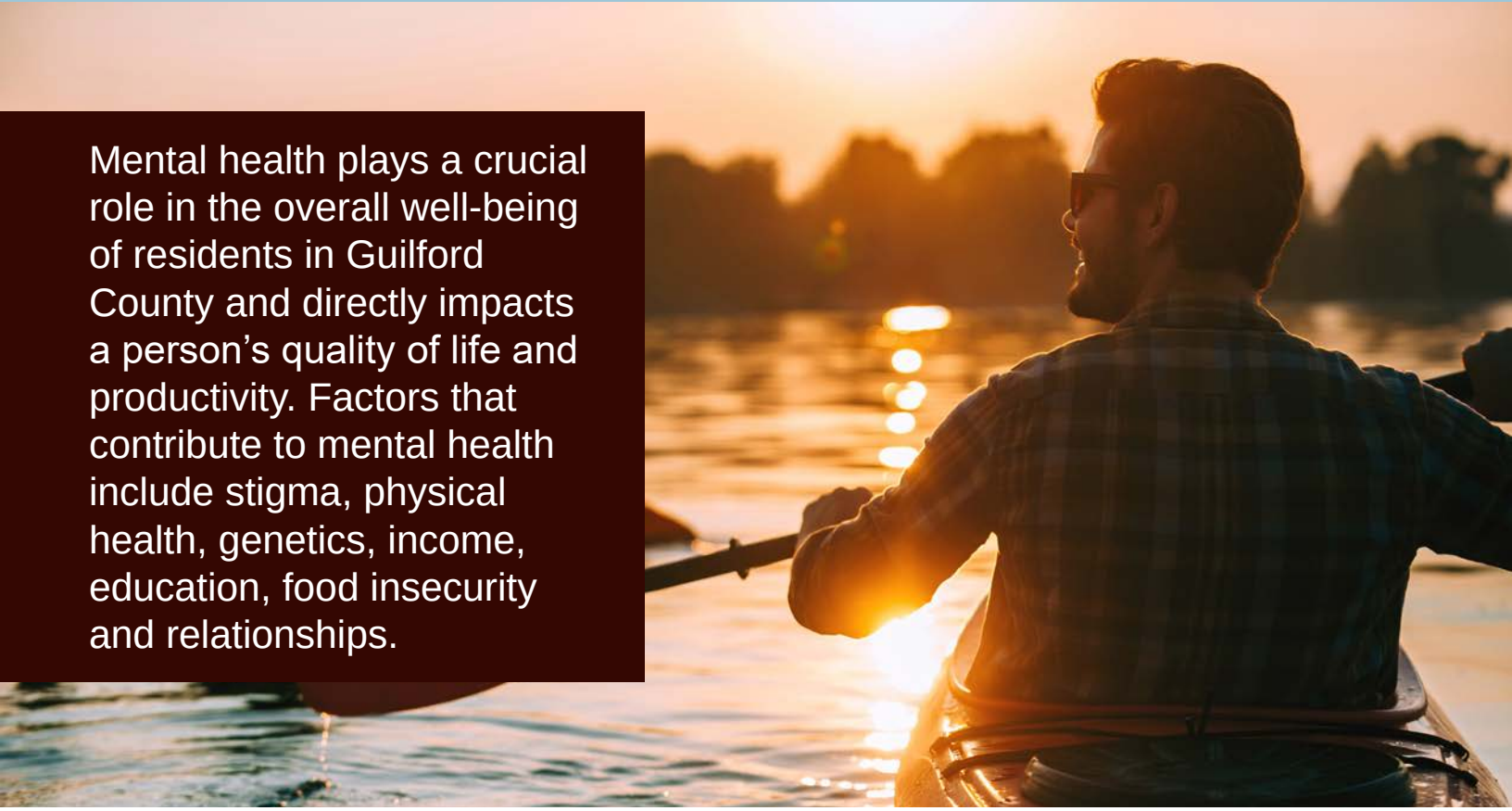

Mental health plays a crucial role in the overall well-being of residents in Guilford County and directly impacts a person's quality of life and productivity. Factors that contribute to mental health include stigma, physical health, genetics, income, education, food insecurity and relationships.

Section 2: Mental Health

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Why is Mental Health Important?

Mental health plays a crucial role in the overall well-being of residents in Guilford County and directly impacts the quality of life and productivity of its residents as well. Factors that contribute to mental health include stigma, physical health, genetics, income, education, food insecurity, and relationships.

- **Prevalence**: One in four 2023 Guilford County Community Health Survey (2023 GCCH Survey) respondents reported being told by a health professional that they have anxiety or depression, higher than all other health conditions except for high blood pressure. The percentage of adults who reported depression was higher in Guilford County than in the United States, North Carolina, and most peer comparison counties.
- **Health Impact**: While good mental health can positively impact physical health, poor mental health can do the opposite. Poor mental health, when undiagnosed and untreated, can lead to self-harming behaviors and suicide attempts. Individuals with depression are at greater risk of chronic health conditions like heart disease, diabetes, and stroke; and conversely, those with a chronic disease have a higher risk of developing mental health disorders. Poor mental health can also impact an individual's sleep, energy level, digestive health, and longevity (CDC, 2024).

- **Screening and Treatment**: Integrating regular mental health screening within primary, pediatric, and obstetric care settings supports early detection and treatment of behavioral health disorders. Screening can also reduce the human and economic costs associated with poor mental health. However, barriers that persist include a lack of providers and treatment, stigma, and thecost of care.
- **Economic Impact**: Poor mental health is costly to our economy due to premature death, productivity loss, and medical expenditures due to untreated or undertreated mental health conditions.
- **Health Disparities/Vulnerable Populations**: Nearly one in four adults and one in seven children live with a mental health condition (CDC, 2024). Certain populations are *disproportionately* impacted by poor mental health. Race, age, gender, ethnicity, military service, sexual identity and socio-economic status represent some of the demographics in which differences are observed.

How is Guilford County Doing?

Self-rated Mental Health

In the 2023 GCCH Survey, 86.3% of all respondents described their mental health as excellent, very good, or good, while 12.7% said it was fair or poor. Survey respondents who owned their own homes were more likely to report excellent, very good or good mental health at 90.8% as compared to 81.0% of those who rented their homes. Men were notably more likely to report higher rates of excellent, very good or good mental health (92.4%) compared to 84.2% of women.

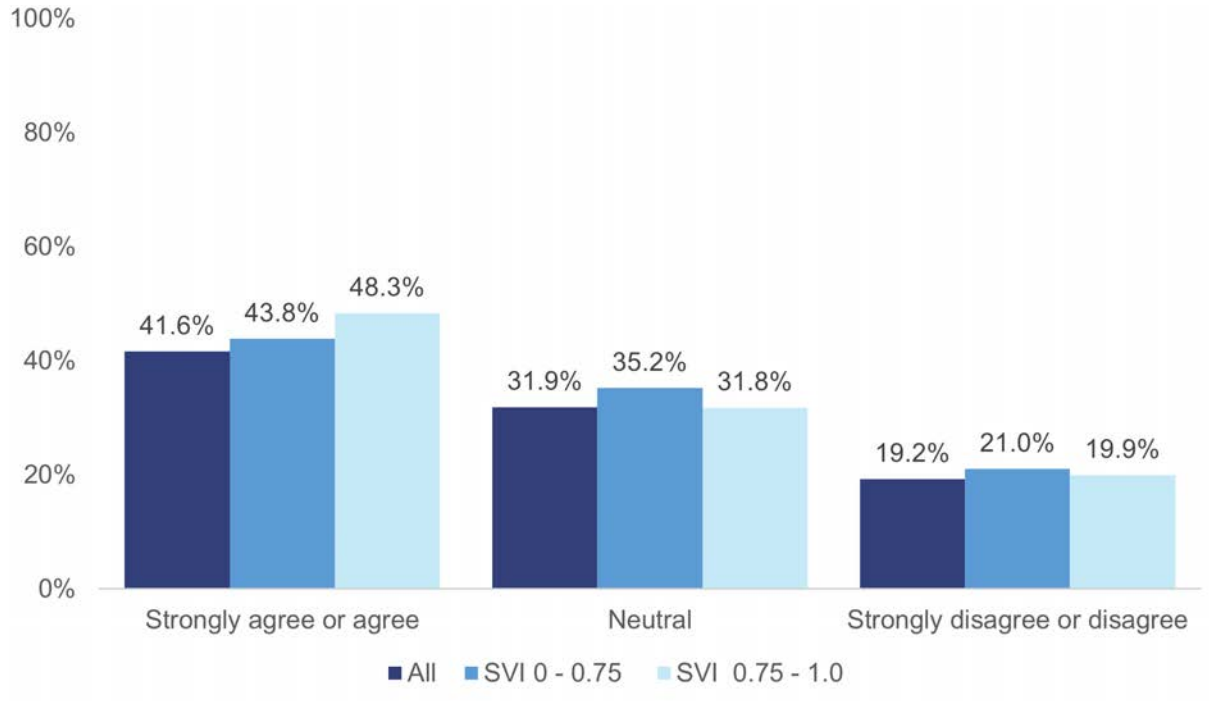
Suicide

As mentioned in Chapter 6 on Firearm (Gun) Violence and Injury, suicide is an ongoing concern in Guilford County and North Carolina. North Carolina lost 7,172 lives to suicide from 2017 to 2021. Guilford County lost 303 community members to suicide during that same time period, and our suicide mortality rates exceed the target set by Healthy NC 2030, highlighting the need for enhanced mental health resources and intervention strategies to address this critical issue.

Perception of Mental Health Services

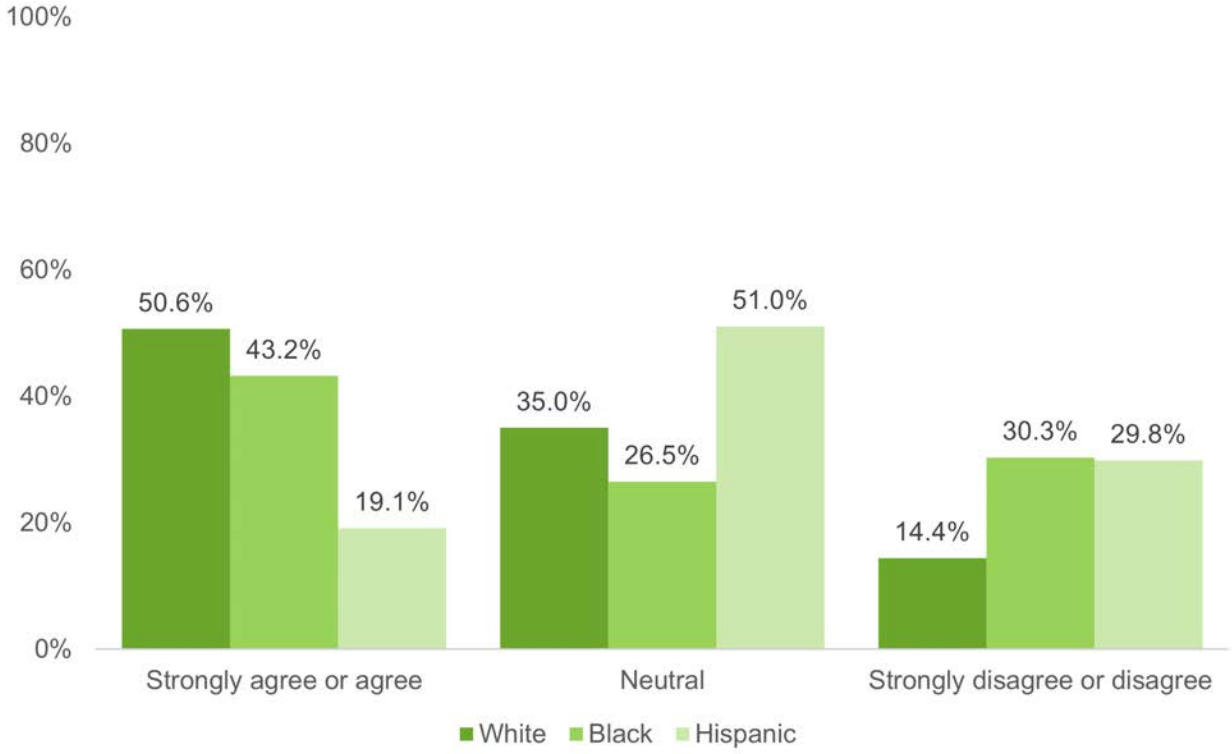
In the 2023 GCCH Survey, 41.6% of all respondents agreed or strongly agreed that there are good mental health services in their community while 19.2% disagreed or strongly disagreed. Black and Hispanic respondents were significantly less likely than White respondents to agree or strongly agree that there are good mental health services in the community and more likely to strongly agree or disagree. Those renting their homes were more likely than homeowners to disagree or strongly disagree with the statement that there are good mental health services in the community (26.3% compared to 17.1%).

Perception of Good Mental Health Services in Community by All Respondents and by Social Vulnerability



Source: Guilford County Community Health Survey, 2023.

Perception of Good Mental Health Services in Community by Race and Ethnicity



Source: Guilford County Community Health Survey, 2023.

In addition, almost 30% of survey respondents reported some type of barrier to health care for themselves or household members. Of those who reported barriers, 12.8% reported having trouble accessing a mental health provider. Respondents who were ages 50 and younger and those who rent were more likely to report a barrier to mental health care respectively (24.2% compared to 1.0%) and (21.8% compared to 6.9%) (2023 GCCH Survey).

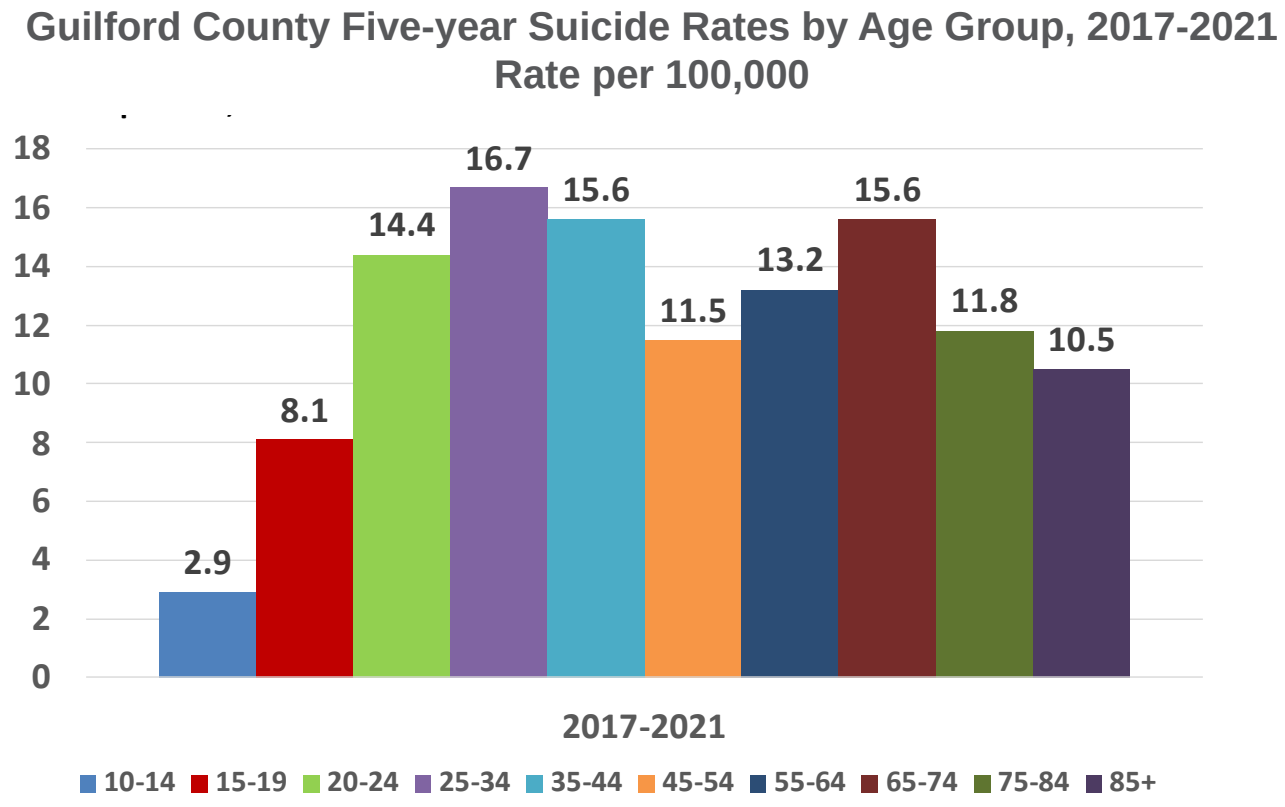
How is Guilford County Doing: Trends over Time?

The five-year suicide mortality rate of 12.8 per 100,000 population during the period from 2017 to 2021 is slightly higher than the rate during the years 2007 to 2011, when it was 11.4. While that is lower than the North Carolina rate, each life lost impacts many people. Of those deaths, the most common means included firearms (59.3%), hanging (23.4%), and poisoning (12.4%)

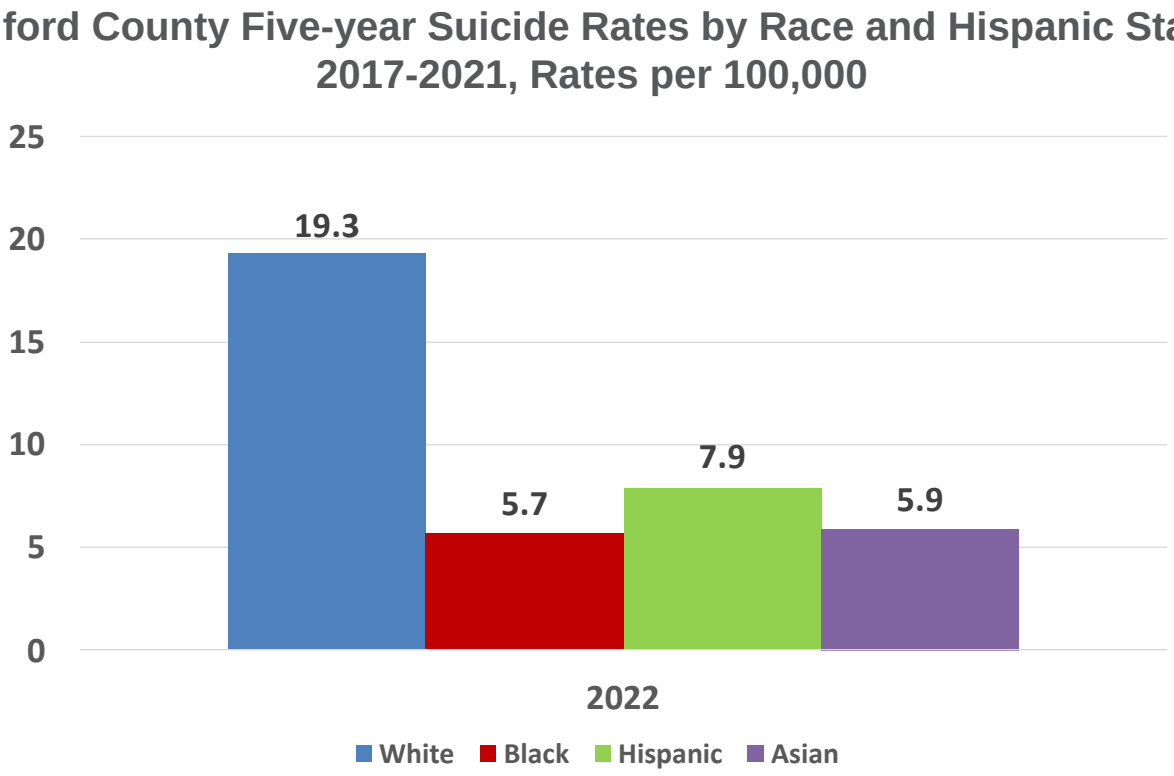
Disparities in Mental Health

Suicide

From 2017 to 2021, men died by suicide at a rate of four times than the rate of women in Guilford County (21.5 vs. 5.2 per 100,000). The following charts illustrate other differences by age, race and ethnicity during that time. Suicide rates were highest among adults ages 20 to 44 and 65 to 74, more than two or three times higher than those of other racial and ethnic groups. Please note, rates for the American Indian/Alaskan Native population are suppressed due to small numbers.



Source: The North Carolina Violent Death Reporting System (NC VDRS).



Source: The North Carolina Violent Death Reporting System (NC VDRS).

Anxiety and Depression

When 2023 GCCH survey respondents were asked if they have ever been told by a medical professional that they had anxiety or depression, 25.1% reported they had. These results are similar to those of the 2016 Community Health Survey, when 24.5% of respondents indicated they had. In 2023, women were twice as likely to report depression or anxiety as compared to men (31.4% vs. 15.1%), as were those who rent compared to those who own a home (19.9% vs. 36.3%).

Vulnerable Populations

Mental health vulnerability is a universal issue affecting everyone, regardless of background. White men often face societal pressures to hide emotions, while youth grapple with identity and social media challenges. Veterans face limited mental health resources and post-traumatic stress disorder (PTSD), and Black/African American communities continue to face stigma around mental health discussions. The Latino and Asian Pacific Islander Desi American (APIDA) communities encounter cultural barriers to mental health care, leading to underreported mental health issues. The Lesbian, Gay, Bisexual, Transgender, Queer+ (LGBTQ+) community frequently experiences discrimination and identity-related stress. Recognizing and addressing these vulnerabilities is essential for fostering a more inclusive approach to mental health care.

- **White Males**: Despite being more likely to access mental health services than other groups, many white men face a pervasive stigma surrounding mental health issues. Cultural norms often dictate that expressing emotions is unmanly, fostering a belief that they must remain in control of their feelings. This internalized pressure can lead to the perception of depression as a sign of weakness, ultimately discouraging them from seeking help and exacerbating their mental health struggles. In 2022, white men accounted for 68.46% of suicide deaths in the United States, highlighting a significant mental health crisis within this demographic (AFSP, 2024).
- **Youth**: Mental health is a critical concern for youth, with significant data indicating a worsening situation. In North Carolina, youth suicide rates nearly doubled from 2012 to 2021, with 68% of victims aged 10 to 24 identifying as non-Hispanic white. Among 3,777 violent deaths in this age group during that period, 1,841 (48.7%) lives were lost to suicide (NCDHHS, 2024). Contributing factors include academic pressure, social media,

and limited mental health resources. Guilford County reflects these trends, highlighting the urgent need for improved mental health services and prevention programs tailored for adolescents to safeguard their well-being.

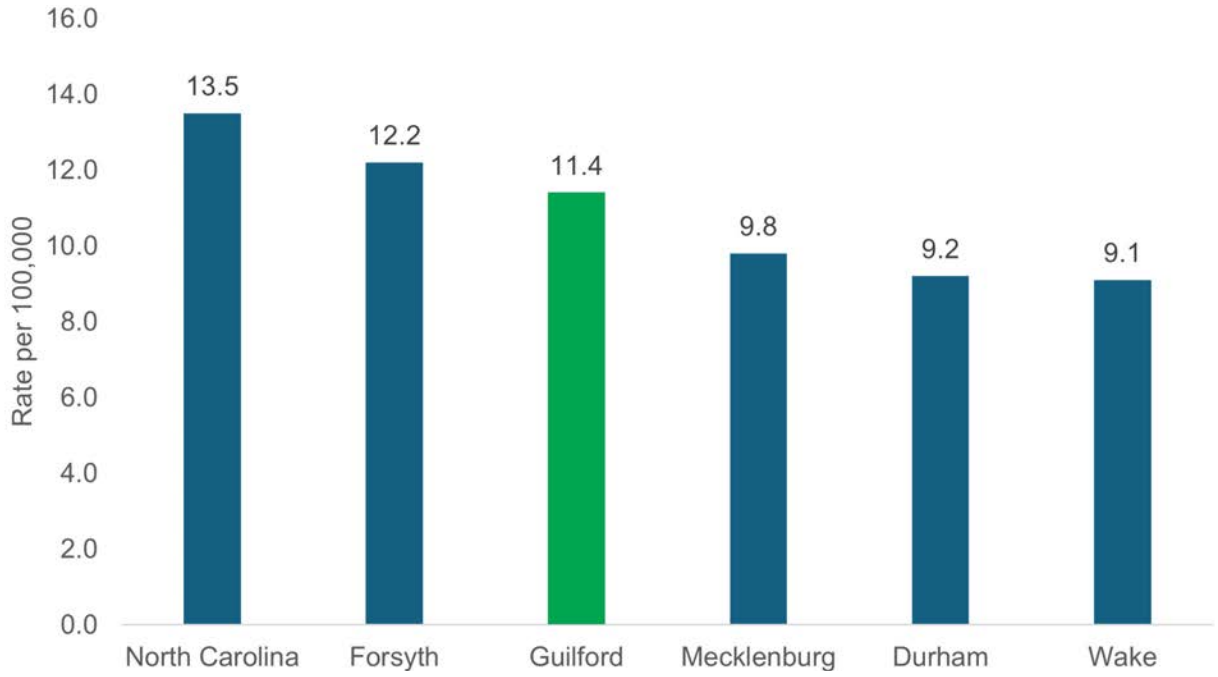
- **Adults ages 65 and older**: The loss of a spouse can lead to profound isolation and emotional distress, particularly for older adults who often experience chronic pain and a decline in independence. This combination can worsen feelings of loneliness and depression, significantly impacting their mental health. The struggle to cope with both physical limitations and the absence of a life partner can create a cycle of despair, where individuals feel increasingly disconnected from their communities and unable to engage in meaningful activities, further diminishing their quality of life. As a result, this population often faces heightened mental health challenges, emphasizing the need for targeted support and resources (NCOA, 2024).
- **Veterans**: Veterans face significant mental health challenges, highlighted by high suicide rates. In North Carolina, between 2017 and 2021, the suicide rate among veterans was nearly double that of non-veterans, with young veterans (ages 18-34) experiencing a rate 6.4 times higher than their non-veteran peers. Of the 1,603 veteran deaths during this period, 82% were suicides (NCDHHS, 2024). This crisis is compounded by factors such as combat exposure, transition difficulties, and limited mental health resources, intensifying the urgent need for personalized support. In Guilford County, local veterans encounter additional barriers like rural access issues and a lack of specialized services. Targeted mental health interventions are essential to improve veterans' well-being and ensure they receive the care they need.
- **Black/African American**: Mental health stigma is widespread across many communities, but it is particularly pronounced in the Black community, where mental health struggles are often not openly discussed, even within families. Traditional sources of strength such as family and faith may unintentionally discourage seeking professional help. Specifically, Black men, are pressured to "be strong," leading to issues being suppressed, which can exacerbate mental health conditions like depression and anxiety. Structural health care disparities prevent adequate mental health treatment. Around 30% of Black adults receive mental health care annually compared to 43% of white adults (Mclean, 2024).
- **LGBTQ+**: The LGBTQ+ community has historically faced neglect in health care and research, leading to significant unmet mental health needs. The LGBTQ+ youth, especially non-binary and transgender individuals, experienced high rates of depression, anxiety, and suicide due to discrimination and victimization. Intersectional identities, such as BIPOC or those from low socioeconomic backgrounds, face even greater risks due to compounded barriers. It is crucial to note that there is a lack of health care practitioners with training in LGBTQ+ or gender-affirming care and and that maintaining accessible telehealth services is essential (Ormiston et al., 2021).
- **Latino Community**: The Latino community faces unique challenges in mental health care. Cultural differences and a lack of extensive research make it difficult to assess mental health conditions accurately. Studies show that psychiatric disorders vary among Latino subgroups, with U.S born individuals having higher rates of mental illness than immigrants (Mclean, 2024). Cultural factors such as family emphasis, privacy, religious beliefs (such as viewing mental illness as demon-related), and the fear of stigma can discourage people from seeking treatment. Moreover, a lack of Spanish-speaking providers and poor communication with health care workers compound these issues.
- **APIDA**: In the Asian American, Pacific Islander, and Desi American communities, cultural shame surrounding mental health poses a significant barrier to seeking care, as mental health issues are often viewed as a weakness. In 2021, suicide became the leading cause of death for APIDA youth aged 10–19 nationally, contrasting with other racial groups where it ranks second or third. From 1999 to 2021, 4,747 APIDA youth died by suicide, with rates doubling from 3.6 to 7.1 per 100,000, particularly increasing since 2014. Common methods of suicide included suffocation, firearms, and poisoning. While rates were higher among Asian American males, females reported more depressive symptoms, including suicidal thoughts and attempts (Reyes et al., 2024).

How Does Guilford County Compare to Others?

Suicide

Suicide rates in Guilford are less than the state rate but higher than most peer counties.

Age-Adjusted Suicide Mortality Rates per 100,000 population, Guilford County, NC and Peer Counties, 2017-2021

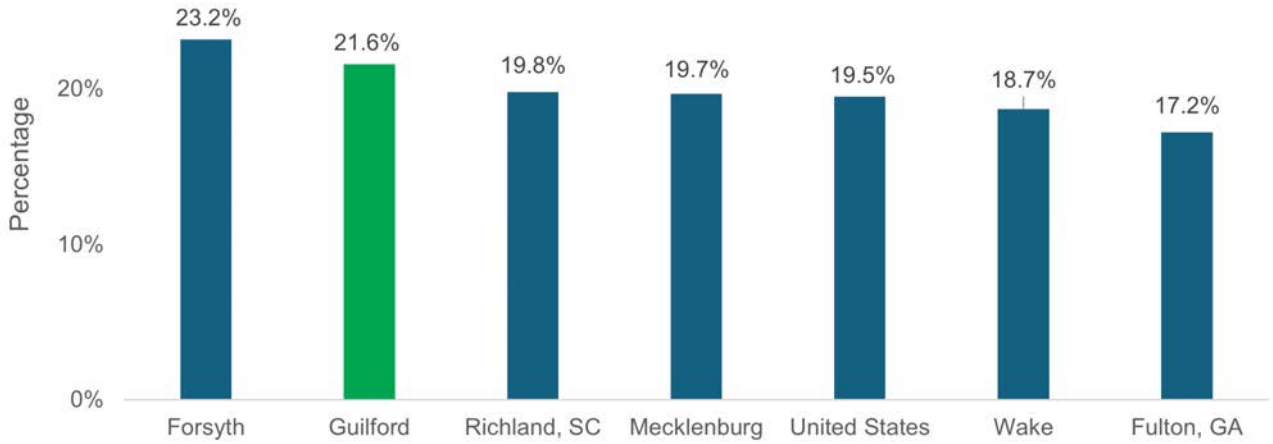


Source: CDC Places; modelled estimates from BRFSS data; 2021.

Depression Among Adults 18 Years and Older

In Guilford County, 21.6% of adults reported ever being told by a doctor, nurse, or other health professional that they had a depressive disorder, higher than the US and most comparison counties.

Depression Among Adults Aged 18 Years and older, Guilford County, and Peer Counties, 2021



Source: CDC Places; modelled estimates from BRFSS data; 2021.

Access to Mental Health Services and Providers

In 2023, Mental Health American ranked North Carolina 39th out of the 50 states and the District of Columbia regarding access to mental health services. This ranking includes nine measures such as access to insurance, access to treatment, quality and cost of insurance, access to special education, and workforce availability (Mental Health America, 2024). At a county level, access to mental health providers is measured as a ratio of population to the number of mental health providers. In 2022, the Guilford County ratio was 310 people per mental health provider. Guilford County residents have mental health provider availability that is about mid-range among peer counties, NC, and the US (County Health Rankings, 2023). Some areas of Guilford County are designated as mental health care professional shortage areas.

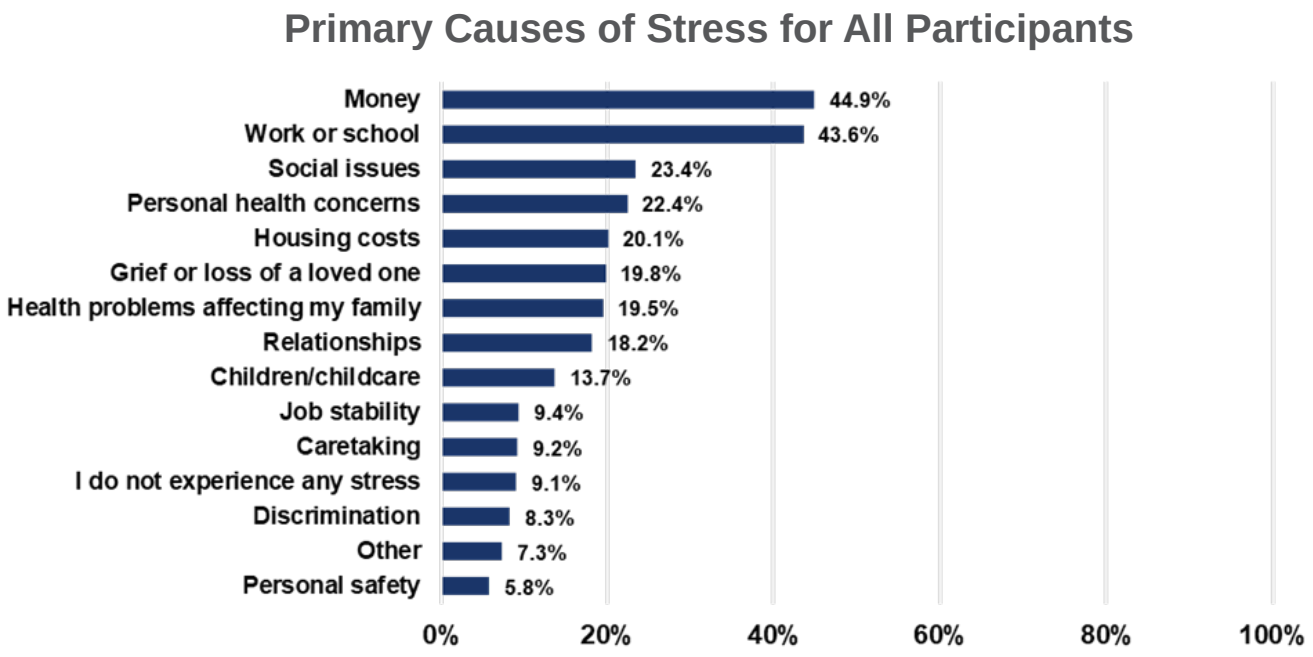
The Story Behind the Curve

Stress/Stressors

In the 2023 GCCH Survey, respondents were asked about their level of stress and their main stressors. While 44.8% of survey respondents reported most days are not at all or not very stressful, 14.2% of survey respondents indicated that most days are extremely stressful or very stressful. There were significant differences in age and employment status, with those over the age of 50 and those not employed reporting less stress.

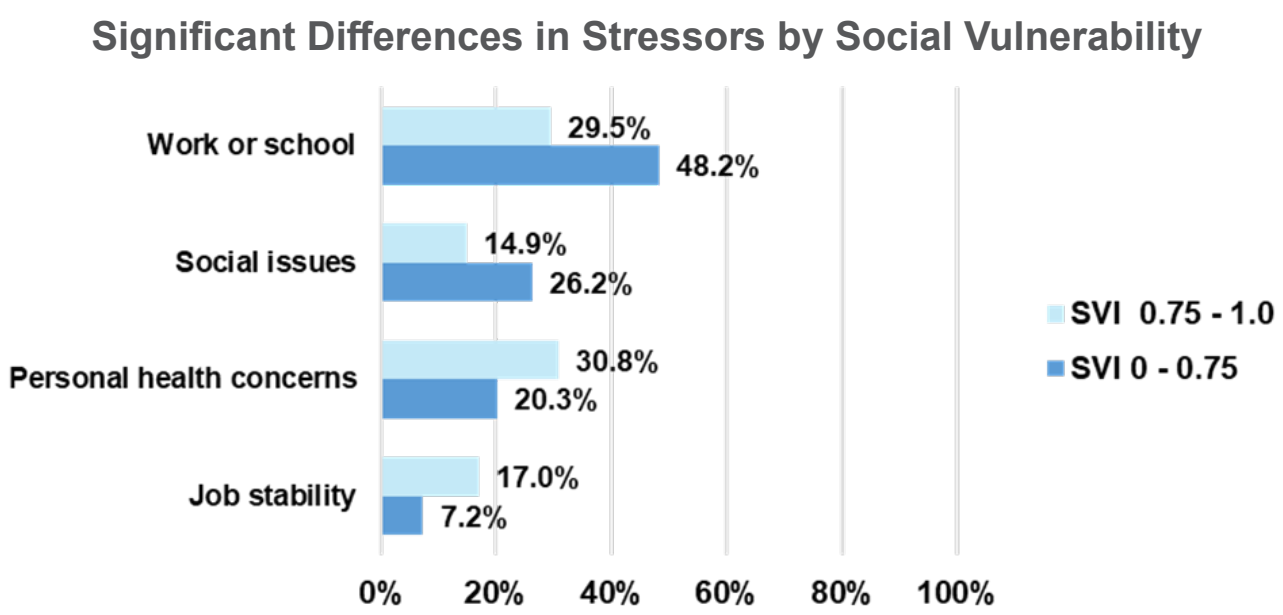
Primary Causes of Stress

In the 2023 GCCH Survey, over 40% of all respondents identified finances and work or school as primary causes of stress, while over 20% also identified social issues, personal health concerns, and housing costs. Approximately one in five respondents also identified grief or the loss of a loved one, health problems affecting their family, or relationships as primary stressors.



Source: Guilford County Community Health Survey, 2023.

Respondents from census tracts with higher SVI were more likely to report personal health concerns and job stability as stressors, while respondents in the census tracts with lower SVI were more likely to report work or school and social issues as stressors.



Source: Guilford County Community Health Survey, 2023.

Isolation and Social and Emotional Support

Social and emotional support play a key role in mental well-being and help to overcome feelings of isolation. In the 2023 GCCH Survey, respondents were asked how often they felt lonely or isolated, and 31.8% respondents indicated that they often did. Strong social ties and support from family, friends, and the community help protect our mental well-being; however, 10.4% of respondents report that they rarely or never get the social and emotional support they need. Significant differences existed by gender, race, ethnicity, and employment, which are described in more detail in the Social and Community Context section of Chapter 4.

Impact of COVID-19

The COVID-19 pandemic has severely impacted mental health, heightening stressors like fear of illness, economic uncertainty, and social isolation. The widespread nature of the virus and the accompanying public health measures disrupted daily life, leading to increased anxiety, depression, and other mental health concerns. A Pew Research survey from March 2020 to September 2022 found that 41% of U.S. adults experienced high psychological distress, with 58% of young adults and 48% of women reporting significant distress. Among high schoolers in 2021, 49% of girls and 64% of LGBTQ+ students felt sad or hopeless.

Disparities in mental health emerged, with nearly 40% of adults feeling more anxious or depressed. Women (50%) reported higher stress than men (30%), while 37% of Hispanic and 34% of Black adults experienced worsening mental health. Trauma from the pandemic, including loss and prolonged isolation, contributed to declines, with 30% of adultshowing increased trauma symptoms like PTSD (Gramlich, 2023). This highlights the urgent need for targeted mental health support and comprehensive recovery strategies.

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) can cause toxic stress, impacting how the brain develops and how the body responds to that stress. Research shows that ACEs are linked to chronic health conditions like depression, diabetes, cancer, asthma, and unhealthy behaviors in adults (CDC,2021). While county-level data is not currently available, it is estimated 17.8% of children experience two or more ACEs, meeting the target of 18% or less set by Healthy NC 2030 (NCIOM, 2020).

Stigma and Access to Mental Health Services

Stigma surrounding mental health conditions, including public stigma, self-stigma, or structural stigma (Singhal, 2024), can create a huge barrier for individuals to build the courage to seek care. Recent national and state data indicate that half of those with a mental illness do not receive treatment (Mental Health America, 2023).

What are Adverse Childhood Experiences?

ACEs are potentially traumatic events or instability in the environment during childhood, including:

- Experiencing or witnessing abuse, neglect, or violence in the home or community.
- Living with someone who has mental health or substance use problems.
- Having parent(s) or guardian(s) divorced or separated, die, or serve time in jail.
- Often being treated or judged unfairly due to race/ethnicity.
- Experiencing economic hardship.

Centers for Disease Control and Prevention (CDC)

Negative Impacts of Cultural Shame

Jenny Zhang, who is 27 years old, grew up in a community where mental health was something people didn't talk about. Struggling with depression, she was always told by her family to "be strong" and "not dwell on emotions." Admitting she needed help felt like betraying everything she had been raised to believe. Each day, Jenny put on a brave face, hiding her panic behind a forced smile. She longed to talk about what she was going through, but the fear of bringing shame to her family kept her silent. It was like carrying a weight she couldn't put down, where asking for help seemed more terrifying than her depression itself.

Overcoming Generational Trauma

Hailey Rodriguez, who's 35 years old, grew up in a family where emotions were brushed off. Her parents believed in toughing things out, never talking about feelings or mental health. As a kid, Hailey learned to keep her emotions bottled up, just like her parents and grandparents had done. However, when she had kids of her own, she knew she didn't want them growing up in a culture like that. Determined to break the generational cycle, she started going to somatic therapy and began healing her old wounds. Now, she teaches her kids that it's okay to talk about how they feel and to ask for help when they need it. In her home, they have open conversations about emotions, changing the legacy her family had carried for so long. Hailey's choice to do things differently has created a healthier path for her children and future generations.

Turning the Curve: Areas for Action

Mental well-being manifests through improved quality of life, resilience during adverse life events or when facing chronic difficulties, opportunities for connectedness, and the ability to function optimally in work, family, and social roles. Addressing mental health requires a multi-faceted approach, including expanding access to mental health care, supporting prevention efforts, reducing stigma, providing economic and social support, and fostering community resilience.

Comprehensive Mental Health Services and Support Systems

In response to what has been described as a mental health crisis, Mental Health America, the Association for State and Territorial Health Officials, the CDC, and the Center for Law and Social Policy (CLASP) released a framework for public health's role in mental health promotion and suicide prevention in 2023. This framework, which is rooted in health equity, elevates the core belief that mental health is central to health and requires hope, connection, and purpose. The following strategies build on the foundational capabilities of public health (Niles et.al. 2021):

Promote Well-Being	Improve Access to Support and Opportunities
Create and support environments and relationships that build individual and community resilience: • Promote protective environments and social connections • Improve essential conditions for health (economic stability, civic engagement, unfair policies and practices) • Effective inclusive communication • Reduce stigma	Increase access to and availability of: • Supportive relationships • Training in recognition and intervention • Support for those affected by suicide risk, attempt, death, or other mental health crisis • Inclusive health care and healing systems

Two recent examples that help to increase access to support and improve conditions for health include:

- **988 Suicide & Crisis Lifeline.** In 2022, the U.S. Substance Abuse and Mental Health Services Administration launched 988 Suicide & Crisis Lifeline to provide free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States and its territories. This national network of over 200 local crisis centers, combines local care and resources with national standards and best practices (988 Lifeline, 2022).
- Medicaid Expansion in North Carolina may improve conditions for health by reducing social and economic stress in families to decrease ACES exposure and increase the number of individuals who have a primary care provider, which can assist with early identification and intervention to address mental health conditions (Mims & Smith, 2023).

Preventing ACEs: Recognizing the connection to poverty, the NC State Health Improvement Plan uplifts strategies to reduce stress on families such living wage employment opportunities and affordable housing and efforts to:

- Improve data available on trauma and ACEs at the local level to help communities identify services and resources for prevention and resilience.
- Increase funding for and embed community rooted, culturally affirming family and community support programs into existing initiatives (NCDHHS, 2023).

Community resilience, or how communities and systems respond to challenges, includes having safe supportive environments, interrelated social networks and resources that are easy to obtain and inclusive. In 2021, the Kellin Foundation summarized current resiliency efforts in North Carolina and nine other states and cited strategic recommendations to support this work in Resilient NC: Supporting Statewide Efforts to Build Community Resilience. This report builds upon research that supports building community-based resilience across systems and across the lifespan to prevent and reduce the impact of ACES and disparities (Graves et. al., 2021).

Suicide Prevention: The NC Suicide Prevention Action Plan identifies comprehensive strategies to reduce injury and death by suicide, including identifying vulnerable populations, increasing awareness and prevention, reducing access to lethal means, and providing crisis intervention and suicide care, especially to those at increased risk (NCDHHS, 2022).

Reducing Stigma

Researchers suggest combating health stigma through education, challenging negative portrayals of mental illness and engaging with individuals who experience mental health issues. It is vital to highlight that stigma derives from a false understanding of the causes of behavioral health issues and can be dangerous for individuals, potentially leading to suicide (Singhal, 2024). National and local campaigns like OK High Point reduce societal stigma around mental illness (Healthy Minds Initiative, 2024).

Focusing on Vulnerable Populations: Prioritizing community-focused interventions within vulnerable populations encourages and addresses root causes.

Current Initiatives and Assets

Guilford County has several community assets to support better mental health. Below are some of these community resources:

The Guilford County Behavioral Health Center (BHC) in Greensboro offers behavioral health urgent care, facility-based crisis services, and behavioral health outpatient services provided by Cone Health staff 24 hours a day 7 days a week for both adults and adolescents (ages 4-17) who reside in Guilford County. This facility includes two 16-bed facility-based crisis centers, one for adults at the BHCC site and an adjacent one for children and adolescents with treatment provided by the Alexander Youth Network. Staff treat adults, children, and adolescents in crisis and address their physical, mental and substance misuse issues. This holistic approach includes medical care, treatment for substance use and other specialized mental health treatment. This facility also has pharmacy, outpatient and peer counseling services for adults, adolescents, and children. Guilford County funded the design and construction costs of the centers. All services are available to the insured and uninsured.

Guilford Green Foundation offers programming, identity-based groups and events to provide safe spaces that uplift the LGBTQ community to advance equality and inclusion.

High Point Medical Center's Behavioral Health and Cone Behavioral Health Hospital provide behavioral health assessment, inpatient and outpatient treatment programs for chemical dependency and psychiatric conditions. In addition, Cone Health has a 24-hour Helpline (336-832-9700 or 800-711-2635) with access to a trained professional 24 hours a day, seven days a week.

Kellin Foundation strengthens resilience among children, families, adults and communities through trauma-informed behavioral health services focused on prevention, treatment, and healing. This non-profit organization offers evidence-based, trauma-responsive counseling, peer support, advocacy, and case coordination services. Kellin Foundation also provides training, education and supports community resilience efforts in the schools and community through Resilient Guilford Network, an action-oriented, trauma resiliency network of systems and collaborative leaders that build and support safe, secure, and nurturing communities. In addition, the development of a Hope Hub is currently underway to employ a comprehensive approach to prevention and treatment, providing a space for people of all ages to access both mental health services and additional integrated offerings from vital community partners—all under one roof.

Mental Health Associates of the Triad promotes good mental health through quality service provision, advocacy for issues affecting the mentally ill and community outreach. As a resource for evaluation, treatment, and ongoing support for individuals with mental illness, services include outpatient services, a day program for adults 18+ with severe mental illness called Destiny House, and Court Services, providing assessments of individuals who are or are at risk of being incarcerated with a mental health diagnosis.

Family Services of the Piedmont provides affordable services to families and individuals dealing with crises in their lives through four impact areas: Domestic Violence, Child Abuse, Mental Health and Financial Stability. Services include domestic violence and sexual assault services, shelters for those dealing with domestic violence, child abuse and healthy parenting services, housing and credit counseling, and individual and family counseling.

Trillium Health Resources now serves a Tailored Plan and Managed Care Organization (MCO) to manage serious mental health, substance use, traumatic brain injury, and intellectual/developmental disability services in Guilford and 45 other North Carolina counties. For individuals receiving Medicaid through the Tailored Plan, Trillium covers physical health care and pharmacy services as well. In February 2024, Sandhills Center, previously the Local Management Entity and a Medicaid-funded MCO for Guilford County and eight other nearby counties has dissolved and Sandhills Eastpointe and Trillium Health Resources have consolidated into one entity.

Greensboro Vet Center offers confidential help for Veterans, service members, and their families at no cost in a non-medical setting. Services include counseling for needs such as depression, PTSD, and the psychological effects of military sexual trauma (MST). The Greensboro Vet Center also provides individual, group, family, and marriage counseling.

NAMI Guilford is a family-based, grassroots, support and advocacy organization, which strives to act as the community hub for information relating to local resources and services for the friends and families of individuals living alongside a mental health condition, as well as the individuals themselves.

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Chapter 8:
Healthy Eating and Active Living

Definition of Food Insecurity: The estimated percentage of the population that did not have access to a reliable source of food during the past year.

Section 1: Healthy Eating

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Healthy Eating Across the Lifespan – Why Is This Issue Important?

Following a healthy dietary pattern is important for everyone to be as healthy as possible in every stage of life. This involves eating nutrient-dense foods and beverages across all food groups and limiting eating energy-dense foods that are commonly high in saturated fat and sodium (USDA, 2020). Nutrient-dense foods provide vitamins, minerals and other health-promoting components (USDA, 2020).

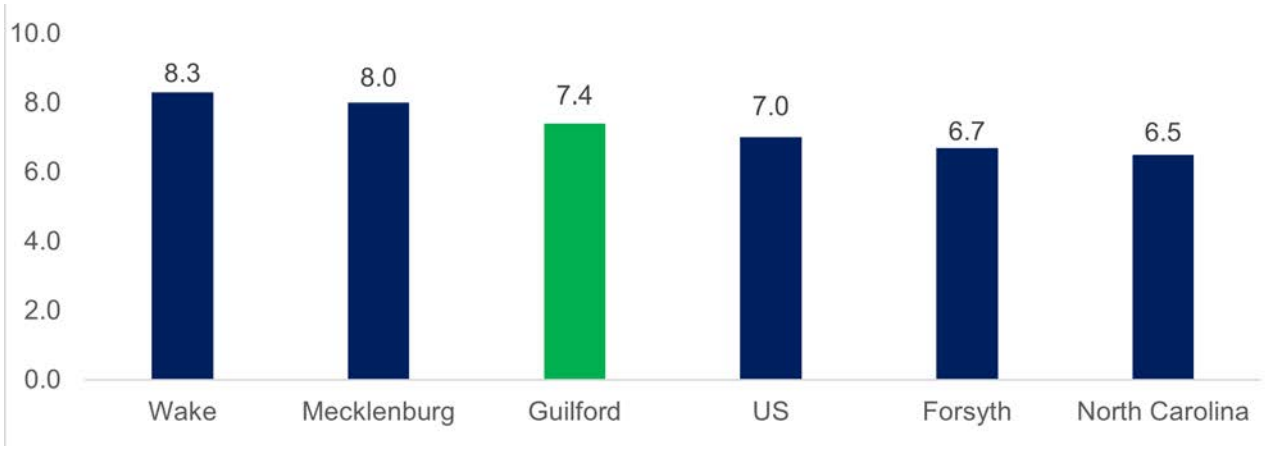
To achieve a healthy lifestyle, however, people must live in a household that has access to healthy foods on a consistent basis. If all the members of a household have consistent access to sufficient foods that will enable them to meet nutrient needs, promote health and prevent disease, this means that they are food and nutrition secure (Brown et al., 2022; Peregrin, 2021; USDA, 2020).

Barriers To Eating Healthy, Nutritious Foods

Other the other hand, when a person or household member does not have access to healthy foods on a regular basis this is known as being food insecure. To be food insecure means that there is no consistent, reliable access to enough food to eat, because of insufficient financial resources (Brown et al., 2022; Freedman et al., 2022; Morales et al., 2021; Peregrin, 2021). Due to the multifaceted causes of food insecurity and hunger, it impacts not only the quality and quantity of what people eat, but how the food is prepared, its variety, as well parental stress, cooking skills and techniques and breastfeeding practices.

Oftentimes, households must make a difficult choice between spending money on utility bills, groceries, rent or mortgage, prescription medication and, at times, preventative health services (i.e., dental care, wellness visits, prenatal care, etc.) (Feeding America, 2014; Weeks, et al., n.d.). Because of these trade-offs, people living in food insecure households commonly experience poor diet quality due to the decreased consumption of nutrient-rich foods, such as fruits and vegetables and higher consumption of energy-dense foods (Brown et all., 2022; Freedman et al., 2022; Morales et al.,2021; Peregrin, 2021). Due to poor diet quality, food insecurity is associated with higher risk of developing preventable chronic diseases, such as high blood pressure, arthritis, chronic obstructive pulmonary disease, coronary heart disease and stroke (Brown et al., 2021; Freedman et al., 2022; Morales et al., 2021; Peregrin, 2021; Odoms-Young & Bruce, 2018). Poverty, lack of employment opportunities, the high cost of housing or other circumstances that cause families to stretch their monthly income are among the root causes of hunger and food insecurity (Brown et al., 2021; Freedman et al.,2022; Morales et al., 2021; Peregrin, 2021; USDA ERS, 2023; USDA ERS, 2022).

Food Environment Index as a Measure of Food Access



Source: County Health Rankings, RWJF, 2023, USDA Food Environment Atlas, Map the Meal Gap from Feeding America, 2019 and 2020.

There is a difference between food insecurity and having access to healthy foods. To help make the distinction, the Food Environment Index (FEI) is an index that measures the access of individuals within a specific area to healthy foods and income on a ranking from 1-10 with 0 being the worst and 10 the best. It measures how far individuals must go to have access to healthy foods, how many places there are for healthy foods to be purchased and the inability of individuals to receive healthy food options because of cost. Guilford County, overall, has a FEI of 7.4 – slightly higher than the US, NC, and Forsyth County (6.7).

How Does Guilford County Trend Over Time?

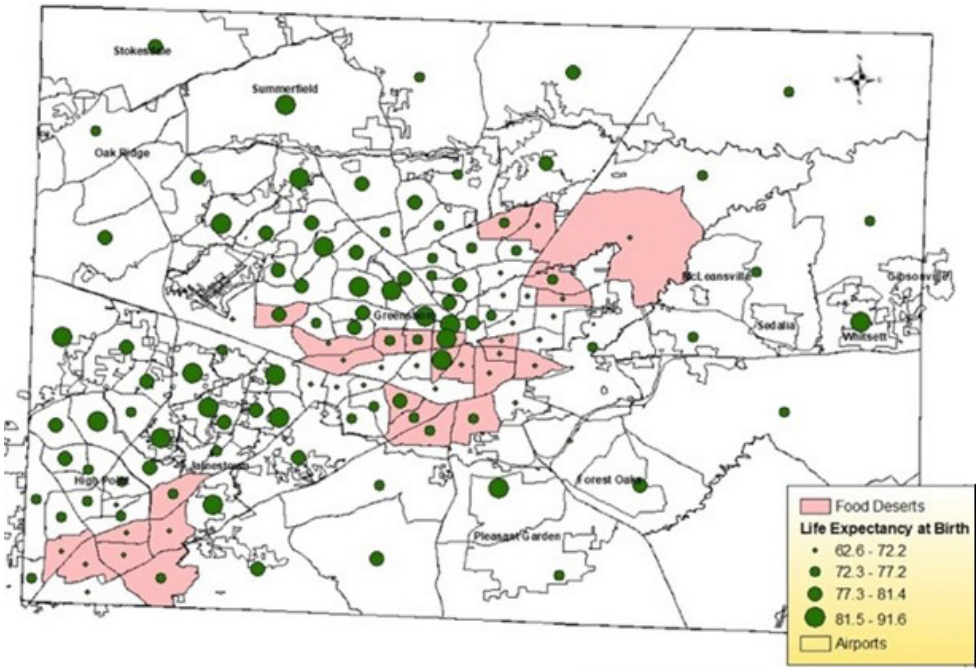
As of 2021, Guilford County ranks higher than the national average in food insecurity, with an estimated 11% of the population (roughly 58,960 individuals) experiencing food insecurity (Feeding America, n.d.). Although the number of people experiencing food insecurity, compared to the North Carolina (14%) as a whole, has fluctuated over the last several years, the stark difference in the prevalence of food insecurity between White (7.0%), African American (23.0%) and Latino households (17.0%) compared to Whites has persisted.

Definition of Limited Access to Healthy Foods

Estimated percentage of the population that is low income (family income of less than or equal to 200% of the Federal Poverty Level) and does not live close to a grocery store (Rural -less than 10 miles from a grocery store, non-rural = less than 1 mile).

Food Deserts

The following map illustrates where food deserts are in Guilford County (see areas shaded in pink). The green circles show the life expectancy in those census tracts (between 62.6 – 91.6), with the larger circles designating a higher life expectancy at birth. Overall, there is a 29-year difference in life expectancy in Guilford County. Notably, life expectancy in census tracts considered to be in a food desert tend to be lower than in tracts with better access to supermarkets.



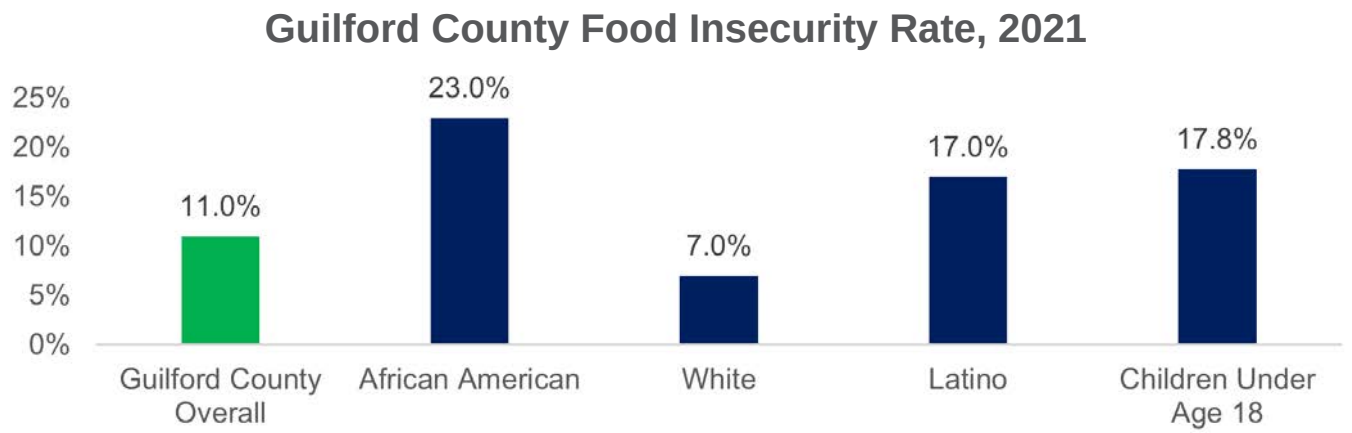
Source: Food Desert Tracts from USDA Food Desert Locator; LIfe Expectancy calculated using 2018-2022 mortality data, NC SCHS.

Low life expectancy, low educational attainment, high poverty areas of the county are also areas with higher concentrations of African Americans and other racial/ethnic minorities, creating areas of concentrated disadvantage that have negative impacts on population health (Mohottige D. et al., 2023). People living in areas of concentrated disadvantages are living with the legacy of segregation, housing discrimination and governmental policies that have perpetuated segregation and social inequality for decades.

Food Insecurity

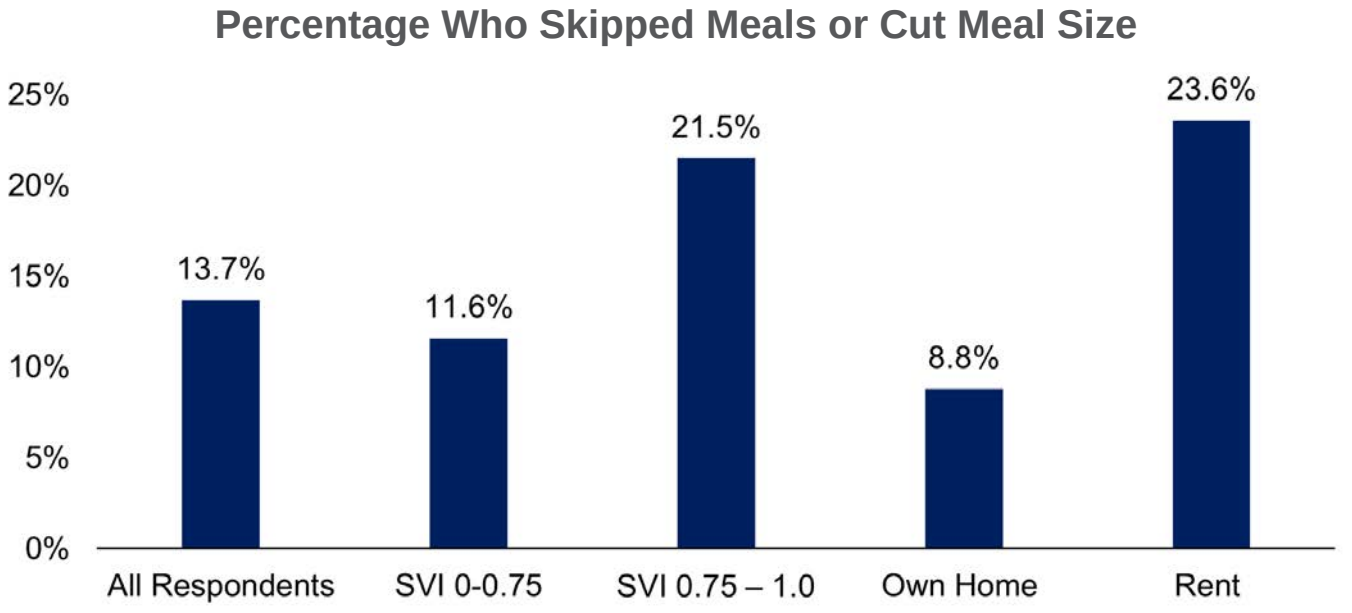
According to Feeding America, 11% those living in Guilford County are food insecure. Profound disparities exist, with food insecurity rates among more than twice as high among Latinos (17%) and three times as high among African Americans (23%) compared to Whites (7%). One in five children (17.8%) in Guilford County are experiencing food insecurity in Guilford County (Feeding America, n.d.).

Among the people affected by food insecurity in Guilford County, those living in socially vulnerable areas have more food insecurity. The CDC defines social vulnerability as "the demographic and socioeconomic factors (such as poverty, lack of access to transportation, and crowded housing) that adversely affect communities that encounter hazards and other community-level stressors. These stressors can include natural or human-caused disasters or disease outbreaks (Agency for Toxic Substances and Disease Registry, 2022)." The human and economic harm from these stressors can be mitigated by reducing social vulnerability. Using the Social Vulnerability Index (SVI) in the 2023 Guilford County Community Health Survey provides a way to a assess data by lower social vulnerability (0.0 – 0.75) and higher social vulnerability (0.76 – 1.00).



Source: Feeding America, Map the Meal Gap, 2021.

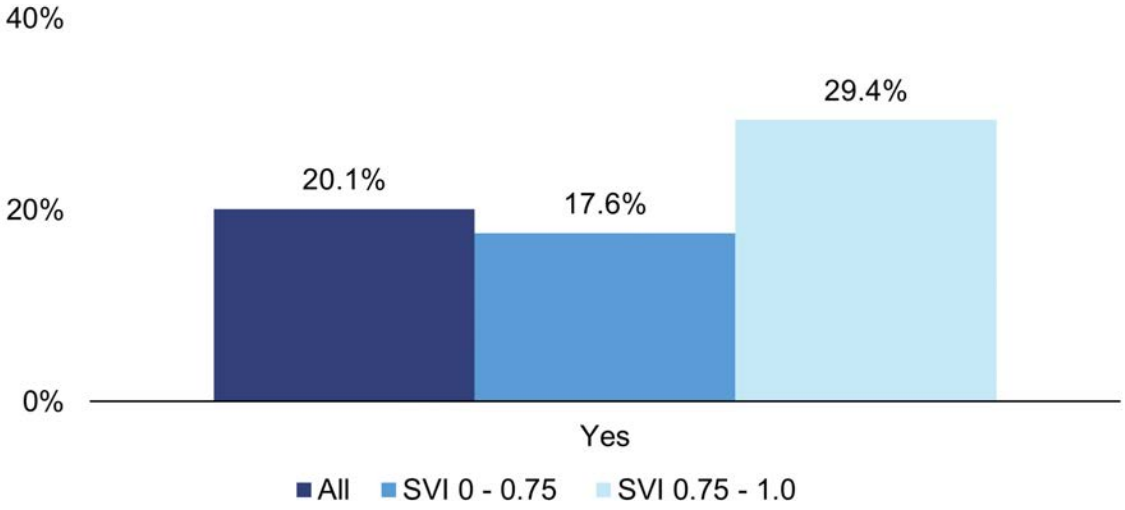
The 2023 GCCH Survey results show 13.7% of individuals reported skipping meals or cutting meal size in the past 12 months. Compared to those living in less socially vulnerable areas, nearly 1 in 5 people living in an area with higher SVI reported skipping meals or cutting meal size (21.5%). Those who rent were also significantly more likely to report skipping meals or cutting meal size as compared to those who own their home (23.6% vs. 8.8%).



Source: Guilford County Community Health Survey, 2023.

Of those surveyed in the 2023 GCCH Survey, 20.1% reported being worried about running out of food before having money to buy more in the past year. Those in the higher SVI sample were notably more likely to report that they were worried (29.4% compared to 17.6%).

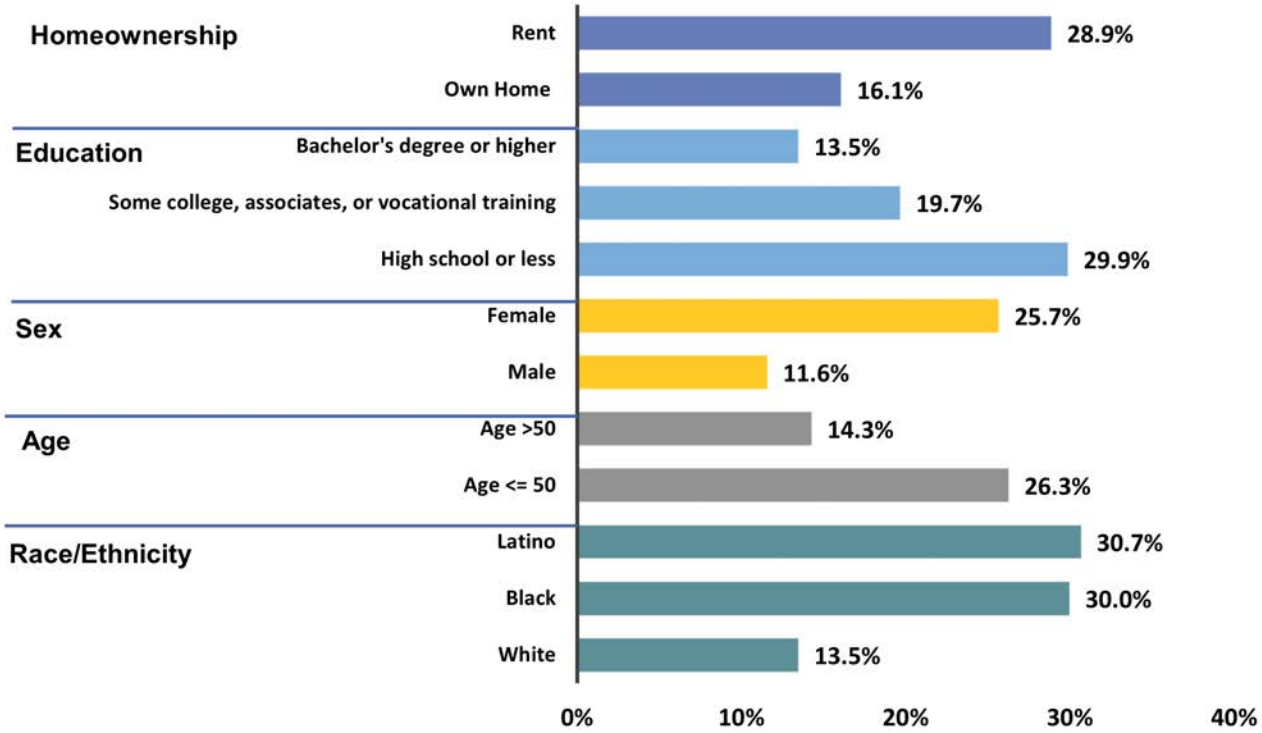
Survey Respondents Worried About Running Out of Food Before Having Money to Buy More in the Past 12 Months



Source: Guilford County Community Health Survey, 2023.

There were also differences by age, race, ethnicity, education, and homeownership. Those under the age of 50 were likely to report being worried about running out of food compared to over 50 (26.3% compared to 14.3%), as were females compared to males (25.7% vs. 11.6%). Latino (30.7%) and Black (30.0%) respondents are also more likely to be worried about running out of food compared to the White (13.5%) respondents. Individuals with less than a high school education (29.9%) were more likely to be worried compared to those with some college, associates or vocational training and those with a bachelor's degree or higher, respectively (19.7% and 13.5%). Homeowners (16.1%) were less likely to experience food insecurity compared to those who rent (28.9%).

Survey Respondents Worried about Running Out of Food Before Having Money to Buy More in the Past 12 Months by Subgroup

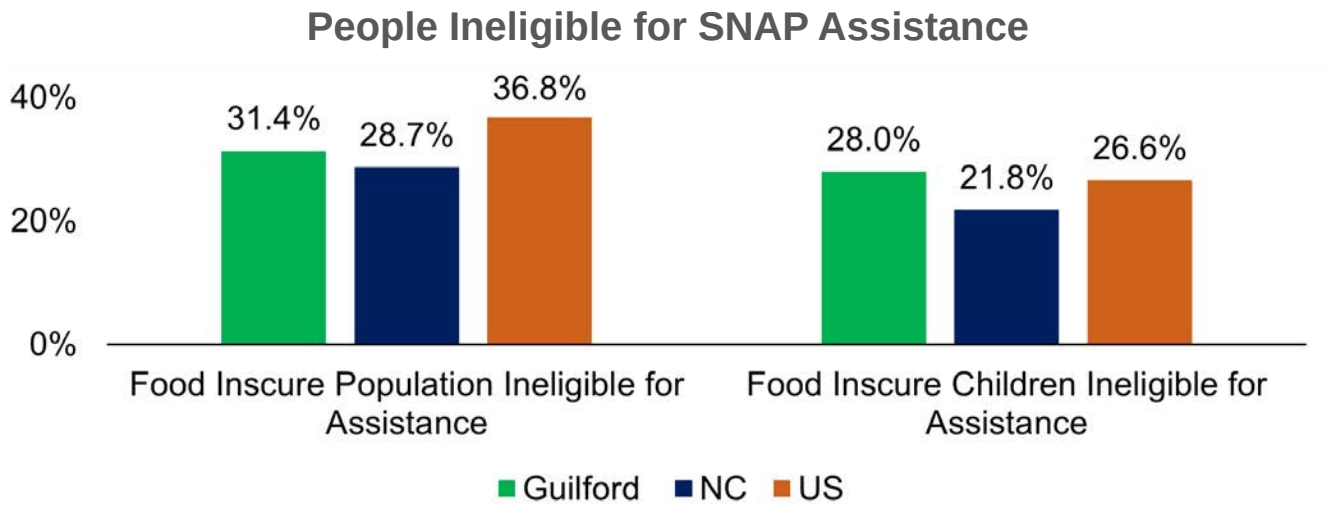


Source: Guilford County Community Health Survey, 2023.

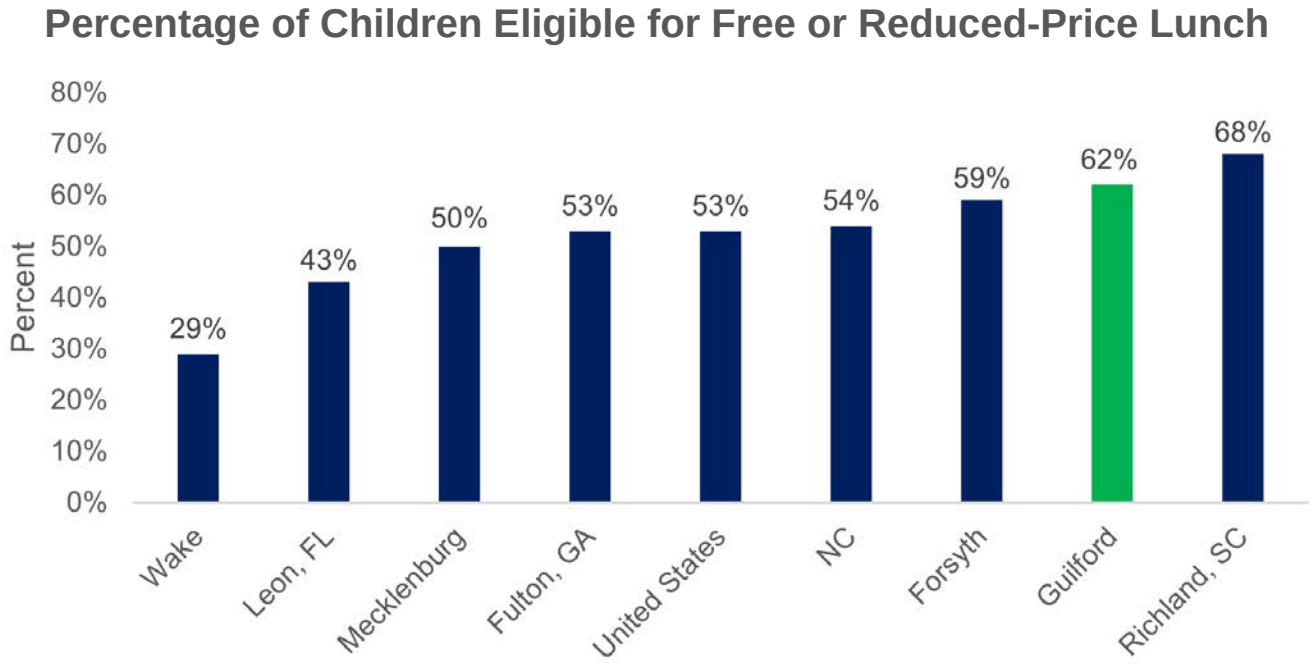
Supplemental Nutrition Assistance Program (SNAP) and Free and Reduced-Price Lunch Participation

In 2018-2022, 14.5% of households received SNAP (the Supplemental Nutrition Assistance Program). About half of households that received SNAP had children under 18 (51%) and almost a third at least one household member over 60 years of age (30%). In addition, the estimated 39.7% of all households receiving SNAP were families with a female householder and no spouse present. An estimated 34.0% of households receiving SNAP had two or more workers in the past 12 months (US Census, 2018-2022).

Compared to the state, more people are ineligible for SNAP assistance in Guilford County (28.7% compared to 31. 4%). Of those, nearly a third are children who experience food insecurity (28.0%). Notably, Guilford County has the second highest percentage of children eligible for Free and Reduced-Price Lunch (62%) compared to other similar counties.



Source: Feeding America, Map the Meal Gap, 2021.



Source: National Center for Educational Statistics, 2020-2021; County Health Rankings.

The Story Behind the Curve

Historically, food and nutrition recommendations have largely focused on addressing an individual's behavior that directly influences their health outcomes, such as choosing healthy foods, being active and shopping smart. While this approach has been effective at helping to improve individual's overall health outcomes, it is well established that there are multiple factors that impact health. Examining the root causes of this issue reveals that historical, structural and systemic racism and discrimination have resulted in socioeconomic inequalities, like barriers to insufficient access to health care, education, safe housing, safe places to play and limited access to healthy and affordable foods (Brown et al., 2021; Freedman et al.,2022; Morales et al.,2021; Peregrin, 2021; USDA, 2023). Due to the complexity of the issue, a collaborative, whole-person approach involving partners across multiple sectors is needed to make a significant difference in Guilford County.

Turning the Curve

The following are a series of commonly prescribed strategies to achieve the goal of reducing food insecurity and help improve health outcomes:

- Ongoing advocacy to support increasing funding for and improvements to federal food assistance programs, such as SNAP, SNAP-Ed, School Nutrition Programs, Senior Nutrition Programs and the Women, Infants and Children (WIC) program (Freedman et al., 2022).
- Address barriers limiting equal access to food assistance programs. These barriers include, but are not limited to, language barriers, lack of knowledge about community resources, lack of time and cooking equipment, dietary restrictions and discrimination (Morales et al., 2021).
- Support policies aimed at reducing the burden of unemployment and income inequality, as these are considered important to ensure equitable hunger relief and economic recovery, especially due to the COVID-19 pandemic (Freedman et al., 2022).
- Take collective and coordinated action focused at addressing systems change rather than focusing on individual, interdependent factors (Freedman et al., 2022).

Regional and local level recommendations from the Piedmont Triad Regional Food Council's Regional Food Assessment (Piedmont Triad Organizational Council, 2019):

- Support resources that provide services to benefit all partners, such as translation services, assistance with online benefits access and funding for innovative programs.
- Integrate food access into transportation planning at the regional and local level.
- Integrate food system needs into regional and local economic development strategies, such as through recruitment of grocery and food retail and capital programs for food & farm businesses.
- Advocate for school district food programs that are flexible and innovative (especially post-COVID-19 approaches) and work with school districts to implement regionally.
- Build small grant programs that support food access at a micro level, such as community gardens, micro gardens, fresh produce distribution and other strategies to increase healthy food access.

Current Initiatives and Assets

An example of a community partner taking collective and coordinated action to drive systems change is the **Greater High Point Food Alliance (GHPFA**). By using a community-centered approach, GHPFA works closely with community members, leaders, local government and private partners to empower each other to proactively seek solutions and foster a culture where individuals are encouraged to voice their concerns, ideas and collaborate on neighborhood improvements.

They point out that, oftentimes, innovative solutions stem from those most closely connected to the challenges at hand, therefore, education plays a pivotal role in empowerment, equipping individuals to make informed decisions for themselves and their families.

Some of their significant achievements include:

- Establishing a non-profit focused on alleviating hunger and promoting food security
- Establishing the Food Security Fund providing small grants totaling $285,450
- Creating the Greater Guilford Food Finder App, Community Resource Guides and a Cultural Food Guide

Guilford County Division of Public Health Food Pantry Capacity Project

For the past several years, the GCDPH has supported over 30 community partners providing food and nutrition assistance through the Healthy Communities Program. The program provides an opportunity to assess the needs, gaps and assets related to food access and food security and aims to determine the number of food pantries in Guilford County providing fresh fruits and vegetables. In addition, the program also provided an opportunity to identify strategic partnerships and funding opportunities for food pantries interested in improving their capacity to provide fresh fruits and vegetables.

Through the program, the following needs were identified based on the results of this initiative:

- Food items that meet their clients' cultural, religious or dietary preferences. While only a few noted not having identified this need, the majority specified that Halal, Vega, Latin American, Soul or Southern and Vegetarian food items are the most challenging to stock.
- Improve their ability to support their food pantry guests, most food pantries would like to have access to healthy eating information, such as print materials, healthy messaging, food recipes, as well as healthy eating. There are several community organizations who could meet this need; however, the results of the survey suggest that there may be a lack of awareness surrounding the availability of resources.
- Increase capacity to provide fruits and vegetables, especially fresh produce, most agencies reported needing specific equipment such as scales, rolling carts, shelving, food storage bins and refrigeration.
- While most food pantries are already promoting additional resources, such as information related to food assistance programs, very few provide information on health screenings, employment assistance and gardening resources.

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Physical activity and access to physical activity opportunities are critical components of public health. They significantly impact individual and community well-being, contributing to the prevention and management of chronic diseases such as heart disease, diabetes and obesity.

Section 2: Active Living - Physical Activity

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Why is Physical Activity Important?

Physical activity and access to physical activity opportunities are critical components of public health. They significantly impact individual and community well-being, contributing to the prevention and management of chronic diseases such as heart disease, diabetes and obesity. The CDC defines physical activity as, "*any bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure*" (CDC, 2019).

Regular physical activity helps maintain a healthy body weight, reduces hypertension risk and improves cardiovascular health. It also plays a crucial role in mental health by alleviating symptoms of depression and anxiety and enhancing mood and cognitive function. Additionally, access to exercise opportunities promotes social interaction and community cohesion, fostering a sense of belonging and support (Ceria-Ulep, C.D., et al., 2011). Investing in infrastructure and programs that facilitate active lifestyles for all community members greatly enhances overall quality of life.

Active Living (Physical Activity)

Active Living or engaging in regular physical activity, plays a crucial role in maintaining and improving health across the lifespan. The immediate benefits include enhanced mood and energy levels, while long-term effects can range

from reduced risk of chronic diseases to increased longevity. Moreover, physical activity fosters social connectedness, strengthening community bonds and providing opportunities for shared experiences. It also positively influences sleep patterns, promoting deeper and more restful sleep. Sleep plays a direct role in physical and mental recovery, memory, learning, growth and lifespan (Lee et al., 2014).

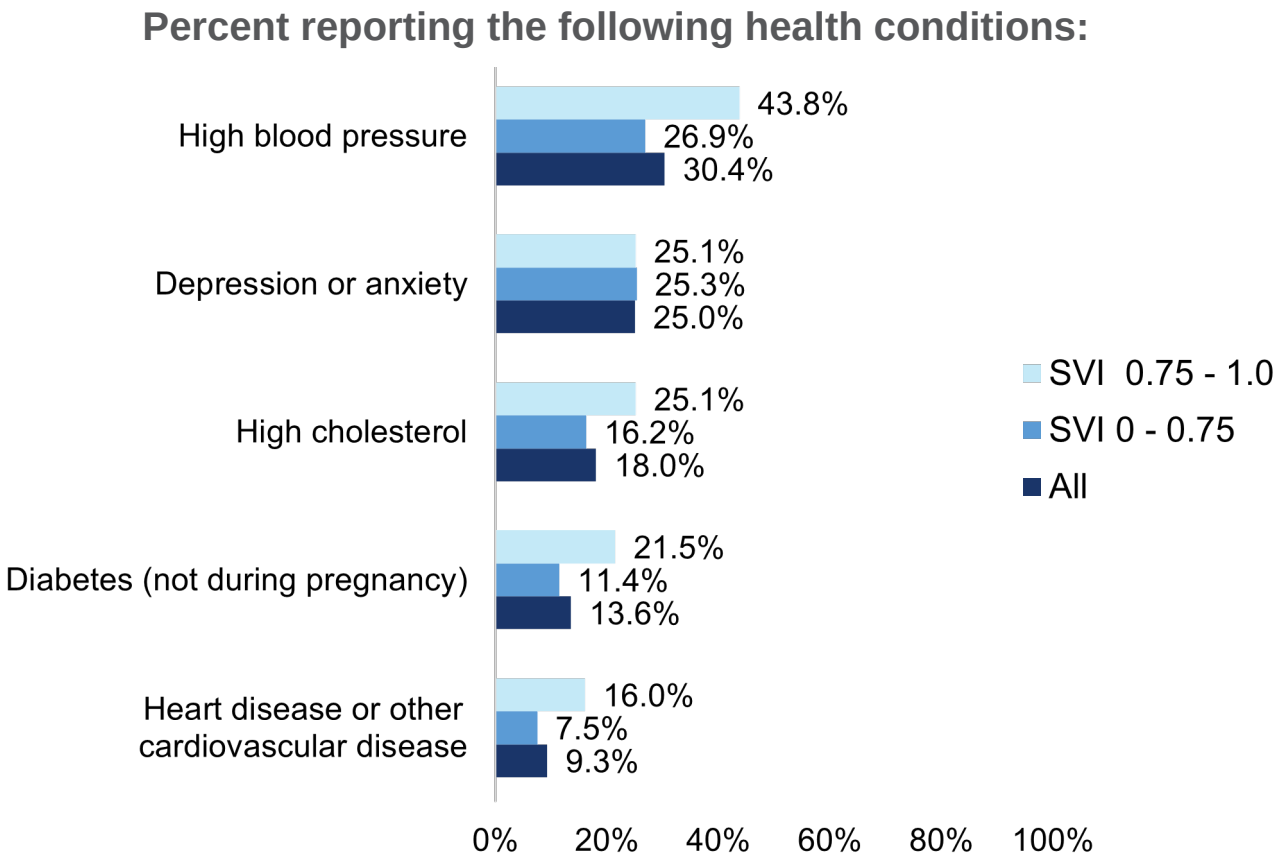
Natural environments bring several benefits to public health and social well-being (Georgiou et al., 2021). Green spaces, such as parks and forests and blue spaces like lakes and rivers, have a profound impact on health and encourage physical activity. They also permit social and economic benefits by providing preferential settings for relaxation, building social connections, engaging in physical activity and feeling closer to nature, including resident wildlife (Nguyen et al., 2021). These natural environments provide opportunities for outdoor recreation, such as walking, cycling or swimming, which increases physical activity levels.

Guilford County Division of Public Health envisions a community where every resident, regardless of their socioeconomic status or geographic location, can engage in regular physical activity. The Division of Public Health aspires to create neighborhoods where safe, well-maintained parks and recreational facilities are accessible to all, promoting not just physical health, but also social connectedness and mental well-being. The goal is to see families enjoying the benefits of active lifestyles, with children playing outdoors, parents finding time for exercise despite busy schedules and rural areas offering structured opportunities for physical activity. Ultimately, the goal is to foster a culture of active living that leads to healthier, more vibrant communities across Guilford County.

How Physical Activity Impacts Health and Well-Being

- **Chronic Disease Prevention**: Regular physical activity reduces the risk of developing chronic diseases such as heart disease, which is the second leading cause of death in Guilford County (2021), stroke, type 2 diabetes, which has steadily been on the rise in Guilford County since 2010 and certain cancers. It also helps manage existing conditions by improving cardiovascular health, insulin sensitivity and body weight maintenance.
- **Mental Health Benefits**: Physical activity is associated with reduced symptoms of depression and anxiety, improved mood and enhanced cognitive function. It can also mitigate the effects of stress and improve sleep quality.
- **Enhanced Quality of Life**: Engaging in regular physical activity improves overall quality of life by enhancing physical fitness, increasing energy levels and promoting social interaction and community engagement.
- **Sleep Quality**: Sufficient sleep is essential for optimum health, just a few of the numerous processes occurring during sleep include memory consolidation, clearance of brain metabolites and restoration of nervous, immune, skeletal and muscular systems (Kline, 2014). Regular physical activity has been shown to significantly improve sleep quality. Adults with poor sleep were less active than similar adults without sleep complaints (Kline, 2014). Sun exposure improves the quality of sleep, state of sleep and sleep patterns (Lee et al., 2014).

The 2023 GCCH asked survey respondents to report various health conditions. The largest percentage of respondents (37.7%) reported that they had never been diagnosed with any of the listed health conditions. The most reported conditions were high blood pressure, depression or anxiety, high cholesterol and diabetes. Respondents in the Lower SVI sample were significantly more likely than those in the Higher SVI sample to report not having any of the listed conditions (42.1% compared to 24.1%). However, Lower SVI respondents were also more likely to report having high blood pressure (43.8% compared to 26.9%), high cholesterol (25.1% compared to 16.2%), diabetes (21.5% compared to 11.4%) and heart disease (16.0% compared to 7.5%).



Source: Guilford County Community Health Survey, 2023.

Regular physical activity increases energy expenditure, boosts metabolism and helps maintain muscle mass, all of which contribute to effective weight management. This is because being active helps regulate appetite by influencing hormones that control hunger and satiety. Physical activity is a modifiable risk factor for osteoporosis and increasing physical activity at any point throughout the lifespan positively affects bone health, while reductions in physical activity can result in bone loss (Carter & Hinton, 2014). The CDC states that being physically active can result in benefits such as stronger bones, muscles and the ability to perform everyday activities including reducing the risk of osteoporosis and falls, reduce symptoms of depression and anxiety. Moreover, the CDC also states that physical activity is important if you are trying to lose weight or maintain a healthy weight.

Obesity also negatively impacts mental health, often leading to depression, anxiety and low self-esteem due to the stigma and discrimination associated with being overweight (Segal & Gunturu, 2024). Obesity can further limit mobility and physical function, creating a cycle where physical activity becomes more challenging, leading to further weight gain (Leitzmann, 2017). In 2021, NC State Center for Health Statistics reported 34.8% of Guilford County residents over the age of 18 are obese, marking an increase since 2017, where approximately 31% of the county was classified as obese (NC SCHS, n.d.). For Guilford County, which has the second-highest obesity rate compared to other counties such as Mecklenburg, Wake and Forsyth Counties, addressing this issue requires improving access to physical activity, promoting healthy eating and fostering community engagement to create supportive environments for healthier lifestyles.

Disparities in Active Living

Recognizing disparities in active living is crucial because unequitable access to safe spaces, resources and opportunities for physical activity inordinately affects marginalized communities. This can lead to significant health inequities and reduced overall well-being, which are influenced by social determinants of health. The following examples demonstrate the deep connection between access to physical activity opportunities and social determinants of health:

- **Economic Stability**: Financial resources affect the ability to afford gym memberships, sports equipment and participation in physical activities. Lower-income communities often lack safe and affordable places for physical activity.

- **Education**: Educational institutions provide critical opportunities for physical activity through physical education programs, sports teams and recreational facilities. Higher levels of education are associated with greater awareness and prioritization of physical activity.
- **Social and Community Context**: Social support and community engagement play significant roles in promoting physical activity. Communities with strong social networks and recreational programs encourage higher participation rates. On the other hand, social isolation and lack of community cohesion can be barriers.
- **Health and Health Care**: Access to health care services can influence physical activity levels through health education, medical advice and rehabilitation programs. Health care providers play a crucial role in promoting physical activity as part of a healthy lifestyle.
- **Neighborhood and Built Environment**: The design and infrastructure of neighborhoods profoundly impact physical activity levels. Access to parks, walking trails, bike lanes and recreational facilities encourages active lifestyles. In contrast, areas with poor infrastructure, high crime rates and inadequate green spaces discourage physical activity.

Access to Physical Activity in Guilford County

In Guilford County, promoting active living is a key focus to improve the overall health and well-being of county citizens. One of the key strengths of Guilford County is that it offers a variety of opportunities for physical activity, from well-maintained parks and greenways to community centers and recreational programs. This is supported by the impressive statistic that 91% of the county's population lives near a park or recreation facility, as reported by County Health Rankings below. Parks and recreation facilities provide safe and convenient spaces for individuals of all ages to engage in various forms of exercise, from walking and jogging to sports and fitness classes. The county's commitment to providing these resources underscores its dedication to public health and the quality of life for its residents.

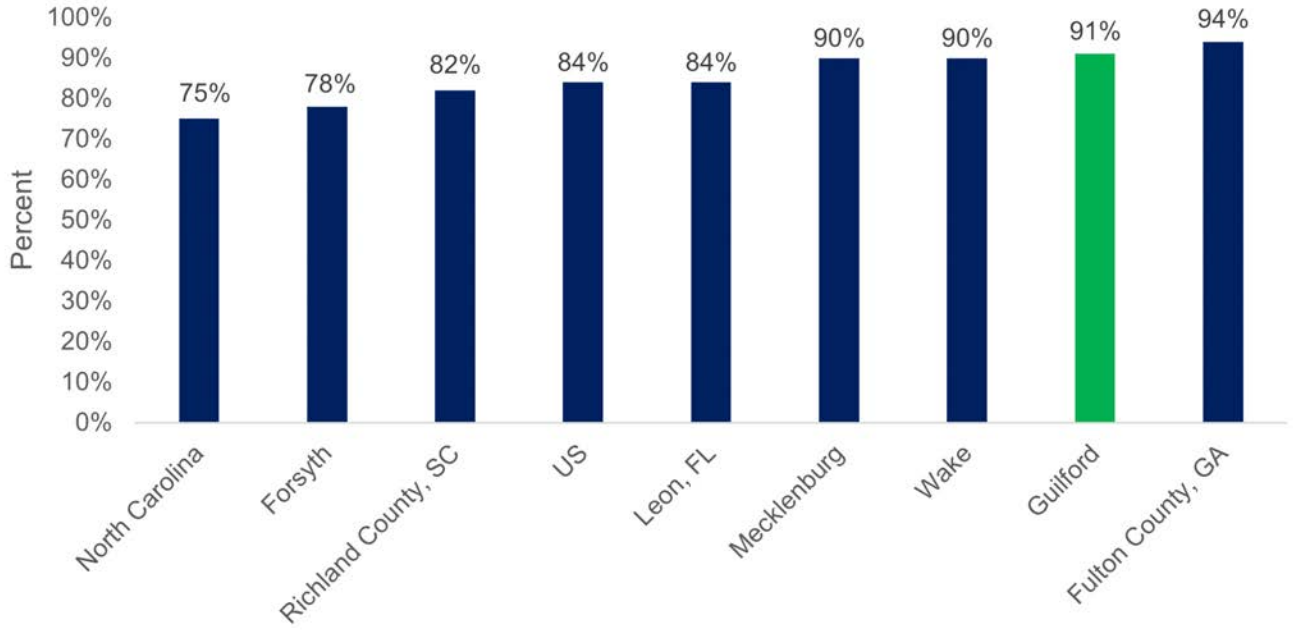
Healthy North Carolina 2030 Indicator

Access to Exercise Opportunities
2030 Target = 92%
Guilford County = 91% (2021)

According to the US Census Bureau in 2021, Guilford County boasted 70 establishments primarily engaged in operating fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities, such as swimming, skating or racquet sports (US Census Bureau).

By providing a wide range of options, from structured fitness classes to open play areas, Guilford County supports a culture of health and wellness. The US Census Bureau reports a rate of these establishments per 100,000 population for Guilford County as 12.93, which is closely aligned with the state rate of 13.10 (US Census Bureau). This comparison highlights that Guilford County is on par with the state in terms of access to fitness and recreational facilities. The presence of these facilities also attracts new residents and businesses, contributing to the county's economic development. Overall, the availability and accessibility of recreation and fitness facilities are a cornerstone of the county's commitment to fostering a healthy, active and vibrant community.

Percentage of the Population Who Live near a Park or Recreation Facility

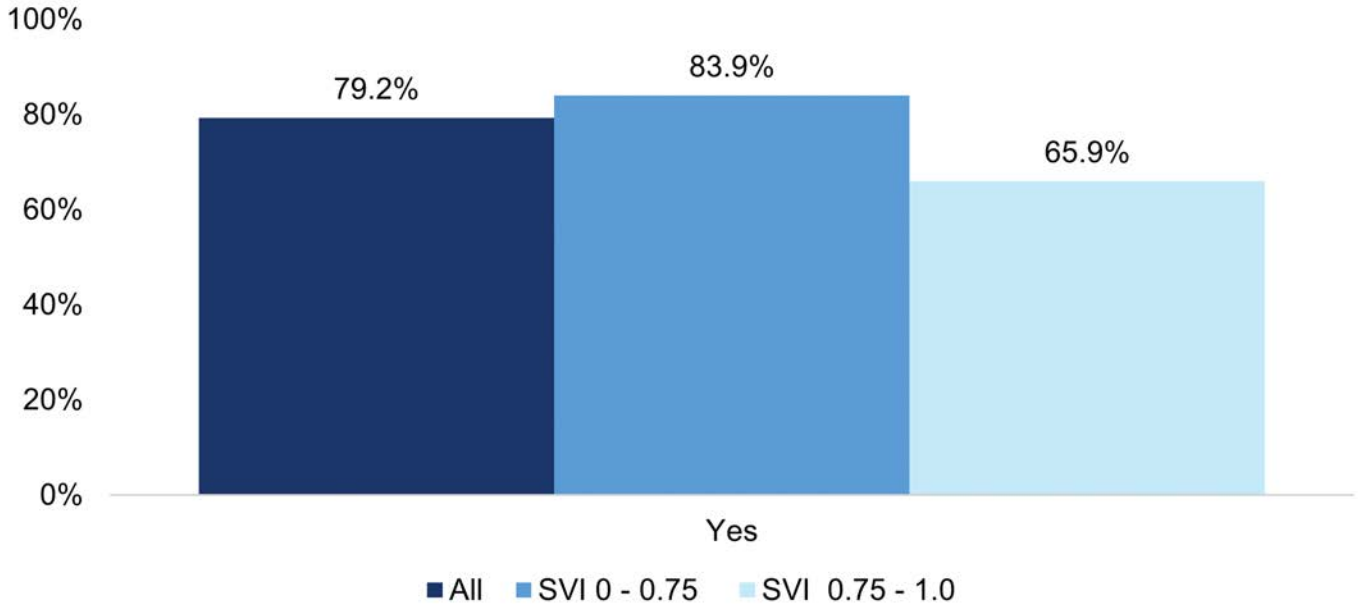


Source: County Health Rankings, RWJF 2023, ArcGIS Business Analyst and Living Atlas of the World; YMCA; US Census TIGER/Line Shapefiles 2022 and 2020.

How Our Community Stays Active

When asked in the 2023 Guilford County Community Health Survey (2023 GCCH Survey), respondents 79.2% of all respondents reported that in the previous month they participated in physical activities or exercise other than their regular job. Those in the Higher SVI sample were significantly less likely than those in the Lower SVI sample to report engaging in exercise or physical activity (65.9% compared to 83.9%).

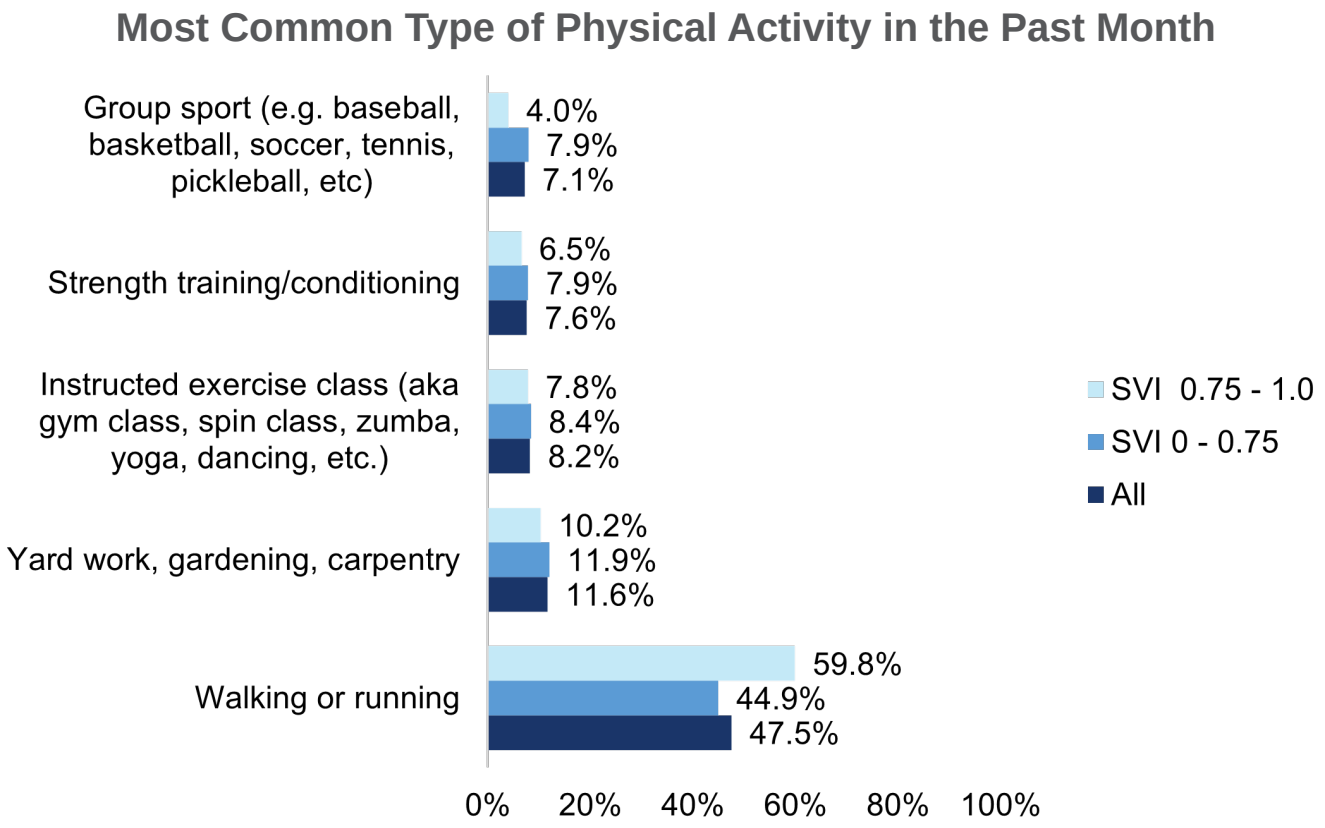
Participated in any Physical Activity or Exercises in the Past Month



Source: Guilford County Community Health Survey, 2023.

Men were more likely to report engaging in non-work physical activity or exercise than women (87.2% vs. 75.3%. There were also difference by education; those with an associate's degree or vocational training or a BS degree or higher were more likely to engage in non-work exercise (85.4% and 86.7% respectively) than those with a high school education or less (65.7%). Those renting their homes were less likely to engage in non-work physical activity than homeowners (71.4% compared to 85.4%).

The 2023 GCCH Survey yielded results determining the prevalence of type of physical activity survey respondents participated in over the past month. Walking or running, gardening, instructed exercise and strength training were the most common types of physical activity reported by Guilford residents. Notably, a significantly larger percentage of those in the Higher Social Vulnerability Index (SVI) sample reported engaging in walking or running (59.8%) compared to those in the Lower SVI sample (45.0%). This indicates a disparity in the type of physical activities based on social vulnerability.



Source: Guilford County Community Health Survey, 2023.

Deeper analysis reveals that the types of physical activity vary across different sub-populations. Younger survey respondents (age 50 or younger) were more likely to engage in strength training (12.7% vs. 2.7%) and group sports (11.5% vs. 3.0%), while those over 50 were more inclined towards walking or running (55.4% vs. 39.7%) and riding a bicycle (6.2% vs. 0.3%). Gender differences show men were more involved in group sports (11.4% vs. 3.8%) and strength training (12.2% vs. 3.9%), whereas women preferred instructed exercise (10.8% vs. 4.8%) and walking or running (56.6% vs. 36.6%). Additionally, Black respondents were more likely to engage in group sports (12.0% vs. 5.6% for Whites and 7.2% for Hispanics) and strength training (12.2% vs. 1.7% for Whites and 6.7% for Hispanics). Employment status also influenced activity type, with those employed more likely to participate in group sports (10.6% vs. 1.8%) and outdoor sports (5.3% vs. 0.4%), while those not working were more involved in yard work or gardening (16.5% vs. 7.7%).

The extensive network of facilities within Guilford County ensures that residents have numerous options to stay active and healthy, regardless of their age, interests or fitness levels. These establishments serve as vital community hubs, offering not only physical health benefits but also opportunities for social interaction and community building. Regular participation in recreational activities can improve mental health, reduce stress and enhance overall quality of life. Furthermore, the accessibility of these facilities helps to bridge the gap for populations that might otherwise have limited opportunities for physical activity, such as low-income families or individuals with disabilities.

The Story Behind the Curve

Active living is a critical component of overall health and well-being, yet there are several challenges that prevent Guilford County community members from fully engaging in regular physical activity. Moreover, studies show that motives and barriers to physical activity are influenced by factors of socioeconomic status, such as education and income (Pedersen et al., 2022).

Many neighborhoods in Guilford County, particularly in lower-income areas, lack sufficient parks, sidewalks and recreational facilities. Public transportation is often unreliable or non-existent in some parts of the county, further isolating individuals who do not own a vehicle from reaching gyms, parks or community centers where they could engage in physical activity (Pederson et al., 2022). For many families, long work hours and multiple jobs leaves little time or energy for engaging in physical activity. Furthermore, membership fees for fitness centers or organized sports may be prohibitive for low-income households, further limiting opportunities for active living (Pederson et al., 2022).

Turning the Curve: Areas for Action

In an ideal community, every family, regardless of income or background, has access to safe, well-maintained parks, sports facilities and recreational programs. Parents and children engage in physical activities together, fostering strong bonds and modeling healthy habits. Schools provide ample physical education, ensuring that all students, from kindergarten through high school, benefit from regular exercise.

To promote equitable access to physical activity, public health initiatives must address disparities rooted in social determinants of health. The following list of recommendations aim to create an environment that supports and encourages physical activity for everyone, regardless of their socio-economic background:

- **Policy Interventions**: Implement policies that ensure equitable distribution of recreational facilities, safe pedestrian pathways and community sports programs across all neighborhoods, particularly underserved areas.
- **Community Programs**: Develop and fund community-based programs that provide free or low-cost physical activity opportunities. Examples include public parks and recreation departments offering sports leagues, fitness classes and walking groups.
- **Health Education**: Increase awareness about the benefits of physical activity through public health campaigns, schools and health care providers. Tailor messages to diverse populations to ensure cultural relevance and effectiveness.
- **Infrastructure Improvements**: Invest in urban planning that prioritizes walkability, bike-ability and access to green spaces. Ensure that public spaces are safe, well-maintained and inclusive for all community members.
- **Collaboration and Partnerships**: Foster partnerships between government agencies, non-profits, schools, health care providers and businesses to create comprehensive strategies that address barriers to physical activity.

Family Situations Highlighting Systemic Issues

Systemic Barriers to Physical Activity and Play

Maria, a single mother living in High Point, juggles two jobs to provide for her family. In her low-income neighborhood, safe parks and recreational spaces are scarce and without reliable transportation, taking her children to better facilities in nearby areas is nearly impossible. As a result, her children spend most of their time indoors, missing out on the physical, social and emotional benefits of active play.

- **Systemic Issue:** Economic instability and lack of safe recreational spaces.
- **Challenge:** Ensuring Maria's family has access to safe, affordable physical activity opportunities.

The Smith family resides in a suburban area of Greensboro where public transportation options are limited and both parents work full-time. Although they wish to keep their children active, they struggle to find affordable sports programs and balance their demanding schedules. The Smiths face ongoing challenges in prioritizing family physical activity due to financial and time constraints.

- **Systemic Issue:** Limited access to affordable physical activity programs.
- **Challenge:** Balancing work, finances and physical activity opportunities.

In the rural outskirts of Summerfield, the Martin family enjoys the natural beauty of their surroundings but lacks access to structured recreational facilities. Their children attend a small local school with minimal physical education resources, limiting opportunities for organized exercise and social interaction. The Martins worry that their children are missing out on essential physical and social development due to these limitations.

- **Systemic Issue:** Geographic isolation and lack of structured activity programs.
- **Challenge:** Providing organized physical activity and social opportunities.

The Heartfelt Importance of Physical Activity

Imagine the transformation if every family had access to safe and inviting places for physical activity. Maria's children could play in a nearby, well-maintained park, making new friends and staying active. The Smiths could enroll their kids in affordable community sports programs, ensuring they grow up healthy and strong. The Martins could access a local recreation center, giving their children the opportunity to participate in team sports and enjoy social connections.

Physical activity is more than just exercise; it is a gateway to improved health, stronger communities and brighter futures. When children are active, they perform better in school, develop critical social skills and build self-confidence. For parents, engaging in physical activity with their children strengthens family bonds and creates lasting memories.

Resilience and Hope

Despite the challenges, stories of resilience shine through. Maria joins a local advocacy group advocating for better parks, the Smiths start a community sports league with their neighbors and the Martins organize outdoor adventure days with other rural families. These stories inspire change and remind us that, together, we can create a world where every family thrives.

Maria, a single mother in High Point, faced overwhelming challenges as she juggled two jobs while raising her children in a low-income neighborhood with few safe outdoor spaces. The lack of reliable transportation and access to recreational areas left her fe eling trapped, watching her children spend their days indoors. However, Maria didn't let these obstacles defeat her. She began seeking community programs that could bring movement into her children's lives and connected with other parents facing similar issues. By organizing small, indoor playgroups and tapping into local resources, Maria created moments of joy and connection for her family. Her strength and determination not only empowered her children but also gave her a sense of hope that one day, her community would grow to include safe, accessible areas for all families.

The Smith family, living in the suburbs of Greensboro, faced their own set of challenges as they tried to balance full-time work and family life. With limited public transportation and costly sports programs, the Smiths struggled to find ways to keep their children active. Yet rather than giving in to these pressures, they chose to approach the problem with creativity. The family carved out time for evening walks, participated in free local events and encouraged physical activity through small, daily routines. Through this intentional effort, they discovered new ways to bond as a family and found that maintaining an active lifestyle was possible even on a tight budget and schedule. Their resilience allowed them to thrive and keep their hope alive for a future with more affordable resources.

In Summerfield, the Martin family faced a different set of challenges, living in a rural area with limited access to structured recreational facilities and minimal physical education resources in their children's school. At first, they worried that their children were missing out on crucial social and physical development. But instead, the Martins found ways to embrace their natural surroundings. They encouraged their children to explore the outdoors, creating a world of imaginative play in nature. The family also began advocating for better recreational opportunities within their small community, hoping to inspire change. Through their love for the environment and determination to foster growth, the Martins built a foundation of resilience, knowing that their efforts would make a difference in the long run.

In the end, physical activity is not just about movement; it is about movement towards a healthier, more equitable future for all.

Current Initiatives and Assets

Staying active does not have to be complicated or expensive. With several private and public gyms, community centers, YMCAs and yoga studios available, there are accessible options for individuals at all fitness levels. Many of these facilities offer affordable memberships, free trial periods or sliding scale fees, making it easier for everyone to integrate regular physical activity into their daily lives. Additionally, many parks and outdoor spaces provide free resources like walking trails, basketball courts and outdoor fitness equipment, ensuring that staying active is within reach for all members of the community.

Here are just a few of the many parks and facilities available to the community:

High Point Recreation Centers

- Allen Jay Recreation Center and Park
- Deep River Recreation Center and Park
- Nathaneal S. Morehead Recreation Center and Park
- Oakview Recreation Center and Park
- Southside Recreation Center and Park
- Washington Terrace Park and Community Center

Greensboro Recreation Centers

- Brown Recreation Center
- Craft Recreation Center
- Glenwood Recreation Center
- Greensboro Sportsplex

- Griffin Recreation Center
- Leonard Recreation Center
- Lewis Recreation Center
- Lindley Recreation Center & Al Lowe Boxing Club
- Peeler Recreation Center
- Warnersville Recreation Center
- Windsor Recreation Center
- Xperience @ Caldcleugh

Guilford County Parks

- Bur-Mil Park
- Gibson Park
- Hagan-Stone Park
- Northeast Park
- Southwest Park
- Triad Park
- Guilford-Mackintosh Park

High Point Community Parks

- Armstrong Park
- Greenway Trail
- High Point City Lake Park
- Oak Hollow Park
- Washington Terrace Park

Greensboro Community Parks

- Barber Park
- Bluford Park
- Bog Garden at Benjamin Park
- Bryan Park
- Center City Park
- Country Park
- Douglas Park
- Fisher Park
- Gateway Gardens
- Greenhaven Park
- Greensboro Arboretum
- Hester Park
- Keeley Park
- Lake Daniel Park
- LeBauer Park
- Lindley Community Park
- Price Park
- Smith Community Park
- Starmount Park
- Woven Works Park

Piedmont Discovery is a park and trail locator mobile app designed and managed by the cities of Greensboro and High Point and Guilford County. With this tool, community members can search for local parks, trails and recreation opportunities sort trail information by type of terrain and level of difficulty and get directions and links for additional information.

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Chapter 9:
Maternal and Child Health and Infant Mortality

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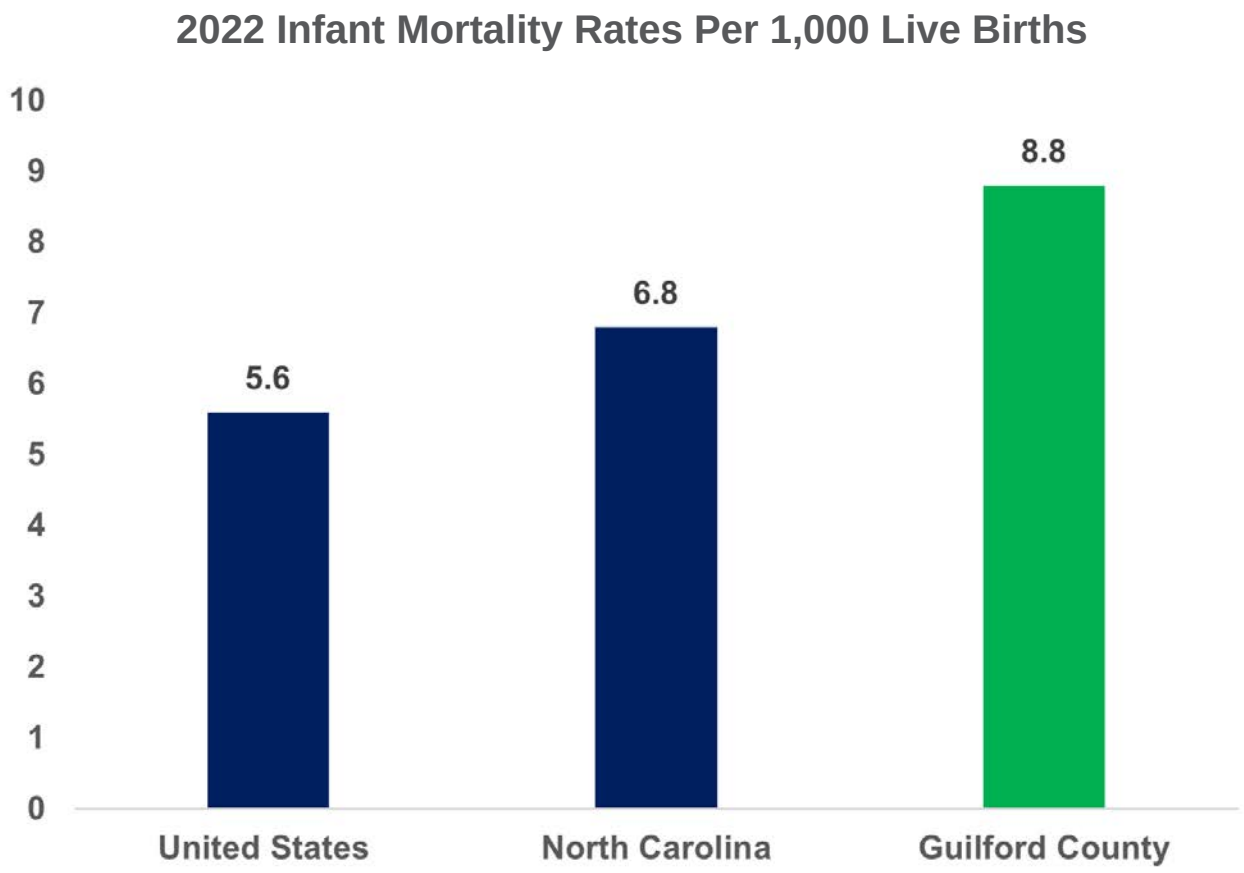
Why is Infant Mortality Important?

Infant mortality rates (IMR) are often used by researchers and policymakers as an indicator of a country's health and social and economic development. IMR measures the number of infant deaths between birth and 12 months per 1,000 live births. Whether an infant survives and thrives depends on the social, economic, and environmental conditions in which children live, including their health care. For example, poverty can lead to high IMR rates because it can create conditions that are harmful to babies, such as poor sanitation, malnutrition, and lack of access to primary health care. The importance of IMR is reflected in the fact that reduction of infant mortality rates is a key objective of both the Healthy People 2030 national health objectives developed by the U.S. Department of Health and Human Services and the Health North Carolina 2030 health objectives developed by the NC Institute of Medicine and NC Department of Health and Human Services.

Infant mortality rates in North Carolina are consistently higher than rates for the United States, while IM rates in Guilford County are consistently substantially higher than rates in North Carolina as a whole. In 2022, out of 5,883 live births in Guilford County, 52 infants died before their first birthday, for an IMR of 8.8, a rate that is 29% higher than NC's rate of 6.8 and 57% higher than the U.S. rate of 5.6.

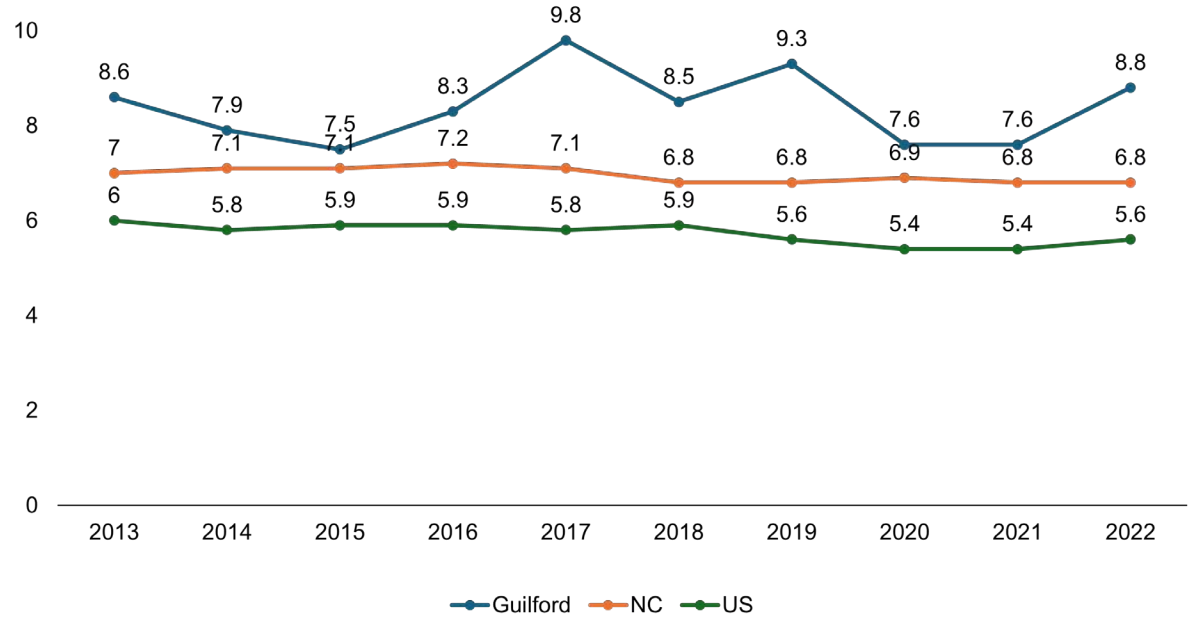


Source: Data provided by the NC Center for Health Statistics, National Center for Health Statistics.

How is Guilford County Doing: Trends Over Time?

Although there is some variation in Guilford County's IMR from year to year, Guilford's rate is consistently higher than the rates of NC and the US, as is seen in the trendlines below showing rates from 2013 to 2022.

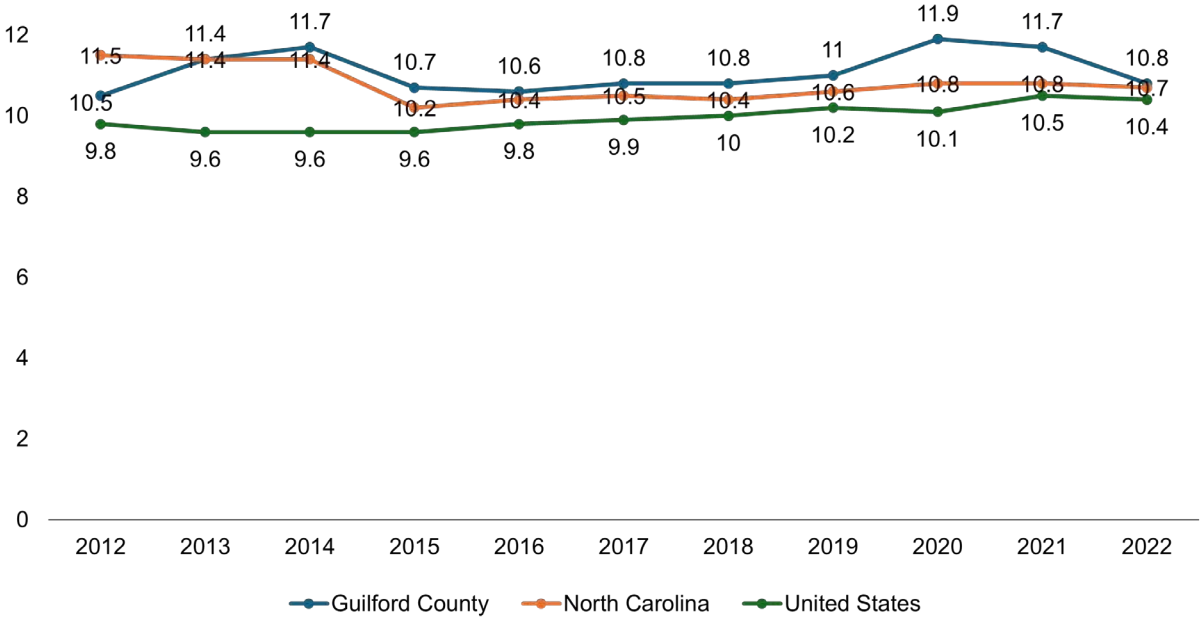
Infant Mortality Rate, 2013-2022 Guilford County, North Carolina, and US - Rates per 1,000 Live Births



Source: Data provided by the NC Center for Health Statistics, National Center for Health Statistics.

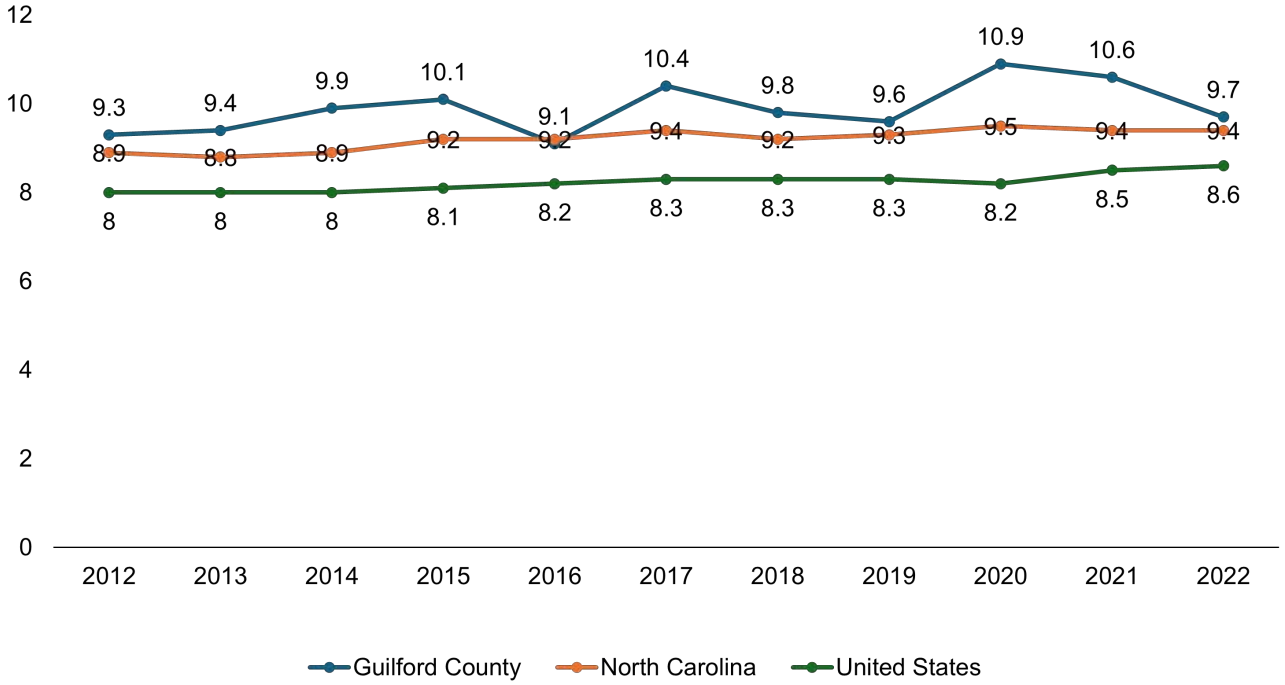
Primary factors associated with infant mortality are gestational age and birthweight. The rates of preterm birth and low birthweight are both higher in Guilford County than NC and the U.S. as seen below in the trendlines in preterm and low birthweight rates from 2012 to 2022.

Percent of Births Preterm, Guilford County, North Carolina, and US, 2012-2022



Note: Preterm births are births occurring prior to the 37th week of pregnancy. Source: Data provided by the NC Center for Health Statistics, NCHS.

Percent of Births Low Birthweight, Guilford County, North Carolina and United States, 2012-2022

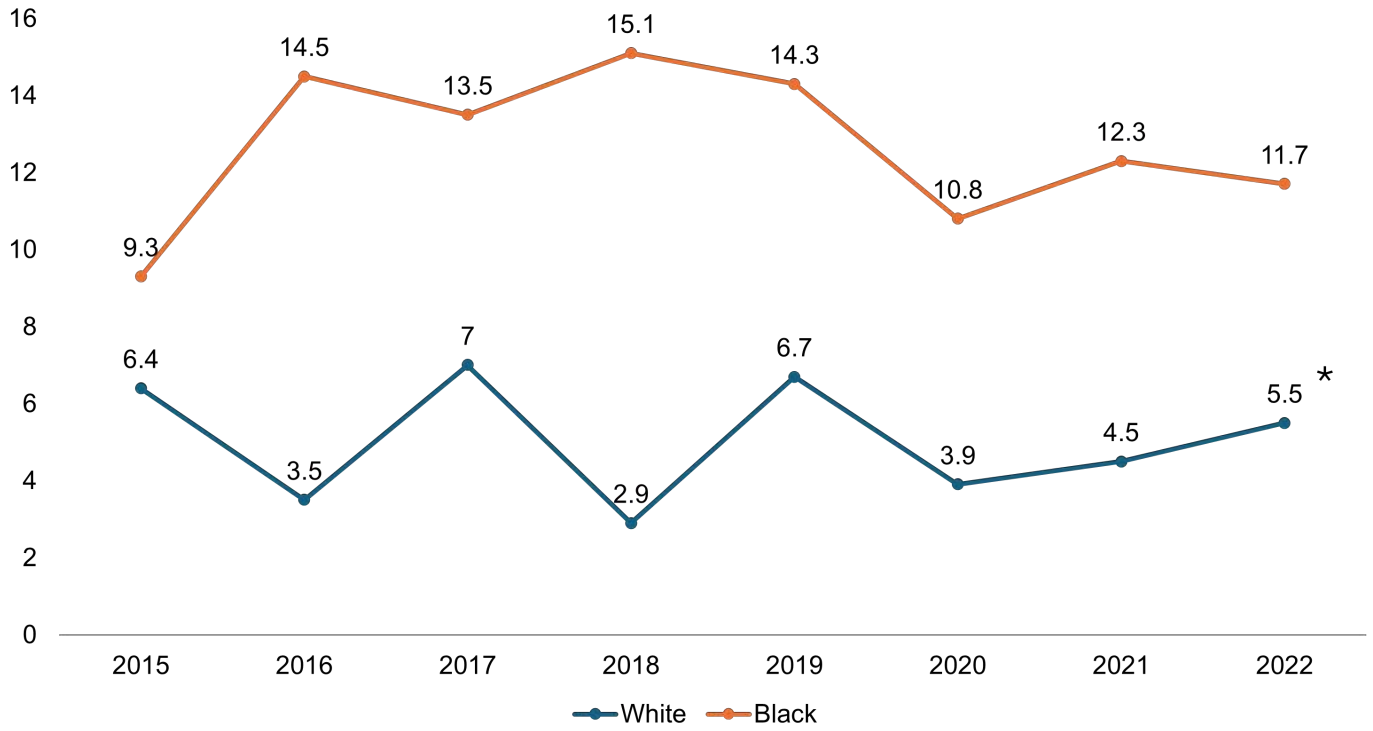


Note: Low birthweight births have birthweight less than 2,500 grams. Source: Data provided by the NC Center for Health Statistics.

Disparities in Birth Outcomes

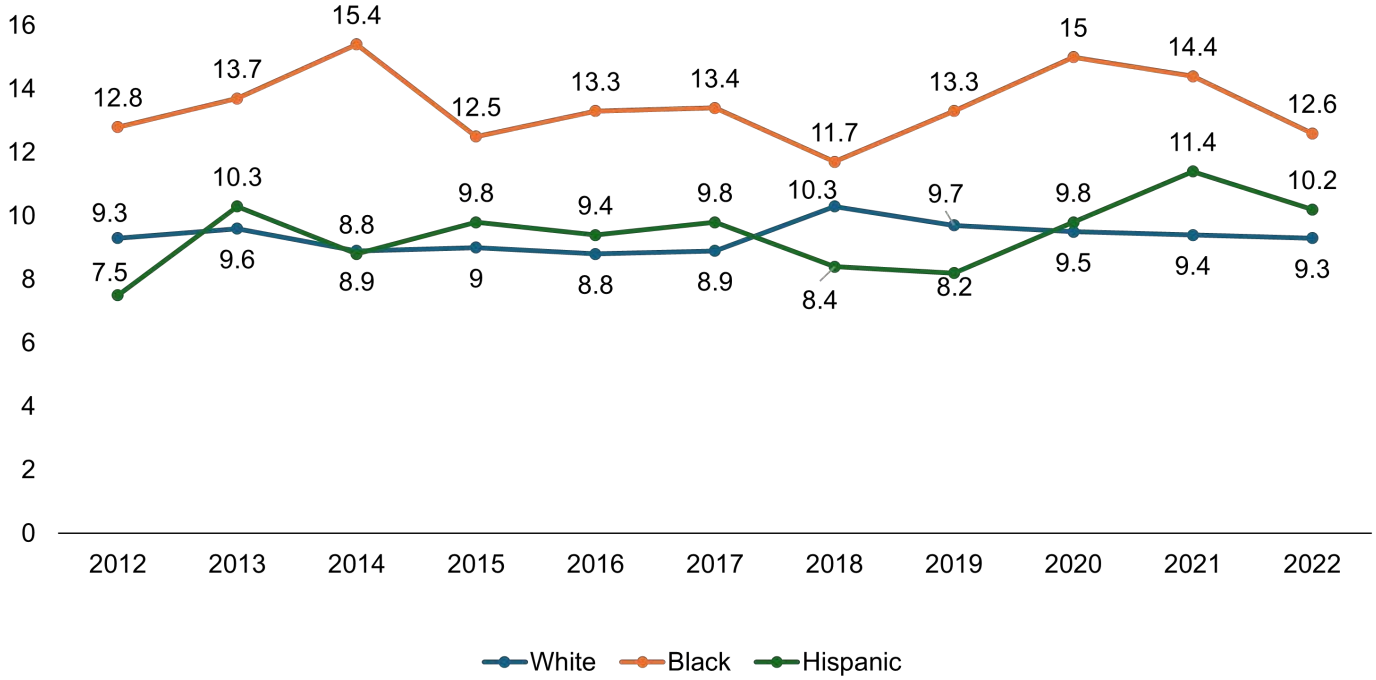
Guilford County has a large and persistent racial disparity in infant mortality rate (IMR), as seen in the following chart. High IMR in Guilford County compared to NC and the U.S. is influenced by the demography of the county, which has 36.3% of its population comprised of Black/African Americans, compared to 22.1% in North Carolina and 13.7% in the United States. Black IMR's are typically at least twice as high as White rates, as seen in the trendline chart below, showing IMR's by race from 2015 to 2022. Significant disparities are also seen in risk factors for infant mortality. Expectant Black mothers in the county are more likely than White mothers to start prenatal care late or have no prenatal care, have higher preterm birth rates and give births to babies that are low and very low birthweight. Between 2012 and 2022, Black mothers had consistently higher rates of preterm births than either Whites or Hispanics.

Guilford County Infant Mortality Rates by Race, 2015-2022



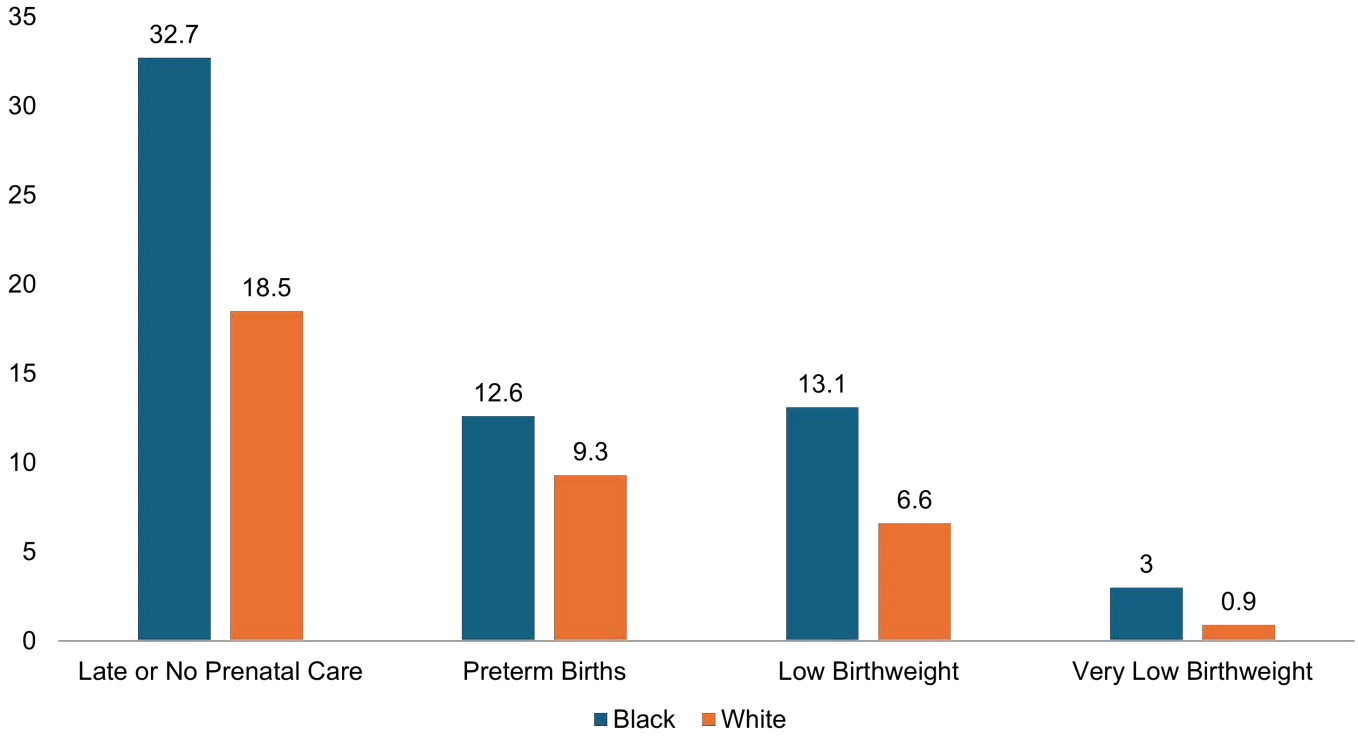
*Source: NC State Center for Health Statistics. *2022 IMR data for white and black infant deaths excludes Hispanic IM; in previous years, Hispanics could be of any race.*

Percent of Guilford County Births Preterm, by Race and Hispanic Status, 2012-2022



Note: Preterm births are births occurring prior to the 37th week of pregnancy. Source: Data provided by the NC Center for Health Statistics, NCHS.

Black and White Health Outcomes Impacting Infant Mortality in Guilford County (2022)



Source: NC State Center for Health Statistics.

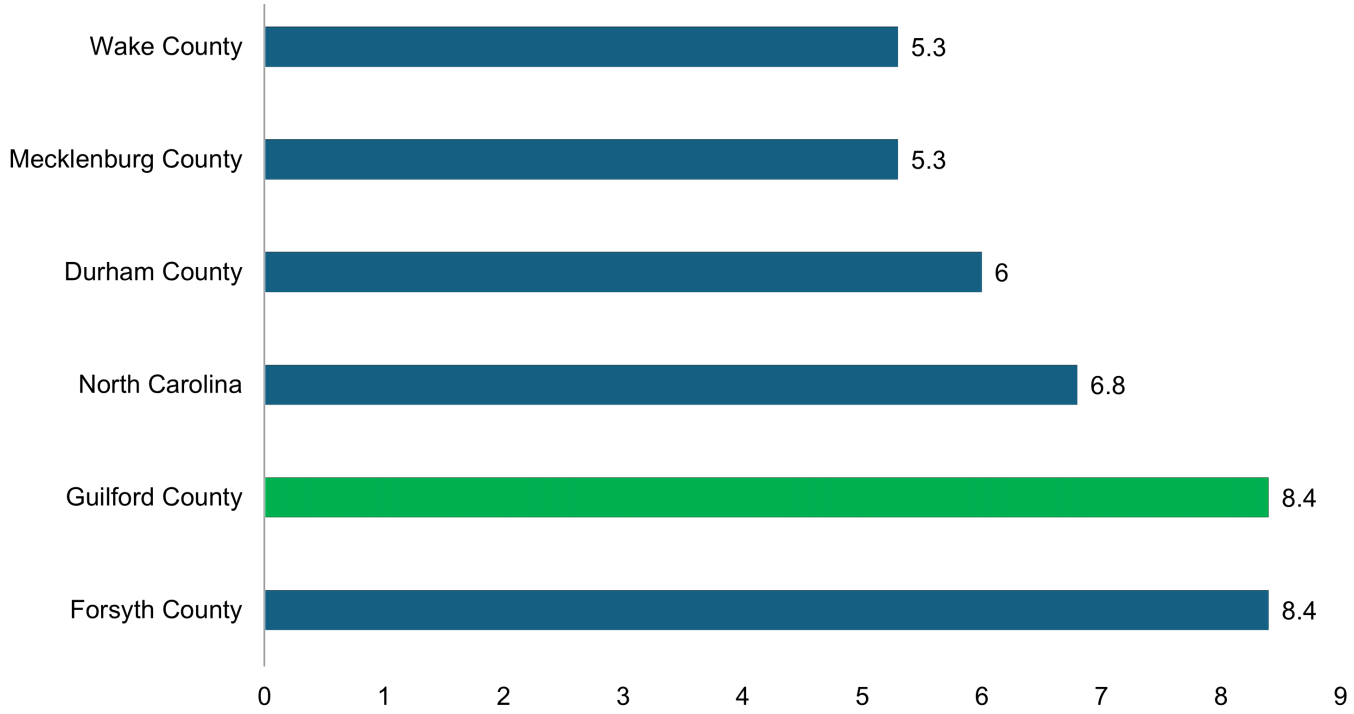
Negative Impacts of Inadequate Care

In a vibrant neighborhood, Noelle, a young mother, faced significant challenges during her pregnancy. She found out she was pregnant at 10 weeks but struggled to find a clinic open after work, delaying her prenatal care. By 16 weeks, she encountered a health care system that often dismissed her concerns as a Black woman. Despite her determination, Noelle struggled with providers who dismissed her anxiety about high blood pressure. Juggling work and limited support affected her mental health, and when her daughter Lauren was born with health complications, Noelle sank into postpartum depression.

How Does Guilford County Compare to Others?

Infant mortality is an important issue in many communities, but as the following charts suggests, Guilford County has a heavy overall burden—a higher five-year infant mortality rate than all the peer comparison counties,except for Forsyth County, and the state.

Five-Year Infant Mortality Rates by Comparison County, 2018-2022 - Deaths per 1,000 Live Births



Source: Data provided by the NC Center for Health Statistics, NCHS.

Community Meetings Prioritize Infant Mortality and Birth Outcomes

In June of 2024, community meetings were convened in Greensboro and High Point to assess community health in Guilford County. Responders reviewed key secondary data and data from the 2023 Guilford County Community Health Survey, engaged in discussion regarding health concerns and weighed in on priority health issues through a “penny for your thoughts” exercise. Based on the available data, the meeting responders determined that infant mortality and poor birth outcomes is the highest ranking health concern in Guilford County.

The Story Behind the Curve

As discussed in a previous section on the social determinants of health, Black/African-American residents of Guilford County are disadvantaged compared to White residents across a range of social drivers of health. Black residents have lower incomes, lower educational attainment, are less likely to have health insurance, have comparatively poorer access to quality health care services, and may be subject to racism and discrimination.

Lower incomes can lead to inadequate nutrition, both because women may not be able to afford quality foods and because they may live in lower-income areas of the county without ready access to sources of health foods. Lower incomes may also result in Black residents living in substandard housing and in geographic areas in proximity to environmental toxins and pollutants that can negatively impact brirth outcomes. Lower incomes and socioeconomic status can result in limited access to prenatatal care, quality health care and needed health care specialists. Lower educational attainment may lead to a lack of pregnancy-related knowledge and can result in uninformed decisions,

while higher education can empower women to make more informed health and pregnancy decisions. Racism and discrimination can result in racial bias in health care settings, leading to poorer quality care for minorities and may increase the psychological stress experienced by pregnant Black women, which can adversely impact birth outcomes such as preterm birth and low birthweight (March of Dimes, 2019, Hill et al., 2022).

Changing the Narrative

A year later, Noelle began volunteering with a local nonprofit focused on maternal and infant health, determined to change the narrative. She began advocating for better training for health care providers and raising awareness about the inequities in care within her community. She also formed a support group for Black women to share experiences and resources. Through her efforts, Noelle helped foster change for future generations, highlighting the need to address systemic issues like racism, access to transportation, and access to health care to improve maternal and child health outcomes.

Turning the Curve: Areas for Action

Given the complexty of the factors that contribute to adverse birth outcomes, reductions in rates of preterm births, low birthweight and infant mortality will require efforts across a wide range of issues. NC Department of Health and Human Services' Perinatal Health Strategic Plan identifies 12 action areas within three broad goals of addressing economic and social inequities, strengthening families and communities, and improving health care for people of reproductive age (NCDHHS, 2022).

North Carolina Perinatal Health Strategic Plan Goals and Action Steps

Goal 1 – Address Economic and Social Inequities

- Point 1. Undo racism
- Point 2. Support working parents and families
- Point 3. Reduce poverty among people of reproductive age and families Point 4 . Close the education gap

Goal 2 – Strengthen Families and Communities

- Point 5. Invest in community building
- Point 6. Support coordination and cooperation to promote reproductive justice within communities
- Point 7. Enhance coordination and integration of family support services
- Point 8. Strengthen father and co-parent involvement in families

Goal 3 – Improve Health Care for All People of Reproductive Age

- Point 9. Expand access to high quality health care
- Point 10. Improve access to and quality of maternal care in all settings
- Point 11. Increase access to preconception, reproductive, and sexual health care for people of reproductive age
- Point 12. Provide interconception care

Community Assets

Efforts to address these ambition goals and action steps will require a broad and community network working at multiple levels and across systems. The Guilford County-funded organization, Every Baby Guilford, is a collective action movement building collaborative solutions within the community to disrupt longstanding health outcomes and racial disparities

in Guilford County. Every Baby Guilford aligns its activities with the NC Perinatal Health plan to collaboratively work to improve maternal health and birth outcomes in the county (NCDHHS, 2022).

Guilford County Department of Public Health also provides the following clinical and community-based services to support pregnant women and their families in Guilford County:

- GCDPH's Maternity Clinic provides comprehensive prenatal care for women with low to medium risk pregnancies.
- Family Planning and the JustTEENS Clinics provide comprehensive family planning services for women and men (teen and adult).
- CenteringPregnancy is a best-practice group prenatal care program that follows the recommended schedule of 10 prenatal visits, each lasting 90 minutes to two hours long.
- The Family Connects Guilford program offers nurse home/telehealth visits and follow up contacts to all Guilford County residents following the birth of a baby, providing support, education, and early identification and referral of health and safety concerns.
- The Care Management for High-Risk Pregnancy (CMHRP) program provides free case management services to high-risk pregnant women enrolled in NC Medicaid and a limited number of low-income or uninsured pregnant women.
- Care Management for At Risk Children (CMARC) is free case management for children up to five years of age who are born with chronic conditions, at risk for developmental delays or have been impacted by social determinants of health and toxic stress or trauma.

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Chapter 10:
HIV and Other Sexually Transmitted Infections

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Why are HIV and Other Sexually Transmitted Diseases Important?

Highlighting sexually transmitted infections (STIs) as a priority health issue is crucial for improving individual health, combatting stigma, reducing transmission, managing economic burden, and ensuring equitable health care access. More than one-half of Americans will acquire an STI in their lifetime yet remain largely unaware of their impact. (USDHHS, 2020) As a critical part of larger public health efforts to promote well-being and prevent disease, STIs are a priority health issue in Guilford County for several reasons.

- **Prevalence**: Rates of Sexually Transmitted Infections—including Human Immunodeficiency Virus (HIV), syphilis, gonorrhea and chlamydia—are significantly higher in Guilford County than in the US, NC and in peer comparison counties.
- **Health Impact**: STIs can lead to severe health complications if left untreated, including infertility, chronic pain, pregnancy/birth complications, and increased risk of certain cancers (USDHHS, 2020). Public health prioritization helps in addressing these high rates and mitigating their impact on individuals' health.
- **Screening and Early Detection**: Focusing on STIs promotes regular screening and early detection, which is crucial for effective treatment. Many STIs are asymptomatic, so individuals may not realize they are infected until significant health issues arise. Early intervention can prevent complications and reduce the spread of infections.
- **Economic Impact**: STIs have significant economic implications, including health care costs and lost productivity. Prioritizing STI prevention and treatment can reduce these economic burdens on individuals and health systems, leading to more cost-effective health care overall.
- **Disparities**: Certain populations are disproportionately affected by STIs. Prioritizing STIs helps target resources and interventions to these vulnerable groups, promoting health equity and ensuring that underserved populations receive the support they need.

Reportable Vs. Non-Reportable Sexually Transmitted Infections

In North Carolina, certain STIs are required by law to be reported to public health authorities, while others are not. This reporting helps track disease trends, allocate resources, and implement public health interventions. This impacts the STIs that we have accurate and timely data on. Here is a breakdown of which STIs are typically reportable and why some are not:

Reportable STIs Include: HIV/AIDS, syphilis, gonorrhea, chlamydia, Hepatitis B and C, and chancroid.

Non-Reportable STIs Include: herpes simplex virus (HSV), human papillomavirus (HPV), mycoplasma genitalium, and trichomoniasis.

The decision to report certain STIs is influenced by factors such as public health impact, ease of diagnosis, and resource allocation. The goal is to effectively monitor, control, and prevent the spread of STIs while managing the burden on public health systems.

How is Guilford County Doing: Trends over Time?

As seen in the following trendline charts, rates of sexually transmitted infections, including HIV, syphilis, gonorrhea, and chlamydia, are consistently higher in Guilford County than in North Carolina as a whole and the United States.

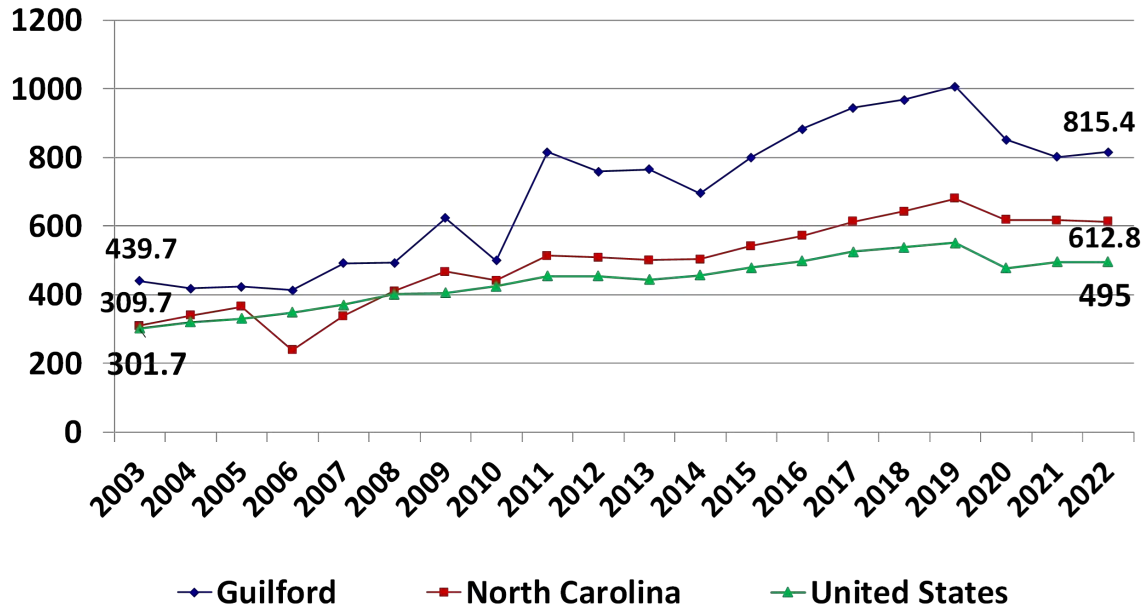
Chlamydia is the most commonly occurring STI in Guilford County, followed by gonorrhea. Chlamydia and gonorrhea incidence rates are somewhat lower in recent years but remain considerably higher than the state and national rates.

Syphilis and HIV incidence rates are lower than rates for chlamydia and gonorrhea, but these conditions, left untreated, have more serious health consequences. Syphilis incidence rates have been increasing nationally and in North Carolina for several years but have been increasing especially fast in Guilford County.

Syphilis is particularly concerning due to the potential for mother-to-baby transmission during pregnancy and childbirth, known as congenital syphilis. According to the 2019 TAG Pipeline Report, syphilis remains the second leading cause of

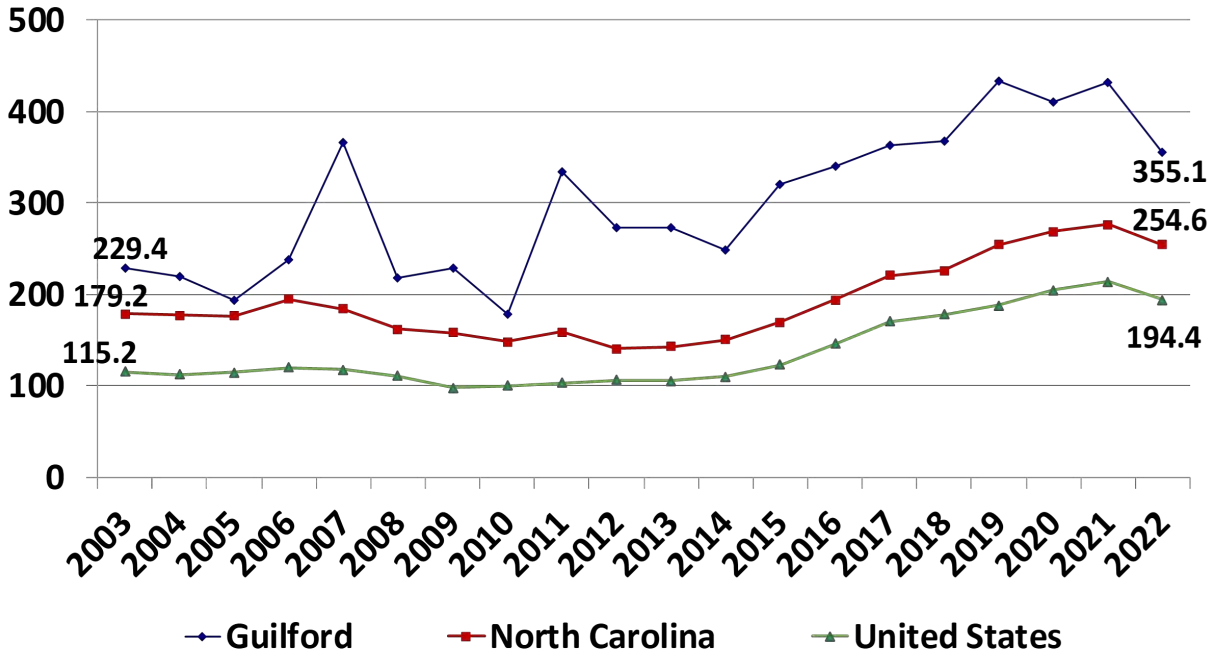
stillbirth and miscarriage worldwide (Johnson, 2019). In NC, there has been an increase of syphilis in women, resulting in an increase in cases of congenital syphilis. In 2022, there were 72 congenital syphilis cases in the state, including 10 stillbirths or neonatal deaths attributable to congenital syphilis. This is a 278% increase compared to 2018 (2023 North Carolina STD Surveillance Report, 2024).

Trends in Chlamydia Incidence Rates Guilford County, North Carolina, and United States, 2003-2022 - Rate per 100,000



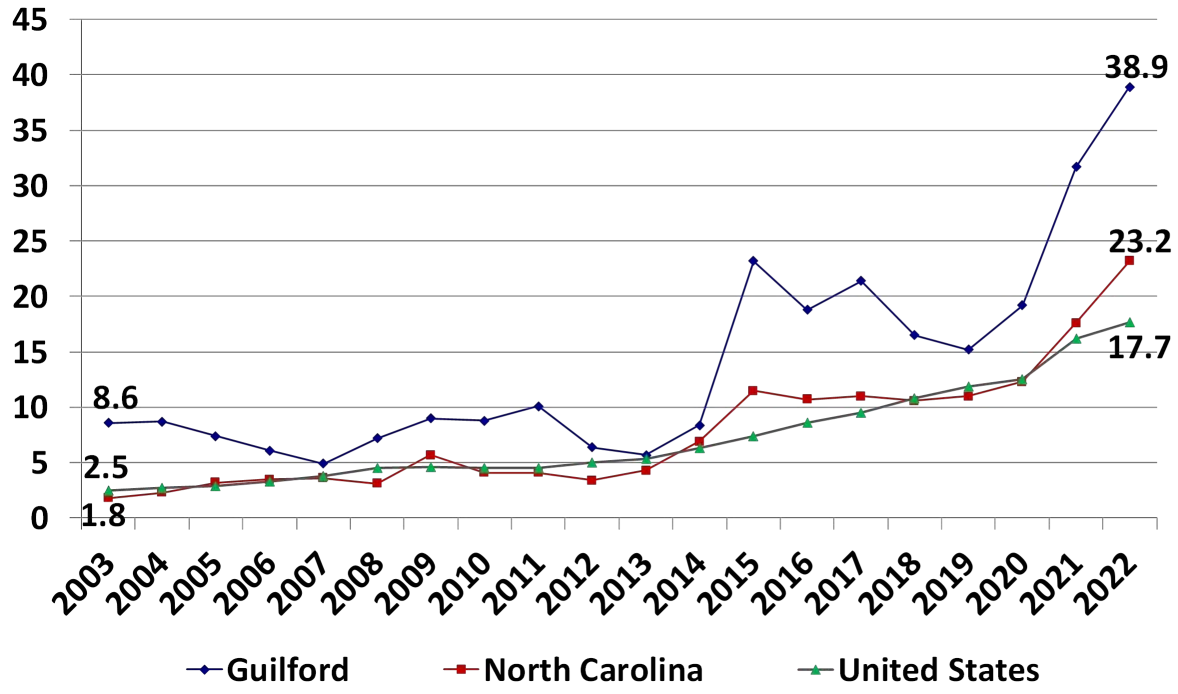
Source: NC DHHS Communicable Disease Control Branch, STD Annual Report; Centers for Disease Control. Chart prepared by the GCDHHS, Division of Public Health.

Trends in Gonorrhea Incidence Rates Guilford County, North Carolina, and United States, 2003-2022 - Rate per 100,000



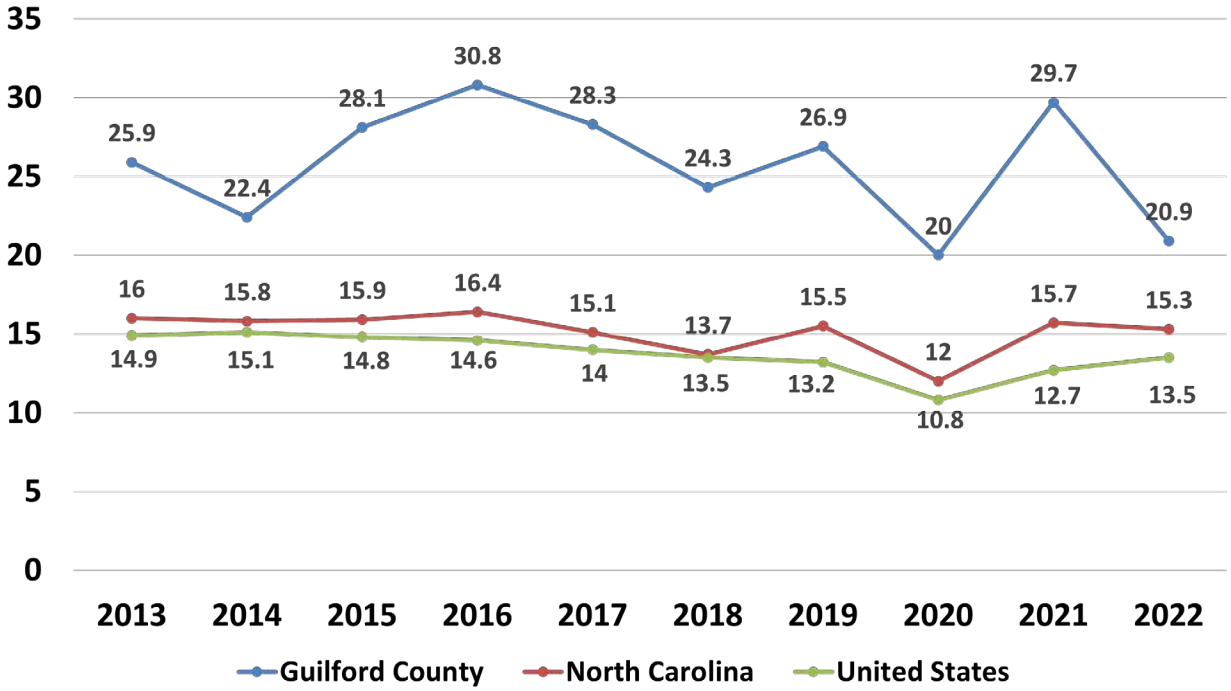
Sources: NC DHHS, Communicable Disease Control Branch, STD Annual Report; CDC.

Trends in Primary and Secondary Syphilis Rates Guilford County, NC and US 2003-2022 - Rate per 100,000



Source: NC DHHS Communicable Disease Control Branch; NC Electronic Disease Surveillance System (NCEDSS); Centers for Disease Control.

Trends in HIV Rates among Residents Ages 13 and Older, Guilford County, NC and US, 2013-2022 - Rate per 100,000



Sources: NC HIV Surveillance Report, HIV/STD/Hepatitis Surveillance Unit, Division of Public Health, NCDHHS. US data from HIV surveillance reports, CDC.

Although HIV rates have declined in recent years, there has been an increase in cases of late stage HIV, also known as AIDS, which represents the advanced stage of the infection. This trend is concerning, particularly as health departments in North Carolina reduced testing opportunities during the COVID-19 pandemic to focus on other pressing health needs. The resulting decrease in regular testing may have contributed to the rise in advanced cases, highlighting the need for renewed efforts in testing and prevention (*2023 North Carolina HIV Surveillance Report*, 2024).

Disparities in Sexually Transmitted Infections

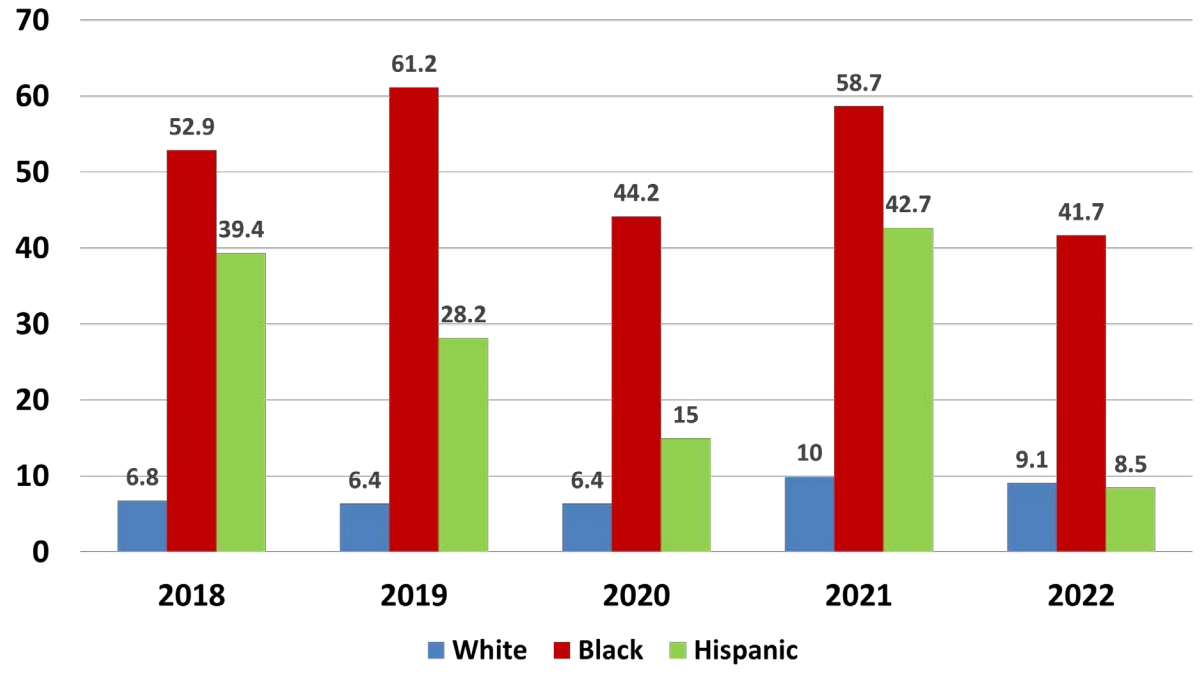
In Guilford County, incidence of the STIs highlighted in this CHA are characterized by large disparities amongst racial and ethnic minorities as well as sex and gender minorities. It is important to note that these higher rates are not directly caused by a person's race, ethnicity, heritage, gender, sex, or sexual orientation but likely by social and systemic conditions that are more likely to affect these vulnerable groups. Factors such as poverty, large wealth gaps, access to services, transportation, and low education awareness can make it more difficult for people to stay sexually healthy (CDC, 2024a).

Vulnerable Populations

Nationally, data indicates that adolescents and young adults, men who have sex with men (MSM), and pregnant women are most impacted by chlamydia, gonorrhea, syphilis, HPV, and HIV. Within these populations, specific racial and ethnic minorities, including Black individuals, American Indian/Alaska Native people, and Hispanic individuals, along with certain regions of the United States—particularly the South and West—are disproportionately affected by these STIs (USDHHS, 2020.)

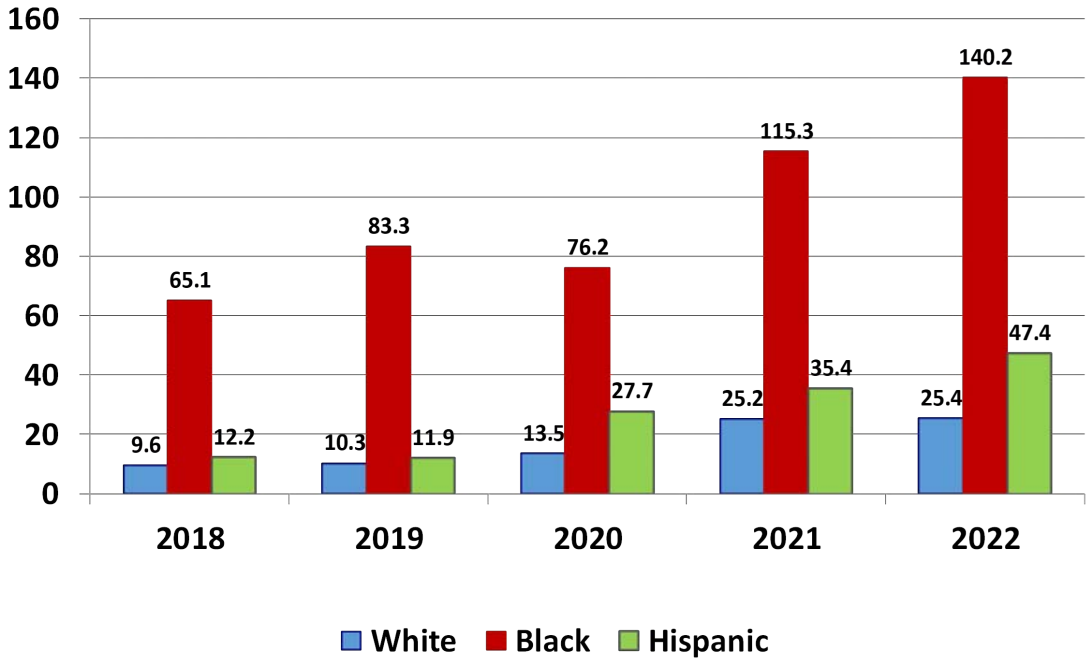
Between 2018 and 2022, Hispanic residents of the county had higher rates of HIV than did White residents, though not as high as among Black residents. In 2022, rates of HIV for males were 37.7 per 100,000 population as compared to a rate of 4.9 for females. That same year, those between the ages of 20 to 45 years of age had the highest rates of infection. Over the same period, early syphilis rates displayed an even more pronounced disparity between Black residents and Whites and Hispanic residents. In 2022, four out of five persons testing positive for early syphilis were males, and 71% were between the ages of 20 to 39.

Trends in HIV Rates Among Residents Ages 13 and Older, Guilford County, by Race and Hispanic Status, 2018-2022 - Rate per 100,000



Sources: NC HIV Surveillance Report, HIV/STD/Hepatitis Surveillance Unit, Division of Public Health, NCDHHS.

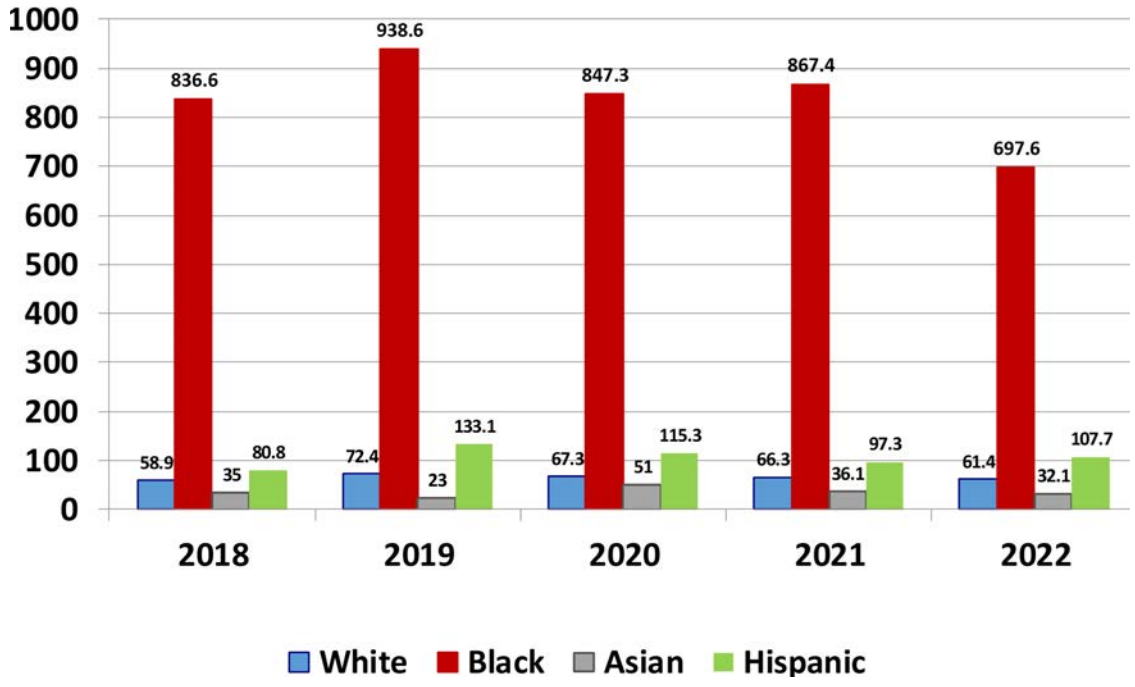
Trends in Early Syphilis Rates in Guilford County by Race and Hispanic Status, 2018-2022 - Rate per 100,000



Note: Early Syphilis includes Primary, Secondary and Early, non-Primary and Early, non-Secondary Syphilis.
Source: NC Electronic Disease Surveillance System (NCEDSS).

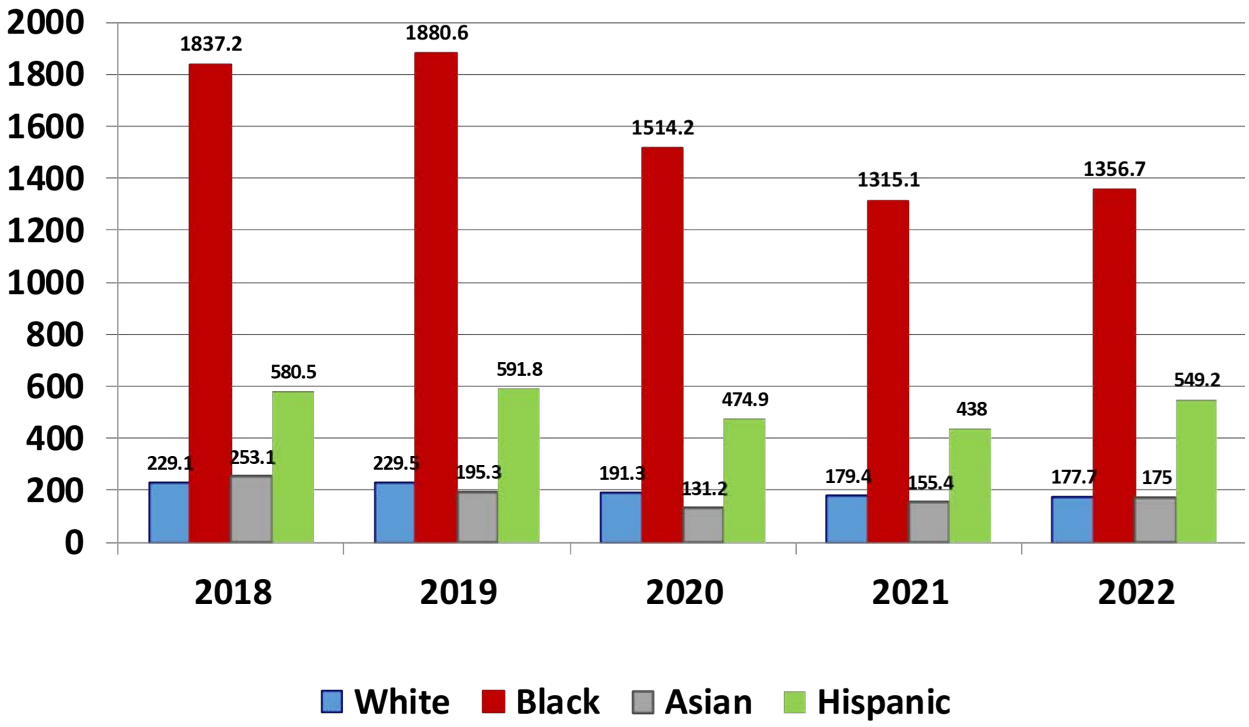
As seen in the following charts showing five years of data, the racial disparity in the incidence of both chlamydia and gonorrhea is concerningly high, with rates of these infections much higher in Black residents, compared with White, Asian or Hispanic residents.

Trends in Gonorrhea Rates in Guilford County by Race and Hispanic Status, 2018-2022 - Rate per 100,000



Source: NC Electronic Disease Surveillance System (NCEDSS).

Trends in Chlyamydia Rates in Gulford County By Race and HIspanic Status, 2018-2022 - Rater per 100,000



Source: NC Electronic Disease Surveillance System (NCEDSS).

In addition to significant racial and ethnic disparities, the incidence of STIs in Guilford County is characterized by disparities in sex and age. New cases of both HIV and gonorrhea were more likely to occur among males than females. However, almost two-thirds of chlamydia cases were identified in females (64% vs.36%). This reversal of the sex disparity could be a result of differential testing: women are more likely to come in contact with regular STI screenings for things such as pregnancy, contraception, and pap smears resulting in increased detection of chlamydia.

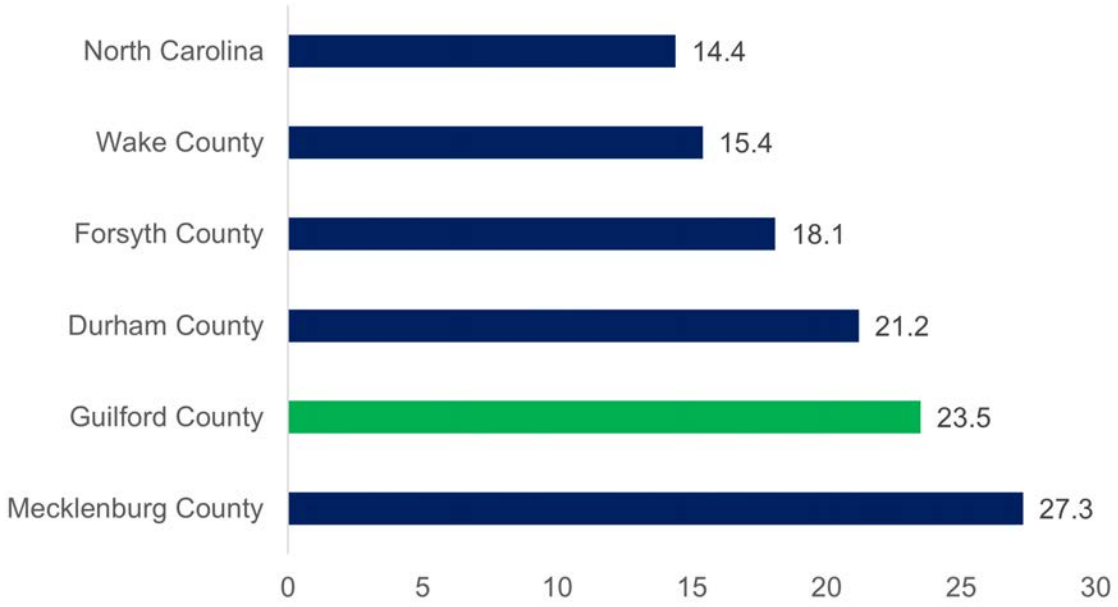
Though the age distribution varies depending on the STI, there is a tendency for cases to occur at greater rates among residents of younger ages. According to the U.S. STI National Strategic plan, people aged 15-24 represent one half of new STI infections, but only one-quarter of the sexually active population (USDHHS, 2020).

There has been increased risk for HIV, syphilis, and gonorrhea documented for gay, bisexual, and other men who have sex with men (MSM). It is important to note that the term MSM is used clinically to refer to sexual behavior alone, independent of a person's sexual orientation. Increased STI rates in these populations might be due to their sexual networks, specific sexual behaviors that pose higher susceptibilty of infection, biological factors, or concerns about health care discrimination. In the United States, MSM have an estimated lifetime HIV infection risk of one in six, while heterosexual men are estimated at one in 524 and heterosexual women one in 253. (CDC, 2021)

How Does Guilford County Compare to Others?

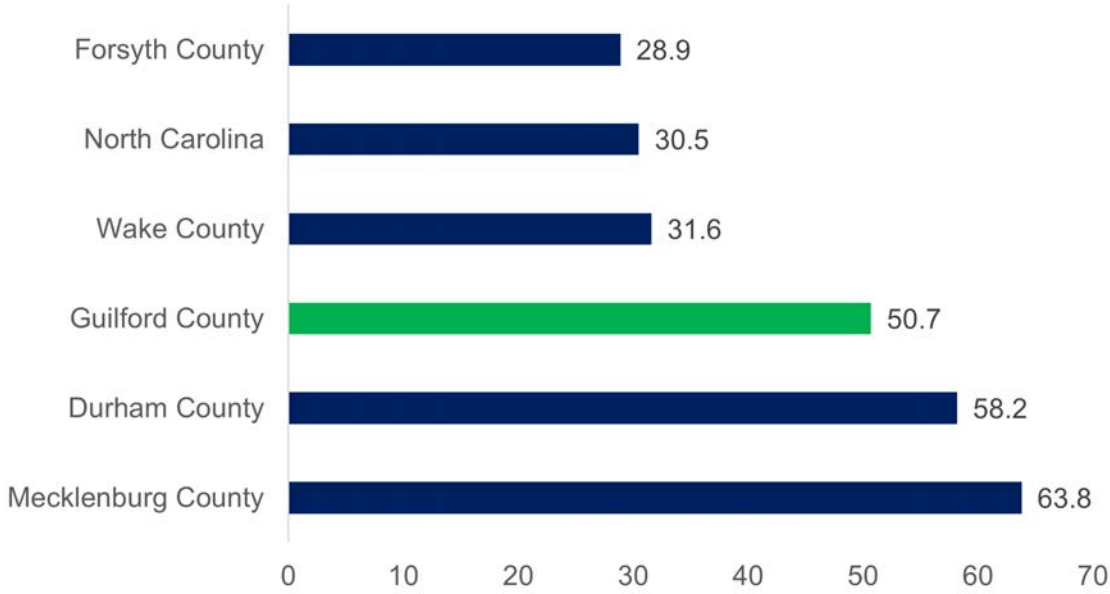
As seen in the following charts, Guilford County tends to have higher rates of sexually transmitted infections compared to the state of North Carolina as a whole and compared to other large, urbanized comparison counties in the state. Among comparison counties, only Mecklenburg County has higher incidence rates of HIV, gonorrhea and chlamydia than Guilford County, and only Mecklenburg and Durham counties have higher rates of syphilis than Guilford.

Average New HIV Rates among Adults and Adolescents by Comparison County, 2020-2022 – Rate per 100,000



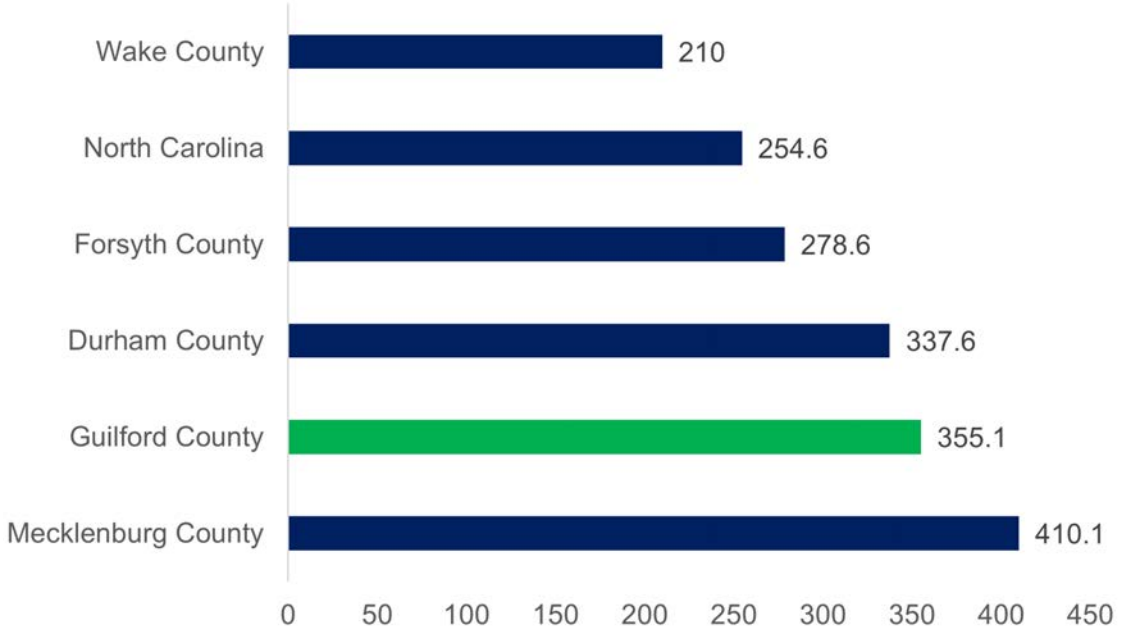
Sources: NC HIV Surveillance Report, HIV/STD/Hepatitis Surveillance Unit, Division of Public Health, NCDHHS.

Average Rate of Early Syphilis (Primary, Secondary and Early Non-Primary, Non-Secondary) by Comparison County, 2020-2022 – Rate per 100,000



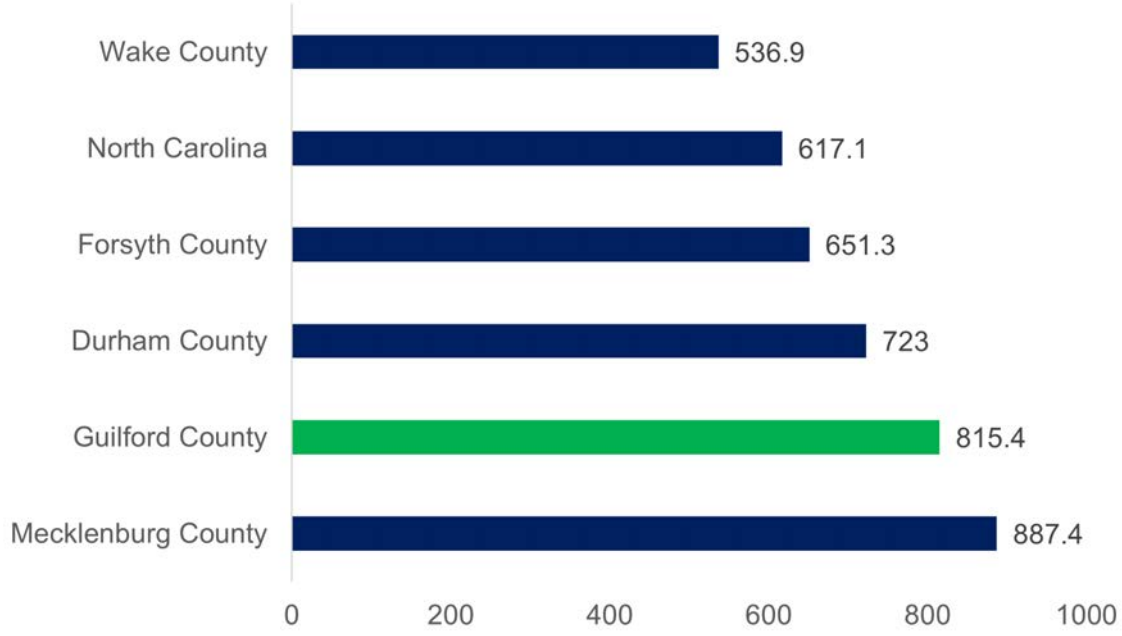
Source: NC DHHS, Communicable Disease Control Branch, STD Annual Report.

Gonorrhea Incidence Rates by Comparison County, 2022 – Rate per 100,000



Source: NC DHHS, Communicable Disease Control Branch, STD Annual Report.

Chlamydia Incidence Rates by Comparison County, 2022 – Rate per 100,000



Source: NC DHHS, Communicable Disease Control Branch, STD Annual Report.

The Story Behind the Curve

Rates of sexually transmitted infections, including HIV, syphilis, gonorrhea, and chlamydia, are persistently high in Guilford County, with disproportionately high rates among historically underserved communities. The 2021-2025 STI Strategic Plan by the U.S. Department of Health & Human Services identifies disproportionately affected groups as Black and Latina/o/x adolescents and young adults, men who have sex with men (MSM), and pregnant women. (USDHHS, 2020) Disparities in health care access can contribute to the increased incidence of STIs. Many factors, such as cultural barriers, medical mistrust, and sexual networks, may contribute to higher STI rates in some of these populations, as described below. (USDHHS, 2020).

- **Cultural Barriers:** In some cultures, discussing sexual health is taboo, creating stigma that discourages testing and treatment. Lack of sexual health education, language barriers, and certain cultural beliefs that may encourage abstinence further limit awareness and access to testing.
- **Medical Mistrust:** Distrust in the health care system can lead to higher STI rates and lower testing rates. Historical discrimination and bias may foster skepticism towards health care professionals, causing marginalized communities to avoid seeking care or disclosing health issues, which worsens STI spread. For instance, the U.S. Public Health Service Untreated Syphilis Study at Tuskegee Institute was a study conducted between 1932 and 1972 that aimed to observe the natural history of untreated syphilis in Black males. This study was found to be unethical since researchers did not collect informed consent from responders and withheld treatment for syphilis, even once penicillin was widely available. The study resulted in drastic changes to standard research practices and likely contributed to historical mistrust amongst Black and African American citizens. (Tuskegee University, 2019).
- **Sexual Networks:** Individuals within similar racial, ethnic, social, or geographic groups often engage in sexual relationships with one another, forming interconnected networks that increase STI transmission. Close geographic proximity may result in smaller sexual networks, especially when there is a lack of access to transportation or health care services. Certain sexual behaviors, such as inconsistent condom use, may be more prevalent in certain social or sexual networks. Privacy concerns and stigma can deter open discussions about sexual health, hindering testing and disclosure**.**

Traditional Prevention Methods May be Lacking

Many traditional STI prevention methods, such as promoting individual behavior change regarding the number of sexual partners and condom use, are insufficient for reducing rising infection rates. While advocating for enhanced sexual health infrastructure and access to testing is crucial, focusing solely on individual behaviors neglects the broader structural and social factors involved. The decline in the effectiveness of behavioral interventions and condom use highlights the need for innovative solutions. To effectively combat STI epidemics, stakeholders must apply these lessons and consider comprehensive strategies moving forward (Johnson, 2019).

Research in Durham County, NC found that lacking health insurance, having Medicaid insurance, using public transportation, and earning income below the poverty level were most strongly associated with higher-than-expected STI incidence. These findings indicate that combatting structural racism and alleviating poverty would likely decrease STI burden as well as other health disparities and improve health outcomes. Therefore, strategies to combat increasing STIs may include improving access to health insurance, reducing barriers to cost-effective and timely transportation to medical appointments, and raising wages to bring individuals out of poverty (Jenks et al., 2023).

Antimicrobial Resistance and Emerging Infections

Certain infections are growing resistant to the drugs used to treat them, presenting a novel public health challenge. Drug resistance, or antimicrobial resistance, occurs when bacteria and fungi evolve to withstand and overcome drugs intended to eliminate them. For example, the bacteria that causes gonorrhea has grown resistant to nearly every drug ever used to treat it (CDC, 2024b). Surveillance for resistant gonorrhea in the U.S. is conducted through several projects, such as Strengthening the United States Response to Resistant Gonorrhea (SURRG), of which the Guilford County Division of Public Health serves as a surveillance site.

In 2022, Mpox (formerly known as monkeypox) re-emerged as a global health concern, with over 34,000 cases and 63 deaths reported in the US, including nearly 800 cases in North Carolina. Most cases have been identified among men who have sex with men (MSM) although Mpox can be transmitted non-sexually. Vaccination can help prevent Mpox infection or lessen its severity if contracted (CDC, 2024c). More information about Mpox can be found in Chapter 11 Climate Change and Emergency Preparedness.

Turning the Curve: Areas for Action

Prevention and Education Strategies

Addressing the STI burden in Guilford County is necessary to alleviate the substantial impact these infections have on overall well-being. A comprehensive plan is needed to ensure that all individuals have access to high quality STI prevention, care, and treatment options. The Sexually Transmitted Infections National Strategic Plan for the United States for 2021 – 2025 outlines five broad goals: prevent new STIs, improve the health of people by reducing adverse outcomes of STIs, accelerat progress in STI research, technology, and innovation, reduce of STI related health and disparities and inequities, and the achievement of a coordinated effort to address the STI epidemic (USDHHS, 2020A).

Recent advancements in the prevention of HIV have made a significant impact on HIV incidence. Advances such as antiretroviral therapy (ART) for persons living with HIV, pre-exposure prophylaxis (PrEP), and post-exposure prophylaxis (PEP), as well as the concept of undetectable = untransmittable (U=U), significantly advanced the fight against HIV.

PrEP and PEP for HIV Prevention

PrEP - Pre-exposure prophylaxis (or PrEP) is medicine taken to prevent a person from getting HIV. PrEP is highly effective for preventing HIV when taken as prescribed. PrEP reduces the risk of getting HIV from sex by about 99%. PrEP reduces the risk of getting HIV from injection drug use by at least 74%.

PEP - Post-exposure prophylaxis (or PEP) is the use of antiretroviral medication after a single high-risk event to stop an HIV infection. PEP must be started as soon as possible to be effective—and always within 72 hours of a possible exposure.

HIV Treatment as a Prevention Method

Encouraging timely, consistent treatment for HIV-positive individuals is a key prevention strategy through the principle of undetectable = untransmittable (U=U). When people adhere to antiretroviral therapy (ART) and achieve an undetectable viral load that is monitored and maintained for, at minimum, 6 months, they cannot transmit HIV to sexual partners (CDC, 2024d). Early linkage to treatment is vital for individual health and disease control. Highlighting the preventative benefits of effective treatment can also reduce stigma and foster community support, leading to lower infection rates and better health outcomes for everyone.

Doxycycline Postexposure Prophylaxis (Doxy PEP)

Doxy PEP is an innovative method for preventing bacterial STIs. It is particularly effective for gay, bisexual, and other men who have sex with men, as well as transgender women that may be more vulnerable. It has been shown to lower the risk of syphilis, chlamydia, and, in some studies, gonorrhea. Doxy PEP is prescribed as a 200 mg dose of doxycycline to be taken within 72 hours after sexual exposure. This approach may enhance the health of those at risk and address the growing STI rates in the U.S. While generally well-tolerated, ongoing research is needed to assess long-term effects, including potential antimicrobial resistance and microbiome impacts (Bachmann, 2024).

Vaccines That Can Prevent STIs

An essential resource for preventing STIs is vaccination. Currently, vaccines exist to guard against HPV, hepatitis A, hepatitis B, and Mpox. Since the introduction of the HPV vaccine, infections and cervical precancers have decreased significantly. Among teenage girls, infections with high-risk HPV types have dropped by 86%. Additionally, research is ongoing for other vaccines, including those targeting HIV and herpes simplex virus (HSV) (*Vaccines That Can Prevent STIs*, n.d.).

Combatting Sexual Health Stigma

STIs are often stigmatized, leading to shame and discrimination that harm individuals and society. Even when barriers like health care access are removed, stigma can still prevent individuals from seeking STI testing and treatment (USDHHS, 2020A). This stigma, generally rooted in negative views of sexuality outside of monogamous, heterosexual relationships, discourages open discussions about sexual health in families, schools, and health care settings. As a result, individuals may avoid seeking information, screening, or treatment, increasing health risks and STI transmission. Encouraging open, unbiased conversations about sexuality and sexual health in all community contexts, especially between health care providers and patients, can aid in combatting this stigma (Crowley et al., 2021).

Negative Impact of Stigma

Liam Carter, a 28-year-old aspiring musician, was devastated when he discovered he was HIV positive. His dreams of a successful career in music seemed to crumble under the weight of his diagnosis. After opening up about his diagnosis, he found himself shunned by some of his closest friends and ignored by potential collaborators. This treatment by his peers further decreased his morale to do anything. The burden of managing his health and the fear of more public exposure led to overwhelming anxiety and depression. Despite his talent and aspirations, Liam's once-promising future felt increasingly bleak, as he struggled to find stability and support in a world that seemed more inclined to stigmatize than to offer compassion and gain knowledge. As a result, Liam decided to give up his career in music and struggled to regularly attend his medical appointments.

Social and structural factors that negatively impacted Liam:

- Stigma and lack of support
- Lack of access to proper mental health care services
- Potential lack of financial stability due to loss of collaborations

Overcoming Stigma

Maya Santiago, a 32-year-old graphic designer, faced an unexpected twist when she was diagnosed with HIV. The fear of having to face stigma from her peers, family members, and others that she surrounded herself by suddenly began to consume her. Maya remembered that she had an old college friend, Erin, who was also living with HIV. She decided to reach out to Erin, who connected her with a local community support group and encouraged her to attend her treatment appointments. Maya educated herself, began treatment, and joined the support group, transforming her personal struggle into a powerful experience. Her artwork, vibrant with themes of resilience and humanity, helped breakdown misconceptions and create a new understanding of HIV. Through open conversations and advocacy, Maya not only found acceptance from those around her but also built a meaningful relationship with Alex, who supported and loved her wholeheartedly.

Social and structural factors that positively impacted Maya:

- Early access to care and treatment
- Access to medical knowledge
- Having a support group, a supporting community, and the support of loved ones

Integrated Health Care Approach

STIs are closely tied to sexuality and essential human behaviors that contribute to well-being and pleasure. STIs can be a result of normal, healthy actions within consensual relationships. Thus, addressing STIs must be part of a broader focus on sexual health and general well-being (Crowley et al., 2021). Framing STIs as a public health priority encourages a comprehensive approach to health care and ensures that sexual health is addressed alongside other health issues, providing a more holistic approach to patient care.

Integrated Health Care

After years of avoiding STI testing due to fear and stigma, Jamie attended a clinic where new physician, Dr. Brown, encouraged them that STI testing is just one component of overall well-being. The conversation with Dr. Brown motivated Jamie to take the plunge to get tested for STI's as part of their regular check-up. Dr. Brown provided their test results—revealing a positive HIV diagnosis—but also assured them that it was manageable with treatment. Rather than feeling defeated, Jamie embraced the experience as a catalyst for change. They joined a support group offered through the clinic that focused on holistic health, incorporating mental wellness and lifestyle improvements. In addition, they worked with their doctor to begin treatment at the local infectious disease clinic. Within 6 months of their diagnosis, Jamie was able to achieve an undetectable viral load by taking their medication routinely, effectively eliminating any risk of transmission to their sexual partners. With the help of therapy and community connections, Jamie learned to communicate openly with partners about their health, transformed their anxiety into empowerment, and ultimately became an advocate for sexual health in their community.

Turning the Curve: Areas for Action

Recommendations for Policy/Systems Level Change

The Healthy North Carolina 2030 (HNC2023) indicator for new HIV diagnoses is 6.0 per 100,000, population. The 2021 baseline data was 15.6 per 100,000 population. This highlights that there is much work to be done to reach the HNC2030 indicator for new HIV diagnoses.

Effective STI prevention, control, and treatment must move beyond individual behavior models to a comprehensive framework that addresses the interconnected social and structural determinants of health and health inequities. This requires multi-level, evidence-based approaches that integrate individual, interpersonal, institutional, community, and structural factors to overcome barriers to sexual health.

Additionally, it calls for a shift from individualized funding to an integrated funding model that addresses STIs alongside the social determinants (Crowley et al., 2021).

For instance, programs addressing HIV, viral hepatitis, and substance use disorders should incorporate STI prevention, testing, and care coordination, and vice versa. Additionally, STI screening and care linkage

A Syndemic Approach

According to HIV.gov: Syndemics occur when two or more diseases or health conditions cluster and interact within a population because of social and structural factors and inequities, leading to an excess burden of disease and continuing health disparities.

Recommendations for a syndemic approach to STI prevention would include addressing the interrelated epidemics of HIV, viral hepatitis, substance use disorder, as well as their relation to social determinants of health.

Source: HIV.gov

should be offered in nontraditional settings like emergency departments, correctional facilities, retail health clinics, and pharmacies. This approach is recognized through the STI National Strategic Plan.

The 2023 North Carolina State Health Improvement Plan identifies the following priorities (2023):

- Expand affordable housing programs for persons living with HIV.
- Expand North Carolina's provider network for HIV care and prevention services.
- Identify and address gaps in HIV health care access for formerly incarcerated populations.
- Identify barriers to HIV post exposure prophylaxis being delivered by pharmacists.
- Improve provider comfort with incorporating sexual health assessments into routine health care services. Increase access to pre-exposure prophylaxis (PrEP) for individuals at high risk for HIV transmission.
- Increase the number of harm reduction programs, including needle exchange programs.
- Increase the number of people who know their HIV status and are linked to prevention or treatment services through high impact, coordinated interventions.

Current Initiatives and Assets

In Guilford County, decades long partnerships and efforts to combat HIV/STIs exist involving the Guilford County Division of Public Health, non-profit organizations, local colleges and universities, local emergency departments, faith-based organizations, social services, infectious disease clinics, LGBTQIA+ organizations, health care providers, and the Central Carolina Health Network (CCHN).

The **Guilford County Division of Public Health** (GCDPH) is NC's first full time health department and our nation's second. GCDPH offers comprehensive sexual health exams as well as family planning services, maternity care, and immunizations at locations in both Greensboro and High Point.

The **Integrated Targeted Testing Services (ITTS)** program, originally known as Non-Traditional Services, has been grant-funded by the North Carolina Department of Health and Human Services (NC DHHS) Communicable Disease Branch since 1995. This program was established to combat the HIV pandemic and a syphilis outbreak that occurred in Guilford County, NC, in 1994. The initiative is a collaborative effort among the Guilford County Division of Public Health, NC DHHS Communicable Disease Branch, and the Centers for Disease Control and Prevention (CDC), along with three community-based organizations: Triad Health Project (THP), Piedmont Health Services and Sickle Cell Agency (PHSSCA), and Nia Community Action Center (NCAC).

Sexual Health Action Group: GCDPH's outreach program provides non-traditional testing for HIV/STIs. The SHAG team provides services including mobile unit testing, sexual health education, bulk condom distribution to organizations and businesses, PrEP medication linkage, Mpox education, and HIV/STI counseling, testing, and referral.

Triad Health Project (THP) began in 1986 as a grassroots effort among fourteen friends to deal with the emerging health crisis and the barriers and discrimination their friends with HIV and AIDS were facing. Presently, THP provides HIV case management, client food pantry, education and prevention outreach, HIV/STI testing, and a unique community sanctuary by and for people living with or impacted by HIV called Higher Ground.

Piedmont Health Services and Sickle Cell Agency (PHSSCA) offers HIV/AIDS education & outreach in Guilford County and 17 other counties in North Carolina. Their SCOPE program provides comprehensive community education and testing to individuals at risk for acquiring HIV/AIDS, syphilis, Hepatitis C and other sexually transmitted infections.

Nia Community Action Center (NCAC) provides free and confidential HIV/STI counseling and testing services, educates about HIV/STI prevention, and advocates for sound HIV public policies.

"We are proud to work with and for people living with HIV to design and deliver the services they need with the kind of care they deserve."

Adriana Galdo Adams (she/her/ella)
Executive Director, Triad Health Project

Since 1992, the **Central Carolina Health Network (CCHN)** has delivered comprehensive HIV care in North Carolina's Piedmont-Triad area, serving seven counties with a mission to enhance access to quality care and reduce HIV transmission through education and prevention. As the local administrator of the Ryan White HIV/AIDS Program for Region 4, CCHN provides primary medical care, dental services, mental health counseling, and emergency assistance, focusing on uninsured or underinsured individuals, especially women, youth, and families. Additionally, CCHN receives funding from the HOPWA program for housing support and collaborates with the NC Department of Health and Human Services to manage Integrated Targeted Testing Services (ITTS) grants, ensuring accessible testing and PrEP services for at-risk populations.

Planned Parenthood is one of the nation's leading providers of high-quality, affordable health care, and the nation's largest provider of sex education. They provide STD testing and treatment, pregnancy testing, emergency contraception, and more at their Greensboro Health Center location.

The **Regional Center for Infectious Disease (RCID)** provides care and treatment for Guilford County residents that are living with HIV. They accept new patients referred from a physician's office or other agency. In addition to serving people living with HIV/AIDS, RCID provides consultation and care services for all infectious diseases. The center also serves as a clinical research site for the AIDS Clinical Trials Group (ACTG), Family Health International (FHI), and Gilead Sciences.

Region III Disease Intervention Specialists (DIS) at the North Carolina Department of Health and Human Services office in Greensboro play a crucial role in public health by controlling and preventing infectious diseases, particularly STIs, across several counties, including Rockingham, Caswell, Guilford, Alamance, Randolph, Stanly, and Montgomery. DIS conduct interviews with individuals diagnosed with diseases such as HIV and syphilis, trace their sexual and social networks, and provide education and resources to both patients and their contacts. They also ensure access to medical care and support, helping to reduce stigma and enhance community health outcomes.

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Chapter 11: Climate Change and Emergency Preparedness

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While not specifically a health priority identified in the 2023-2024 CHA, understanding the local impact of climate changes and current and future public health threats is essential to reduce and mitigate their health impacts on Guilford County communities, especially our most vulnerable community members.

Why are Climate Change and Emergency Preparedness Important?

Climate change is no longer a problem that exists in the distant future. Guilford County, the State of North Carolina, and much of the Southeastern United States are experiencing harsher weather conditions and new environmental threats such as zoonotic diseases driven by changing climate conditions. According to the North Carolina Climate Science Report published by Kunkel et al. (2020), North Carolina has warmed by one degree Fahrenheit over the last 120 years, with the past decade registering as the hottest ever recorded. Additionally, according to the National Oceanic and Atmospheric Administration (NOAA), calendar year 2023 was the hottest ever recorded since records began in 1850 (Bateman, 2024), with 2024 predicted to be one of the top five hottest years in history (*2023 was the world's warmest year on record*). If global greenhouse gas emissions are not reduced according to established targets, North Carolina can expect to observe an average warming of 6 to 10°F by the year 2100.

According to the Guilford County Multi-Jurisdictional Hazard Mitigation Plan, which provides a ranked analysis of potential hazards, Winter Storms, Thunderstorms, and Flooding (Excessive Rainfall) are the most severe hazards faced in Guilford County. Tornados, Pandemics, and Hurricanes, respectively, closely follow these. This hazard analysis ranks hazards based on multiple factors such as the expected risk, probability of occurrence, and vulnerability of the community (Guilford County Emergency Management 2020).

How is Guilford County doing: Trends Over Time? Climate and Severe Weather

In recent years, Guilford County has experienced record-breaking heat days and severe weather, which are expected to increase in frequency and severity. According to Kunkel et al. (2020), climate impacts in Guilford County and the surrounding area are detailed below.

Heat

Guilford County has already experienced increased temperatures; notably, an increase in very warm nights (low temperature of 75°F or greater) (Kunkel, et al., 2020). This trend is especially observed in urban areas, where the *heat island effect,* caused by paved and concrete surfaces absorbing and radiating heat, exacerbates the warming trend (US EPA, 2024). As this effect continues, the area can expect to observe an increase in very warm nights and very hot days (high temperatures of 95°F or greater) by the year 2100 (Kunkel, et al., 2020).

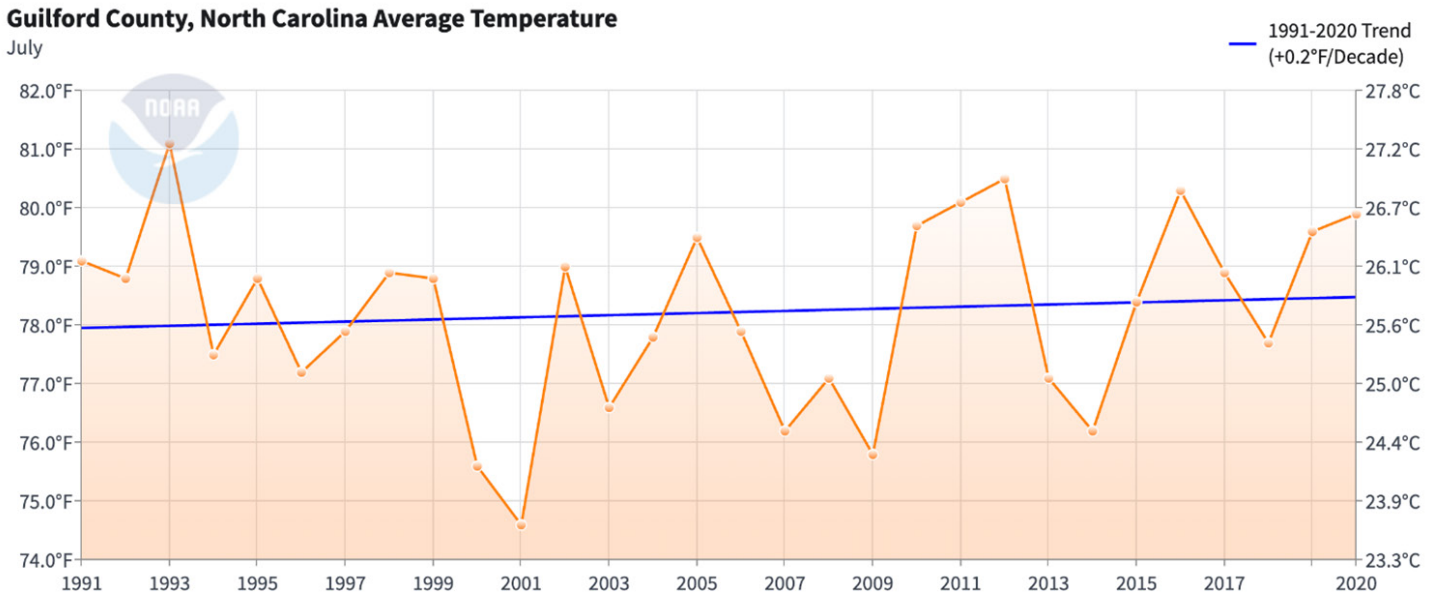
According to the World Health Organization, heat stress is the leading cause of weather-related deaths around the world, exacerbating underlying health risks for vulnerable populations and outdoor workers (*Heat and health* 2024). Extreme heat also results in increased energy consumption and energy costs, decreased economic activity and productivity, and increases burden on already strained emergency response and health care systems.

What are Heat Islands?

Heat islands are physical areas that experience higher temperatures due to the presence of buildings, roads and other structures that absorb and give off the sun's heat. These occur in more urban environments, becoming "islands" of higher temperatures while areas with more natural landscapes and greenery are cooler.

US Environmental Protection Agency, 2014

Average Annual Temperatures for Guilford County from 1991-2020

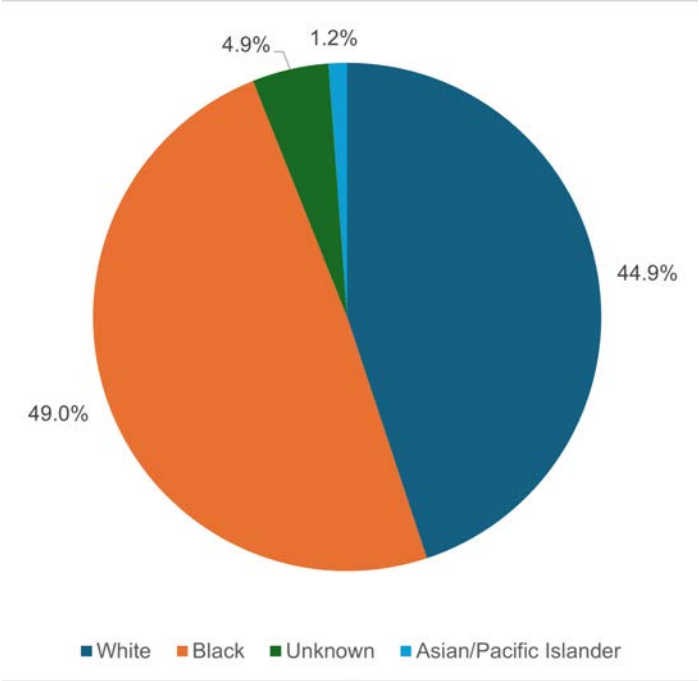


Source: NOAA, 2024a.

Heat-Related Emergency Department Visits

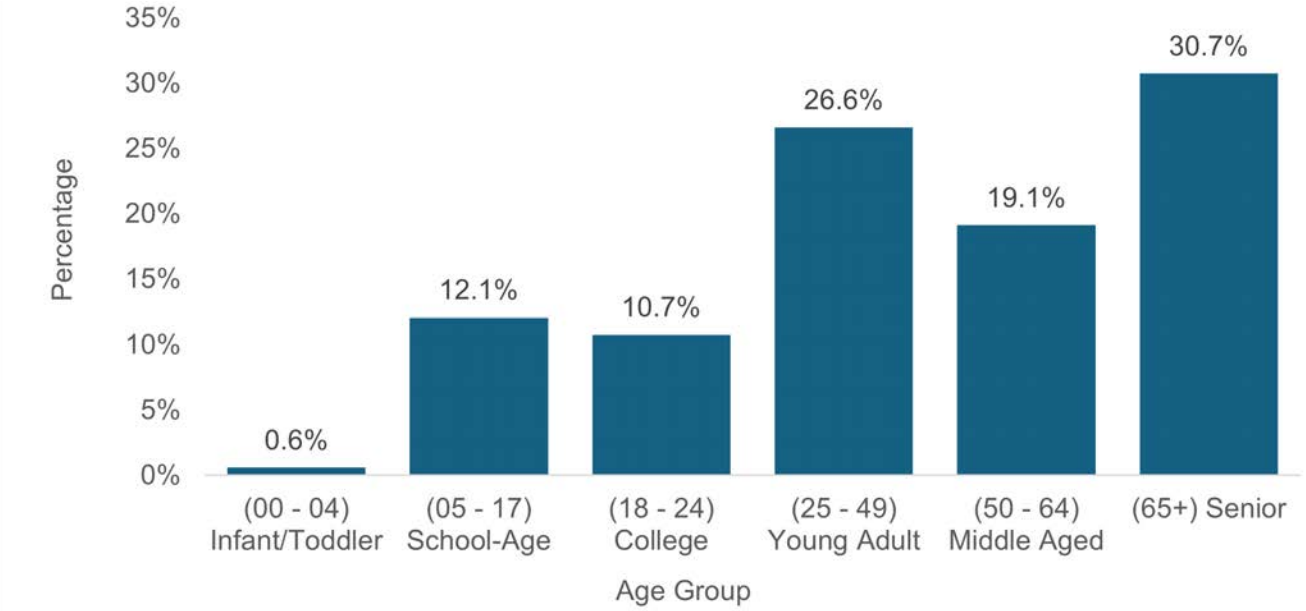
In a three-year period from 2021 to 2023, there were a total of 680 heat-related emergency department (ED) visits in Guilford County, 229 in 2021, 302 in 2022, and 149 in 2023. The majority identified as Black (49%) and White (44.9%) with the remaining 4.9% and 1.2% as unknown and Asian respectively. 3.7% identified their ethnicity as Hispanic and 54% were male and 46% were female. The majority (60%) fell between the ages of 25 and 64, with 30% of individuals 65 years or age or older, followed by 26.6% of adults 25 to 49 years of age.

Heat-Related Emergency Department Visits in Guilford County by Race, 2021-2023



Source: NC DETECT.

Heat-Related Emergency Department Visits in Guilford County by Age Group, 2021-2023



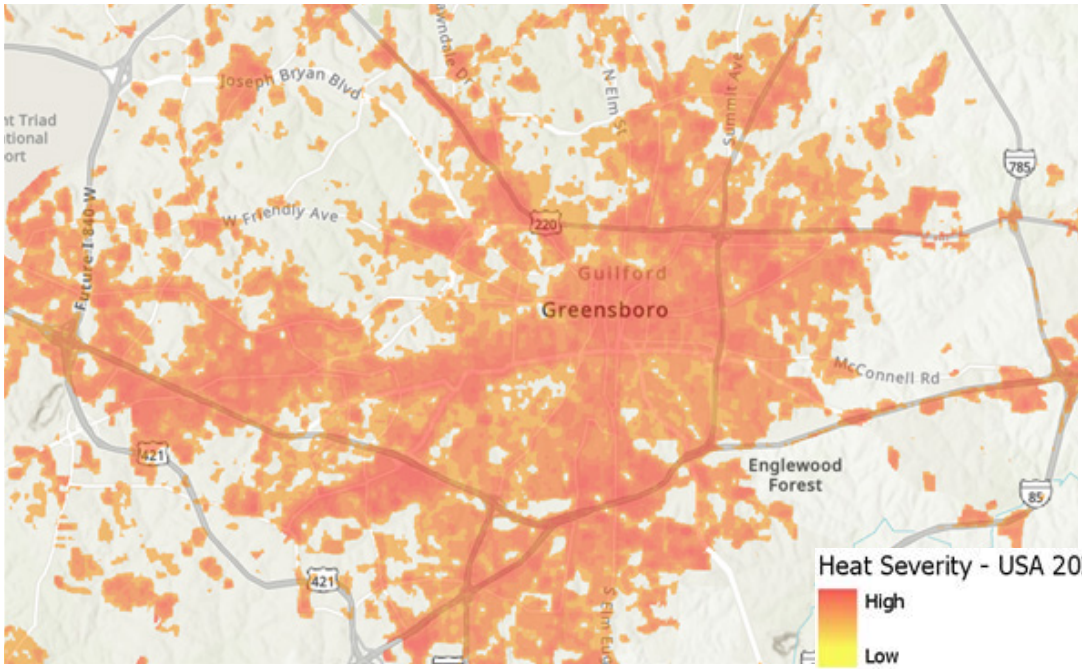
Data Source: NC DETECT.

Heat-Related Emergency Medical Services (EMS) Illness Response Counts

It is important to note that the ED data only document heat-related illnesses that required hospital care. EMS response data provides additional information on incidence. From September 1, 2021, to August 31, 2024, Guilford County Emergency Medical Services (EMS) responded to 673 individuals documented with a primary or secondary impression of heat exhaustion or heat stroke. Of those encounters, 47% required transport for additional medical care (Guilford County Emergency Services, 2024).

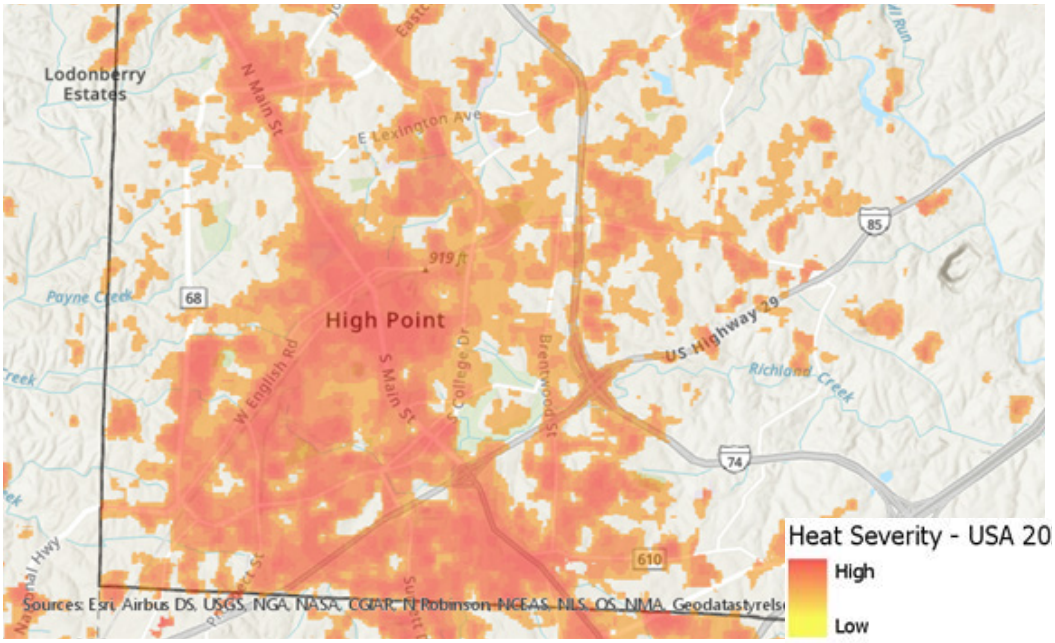
These ED and EMS data trends underscore the need for ongoing monitoring and public health interventions to address heat-related illness in the community, particularly for more vulnerable populations. Those who may have elevated risk are those who have increased exposure including those who work outdoors, are experiencing homelessness, have insufficient cooling in their residence, those with a chronic health condition, are under the age of five or over age 65, and individuals who may have a higher socioeconomic vulnerability (US DHHS, 2022).

Urban Heat Island Severity in City of Greensboro



Data Source: Landsat Imagery with Ground Level Thermal Sensor. Trust for Public Land. 2023.

Urban Heat Island Severity in City of High Point



Data Source: Landsat Imagery with Ground Level Thermal Sensor. Trust for Public Land. 2023.

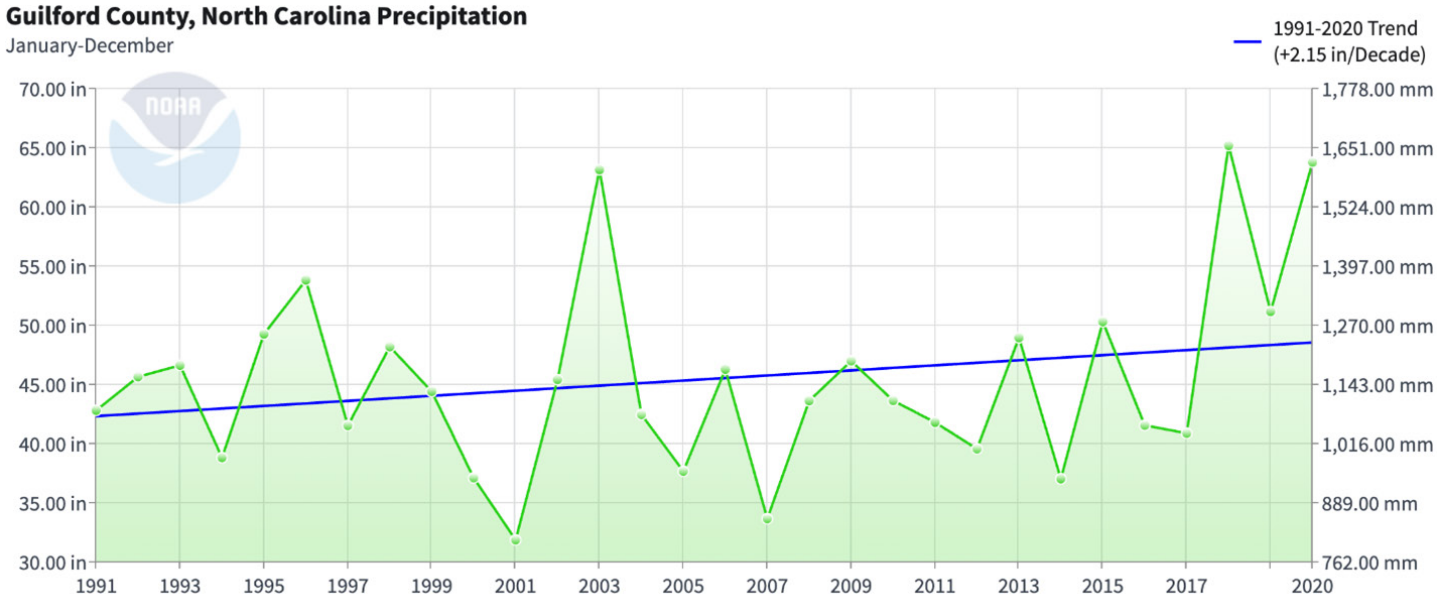
These maps display the severity of surface level heat on ground surface during the daytime hours during summer of 2023.

Rainfall

Higher temperatures result in increased water vapor retention in the atmosphere. Guilford County has observed increases in days with heavy rainfall of 3 inches or greater, and this trend can be expected to increase (Kunkel et al., 2020). The chart below shows the gradual increase in annual precipitation from 1991-2020. Increases in heavy rainfall

have been observed to overwhelm local storm water infrastructure and lead to flash flooding, especially in low-lying and urban areas. Occurrences of flash flooding in areas that are not prepared for such a hazard or are not considered flood-prone can result in loss of life, property damage, significant economic loss to the property owner, and temporary or permanent housing displacement if a residential area is impacted.

Guilford County Annual Precipitation, Totals, 1991-2020



Source: NOAA, 2024b.

Drought

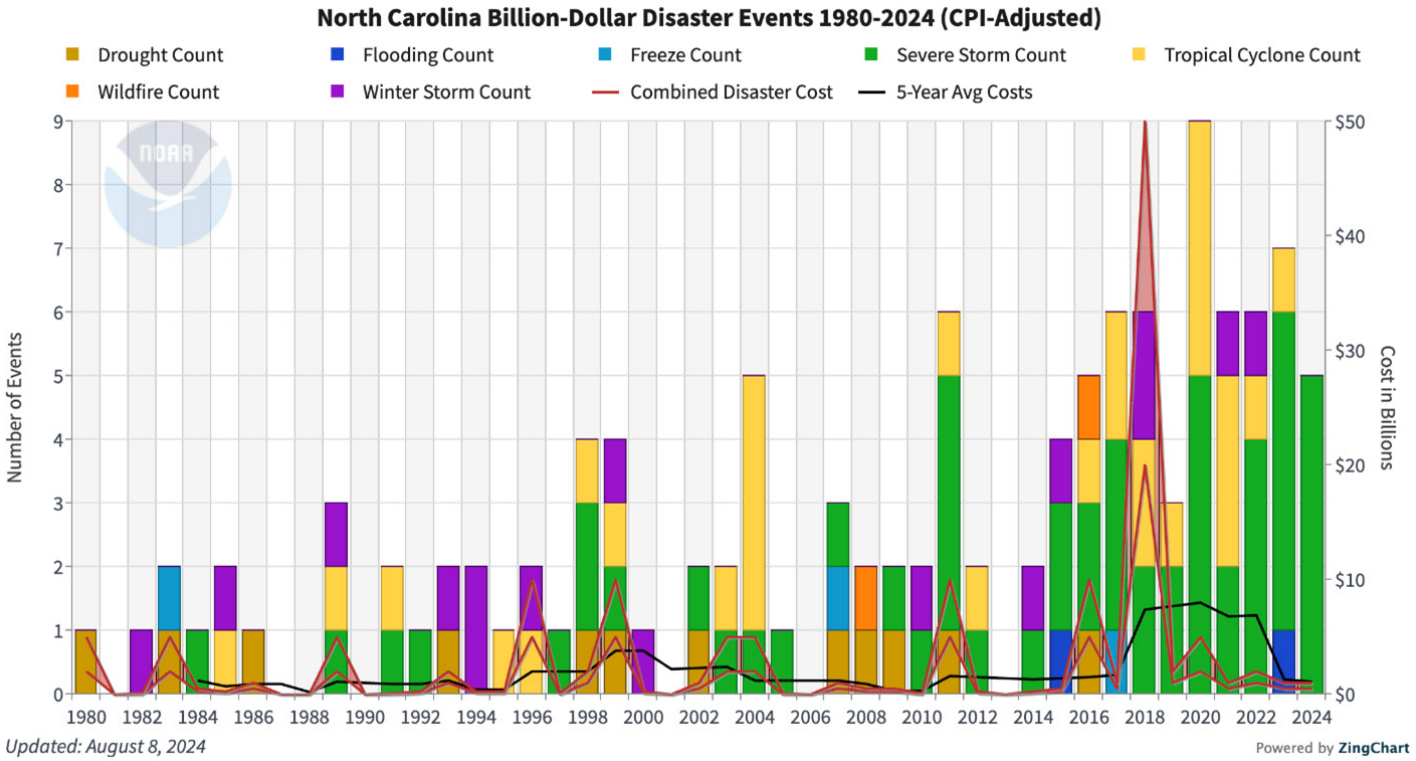
Droughts occur as part of natural climate cycles, and drought length and severity increases can be expected. More frequent and dry periods result in faster evaporation of any rainfall, which can significantly impact soil moisture levels. Lack of soil moisture or capability to absorb rainfall can negatively impact local crop yields, raising concern for local food and water supplies and agricultural viability. In addition to natural vegetation die-off, local wildlife can be negatively affected, and animals may have increased interaction with humans (Kunkel et al., 2020).

Severe Weather

Guilford County and North Carolina have observed an increase in severe thunderstorms, both in frequency and severity. Additionally, the United States has observed a longer storm "season" involving thunderstorms and tornadoes. Thunderstorms are the most common severe weather hazard in Guilford County and are often coupled with many other hazards, such as excessive rainfall, lightning, high winds, and tornadoes. Based on current trends, occurrences of severe weather are expected to increase in frequency and severity (Kunkel et al., 2020).

According to the Federal Emergency Management Agency (FEMA), Guilford County has received 13 Major Disaster Declarations for severe weather impacts from 1980 to 2024 (2024a). Most of these declarations were for tropical weather and winter storms. These *severe weather events have had* a profound impact on the community, leading to loss of life, significant destruction of property, housing displacement, economic disruption, and ongoing health impacts. This chart does not account for the multiple smaller weather events that have resulted in property damage and localized flooding in Guilford County, but do not qualify for a Major Disaster Declaration under the Stafford Act.

North Carolina Billion-Dollar Disaster Events 1980-2024



Source: NOAA, 2024C.

The reader must note that the climate impacts detailed in this document have been observed and already exist based on past and current levels of carbon dioxide and other greenhouse gas emissions into the atmosphere; These mentioned impacts *are occurring* and *will continue to occur* (Kunkel, et al., 2020).

How is Guilford County Doing: Monitoring Current and Potential Public Health Threats

Effective pandemic response strategies have become increasingly vital due to the global impact of recent health crises, such as COVID-19. Monitoring current and potential public threats essential. Lessons learned from previous pandemics guide current practices, including coordinating with international health organizations and ensuring equitable access to vaccines and treatments across communities (WHO, 2021).

Zoonotic Diseases

Zoonotic diseases, which transfer from animals to humans, present significant public health challenges. Factors contributing to their emergence include environmental changes, urbanization, and increased contact between wildlife and human populations. Surveillance systems play a crucial role in early detection, and interdisciplinary approaches involving veterinary and human health professionals are necessary to manage these risks. Continued research on transmission mechanisms and effective prevention strategies is essential for reducing the incidence of zoonotic diseases (CDC, 2022).

Mpox

Recent outbreaks of mpox (formerly monkeypox) highlight the need for enhanced surveillance and rapid response capabilities. Public health initiatives focus on identifying cases quickly, implementing contact tracing, and conducting vaccination campaigns to contain outbreaks. Understanding the epidemiology of mpox, including its transmission routes

and affected populations, is critical for effective management and prevention of further spread (European Centre for Disease Prevention and Control, 2023).

H5N1

The H5N1 avian influenza virus remains a public health concern due to its potential to infect humans and cause severe illness. Ongoing surveillance of both domestic and wild bird populations is necessary to detect outbreaks and assess the risk of zoonotic transmission. Preparedness strategies include vaccination of poultry, public awareness campaigns, and risk assessments to inform response actions in case of human infections. Monitoring migratory patterns and environmental conditions can also provide insights into outbreak risks (Food and Agriculture Organization [FAO], 2022).

Zika

Although the incidence of the Zika virus has decreased, it continues to pose risks, particularly for pregnant individuals, due to its association with severe birth defects. Public health strategies prioritize vector control measures to reduce mosquito populations and community education to raise awareness of prevention methods. Continued monitoring for re-emergence and surveillance for potential outbreaks is crucial for safeguarding public health (Pan American Health Organization [PAHO], 2020).

The Story Behind the Curve

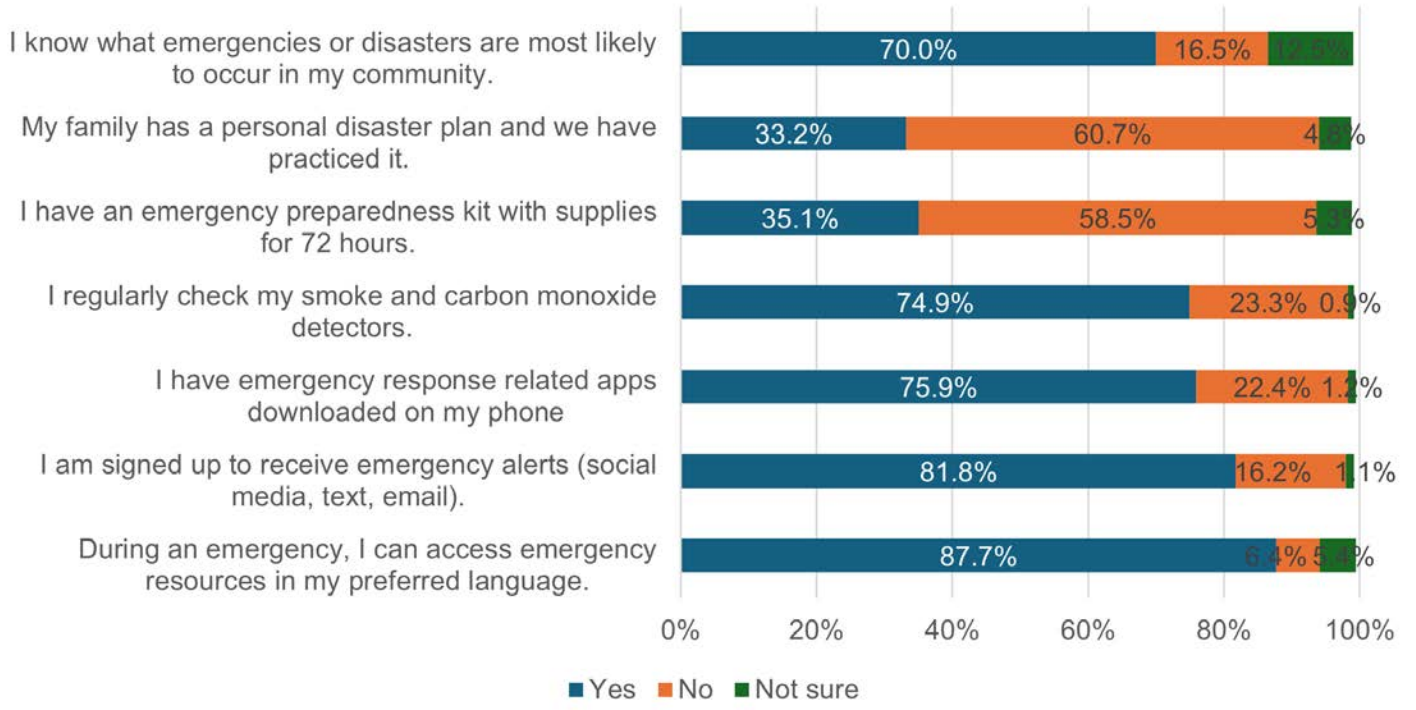
Climate change is considered a threat multiplier, exacerbating the frequency and severity of existing threats as temperatures increase (Federal Emergency Management Agency, 2023). The broad range of possibilities and increased hazard vulnerability require enhanced attention and dedicated resilience planning efforts by emergency managers and other stakeholders to ensure communities and governments are prepared for and able to adapt to hot days and severe weather disasters.

Emergency Preparedness

According to the 2023 FEMA National Household Survey, the most vital driver of personal emergency preparedness actions, regardless of socioeconomic status, is the availability of disaster information and accurate perception of personal risk. However, socioeconomic status and ethnic background do impact preparedness actions, as survey data also indicates a lack of emergency preparedness actions or belief that preparedness actions are not beneficial among certain ethnic groups and those with less economic resources compared to others (2024b).

In the 2023 Guilford County Community Health Survey (2023 GCCH Survey), staff and volunteers asked responders several questions about how prepared their households were for select emergencies. Most survey respondents (70% or more) reported knowing the emergencies most likely to occur, regularly checking smoke and carbon monoxide detectors, receiving emergency alerts, having emergency response apps on their phones, and accessing emergency resources in their preferred language. Fewer respondents reported having a personal disaster plan they have practiced with their family (33.2%) or an emergency preparedness kit with supplies for three days (35.1%).

Emergency Preparedness in Guilford County



Source: Guilford County Community Health Survey, 2023.

Consistent with the findings of the FEMA National Household Survey (2024b), the 2023 GCCH Survey indicates that individuals of lower socioeconomic status and who may represent a minority or ethnic group are less likely overall to be informed of hazard risk or prepared for potential disasters that may occur.

Disaster Disparities

Individuals with low incomes and other financial disparities are more likely to reside in low quality housing in flood prone areas and heat islands, have older or failing infrastructure, and be concentrated in areas with higher disaster risk compared to higher income households. Low-income households do not possess financial resources to reloacte to less hazard-prone areas as higher income individuals are, posing an undue burden of disaster risk on the most vulnerable that will only be worsened with more frequent and severe weather due to climate change (Ross, 2013).

Individuals in low-income households are more likely to rent a home than own, resulting in lack of decision-making capability for property repairs and maintenance. In addition, adequate insurance coverage may be unaffordable or inaccessible, depending on the person's situation, resulting in lack of financial protection in event of disaster (Rentschler, 2013). Low-income individuals are also more likely to work hourly, lower wage jobs that may not offer employment protections in the event of a natural disaster, resulting in job loss or income disruption, unlike the labor protections afforded to higher income, salaried workers (Ross, 2013).

In addition to financial disparities, low-income individuals are more likely to suffer from exacerbation of underlying health conditions resulting from a natural or environmental disaster. Although not experienced the same in all persons and communities, historic lack of access to medical care and chronic conditions can create a health crisis following a natural disaster or environmental event. For example, while not considered a natural disaster, exposure to extreme heat can exacerbate complications for individuals with diabetes, cardiovascular disease, respiratory illnesses, and cause pregnancy complications in combination with other conditions (Smith et al., 2022).

Economic Conditions and Stability

According to the 2023 FEMA National Household Survey, socioeconomically disadvantaged individuals are less likely than others to have taken many preparedness actions (2024b). The United States Federal Reserve (2024) indicates that 63% of adults in the United States can pay for a surprise emergency expense of $400 in cash, while 13% cannot cover such an expense. Comparatively, 65% of adults indicate that high prices of goods and economic pressures have made their financial situation worse or much worse compared to 2022. When faced with competing financial pressures, many individuals are forced to make sacrifices and only prioritize immediate needs, leaving little room to prepare for or absorb an emergency expense.

Turning the Curve: Areas for Action

Access to Information and Early Warnings for All – Access to information and adequate emergency warnings are key to increased disaster risk perception and for individuals to take protective actions. Following the United Nations Initiative, the provision of accessible hazard-specific information and early warnings to inform residents on climate hazards and alert to immediate risks to safety should be paramount. Additionally, disaster early warning systems should be expanded to accommodate non-English speaking and individuals with access or functional disabilities (World Meteorological Association, 2022).

Increase Community Engagement

Hazards occur locally and are experienced the most by individuals in a community. Increasing community engagement efforts and integrating marginalized groups in emergency planning processes is critical to building a resilient community. Effective engagement provides technical information about hazard risk and how to prepare for them, it also allows institutional staff to understand the experience and needs of individuals in the community. Recommendations from Strategies for Inclusive Planning in Emergency Response (Los Angeles County Department of Public Health, n.d.) indicate that increased engagement with community members provides

- Opportunities for developing relationships,
- Increased trust in government,
- A better understanding of local operational and response capacity.

Whole Community Resilience Planning

Shifting the focus of disaster preparedness to community resilience and focusing on equity will benefit the whole community and address equity gaps in the disaster preparedness cycle. A resilience focus adopts a holistic view of risk by encompassing pre-existing economic, environmental, political, and social criteria. A dedicated resilience planning focus involves enhanced governance through a whole-of-government approach combined with community and businesses, led by the community and builds the structure of disaster resilience from the bottom up (de Milliano et al., 2015).

Community Assets and Resources

Guilford County's Emergency Management Division is charged with planning for climate threats and other hazards that could affect the community. The Division leads and conducts comprehensive assessment and planning processes to ensure all local governments and agencies are prepared for any disaster. The foundation of this process is a comprehensive all-hazards vulnerability analysis to determine what hazards may impact Guilford County. Based on the hazard assessment, the emergency management division works with the whole community to develop plans, preparedness actions, community outreach, responder training, mitigation efforts, and recovery strategies to ensure Guilford County is prepared for a disaster.

Guilford County's Public Health Emergency Preparedness (PHEP) group is a sector-specific branch of emergency management and an important aspect of community health. With its multifaceted mission to prevent, protect against,

quickly respond to, and recover from public health emergencies, it is inherently complex, encompassing policies, diverse stakeholders, and programs.

Through a whole community approach, PHEM fortify the capability of Public Health to provide the fundamental obligations required during times of calm and periods of crisis. These include supporting the following agency objectives:

- Preventing epidemics and the spread of disease.
- Preventing injuries.
- Promoting and encouraging healthy behaviors and mental health.
- Responding to disasters and assisting communities in recovery.

The COVID-19 response exemplified the concept and showcased how Public Health Emergency Preparedness is pivotal in supporting all aspects of the emergency management cycle with key stakeholders during a nationally declared disaster.

The GCDPH EPI (Epidemiology) team plays a crucial role in public health by collecting, analyzing, and interpreting local community health data. Their primary purpose is to identify trends, patterns, and potential health risks to inform public health strategies and policies.

NC A&T State University's The Climate Resilience Center in Piedmont Triad of North Carolina investigates links between the effects of changing climate on air quality and urban heat, and the subsequent undue burden on marginalized communities in major NC cities across NC, including Greensboro, Winston Salem, and Charlotte. The Center has three focus areas: Research, Community engagement and Education**.**

City of Greensboro's Office of Sustainability and Resilience manages the implementation of the city's Strategic Energy Plan implementation and other actions that will reduce the city's carbon footprint to become more resilient to the effects of climate change, collaborates and informs city staff and officials on various sustainability initiatives as they relate to city policies, programs and initiatives and supports outreach and engagement opportunities on sustainability initiatives.

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Conclusion
Building a Healthier Guilford County: A Path Forward

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As Guilford County Public Health Department's first Community Health Assessment since the COVID-19 pandemic, the 2023-2024 Guilford County Health Assessment symbolizes a time of rebuilding and reconnecting. Moving forward, the Guilford County Public Health Department is committed to collaboration as meaningful change in health outcomes will require collective efforts.

2023-2024 CHA Vision

To collect, analyze, and share meaningful data with community members and partners to empower collective action to support systems, policies, and practices that promote health equity for all members of our Guilford County communities.

The 2023-2024 Community Health Assessment assesses Guilford County's health using a health equity lens by:

- Reflecting on select historical policies, movements and events that have contributed to persistent health disparities in Guilford County and
- Looking deeper at the Social Determinants of Health domains, **Economic Stability, Education, Access to Health Care, Neighborhood and Built Environment, and Social and Community Context.**

Guilford County Division of Public Health identified the following health priorities based on the triangulation of the primary and secondary data and community engagement:

- Access to Health Care
- Firearm (Gun) Violence and Injury
- Behavioral Health - Drug Overdose and Mental Health
- Healthy Eating and Active Living
- Maternal and Child Health and Infant Mortality
- HIV and Other Sexually Transmitted Infections

Next Steps Toward Action

The Guilford County Division of Public Health is committed to the following next steps in the Community Health Assessment process:

- **Dissemination**: Share the top CHA findings and needs to community partners, organizations, government bodies and the public with community partners.
- **Ongoing Analysis and Input**: Continue to gather and analyze community input through the Guilford County cohort and community conversations.
- **Community Health Improvement Plans (CHIPs)**: Develop CHIPS for at least two priorities, using the Clear Impact Community Health Improvement Scorecard and Results Based Accountability (RBA) framework.

GCDPH CHIP development will first focus on Firearm Safety and Violence Prevention and HIV and Sexually Transmitted Infection Prevention and Care. GCDPH will work with existing and potential changemakers and assets in these areas to grow and support evidence-based strategies that can make a meaningful impact. By working together, many organizations and individuals

What is Results Based Accountability?

Results Based Accountability (RBA) is a disciplined, common-sense way of thinking and taking action that organizes the work of programs, agencies, communities, cities and counties around the end conditions or positive outcomes.

Trying Hard is Not Good Enough, Friedman, 2015

can improve the overall quality of life for all Guilford County members.

The 2023-2024 CHA and CHIP components and progress will be documented in the 2024-2027 Guilford County Clear Impact Scorecard using the RBA framework. This Scorecard will also highlight how Guilford County is doing on other CHA health priorities.

Resources for Moving Forward

While the identified health priorities and underlying social determinants of health are complex issues, there is growing energy and research about multi-level approaches and systems change that can improve health and provide hope and guidance for the future.

Below are examples of sources that share evidence-based strategies that can improve the health of Guilford County individuals and families:

- County Health Rankings and Roadmaps, What Works for Health shares evidence-informed programs, policies and systems changes by topic area.
- Healthy People 2030 catalogs evidence-based resources by specific health conditions, behaviors, population groups, settings and systems and social determinants of health.
- The Community Guide hosts evidence-based recommendations and findings to protect and improve population health based on systematic reviews of evidence of effectiveness and economic impact by the Community Preventive Services Task Force, an independent, nonfederal panel of public health and prevention experts.
- The U.S. Preventive Services Task Force, an independent, volunteer panel of national experts in disease prevention and evidence-based medicine makes evidence-based recommendations about clinical preventive services.

The 2024-2027 Clear Impact Dashboard highlights:

- A **Result Statement**, a picture of where we would like to be,
- Important local **Indicators** or measures of how we are doing linked to Healthy NC2030 indicators and
- Select **Programs** and their **Performance Measures that show how tho se programs are making an impact**, as well as relevant policies, strategies, coalitions and activities.

The Guilford County Division of Public Health encourages the use of this Community Health Assessment to educate, promote awareness, and support strategic planning, program development, and resource allocation to address identified priority issues.

Appendices

2023 Guilford County Community Health Survey Report

2024 Guilford County Community Health Assessment Meetings Announcement

Shaping Our Health: Your Voice Matters Community Opinion Survey Announcement

Sharing Our Health: Your Voice Matters Community Partner Survey Announcement

Shaping Our Health Community Meeting Presentation

City and Town Profiles

Other Public Health Data Reports

2023 Sexually Transmitted Infections Data Brief

2023 Maternal and Child Health Data Brief

2023 Injuries Data Brief

2023 Leading Causes of Death Data Brief

2023 Selected Reportable Communicable Disease Data Brief

2023 Tuberculosis Data Brief

Links to Other Community Assessments

Cone Health 2022 Community Health Needs Assessment

Atrium Health Wake Forest Baptist High Point Medical Center 2022-2024 Community Health Needs Assessment

Building Resilience: A Community Needs Assessment, Resilience High Point, UNC Greensboro, Center for Housing and Community Studies, 2019

The Foundation for a Healthy High Point's Executive Summary, An Assessment of Social Drivers of Health in High Point

Piedmont Triad Regional Council's Regional Food System Assessment

Guilford County Comprehensive Plan

Community Profiles

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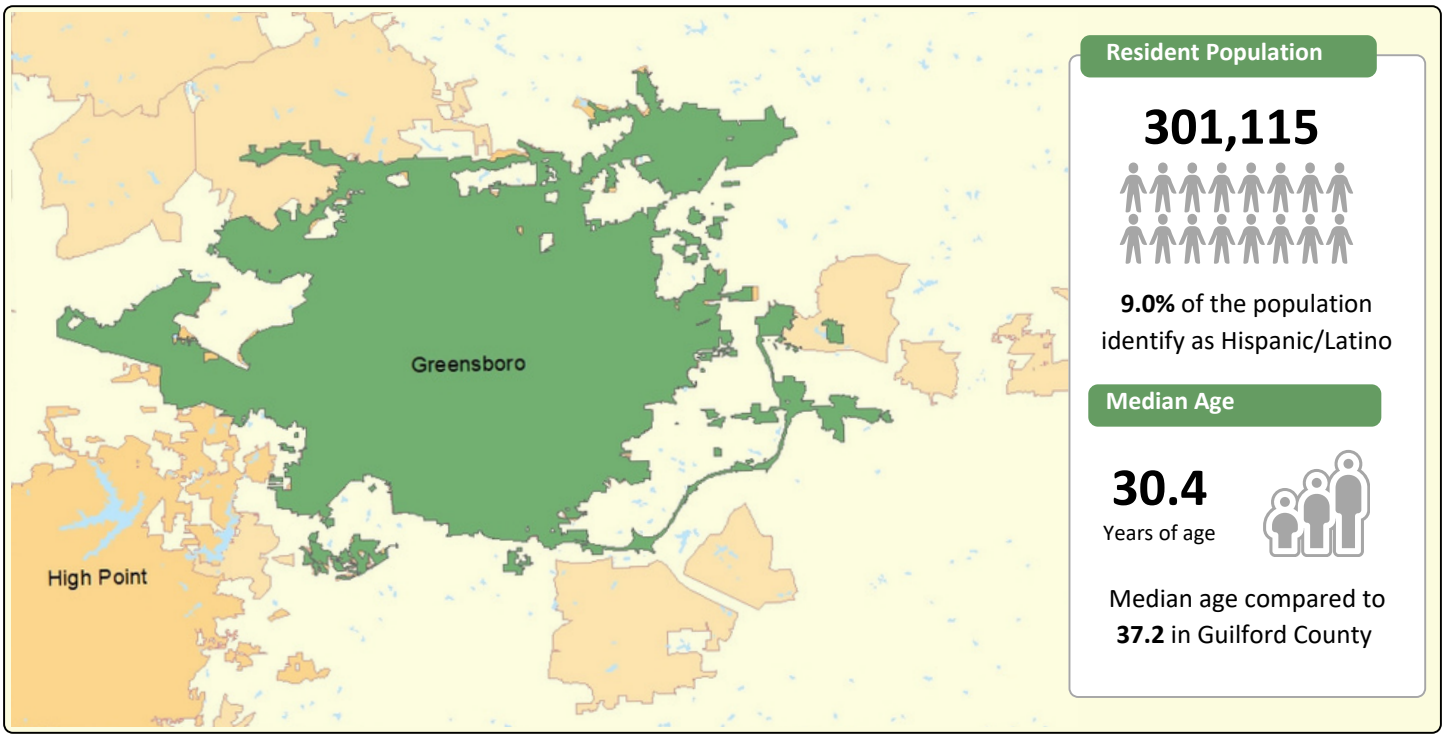
The following pages are provide details specific to the following Guilford County communities:

- Greensboro
- High Point
- Gibsonville
- Oak Ridge
- Stokesdale
- Jamestown
- Pleasant Garden
- Summerfield
- Whitsett
- Sedalia

Greensboro

15.6%

Language other than English spoken at home



Resident Population

301,115

9.0% of the population identify as Hispanic/Latino

Median Age

30.4

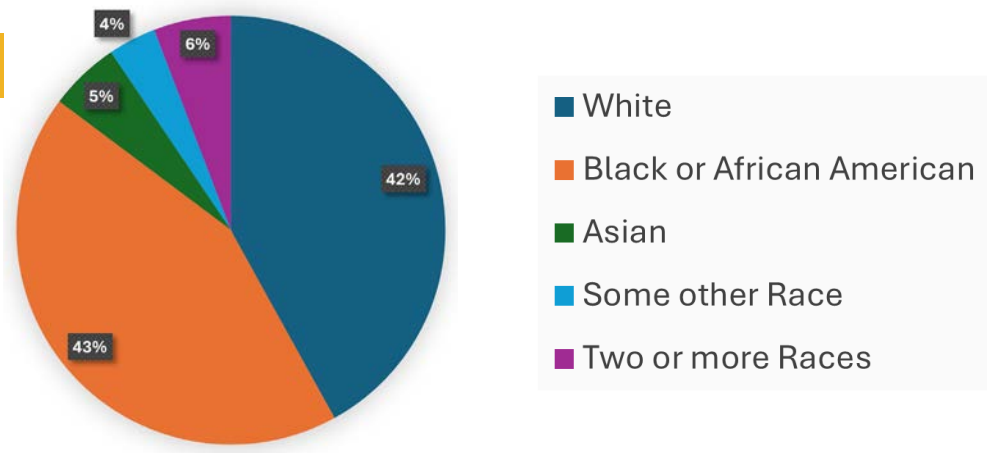
Years of age

Median age compared to **37.2** in Guilford County

In 1781, Greensboro was the site of a major battle during the American Revolution called the Battle of Guilford Courthouse. In 1808, the Guilford Courthouse was moved to its present central Greensboro location closer to the geographic center of the county. From as early as the 1840s, when Greensboro was designated as a stop on a new railroad, Greensboro served as a major transportation hub. In addition to the railroad, Greensboro is a crossroads of three interstate highways and the location of the Piedmont International Airport. Greensboro hosts several colleges and universities, including the University of NC at Greensboro, and NC A&T University.

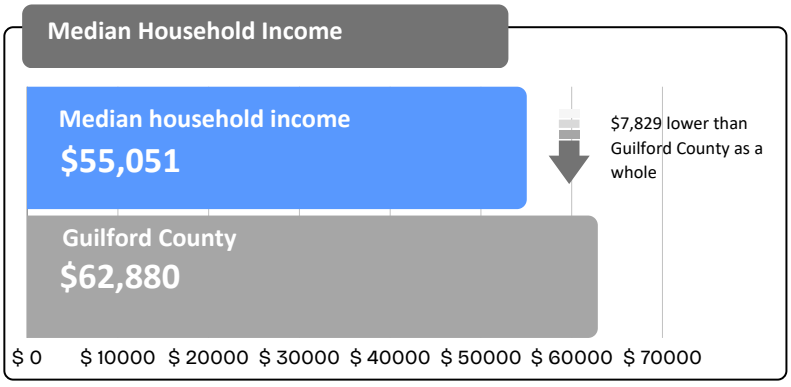
Greensboro is a very racially and ethnically diverse city. The city has about the same percentage of both White (41.8%) and Black (43,1%) residents, and includes 5.3% Asian and 9.0% Hispanic residents, as well as many other racial and ethnic groups, many who have come to Guilford County as immigrants and refugees.

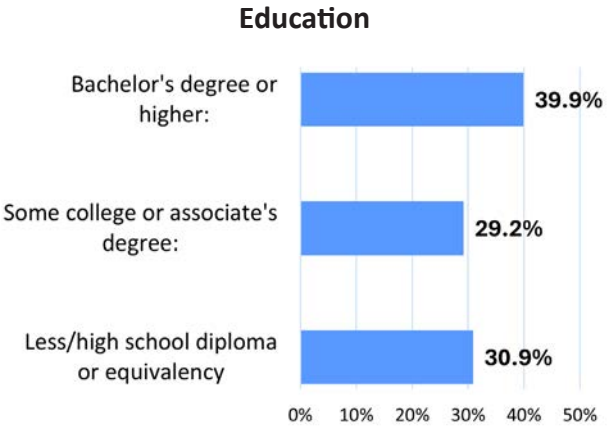
Race/Ethnicity



Greensboro

Greensboro's median household income ($55,051) is lower than that of the county ($62,880). The median owner-occupied home value in Greensboro ($196,500) is lower than that of the county ($215,700), and over 40% of city residents rent their homes. The percentage of city residents without health insurance (9.4%) is higher than the uninsured rate for the county (7.9%).





Employment

Percentage of those 16 years and older in the labor force

65.1%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

58.1%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

41.9%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,474

Median Home Value

Median owner-occupied home value

$196,500

Median Rent Prices

Median gross rent

$1,030

Broadband

Broadband subscription

92.8%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **16.9%**

Households under the age of 18 **52.6%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

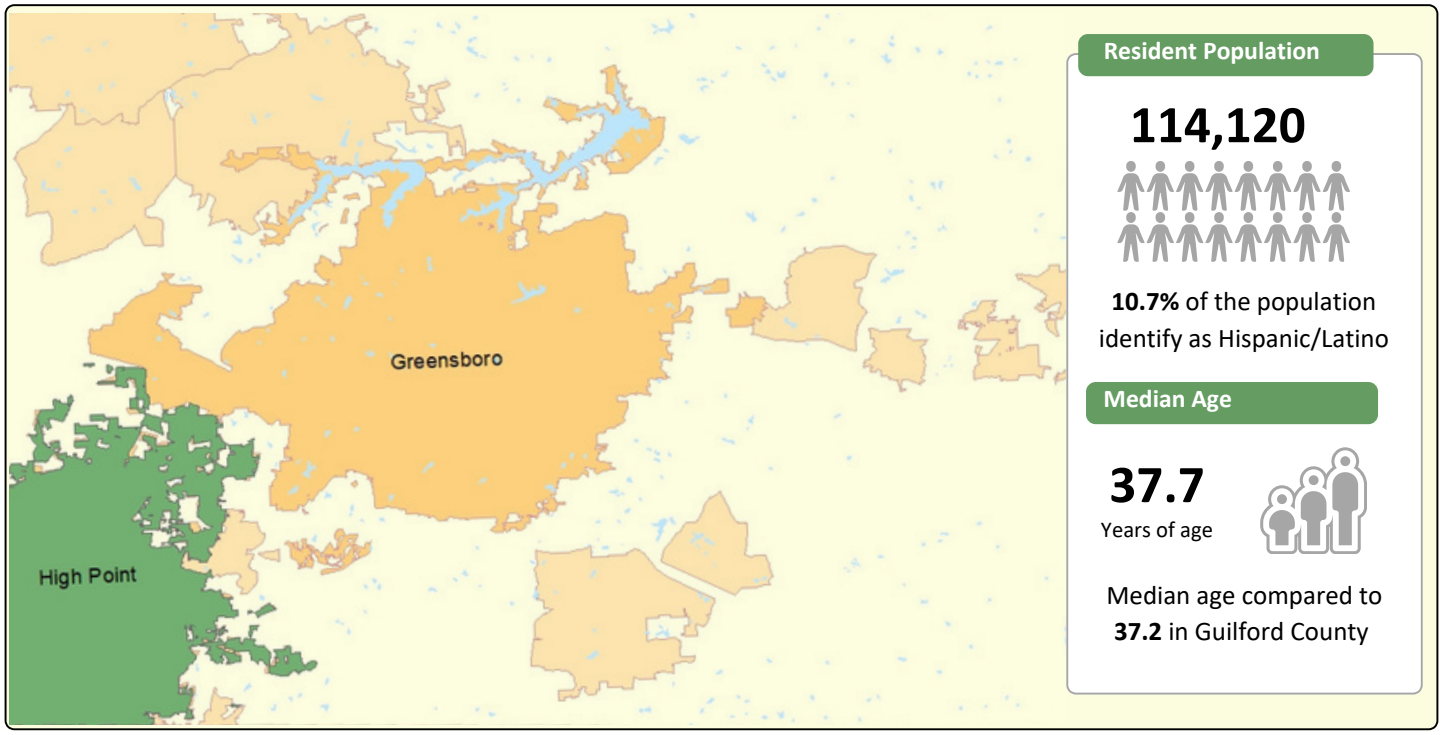
90.6%

Source: 2018 - 2022 ACS

High Point

19.2%

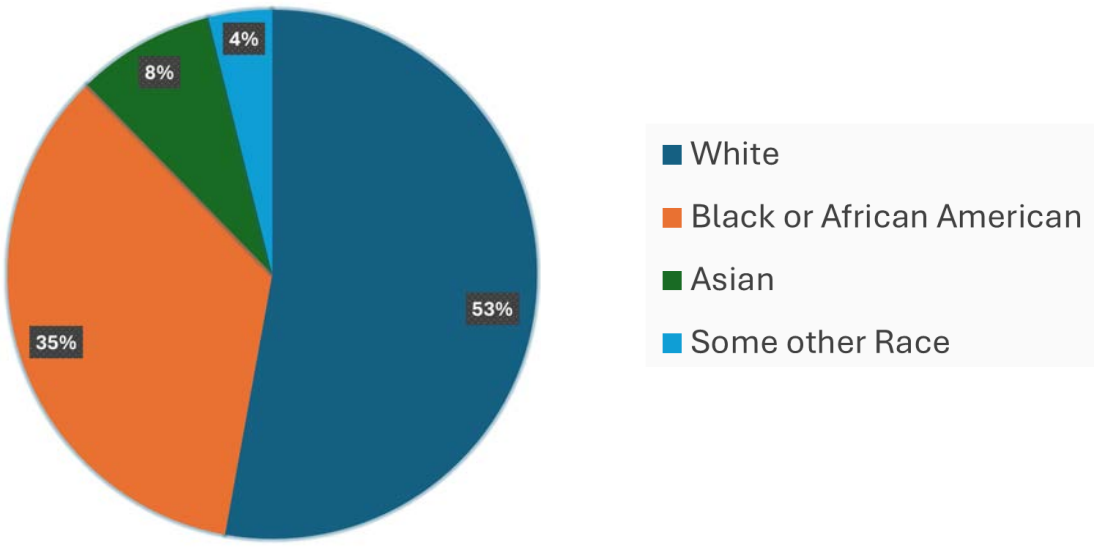
Language other than English spoken at home



High Point is a city of 114,120 residents located in the southwest corner of Guilford County, which along with Greensboro, makes Guilford County the only county in North Carolina with two cities over 100,000 residents. Incorporated in 1859, High Point's location as a stop on the North Carolina Railroad contributed to its growth as a center for manufacturing, including furniture, textiles and bus manufacturing. The city is known for hosting the international semi-annual High Point Furniture Market, and as the location of High Point University.

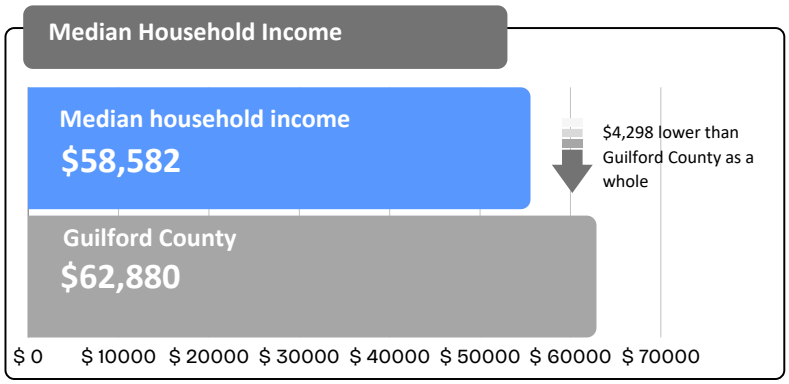
High Point is a racially and ethnically diverse city. Half (49.0%) of residents are White, with 32.3% Black, 7.8% Asian and 10.7% Hispanic.

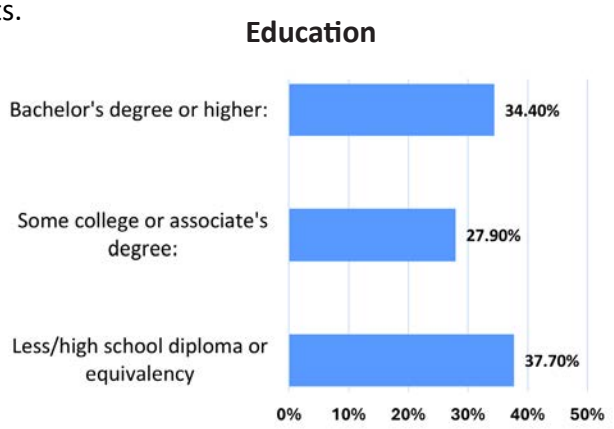
Race/Ethnicity



High Point

The median household income in High Point is lower than that of the county ($58,582 compared to $62,880). Half of all housing units in the city are renter-occupied, and the median owner-occupied home value is lower than that of the county ($197,200 compared to $215,700). 11.6% of city residents under the age of 65 lack any form of health insurance, compared to 7.9% of county residents.





Employment

Percentage of those 16 years and older in the labor force

58.6%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

49.6%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

50.4%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,346

Median Home Value

Median owner-occupied home value

$197,200

Median Rent Prices

Median gross rent

$1,048

Broadband

Broadband subscription

86.4%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **17.5%**

Households under the age of 18 **48%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

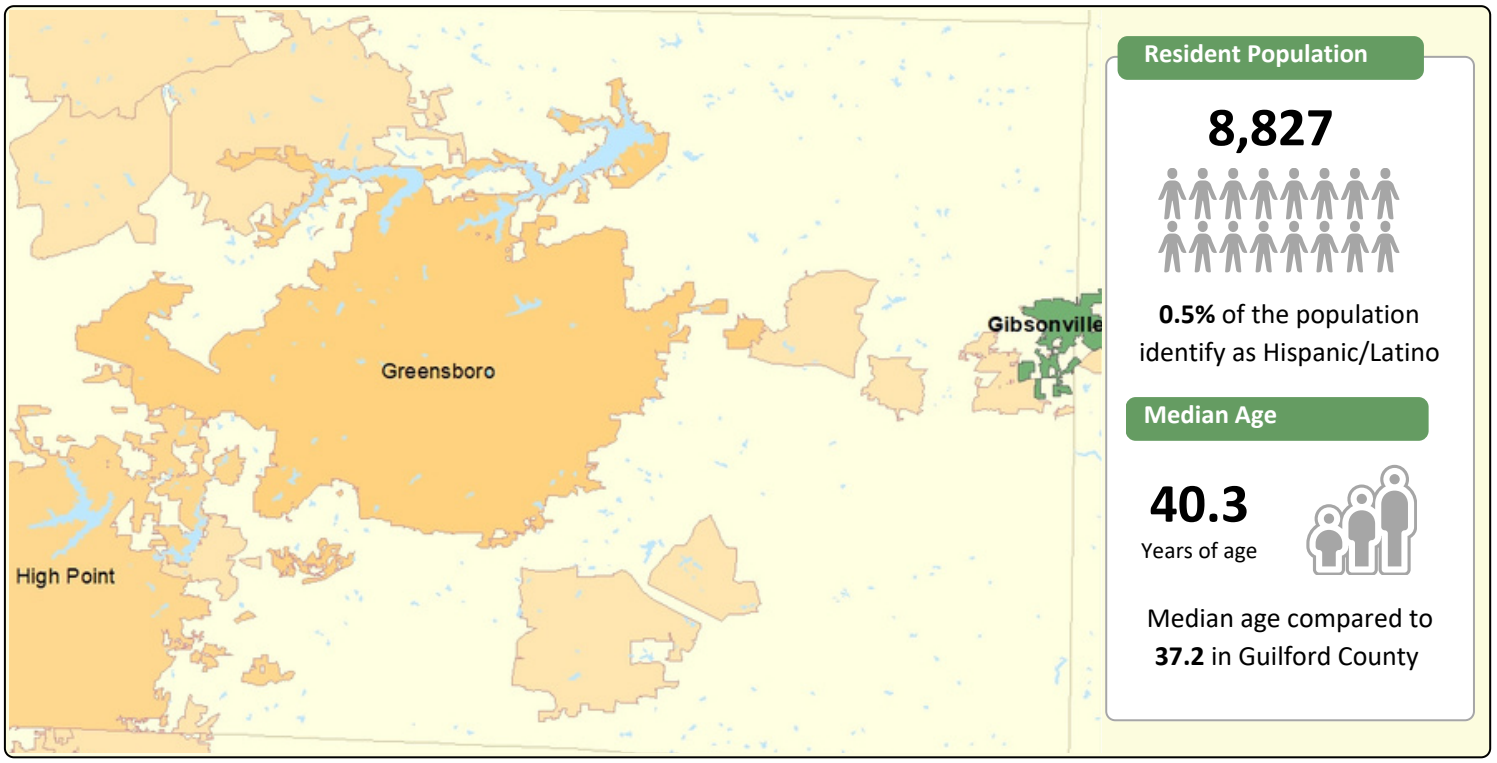
88.6%

Source: 2018 - 2022 ACS

Gibsonville

1.5%

Language other than English spoken at home



Resident Population

8,827

0.5% of the population identify as Hispanic/Latino

Median Age

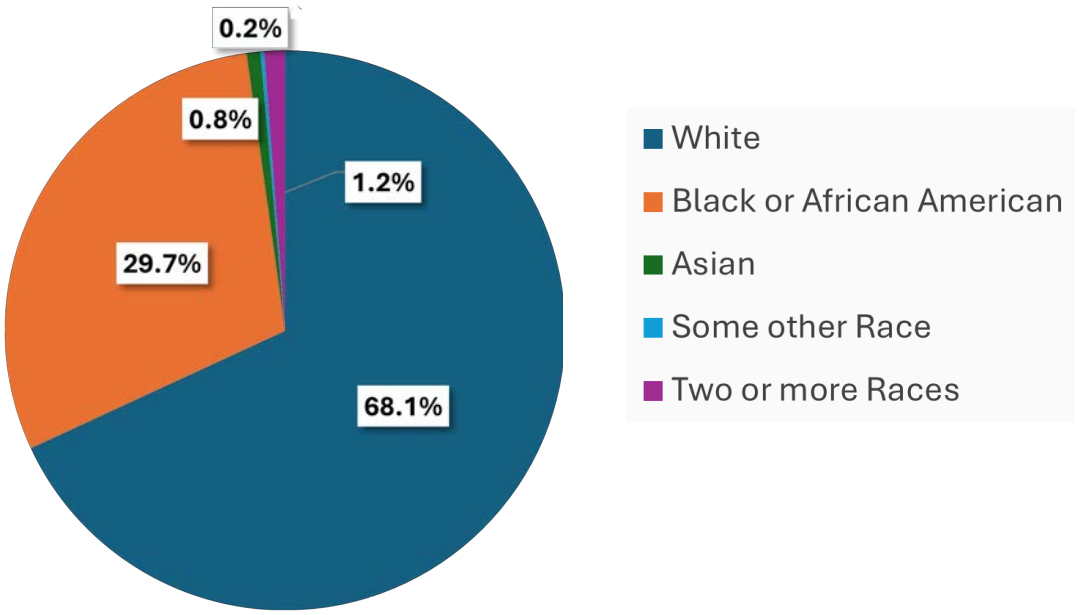
40.3

Years of age

Median age compared to **37.2** in Guilford County

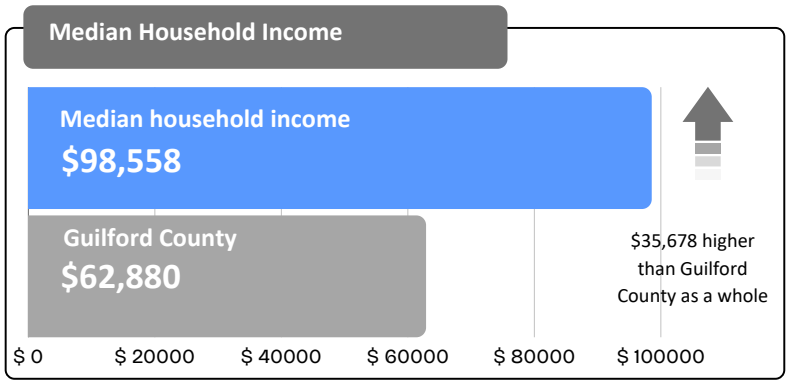
Gibsonville is a town of 8,827 located in the far Eastern part of Guilford County, lying partly in the neighboring county of Alamance. Established in the mid-19th century, Gibsonville developed as a railway town and was incorporated in 1885. The town's growth was initially driven by the railroad industry and textile mills. Gibsonville features a downtown area with historic buildings and architecture.

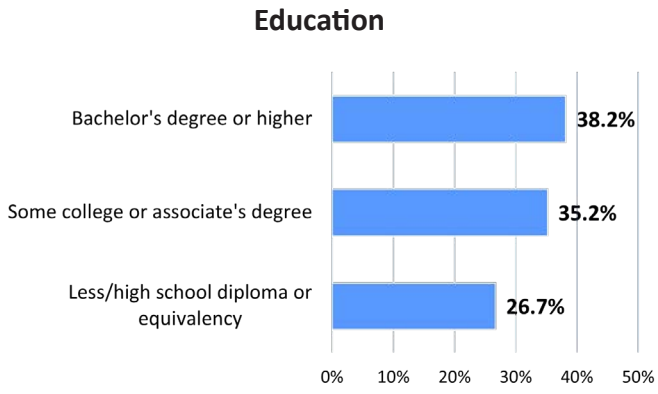
Race/Ethnicity



Gibsonville

Gibsonville has a median household income substantially higher than the county and the larger cities. The town's median home value of $251,600 compared to $215,700 for Guilford County. 85% of housing units in the town are owner-occupied, compared to 59.5% in the county. The number of people below the poverty level, at 7.7% is less than half of the county overall.





Employment

Percentage of those 16 years and older in the labor force

66.9%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

85.1%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

14.9%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,484

Median Home Value

Median owner-occupied home value

$251,600

Median Rent Prices

Median gross rent

$924

Broadband

Broadband subscription

89.3%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **5.7%**

Households under the age of 18 **34.4%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

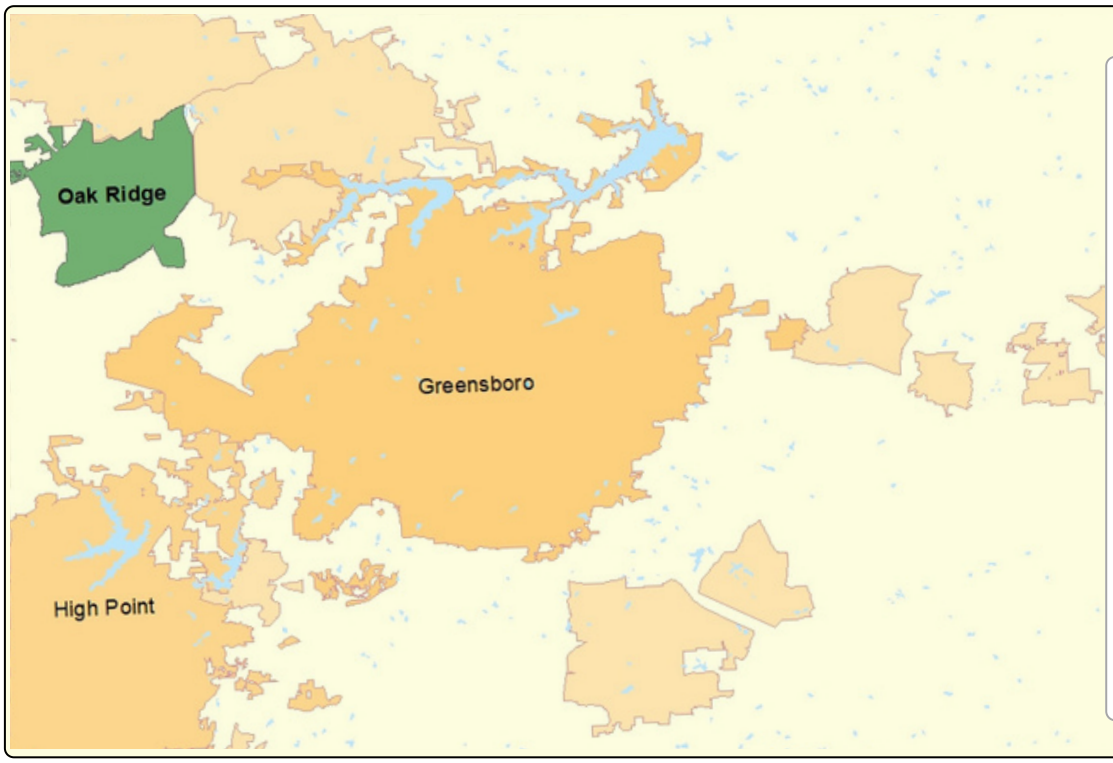
93.3%

Source: 2018 - 2022 ACS

Oak Ridge

13.0%

Language other than English spoken at home



Resident Population

7,637

4.6% of the population identify as Hispanic/Latino

Median Age

46.8

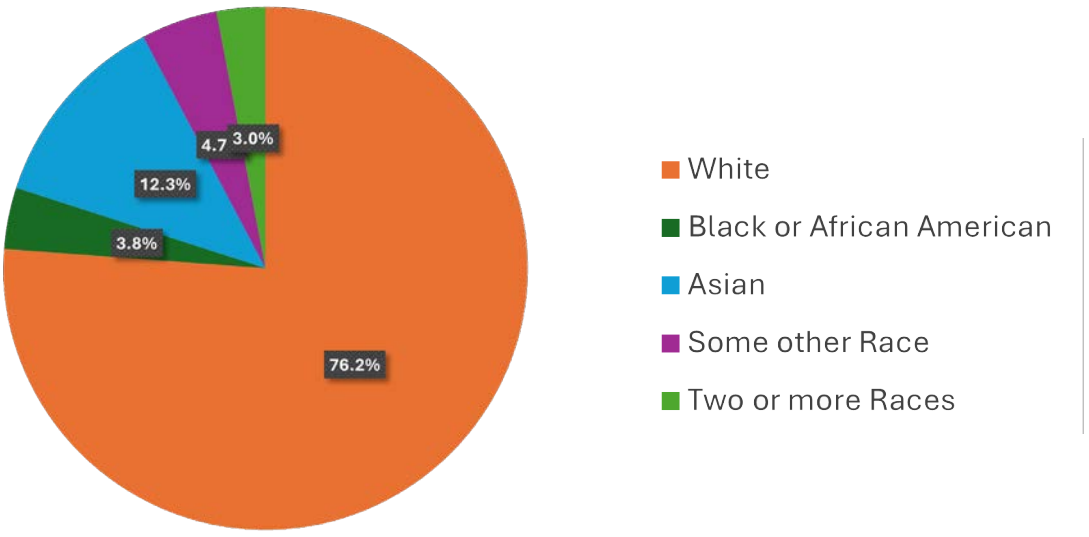
Years of age

Median age compared to **37.2** in Guilford County

Oak Ridge is a small town of 7,637 residents located in the Northwest corner of Guilford County, bordered by the towns of Stokesdale and Summerfield. The town is home to the Oak Ridge Military Academy, the official military school of the state of North Carolina. Incorporated in 1998, Oak Ridge has grown from an area that was mostly rural farmland to include numerous housing developments and commercial centers.

Oak Ridge is less racially and ethnically diverse than the county's larger cities of Greensboro and High Point. The proportion of Black/African American residents of Oak Ridge is less than 4%, compared to 36% for the county and 43% in Greensboro.

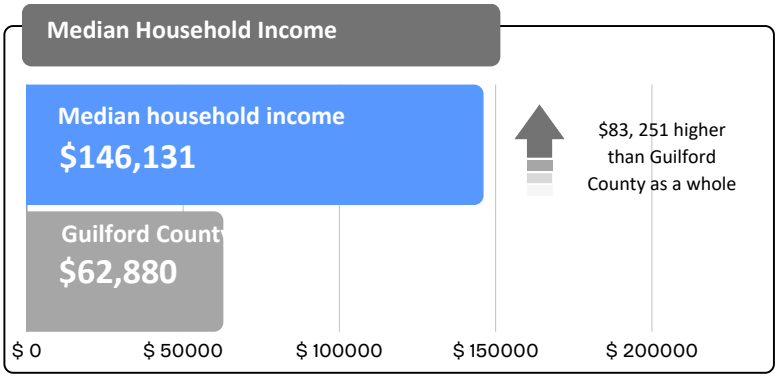
Race/Ethnicity

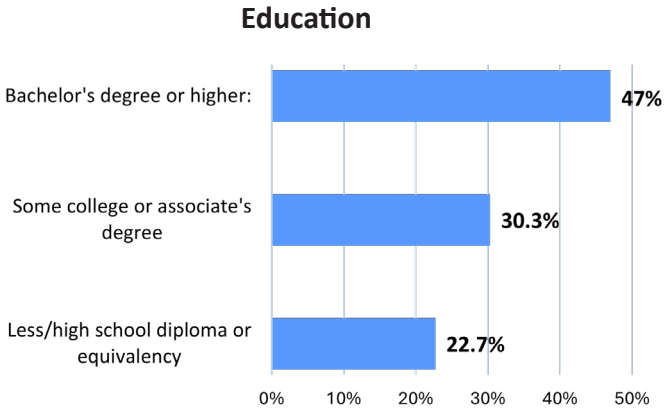


Oak Ridge

Oak Ridge is a prosperous town, with a median household income more than twice as high as the county overall and second only to the neighboring town of Summerfield. The town's median home value of $484,300 compared to $215,700 for Guilford County and is the highest of all cities and towns in the county. Almost 94% of housing units in the town are owner-occupied.

Only 3.3% of Oak Ridge residents under the age of 65 lack some form of health insurance, the lowest rate of uninsured among Guilford County towns and cities.





Employment

Percentage of those 16 years and older in the labor force

61.7%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

93.8%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

6.2%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$2,349

Median Home Value

Median owner-occupied home value

$484,300

Median Rent Prices

Median gross rent

NOT AVAILABLE

Broadband

Broadband subscription

96.2%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **5.7%**

Households under the age of 18 **47.1%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

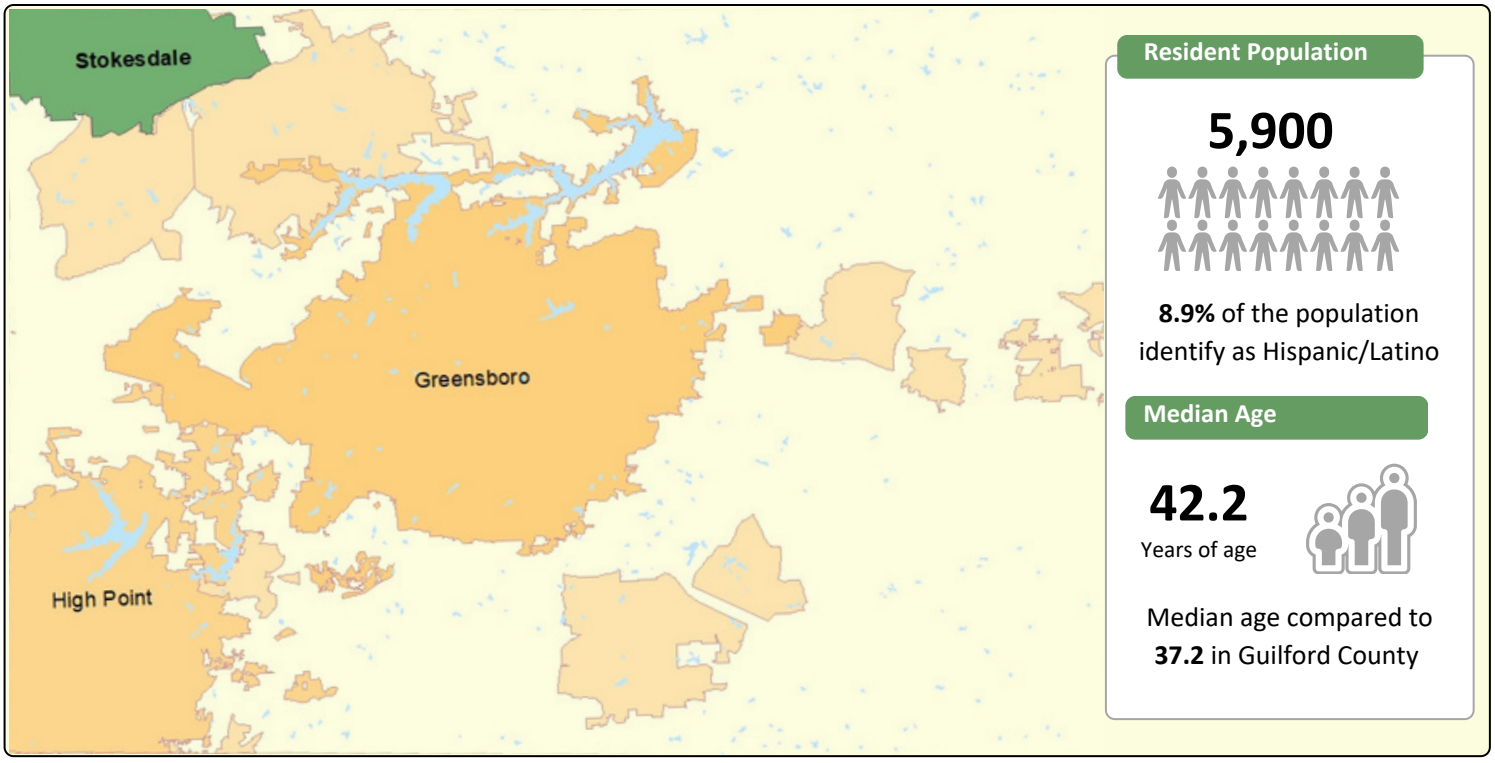
96.7%

Source: 2018 - 2022 ACS

Stokesdale

8.2%

Language other than English spoken at home



Resident Population

5,900

8.9% of the population identify as Hispanic/Latino

Median Age

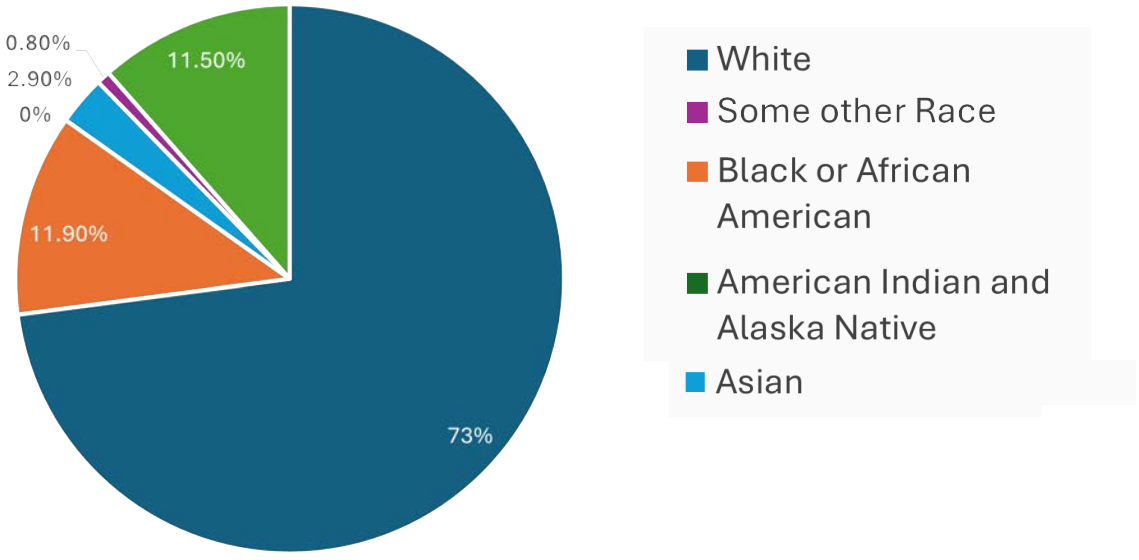
42.2
Years of age

Median age compared to **37.2** in Guilford County

Stokesdale, a town of 5,900 residents located in the northwest corner of Guilford County, is a rural community with a mixture of agricultural and farming areas, businesses, industries, and residential areas.

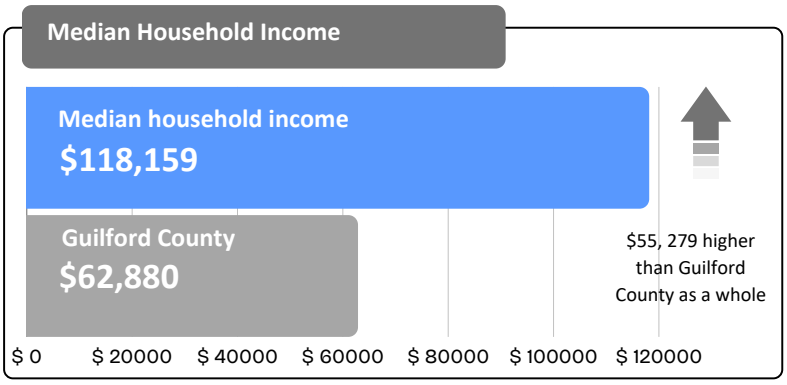
Compared to the larger urban areas of the county, Stokesdale is less racially diverse. 73% of the population is White, 12% White, 3% Asian and 9% Hispanic.

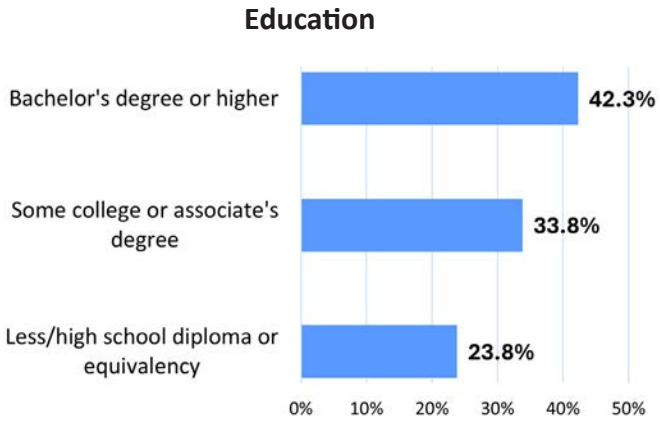
Race/Ethnicity



Stokesdale

95% of Stokesdale residents own their own homes rather than renting. The median owner-occupied home value in Stokesdale is $323,900, compared with $215,700 for the county. The median household income is almost twice that of the county, $118,159 compared to $62,880 for the county. Only 3.5% of the population under the age of 65 does not have any form of health insurance.





Employment

Percentage of those 16 years and older in the labor force

NOT AVAILABLE

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

95.0%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

5.0%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,832

Median Home Value

Median owner-occupied home value

$323,900

Median Rent Prices

Median gross rent

NOT AVAILABLE

Broadband

Broadband subscription

96.5%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **7.3%**

Households under the age of 18 **51.7%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

96.5%

Source: 2018 - 2022 ACS

Jamestown

11.3%

Language other than English spoken at home

Resident Population

3,677

6.3% of the population identify as Hispanic/Latino

Median Age

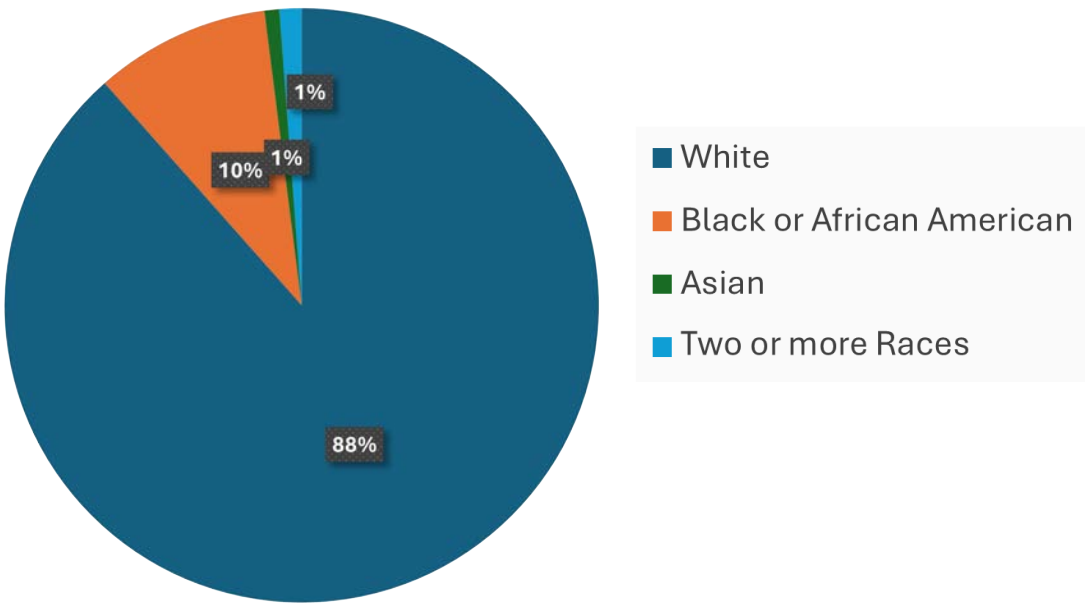
45.5

Years of age

Median age compared to **37.2** in Guilford County

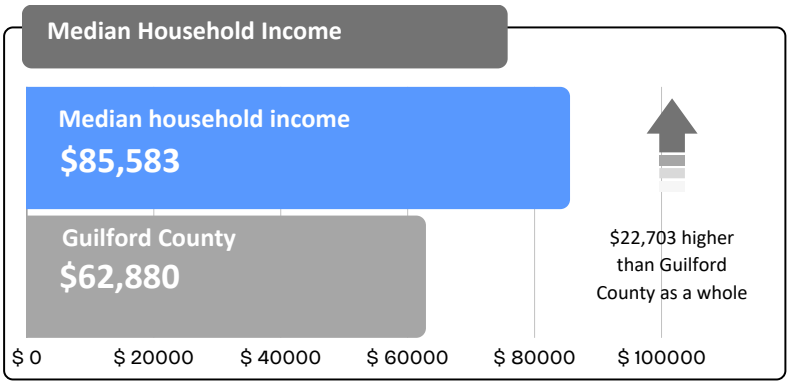
Jamestown is a small town of 3,677 residents situated between the cities of Greensboro and High Point. The town, incorporated in 1905, was named after James Hunter, an early settler. It became a notable railway town due to its strategic location along major transportation routes. Jamestown has a historic downtown district and Jamestown Park, which offers a variety of recreational opportunities.

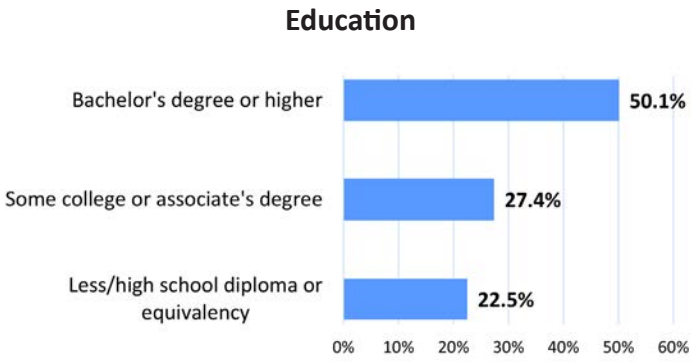
Race/Ethnicity



Jamestown

Jamestown's median income of $85,583 is higher than the county median income of $62,880, but the median home value of $216,400 is about the same as the county median home value of $215,700. A higher proportion of Jamestown housing units are owner-occupied at 78.4% and a lower percentage renter-occupied at 21.6% compared to the county rates of 59.9% and 21.6% respectively.





Employment

Percentage of those 16 years and older in the labor force

63.5%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

78.4%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

21.6%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,517

Median Home Value

Median owner-occupied home value

$216,400

Median Rent Prices

Median gross rent

$1,060

Broadband

Broadband subscription

95.1%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **2.3%**

Households under the age of 18 **77.8%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

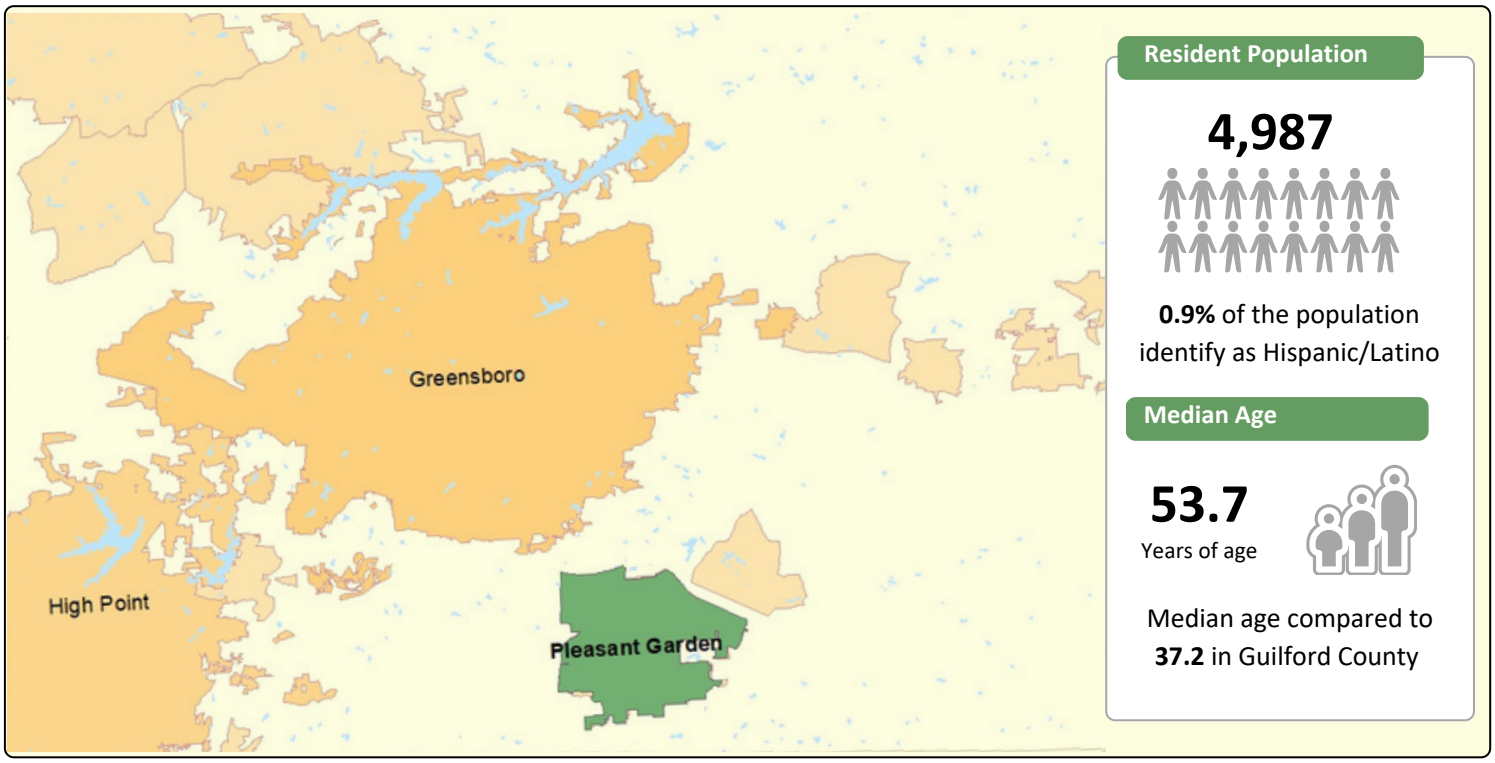
92.6%

Source: 2018 - 2022 ACS

Pleasant Garden

2.7%

Language other than English spoken at home



Resident Population

4,987

0.9% of the population identify as Hispanic/Latino

Median Age

53.7

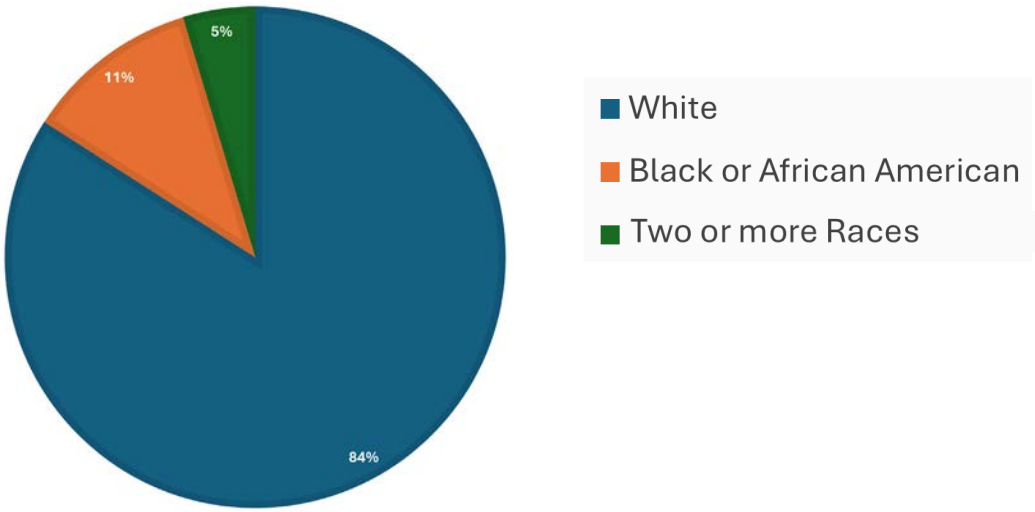
Years of age

Median age compared to **37.2** in Guilford County

Pleasant Garden is a town of 5,000 residents situated south of Greensboro. The area that is now Pleasant Garden was first settled in the late 1700s and was officially incorporated in 1997. The town serves as a suburb of Greensboro but has a range of local services and amenities catering to its growing residential community. The town has several parks, recreational areas and green spaces, with walking trails, playgrounds and sports fields.

Pleasant Garden is less racially and ethnically diverse than the county overall. The proportion of Whites is higher, with lower proportions of Blacks, Asians and Hispanics. Pleasant Garden has an older population compared to the county, with 36.4% of the population over the age of 65, compared to 16.3% for the county.

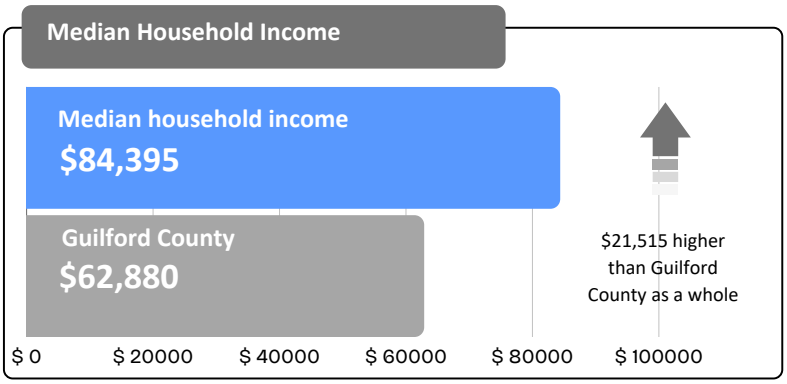
Race/Ethnicity



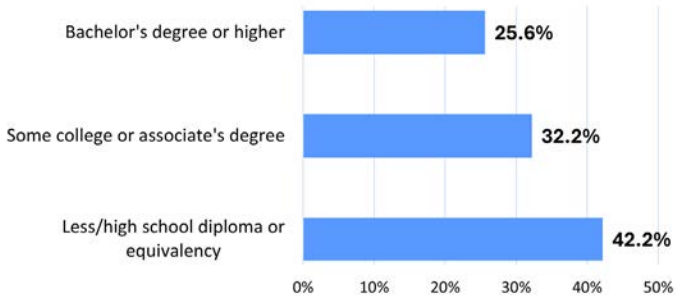
Pleasant Garden

Pleasant Garden's median household income of $84,395 is 34% higher than the median household income countywide. Though the 80.6% homeownership rate of Pleasant Garden is higher than the county, the median home value of owner-occupied housing units in Pleasant Garden is lower, at $186,000 compared to $215,700 for the county median value.

Median Household Income



Education



Employment

Percentage of those 16 years and older in the labor force

52.5%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

80.6%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

19.4%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,185

Median Home Value

Median owner-occupied home value

$186,000

Median Rent Prices

Median gross rent

$1,041

Broadband

Broadband subscription

83.6%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **6.4%**

Households under the age of 18 **7.4%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

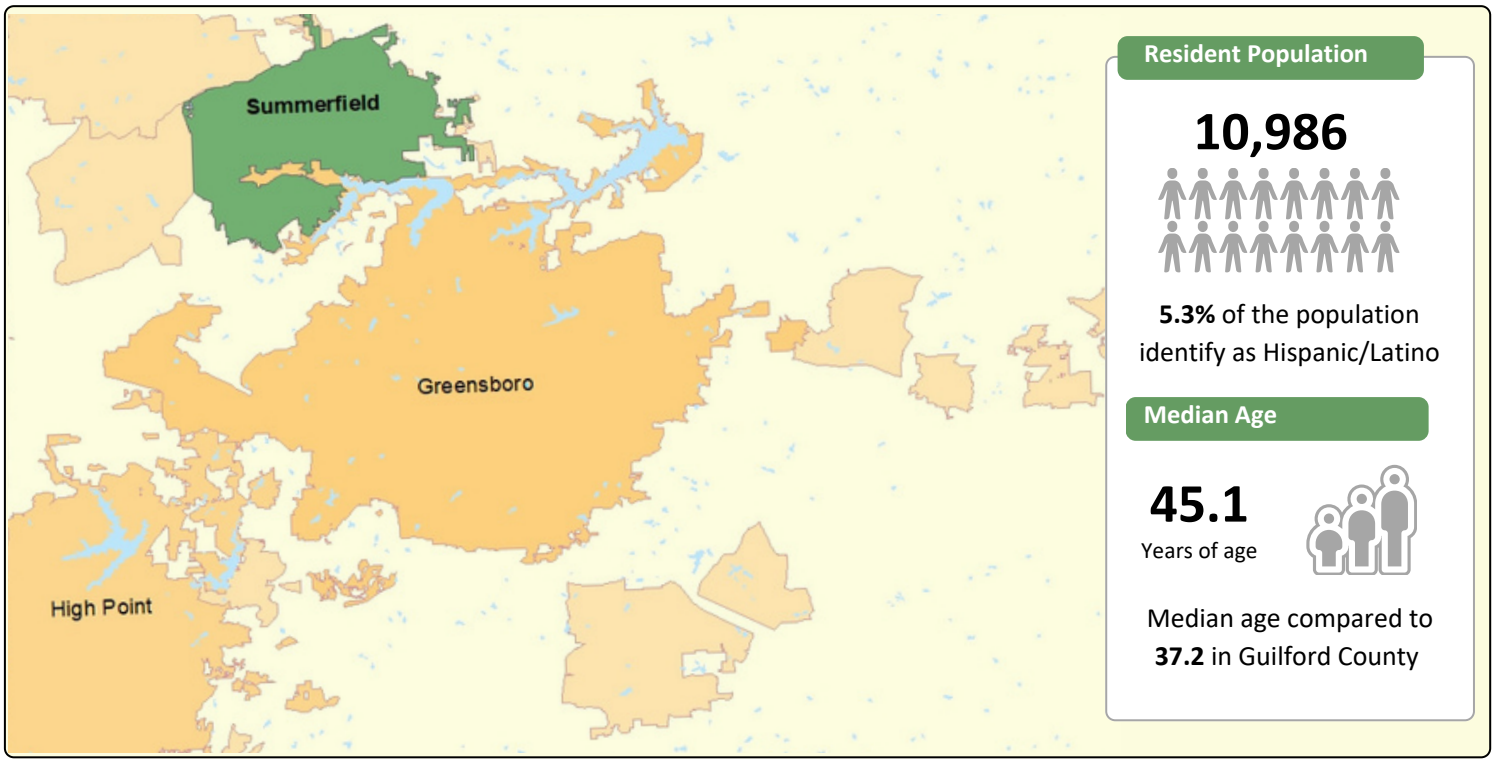
95.7%

Source: 2018 - 2022 ACS

Summerfield

6.5%

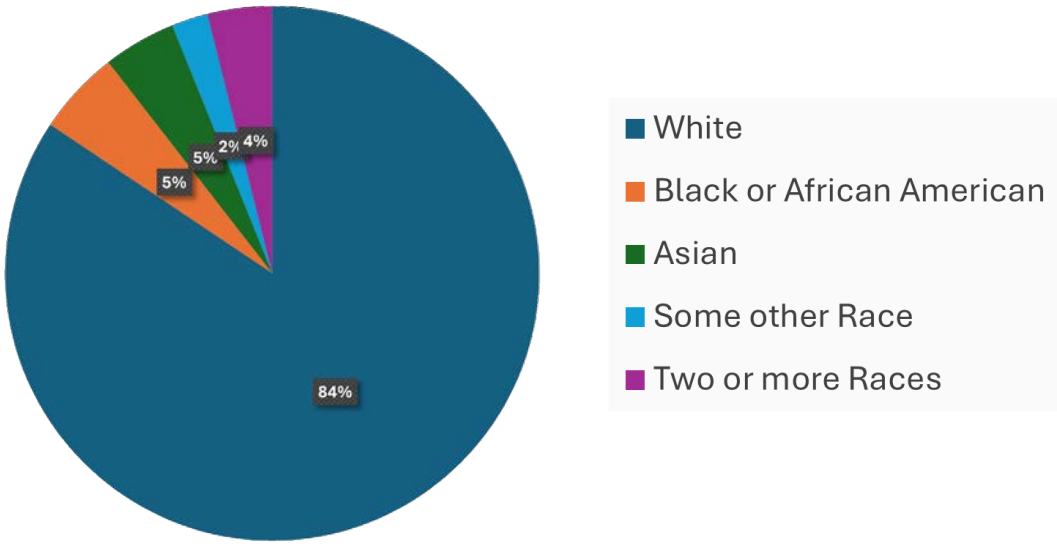
Language other than English spoken at home



Summerfield is a town of 10,986 located in the northwest corner of Guilford County adjacent to the city of Greensboro. Originally settled as early as the late 1700's but was not incorporated until 1996. Summerfield developed as a primarily agricultural community and has evolved over time to serve as a suburb of Greensboro. The town is known for its proximity to Lake Brandt and Lake Townsend, which provide recreational opportunities for boating, fishing, and hiking.

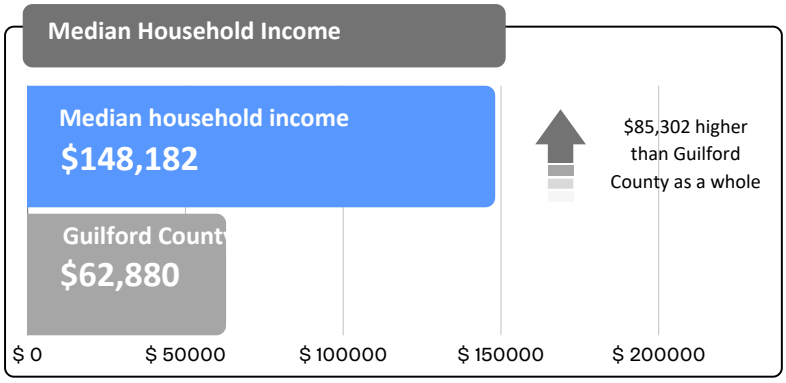
Summerfield residents are predominantly White (84.3%), with 5.2% Black, 4.4% Asian and 5.3% Hispanic.

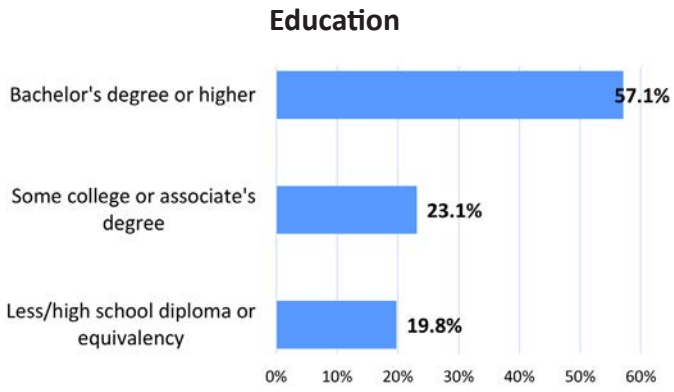
Race/Ethnicity



Summerfield

Summerfield is a prosperous community. The median household income of $148,182 is more than twice as high as the county median income of $62,880. The median home value of $455,300 is also more than twice the county's median home value of $215,700. Almost 9 out of ten housing units are owner-occupied.





Employment

Percentage of those 16 years and older in the labor force

60.8%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

88.0%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

12.0%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$2,468

Median Home Value

Median owner-occupied home value

$455,300

Median Rent Prices

Median gross rent

$1,158

Broadband

Broadband subscription

93.7%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **7.4%**

Households under the age of 18 **71.5%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

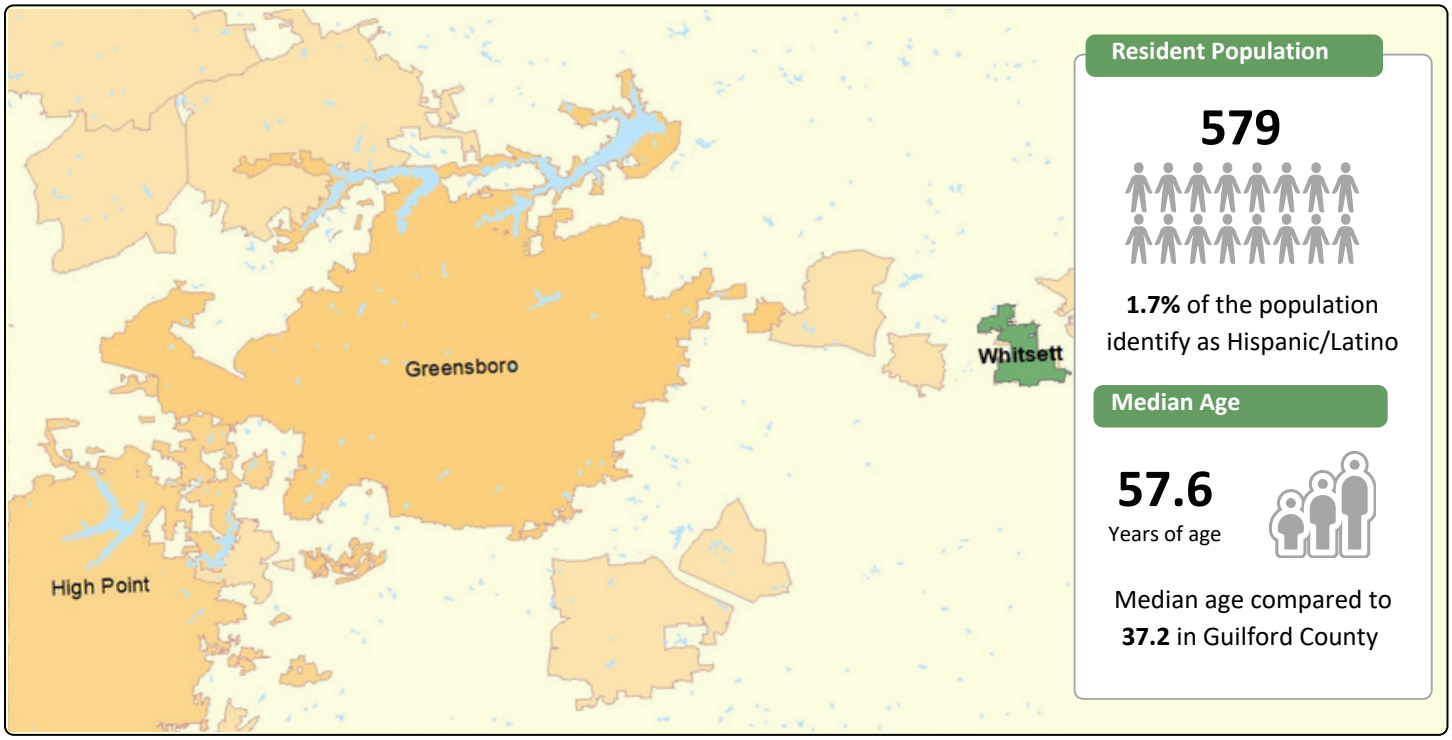
95.1%

Source: 2018 - 2022 ACS

Whitsett

1.8%

Language other than English spoken at home



Resident Population

579

1.7% of the population identify as Hispanic/Latino

Median Age

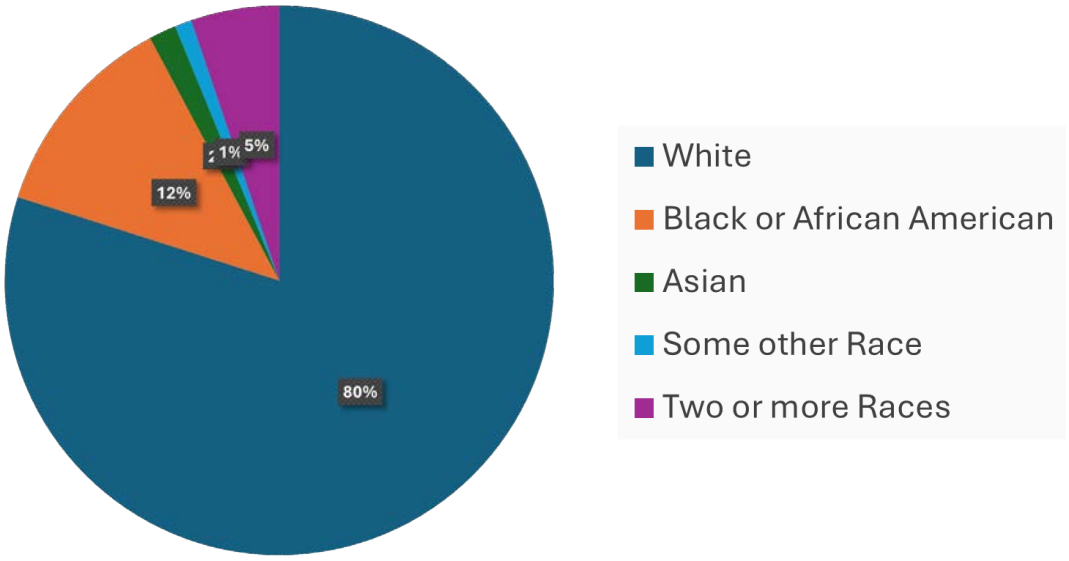
57.6

Years of age

Median age compared to **37.2** in Guilford County

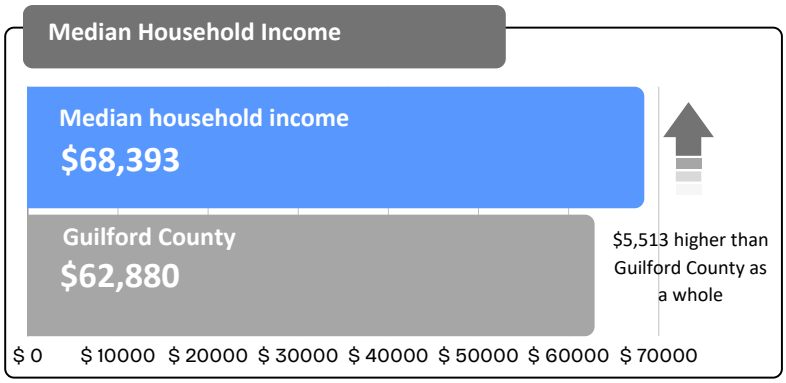
Whitsett is a small town situated in the rural agricultural areas of eastern Guilford County. Whitsett was founded in the late 19th century and incorporated in 1913. The town's growth was influenced by its location along transportation routes and its agricultural roots. Whitsett has an older population profile than the county, with a median age of 57.6 compared to 37.2. 80% of Whitsett residents are White, with 12.3% Black and less than 2% Asian and Hispanic.

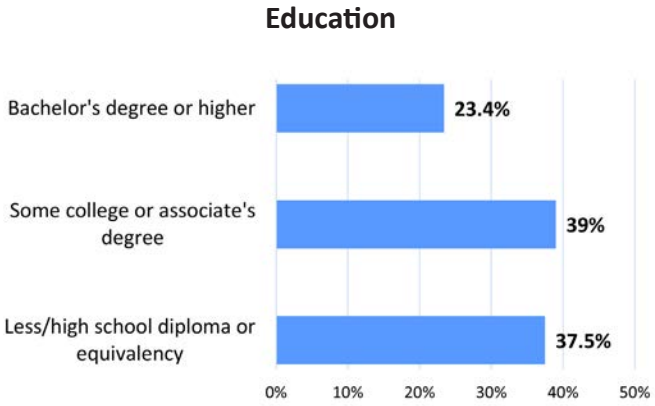
Race/Ethnicity



Whitsett

Over 80% of Whitsett housing units are owner-occupied. The median household income of $68,393 in the town is slightly higher than the county median income of $62,880, but the median value of owner-occupied homes, at $174,700, is considerably less than the county median home value of $215,700.





Employment

Percentage of those 16 years and older in the labor force

53.7%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

83.3%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

16.7%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,304

Median Home Value

Median owner-occupied home value

$174,700

Median Rent Prices

Median gross rent

$1,292

Broadband

Broadband subscription

79.7%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **2.8%**

Households under the age of 18 **0%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

92.6%

Source: 2018 - 2022 ACS

Sedalia

10.5%

Language other than English spoken at home

Resident Population

529

8.5% of the population identify as Hispanic/Latino

Median Age

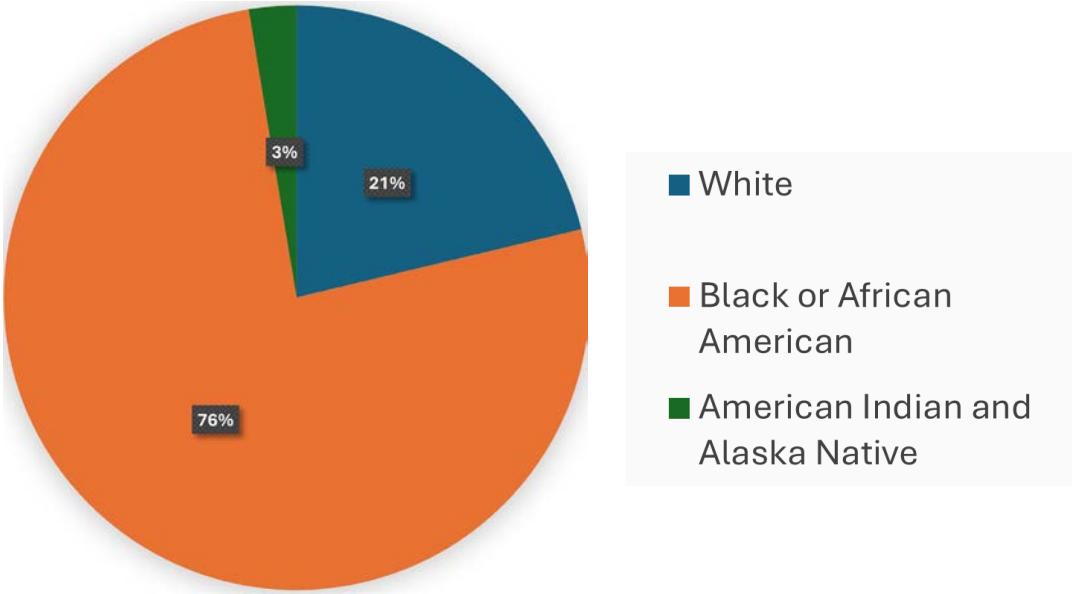
55.5

Years of age

Median age compared to **37.2** in Guilford County

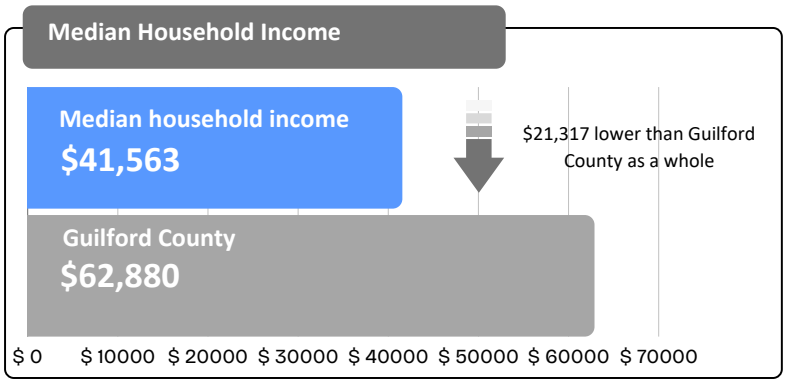
Sedalia is a small town located of 676 residents in the largely rural area of eastern Guilford County. Sedalia is the site of the Palmer Memorial Institute Historical District, listed on the National Register of Historic Places. The Palmer Memorial Institute was historic as the location of a school African Americans, founded in 1902 and which now houses the Charlotte Hawkins Brown Museum. Sedalia is notable among Guilford County towns for having a predominantly Black/African American population. Three-fourths (75.6%) of the population are African American, with 21.2% being White and 8.5% Hispanic.

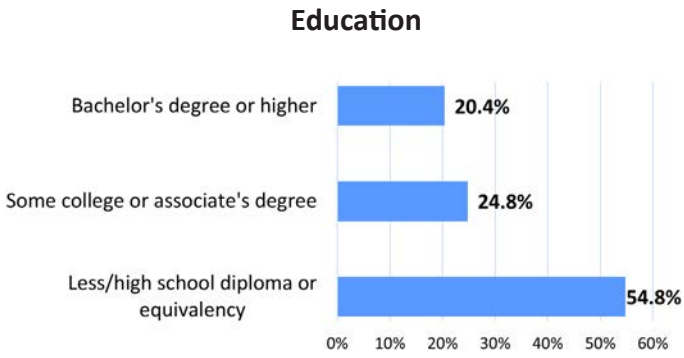
Race/Ethnicity



Sedalia

A large majority (96.5%) of Sedalia housing units are owner-occupied, compared with the county percentage of 59.5%; however, the median value of owner-occupied homes in Sedalia is $159,000 is much lower than the county value of $215,700. The median household income in Sedalia ($41,563) is also considerably lower than the median household income in the county ($62,880).





Employment

Percentage of those 16 years and older in the labor force

50.5%
Employed

Homeownership

Percent of people who own their home as compared to 59.5% in Guilford County

96.5%
Homeowners

Renting

Percent of people renting as compared to 40.5% in Guilford County

3.5%
Renting

Monthly Housing Cost

Median monthy housing cost for owners with a mortgage

$1,236

Median Home Value

Median owner-occupied home value

$159,000

Median Rent Prices

Median gross rent

NOT AVAILABLE

Broadband

Broadband subscription

69.6%

SNAP/EBT Enrollment

Percentage of households receiving SNAP Benefits

All households **17%**

Households under the age of 18 **5.1%**

Health Insurance

Percent with health insurance compared to 92.1% overall in Guilford County

88.6%

Source: 2018 - 2022 ACS

Tables, Graphs, Charts, and Figures