Cabarrus County Community Needs Assessment

Developed by the

Cabarrus Community Planning Council



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On-line and paper copies of this document may be obtained at:

www.healthycabarrus.org and www.cabarrushealth.org

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	3
Healthy Cabarrus Executive Committee	3
Healthy Cabarrus Staff	3
Cabarrus Community Planning Council	3
ADDITIONAL ACKNOWLEDGEMENTS	5
LIST OF FIGURES	9
LIST OF TABLES	11
HEALTH DISPARITIES	12
EXECUTIVE SUMMARY	13
Introduction and Vision	13
Leadership, Partnerships and Collaborative Process	13
Contracted Services	14
Theoretical Framework and Model	14
Next Steps	16
GLOSSARY	16
Primary Data Sources	16
DEFINITIONS	17
COMMUNITY NEEDS ASSESSMENT PROCESS	19
Community Planning Council	20
Data Collection	20
Health Priorities Selection	22
2020 Cabarrus County Priority Needs	23
Next Steps	24
PRIMARY DATA COLLECTION	25
Community Member Survey	25
Key Informant Data	26
Focus Groups	26
CABARRUS COUNTY COMMUNITY PROFILE	28
CRIME AND SAFETY	30
Crime	30
Violence	32
CLINICAL CARE AND WELLNESS	33
Access to Medical Care	33
Hospital Utilization	37
Communicable Disease and Sexual Health	38
Chronic Disease	42
Dental Care Access	45

Infant and Maternal Health	46
Health and Wellness	48
EDUCATION	52
Early Childhood Education 0 to 5	52
Kindergarten through Grade 12 Education	54
Career and Technical Education, Post-Secondary	57
ECONOMIC FACTORS	58
Income	58
Poverty	59
Workforce	61
PHYSICAL AND BUILT ENVIRONMENT	63
Housing	63
Transportation	65
Environmental Factors	67
SUBSTANCE USE, MENTAL HEALTH AND INTELLECUTAL AND DEVELOPMENTAL DISABILITIES	70
Substance Use	70
Mental Health	73
Intellectual and Developmental Disabilities	76
SECONDARY DATA - Health Indicators	78
Leading Cause of Death	80
Healthy NC 2030 Report Card	81
APPENDICES	85
Appendix A: Community Needs Assessment Tools	85
Appendix B: Primary Data Findings	85
Appendix C: Community Planning Council Welcome Packet	85
Appendix D: Health Resources Inventory	85
CITATIONS	

LIST OF FIGURES

Figure 1: Community Needs Assessment Timeline	19
Figure 2: Community Planning Council Partners	20
Figure 3: Cyclical Collaborative Process for Collecting Data	21
Figure 4: Quantitative and Qualitative Data	21
Figure 5: Clear Impact Scorecard Example	24
Figure 6: Primary Data Collection	25
Figure 7: Community Needs Survey Respondent Demographics	27
Figure 8: Cabarrus County Community Profile	29
Figure 9: NC Division of Motor Vehicles – Cabarrus County Traffic Crash Facts 5-Year Average	31
Figure 10: Barriers to Healthcare Services- Community Survey Respondents	33
Figure 11: Medical Care Locations Used by Race	34
Figure 12: Percent of Uninsured Cabarrus County Residents	35
Figure 13: Percentage of population receiving Medicaid – Cabarrus County and North Carolina	36
Figure 14: Percent of Patient Readmissions	37
Figure 15: COVID-19 Data from Nov. 30, 2020	38
Figure 16: Number of Cabarrus County Schools and Kannapolis City School Religious Exemptions	38
Figure 17: Chlamydia Rate – Newly Diagnosed Chlamydia Infections per 100,000 Population	39
Figure 18: Early Syphilis Rate — Newly Diagnosed Syphilis Infections per 100,000 Population	39
Figure 19: Gonorrhea Rate — Newly Diagnosed Gonorrhea Infections per 100,000 Population	40
Figure 20: HIV Rate – Average 3-Year Rate of Newly Diagnosed Infections per 100,000 Population	40
Figure 21: Acute Hepatitis C Annual Rates per 100,000 Population	41
Figure 22: Acute Hepatitis B Annual Rates per 100,000 Population	41
Figure 23: Diabetes Prevalence	43
Figure 24: Diabetes Death Rate per 100,000 population	43
Figure 25: Heart Disease Death Rate per 100,000 population	43
Figure 26: Percent of Children in Kindergarten with Untreated Tooth Decay – Cabarrus Health Alliance	44
Figure 27: Racial Disparities in Infant Mortality or Death	46
Figure 28: Cabarrus County – Trimester that Prenatal Care Began (2018)	47
Figure 29: Atrium Health Cabarrus- Patients Age 2-18 Who Are Overweight and Obese 2014-2019 b48 Race/Ethnicity	48
Figure 30: US Department of Agriculture – Food Access Research Atlas	49
Figure 31: Population Receiving SNAP Benefits	50
Figure 32: Barriers to Food Access	50
Figure 33: Cabarrus County Subsidized Child Care	53
Figure 34: Public School Enrollment	54
Figure 35: Percentage of Children on Free and Reduced Lunch	54
Figure 36: Graduation Rates by School- Percent of 9th Grade Cohort that Graduates in 4 Years	55

Figure 37: Dropouts by Race SY19-20- Grades 7-13	56
Figure 38: Career and Technical Education (CTE) Programs	57
Figure 39: EIG Distressed Communities Index	58
Figure 40: Median Income- 2019	58
Figure 41: Percent of Cabarrus County Residents Living in Poverty 2014-2019	60
Figure 42: Children in Poverty	61
Figure 43: Unemployment Rate	61
Figure 44: Employment by Industries – Cabarrus County 2018	62
Figure 45: Cabarrus County Household Characteristics	63
Figure 46: NC Housing Coalition - Cabarrus County Housing Need	64
Figure 47: Evictions	65
Figure 48: Sample Rider Transit Map	65
Figure 49: Rider Transit- Fixed Route Ridership Data	65
Figure 50: Community Needs Survey – Difficulty Accessing Services due to Transportation Issues	66
Figure 51: Cabarrus Toxic Release Inventory	67
Figure 52: Number of Days Reaching Unhealth for Sensitive Groups or Above on the AQI	67
Figure 53: Cabarrus Production-Related Waste Management	68
Figure 54: 6th- 12th Grade Self-Reported Student Marijuana Use	69
Figure 55: Cabarrus County Opioid Overdoses- Including Deaths	71
Figure 56: Cardinal Innovations- Substance Use Members Served	
Figure 57: Origins of Additcion- Trauma and Addiction	72
Figure 58: Atrium Health Cabarrus Emergency Department – Behavioral Health Patients	
Figure 59: BRFSS- Mentally Health Days (Region 4)	74
Figure 60: Atrium Health Cabarrus – Emergency Department Suicide Data	74
Figure 61: Circumstances of Suicides – Cabarrus County	76
Figure 62: Exceptional Children (EC) Head Count – April 2019	77

LIST OF TABLES

Table 1: Cabarrus County Community Planning Council – Top Community Priorities (Voting Results)	23
Table 2: Key Informant Survey Respondent Sector Representation	26
Table 3: Cabarrus County Population	28
Table 4: Violent Crime Rate per 100,000 Population	30
Table 5: Domestic Violence Clients Served in Cabarrus County	32
Table 6: Domestic Violence Clients Served in Cabarrus County by Race/Ethnicity	32
Table 7: Cabarrus County Department of Human Services – Substantiated Child Maltreatment	32
Table 8: Number of Uninsured Cabarrus County Residents by Race/Ethnicity	35
Table 9: Number of Uninsured Children in Cabarrus County 2014-2019	36
Table 10: Cancer Incidence Rates – Age-Adjusted	42
Table 11: Cancer Mortality Rates – Age-Adjusted	42
Table 12: Infant Death Rates per 1,000 Live Births	46
Table 13: Live Births by County and Race	46
Table 14: Teen Pregnancies in 2019	47
Table 15: Cabarrus County – Adult Obesity	48
Table 16: Cabarrus County Parental Work Status	52
Table 17: CCS Percent of Students Performing Below Grade Level	55
Table 18: KCS Percent of Students Performing Below Grade Level	55
Table 19: Median Income by Race – 2019	59
Table 20: 2019 Federal Poverty Guidelines	59
Table 21: Cabarrus County Federal Poverty Level by Race	61
Table 22: Cabarrus County Alternative Housing Options	65
Table 23: Cabarrus Commuting Statistics, 2017	67

HEALTH DISPARITIES

According to HealthyPeople.gov, and defined within the Glossary portion of this report, a health disparity is defined as a particular type of health different that is closely linked with social, economic, and/or environmental disadvantage. Healthy disparities adversely affect groups of people who have systemically experienced greater obstacles to health based on their:

- Racial or ethnic group
- Religion
- Socioeconomic status
- Gender
- Age
- Mental Health
- Cognitive
- Sensory or physical disability
- Sexual orientation or gender identity
- Geographic location
- Other characteristics historically linked to discrimination or exclusion



Key informants were asked to rate the level of significance related to specific social disparities in Cabarrus County. Using the scale of **not at all significant**, **somewhat** significant, very significant, and unsure, 43% rated racism a very significant issue.

Throughout this report the County residents.



represents data that signifies a health disparity or inequity among Cabarrus

Examples of some disparities identified and included in this report:

- Income
- Infant Mortality
- **Education Attainment**
- Health Insurance



"I've been living in Cabarrus County now for about three years. Currently what I'm very proud of with the county is the swell of interest with regard to facing the realities of inequity in our different systems. I'm proud that there is a major interest in wanting to face it, awake to it, and address it. There's been various different racial equity trainings that have been catching on and participation is growing."

Faith Leader Focus Group Member

EXECUTIVE SUMMARY

Introduction and Vision

Healthy Cabarrus, housed within the Cabarrus Health Alliance, the public health authority of Cabarrus County, was created in 1997 as a multi-sector initiative designed to work collaboratively with community partners to improve the health of those who live, work, learn, play, pray and utilize services in Cabarrus County. Part of the collaborative responsibilities includes overseeing the Community Health Needs Assessment (CHNA) process every four years. While its mission includes the mobilization of community partners, its vision for conducting the county's Community Health Needs Assessment (CHNA) is to not only identify the top needs, and develop community health improvement plans with strategies that can effectively address those issues faced by residents.

Healthy Cabarrus Mission: United through partnerships, we commit our time, talents, and financial resources to create a healthy community and hopeful future for all.

With an understanding of social determinants of health, Healthy Cabarrus recognizes that an individual's health is determined by more than just their physical well-being. According to the Centers for Disease Control and Prevention (CDC), a person's health is impacted by access to social and economic opportunities; the resources and supports available within their homes, neighborhoods, and communities; the quality of schools; the safety of their workplaces; the cleanliness of their water, food, and air; and the nature of their social interactions and relationships.

Social determinants of health are issues far too complex for one group or agency to solve alone. While Healthy Cabarrus does not provide direct services to the community, they provide ongoing support to community partners by guiding community strategy development, identifying resources, and helping to create evaluation measures.

Leadership, Partnerships and Collaborative Process

Cabarrus Health Alliance, along with Healthy Cabarrus' five-member Executive Committee, made up of external community stakeholders, oversees the CHNA process and ongoing community collaborative efforts. The 2020 CHNA launched with the development of the Community Planning Council (CPC) on September 19, 2019. The Cabarrus County Community Planning Council is made up of a diverse, multi-sectoral group of representatives including more than 40 individuals. The primary role of CPC members is to support primary and secondary data collection; assist with analyzing data and information collected; and interpret county data and community feedback to identify the top priority issues facing residents of Cabarrus County.

Healthy Cabarrus Executive Committee

Atrium Health Cabarrus
BCI Investgations and Counsulting
Cabarrus County Government
City of Concord – Housing
Rowan Cabarrus YMCA

Member

Tri Tang, Chair Merl Hamilton, Vice Chair Mike Downs Angela Graham Brent Rockett

Community Planning Council	Number of Partners
Public Health Agency	2
Hospital/Health Care System	2
Healthcare Provider – other than behavioral health	4
Behavioral Healthcare Provider	1
EMS, Law Enforcement, Court System	4
Local Government	7
Non-profit Organizations	6
Business – employers, not organizations	4
Education – early childhood, K-12 and higher education	4
Media/Communication Outlets	1
Public Community Member	3
City and County Services Systems	4

Contracted Services

Cabarrus Health Alliance established a Memorandum of Understanding (MOU) with North Carolina Central University to receive epidemiological support throughout the CHNA process. This support included review of survey tools, focus group discussion questions, and the collection and analysis of data.

The Healthy Cabarrus Executive Director supervised a University of North Carolina – Gilling's School of Public Health master's practicum student who contributed to the CHNA process by analyzing the community member survey responses by race/ethnicity, income and zip code. The practicum student also reviewed data for correlating factors and trends in subpopulation responses.

Theoretical Framework and Model

Healthy Cabarrus uses the North Carolina Division of Public Health's eight-phase community health assessment process.

- 1. Establish CHNA Leadership Team: The Healthy Cabarrus Community Planning Council represents a diverse group of community sectors, such as the business sector, social services, community members, faith leaders or representatives, as well as transportation and housing experts.
- 2. Collect primary data: Community Member Survey, Key Informant Survey, and Focus Groups
- 3. Collect secondary data: Gather data from local, state and national-level sources, along with data surrounding social determinants of health. CPC members are also responsible for compiling and sharing data that their organizations capture.
- **4. Analyze and interpret county-level data:** Host monthly data review sessions with Community Planning Council and other subject-matter experts.
- **5. Determine health priorities:** Review data and conduct priority ranking with Community Planning Council members and stakeholders from key groups. Include priority ranking questions within Focus Group sessions and Community Member Survey.
- 6. Create CHNA document.
- **7. Disseminate CHNA document:** Distribute throughout the community by reaching out to media outlets, conduct and participate in community meetings, and share findings with key stakeholders.
- **8. Develop Community Health Improvement Plans:** Plan to address health priorities identified in the CHNA and how progress will be measured in the short- and long-term.

2020 Identified Priority Needs

The **top three priorities** and **one foundational issue** identified through this Community Health Needs Assessment process and outlined in this report are:







Mental and behavioral health

Early childhood education and development

Foundational Issue: Equity

2016 Identified Priority Needs

The last CHNA process identified the following top three needs:



Mental and behavioral health



Substance use



Childhood obesity

Foundational Issue: Housing

To find previously submitted action plans and progress to date on the 2016 priority needs, please visit www.healthycabarrus.org and review Cabarrus' annual State of the County Health Report (SOTCH).

Next Steps

The Healthy Cabarrus Community Planning Council presents this report as a call to action. The CHNA process is intended to inform community stakeholders, as well as community members on how collectively and individually they all play a role in creating a healthier community for the residents of Cabarrus County. The results of this report will be distributed in the community through multiple communication platforms and channels.

By September 2021, key stakeholders and community members will be identified and convened to assist with the development of community health improvement plans for each identified priority need. As instructed by the CPC and Healthy Cabarrus Executive Committee, Healthy Cabarrus staff will urge partners and community members to apply an equity lens to all proposed and recommended strategies, ensuring a positive impact among marginalized populations. When necessary, community coalitions/taskforces will be established to carry out action plans.

GLOSSARY

ACEs Adverse Childhood Experiences

BRFSS Behavioral Risk Factor Surveillance System

CHA Cabarrus Health Alliance

CHNA community health needs assessment

CPC community planning council

HCNC 2030 Healthy North Carolina 2030

NC DHHS North Carolina Department of Health and Human Services

RWJF Robert Wood Johnson Foundation

SDOH social determinants of health

STD sexually transmitted disease

STI sexually transmitted infection

Primary Data Sources

The icons below represent different forms of primary data captured and utilized during the Cabarrus County Community Health Needs Assessment process. Throughout the report these images represent Focus Group feedback, Key Informant survey results, and Community Needs Survey responses.

23	Focus Group		
	Key Informant		
	Community Needs Survey Respondent		

DEFINITIONS

The definitions are intended to assist the reader with having a common understanding of terms used throughout this report.

- Achievement gaps: Achievement gaps occur when one group of students (e.g., students grouped by race/ ethnicity, gender, socioeconomic backgrounds) outperforms another group and the difference in average scores for the two groups is statistically significant (i.e., larger than the margin of error).¹
- **Built environment:** The human-made or modified structures that provide people with living, working, and recreational spaces. Creating all these spaces and systems requires enormous quantities of materials.² Built environment can include access to healthy foods, community gardens, mental and physical health services, walkability, and bike-ability (such as bike paths or bike lanes.)
- **Community:** A group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings.³ Community can be defined differently based on the individuals asked.
- **Discrimination:** A socially structured action that is unfair or unjustified and harms individuals and groups. Discrimination can be attributed to social interactions that occur to protect more powerful and privileged groups at the detriment of other groups.⁴ Discrimination can include everyday experiences or discriminatory events.
- **Food insecurity:** The disruption of an individual's food intake or eating patterns because of lack of money and other resources to access food. Food insecurity may be long term or temporary. Food insecurity may be influenced by a number of factors including income, employment, race/ethnicity, and disability.⁵
- Health disparities: A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.⁶
- **Health equity:** Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.⁷
- Housing instability: The lack of security in an individual shelter that is the result of high housing costs relative to income, poor housing quality, unstable neighborhoods, overcrowding, and, but may not include, homelessness.8
- Morbidity: rate of disease or diseases
- Mortality: rate of death
- Qualitative data: Non-numerical data that can be observed and recorded. Within this report it refers to focus group and key informant feedback.
- Quantitative data: Numerical data calculated and collected through established methods. This report
 includes Community Member Survey data, as well as local, state and national data from agencies and
 institutions.
- Rate: A basic measure of disease frequency is a rate, which takes into account the number of cases or deaths and the population size. For example, if a cancer incidence rate is 500 per 100,000, it means that 500 new cases of cancer were diagnosed for every 100,000 people.
- **Trauma:** An emotional response to a deeply distressing or disturbing experience.

COMMUNITY NEEDS ASSESSMENT PROCESS

Every four years, local health departments in North Carolina are responsible for conducting a Community Health Needs Assessment (CHNA) for their county or service area. Preparing a CHNA includes: convening community partners; assembling data on health outcomes, resources, and needs; and seeking community member and key informant input and experiences. The purpose of the CHNA is to assist in the identification of factors that affect the health of the community or a sub-population. In Cabarrus County, this process involves the assembling of a Community Planning Council, made of key community stakeholders, who are responsible for collecting and analyzing data, and using that information to select the county's top three priority needs.

The Cabarrus Community Planning Council was convened monthly, beginning in September 2019 and concluding June 2020, to review primary and secondary data on a variety of topics that influence or impact and individuals health. Typically, the CHNA need identification process concludes with a day-long planning retreat in which Community Planning Council members identify priorities for community action for the next four years. Due to the SARS-CoV-2 COVID-19 pandemic, organizers made modifications for the final two data presentations to be conducted virtually. The day-long planning retreat was restructured into seven, less than ten people, in-person meetings and one virtual session.

Figure 1: Community Needs Assessment Timeline



Traditionally, the North Carolina Department of Health and Human Services (NC DHHS) requires health departments to place a primary focus of the CHNA on traditional health outcomes. As more is learned about the contributing factors that impact an individual's health, communities and counties, like Cabarrus, are incorporating a broader focus on social determinants of health. Social determinants of health include economic opportunity, early childhood development, schools, housing, worksites, community design, nutrition, and many more.

Community Planning Council

Healthy Cabarrus launched the 2020 CHNA with the formation of the Community Planning Council (CPC), a multisectoral group of community members and stakeholders who is responsible for reviewing the data findings, community member and key informant feedback and perspectives, and ultimately identifying the top three priority needs. Members include diverse representatives from health and human services, faith community, education, city and county government, foundations, businesses, and community members. CPC members support the primary and secondary data collection, assist with analyzing data and information collected, and interpreting county data along with community.

Healthy Cabarrus along with its committed community partners have effectively responded to community health needs for 20 years as a result of a cyclical collaborative process that keeps partners engaged throughout all stages of need identification, program planning, implementation and evaluation. The Community Planning

Council provides a forum for community Figure 2: Community Planning Council Partners stakeholders to convene on a regular basis

and participate in meaningful action. Through the efforts of Healthy Cabarrus, a community-wide cultural norm of collaboration has been established. Engaging partners throughout the process fosters a strong group dynamic of trust and accountability and stakeholders are able to see how collaboration helps the community achieve its common goals.

The cyclical assessment, action planning, and implementation process has an additional benefit in that it facilitates flexibility that has allowed Healthy Cabarrus long-term sustainability. Every four years, Healthy Cabarrus and the

Midland CABARRUS COUNTY **Atrium** Health The Community Free Clinic

EL PUENTE HISPANO









identified Community Planning Council members assess progress, realign activities to meet the community's current needs, and bring in new partners. Therefore, the structure of this collaboration is able to continuously foster partnership and forward momentum.

niblock

homes

Data Collection

Healthy Cabarrus used a mix of methods and approaches to develop and conduct and facilitate the 2020 Community Health Needs Assessment. The community voice is prioritized and captured through the use of a community member survey and focus groups, with key informant surveys as a way to capture views and perspectives from local stakeholders. Local subject matter experts assisted with secondary data collection and analysis to ensure that relevant, timely and accurate data was presented to the Community Planning Council.

The CHNA process requires collecting reliable public health data or metrics to measure against peer counties or state benchmarks. Gathering and understanding community perspective on the most pressing issues faced by themselves and their neighbors is an extremely important component to the identification of priority needs. The collective process requires key informants, community partners and community members to participate

in prioritizing health issues, with the health department, hospital system, human services, and community organizations identifying potential resources available to address those needs.

Data within this report was collected from local, state and national sources on health status indicators and other community issues. Community partners and local subject matter experts were vital in collecting local data through agency reporting systems and databases. State and national sources included the Robert Wood Johnson Foundation's County Health Rankings, the Census Bureau's American Community Survey, the Centers for Disease Control and Prevention's - Behavioral Risk Factors Surveillance System (BRFSS), the North Carolina State Center for Health Statistics, and many other state and national sources.

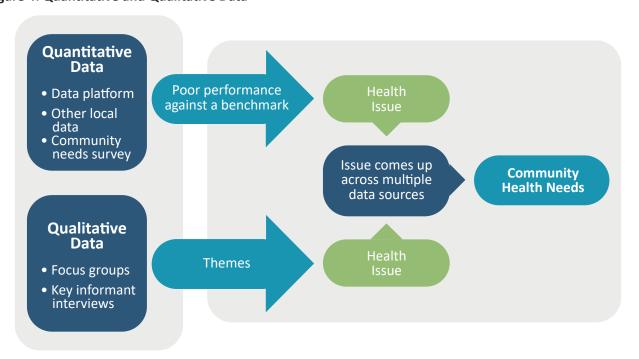
In this report, Healthy Cabarrus and the Community Planning Council examine conditions of well-being by race and ethnicity, zip codes and income levels whenever possible.

Figure 3: Cyclical Collaborative Process for Collecting Data



By taking a deeper look at subpopulations, it creates a focus on how health differences and health disparaties exist within communities of colors, or based on an individual's home address. It's important to recognize that when we fail to analyze county-wide data to the subpopulation level, we unintentionally contribute to health disparities.

Figure 4: Quantitative and Qualitative Data



Health Priorities Selection

The top three priorities identified through the 2020 Community Health Needs Assessment process and outlined in this report are housing, mental and behavioral health, and early childhood education and development. Similar to the 2016 health priorities, CPC members felt strongly that an underlying, foundational issue was relevant in addressing the needs of residents in Cabarrus County. Prior to the first CPC voting session, a participant engaged the group in a reflective discussion around the true reality and all impacting category of Minority Stressors and Discrimination. Members acknowledged and concluded that to truly improve all Cabarrus residents' health status, addressing the underlying societal inequities that fundamentally lead to poor health, such as neighborhood poverty, racism, discrimination, and social and political isolation was vital. The Planning Council decided that it was necessary to again identify a Foundational Issue – Equity – which must be assessed, addressed, and incorporated into all Community Health Improvement Plans (CHIP).

During the seven priority voting sessions, CPC members reviewed the top priority areas identified by community members through the needs assessment survey and focus group sessions. CPC members were asked to use their understanding of both the community's perspective needs, as well as their knowledge of local data, to vote on the 2020 priority needs.

Priority Needs Voting Categories

- Access to health care
- Access to dental care
- Aging population
- Chronic disease
- Economic Factors
- Education
- Environmental factors
- Healthy lifestyles (health food, healthy weight, physical activity)
- Housing
- Injuries and violence
- Mental and behavioral health
- Minority stressors/discrimination (includes health disparities)
- Sexual and reproductive health, communicable disease
- Substance Use
- Transportation

CPC members received three 'dot' stickers and were instructed that they could only vote for a priority issue, one time. There were 15 issue categories of which participants could place their votes. Prior to voting each was provided a 2020 Health Priorities document to assist with further defining each category as some topics of community concern may fall within several priority needs. (See Appendix - 2020 Health Priorities).

Table 1: Cabarrus County Community Planning Council – Top Community Priorities (Voting Results)

Priority Area	# of Votes	% of Votes
1. Housing	27	25%
2. Mental and Behavioral Health	26	25%
3. Education	15	14%
Economic factors	10	9%
Healthy Lifestyles	7	7%
Injuries, crime and violence	5	5%
Aging Population	4	4%
Chronic Disease	4	4%
Substance use	4	4%
Access to Healthcare	1	1%
Access to Dental Care	1	1%
Minority stressors, discrimination	1	1%
Transportation	1	1%
Environmental factors	0	0%
Sexual and reproductive health	0	0%

2020 Cabarrus County Priority Needs

Housing

The relationship between poor housing and health is a complicated one which involves many different factors. Individuals who have poor housing conditions are at increased risk of negative health consequences, including cardiovascular and respiratory disease. Evidence also shows that the stressors associated with unstable housing situations experience increased anxiety and depression. Problems such as damp, mold, excess cold and structural defects which increase the risk of an accident also present hazards to health. With an average of three evictions per day (100 per month) and more than 500 students identified as homeless, through Cabarrus County and Kannapolis City Schools each year, there is an undeniable lack of safe, stable, transitional, and affordable housing in the county.

Mental and Behavioral Health

Mental health heavily influences an individual's quality of life. Access to mental and behavioral healthcare has been identified as a priority need in Cabarrus County since 2012. Just like physical health, mental health needs to be taken care of and maintained, with available, affordable, and timely access to care.

Data shows that from 2018 to 2019, there was a 20% increase in the number of psychiatric patients admitted to Atrium Health Cabarrus' Emergency Department (ED). Between 2016 and 2019, admissions for anxiety, mood, and psychotic disorders rose 32%, while admissions for suicidal ideation rose 36%. In 2017, Cabarrus County EMS responded to 160 calls for self-harm; and by 2020, that number rose to 225 calls.

Education – Early Childhood

Evidence indicates that children learn more during their first six years of life than they do at any other point in their lives. Addressing the disparities in access to early childhood development and educational opportunities can significantly boost and have long lasting impacts on a child's future health outcomes. Seventy-one-percent of children, 6 years old and younger, live in a household where their parents or single parent reports to work. Although there has not be a dramatic increase in the five and younger population, resources for early childhood education and care are becoming increasingly more challenging to access, as staffing shortages and cost limit availability. The early years are extremely critical and many studies have shown that early childhood interventions can produce long lasting impacts on a child's cognitive, physical, social, emotional and behavioral development.

Foundational Issue - Equity

Based on the results of primary and secondary data analysis, the Community Planning Council decided that Minority Stressors and Discrimination, later classified as Equity, should not be included as one of the voting categories, but that it needed to be included in all the identified priorities and considered in each action plan. The community needs assessment process worked to examine health indicators by zip code, race/ethnicity, age, gender, or income whenever possible, shedding light on crucial disparities in health.

The burden of poor health, lack of access to community resources, and disability in our country is experienced most acutely by racial and ethnic minorities and those with lower socioeconomic status. Also, these groups have been historically marginalized, discriminated against, or disempowered - putting them at higher risk of disease and mental distress.

Next Steps

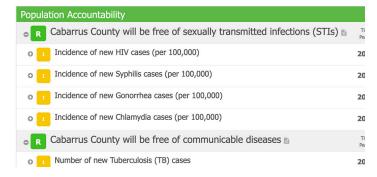
Cabarrus County has numerous resources and community assets to address the identified 2020 priorities, including the willingness and ability to successfully collaborate across sectors to improve the quality of life for those in the community. Cabarrus Health Alliance and Healthy Cabarrus have nurtured formal and informal networks of non-profit agencies, faith-based organizations, businesses, government entities, community

volunteers, and foundations to work together address previously identified community needs.

Since the first community needs assessment in 1998, there have been multiple key community issues identified, and collaboratively we, as a community, have worked to move the needle and improve the lives of those impacted. The impact documented year after year, cannot be attributed to one organization, but rather the unified effort of those organizations associated with Healthy Cabarrus.

Communicable Disease

Figure 5: Clear Impact Scorecard Example



to

IIn an effort to ensure continuous community

improvement, the Cabarrus Health Alliance is supporting Healthy Cabarrus in the adoption of Results Based Accountability (RBA). 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

being sought for those who live in our community and are receiving services. Once priorities have been determined, Healthy Cabarrus recruits stakeholders who have expertise in the prioritized issues, access to target populations, and those affected by the issues. These individuals serve on topic-specific task forces or provide guidance and direction to the development and implementation of the Community Health Improvement Plans (CHIPs). CHIPs, or action plans, and public displayed scorecards will be developed for each of the identified needs.

Healthy Cabarrus, with the assistance of community partners, will disseminate the findings associated with the CHNA process, as well as communicate the top identified needs (housing, mental health and education – early childhood) to community partners, organizations, government bodies and the public.

PRIMARY DATA COLLECTION

Primary data is an important part of the community health needs assessment process. Data collected from

community members or key informants can fill knowledge gaps within traditional data sources. First hand experiences and perspectives from community members can highlight serious issues or concerns, and create a pathway for them to plan an active role in the



CHNA process. There are a number of different ways to collect primary data; community member surveys, key informant interviews, and focus groups, among others. Primary data is incorporated within the health data portions of this report, but can also be found in Appendix B: Primary Data Findings.

Community Member Survey

2,711 Cabarrus County residents completed the Cabarrus Community Needs Survey. One adult is asked to complete the survey and respond on behalf of the entire household, with the goal of surveying at least 1% of the county's adult population. The survey was broadly advertised and distributed to the general population of Cabarrus County via digital platforms (website, social media, email), as well as administered as a paper and pen survey. Several members of the Community Planning Council served on the Survey Planning Subcommittee to assist with establishing sub-population goals with an emphasis on assuring geographic, racial/ethnicity, educational, and economic diversity in the respondents.

SAMPLING FRAME: Respondents were eligible to participate in the survey if they were over 18 years of age and residents of Cabarrus County. It is estimated that 25.7% (n= 54,217) of the County's population is under 18 years of age, making them ineligible to participate. In 2018, the estimated adult population was 157,125. This number is more accurate to describe the sampling frame for the Community Health Needs Assessment.

SAMPLING METHODS: The Community Planning Council decided to collect a stratified convenience sample, to best reduce the potential for bias that is associated with convenience sampling, a goal to survey 1.18% of the population was made. A list of stratified target populations including age, gender, race, zip code, income level and education level was created. There was a focus on locations where target populations could be assessed, examples included Meals on Wheels, various clinics, and community health education events. The Community Planning Council was able to survey 1.7% of Cabarrus County's adult population.

SURVEY MODE: The survey was available to the public for three months, December 4, 2019 – March 4, 2020. Cabarrus Health Alliance staff along with community partners distributed surveys through email listservs, social

media, organizations, events, and at different physical community locations. Surveys were available in both English and Spanish and were available online and by paper. Surveys were self-administered and anonymous.

SAMPLE SIZE: The Community Planning Council successfully sampled 1.7% (n=2,711) of the adult population (n=157,125). There was a total of 2,944 surveys collected; however, 233 respondents did not fit the eligibility criteria of being a resident of Cabarrus County, and so their responses were not included.

MARGIN OF ERROR & CONFIDENCE LEVEL: Because the sample size was 2,711 respondents, there is a 2% margin of error that the probability of the sample accurately reflects the adult population of Cabarrus County. This means that there is a 95% likelihood (give or take 2%) that the entire adult population of Cabarrus County would respond similarly to these survey questions.⁹

To review the Community Needs Survey in its entirety please check Appendix A: Community Needs Assessment Tools.

Key Informant Data

Key informants place great value on the outcomes of the Cabarrus Community Health Needs Assessment, indicating that the most common way the findings are used is in program planning, followed by advocacy initiatives. The use of the CHNA in program planning and advocacy by local leaders and community stakeholders, creates a collective impact on the identified needs ensuring community level change.

One hundred eleven key informants completed an online survey, providing an expert view and perspective on various community needs. Key informants are business professionals, traditional and non-traditional community leaders, as well as elected officials who are engaged in meeting the needs of the community and who are in a position to do so. The survey asks Key Informants how they rate quality of life, health, physical environment, social and economic issues faced by residents using the following scale: **not at all significant**, **somewhat significant**, **very significant** or **unsure**.

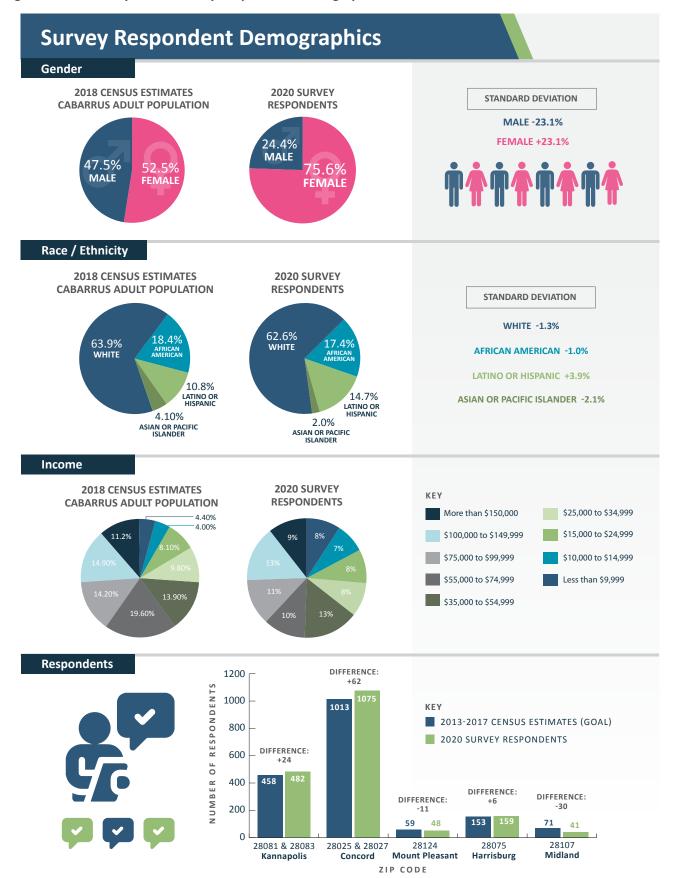
Table 2: Key Informant Survey Respondent Sector Representation

Business	16%
Local government or elected official	20%
Employment and economic development	1%
Education	8%
Faith Community	19%
Healthcare	12%
Housing	2%
Human services	11%
Law enforcement or court system	3%
Other	7%

Focus Groups

A total of 13 focus groups were hosted, ranging in size from five to 44 participants. In total, 157 individuals engaged in focus group discussions around what is working to ensure a good quality of life for those who live in Cabarrus County. Participants were also asked to share challenges they see or experience surrounding healthcare, housing, transportation, mental health and substance use, food access, physical activity access, as well as raising a family in the community. The focus groups were conducted primarily in English, but two sessions were hosted in Spanish to ensure equitable participation by the Latino community. All focus groups followed the format and questions outlined in Appendix A: Community Needs Assessment Tools.

Figure 7: Community Needs Survey Respondent Demographics



CABARRUS COUNTY COMMUNITY PROFILE

Cabarrus County, incorporated in 1792, is in the Piedmont section of North Carolina. Bordered on the north by Rowan and Iredell counties, on the east by Stanly County, on the south by Union County, and on the west by Mecklenburg County; it comprises approximately 365 square miles. There are six municipalities in the County, two cities and four towns, the largest of which is the City of Concord, also the county seat, followed by the City of Kannapolis. The towns of Mount Pleasant, Harrisburg, Midland and Locust make up the smaller municipalities. While Cabarrus County is largely urban, and home to the Charlotte Motor Speedway, Concord Mills Mall, Atrium Health Cabarrus, Concord Regional Airport, and the North Carolina Research Campus, it also comprises a number of rural areas. Interstate 85 runs through the northwest portion of the County, easily connecting residents to Charlotte and Greensboro. Highway 29/Concord Parkway connects residents to nearby University of North Carolina – Charlotte, and Highway 49 runs through the central portion of the County.



All key informants felt that Cabarrus County is a good place to raise children and a good place to age.

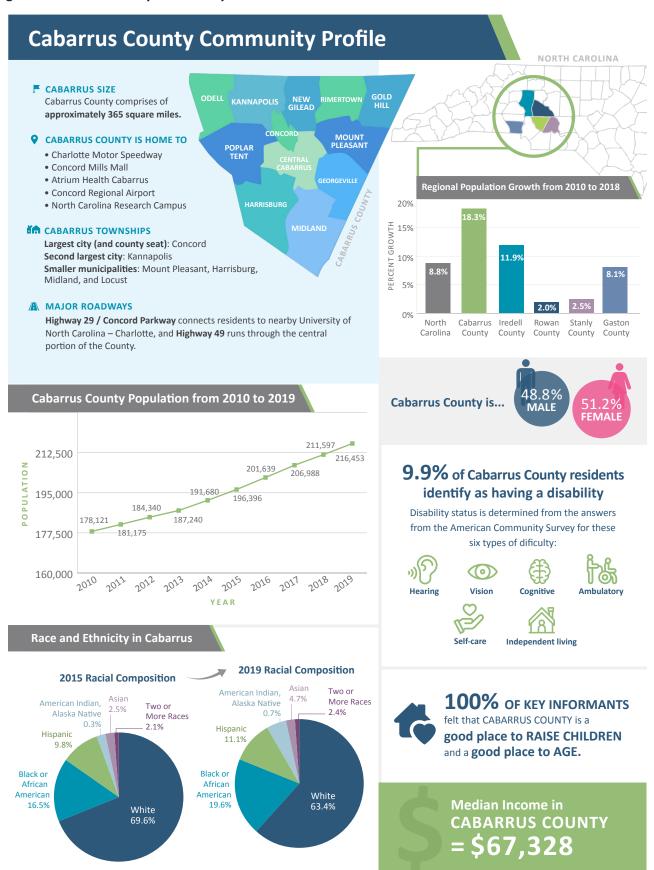
Age¹⁰ - According to a joint report from the National Institutes on Aging, National Institutes of Health and the US Department of Health and Human Services, people are living longer and healthier lives, requiring communities to plan for an increasing older adult population. Population aging affects economic growth, trade, migration, disease patterns and prevalence, and fundamental assumptions about growing older. Cabarrus County has seen a steady increase in residents over age 55, while the percent of children age nine or younger has declined.

When asked about services or issues facing the rapidly growing aging population, 66% of Key Informants reported that financial services, specifically affordability of health insurance as very significant issue.

Table 3: Cabarrus County Population¹¹

Age Range	2010	2015	2019
Median Age	36.3	37.4	37.9
Under 5	7.5%	6.5%	6.4%
5 to 9	7.7%	7.6%	6.5%
10 to 14	7.6%	7.9%	8.3%
15 to 19	6.7%	6.9%	7.0%
20 to 24	5.3%	5.8%	5.6%
25 to 34	13.2%	12.1%	12.4%
35 to 44	16.2%	15.2%	14.5%
45 to 54	14.4%	14.7%	14.7%
55 to 59	5.4%	6.0%	6.4%
60 to 64	4.9%	5.2%	5.3%
65 to 74	6.0%	7.3%	7.9%
75 to 84	3.6%	3.5%	3.7%
85 years and over	1.3%	1.4%	1.4%

Figure 8: Cabarrus County Community Profile12



CRIME AND SAFETY

Crime and violence experienced by individuals living in a community is an important public health issue. According to HealthPeople.gov, repeated exposure to crime and violence may be linked to an increase in negative health outcomes. Individuals can be exposed to violence in many different ways, directly, as witness, or by hearing of crime and violence from others in their community.¹³

Cabarrus County consists of three law enforcement agencies: Cabarrus County Sherriff's Office, Concord Police Department and Kannapolis Police Department.

Crime

The index crime rate is the total of all violent and property crimes. The index crime rate in Cabarrus County is significantly lower than other counties within the region, and nearly half of the statewide rate. The most frequently-committed offenses included burglary and larceny.

Violent Crime includes the offenses of murder, rape, robbery, and aggravated assault.¹⁴

Table 4: Violent Crime Rate per 100,000 Population

Year	North Carolina	Cabarrus	Rowan	Stanly	Iredell
2014	330	110	385	263	254
2015	356	131	332	211	251
2016	375	137	418	273	312
2017*	384	111	295	265	333
2018	357	127	308	296	275

^{*}Data available at time of Community Planning Council Presentation

Top 5 Arrest Offense Categories in Cabarrus County¹⁵

- 1. All Other Offenses (3,360)
- 2. Larceny Theft (916)
- 3. Other Assaults Not Aggravated (852)
- 4. Driving Under the Influence (731)
- 5. Possession Marijuana (604)

Community Needs Survey respondents reported ranked the top three biggest crime and safety issues they saw in Cabarrus County:



- 1. Selling or using drugs
- 2. Theft
- 3. Child neglect and abuse

It should be noted that while 48% of responses related to community connectedness indicated feeling safe in Cabarrus County, several community focus groups also identified 'Crime and Violence Prevention' as a top priority issue.

^{*}For the definition of All Other Offenses please visit NC State Bureau of Investigation – Uniform Crime Reporting Program report.

Raise the Age

Effective Dec. 1, 2019, 16- and 17-year-old individuals who commit crimes in North Carolina are no longer automatically charged in the adult criminal justice system. Prior to the Raise the Age average 20, 16- and 17-year-olds annually were detained in the Cabarrus County Detention Center. In 2017, following years of research, study and education on this topic, lawmakers raised the age of juvenile jurisdiction for nonviolent crimes to age 18.⁷⁶

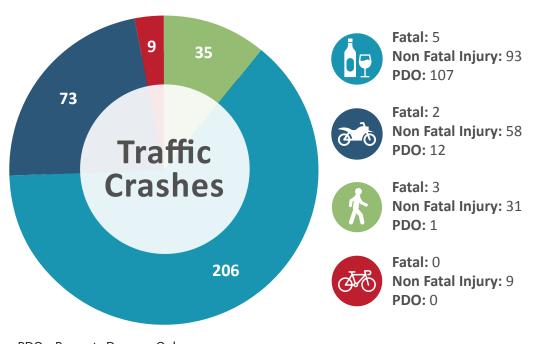
Key informants were asked to rate level of significance for issues of abuse, neglect, domestic and sexual violence. (Note: 20% of key informants were unsure on how to rate these issues)

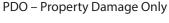


- 40% rated child neglect or abuse as a <u>very significant</u> issue
- 35% rated elder neglect or abuse a very significant issue
- 46% rated domestic violence as a very significant issue
- 41% rated sexual violence (rape, sexual abuse) as a very significant issue

The majority of key informants rated violent crime (rape, murder, assault) and neighborhood safety **somewhat significant** issues – 32% and 43% respectively.

Figure 9: NC Division of Motor Vehicles - Cabarrus County Traffic Crash Facts 5-Year Average







"Who's going to hire an ex-offender? What can I do to survive? Which increases crime. Quality of life is being able to take care of our basic necessities of life. Food, shelter, employment. For those who are ex-offenders and have that mark against them, they don't have the resources, the connections."

- Faith Leaders Focus Group

Violence

Table 5: Domestic Violence Clients Served in Cabarrus County

Year	Number of Clients Served
2015-2016	651
2016-2017	480
2017-2018	641

^{*}Data is reported semi-annually and includes only clients served through state-funded domestic violence programs.

Domestic and family violence tears lives apart, it has major personal, social and economic effects. The table below is reported by the NC Council for Women and Youth Involvement and shows the number of domestic violence victims served over a three-year period in Cabarrus County. It is evident that a significant disparity exists among victims based on their race. African Americans make up 16- to 18-percent of the population depending on the year, but consistently make up of 45- to 50-percent of domestic violence clients served in the county. Another alarming piece to this data, is the fact that undocumented individuals are less likely to seek help as they are concerned about immigration concerns.

Table 6: Domestic Violence Clients Served in Cabarrus County by Race/Ethnicity



Year	White	Black	Hispanic	American Indian	Asian	Unknown	Other	Total
2015-2016	298	293	45	4	6	4	1	651
2016-2017	220	228	23	1	4	4	0	480
2017-2018	284	323	22	1	5	6	0	641

The majority of domestic violence clients are between the ages of 18 to 41, but sadly between 2014 and 2018, an average of 57 clients a year were between the ages of zero to 12.

Community Needs Survey respondents were asked to report whether they had been physically, verbally abused or mistreated by their spouse, intimate partner, or another person.

8% (n=154) reported Yes

92% (n=1,834) reported No

Of those who reported experiencing abuse or mistreatment (physically, verbally) by their spouse, intimate partner, or another person, 14% (60) confirmed that a child was present during the times of abuse.

Table 7: Cabarrus County Department of Human Services - Substantiated Child Maltreatment

Type Reported	FY 2019
Abuse	198
Neglect	2,277
Abuse and Neglect	624
Dependency	20

CLINICAL CARE AND WELLNESS

Access to Medical Care

Access to health care impacts a person's overall physical, social and mental well-being as well as quality of life. Without adequate access to health care services, individuals can face major barriers to improving or maintaining good health, preventing and managing disease, reducing unnecessary disability and premature death. When considering the barriers and challenges to accessing care, it is also important to also consider oral health care and prescription medication access.



"Quality of life means having good dental, mental, and healthcare."

Housing Insecure Focus Group Member

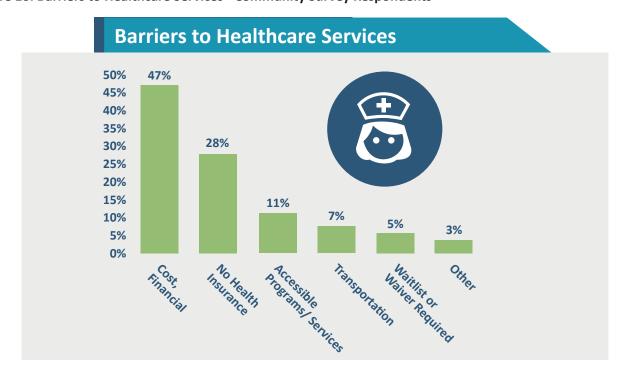


91.74% of key informants reported that there is a good healthcare system in Cabarrus County (57.80% agree + 33.94% strongly agree)



Similar to the 2016 Community Needs Survey, 2020 Community Survey Respondents reported Dental Services, Primary Care and Vision Services as the most challenging types of care to access. It comes as no surprise that when this question was analyzed by income, the lower the income the higher the difficulty in accessing care, the higher the income the lower the reported difficulty.

Figure 10: Barriers to Healthcare Services - Community Survey Respondents





53% of key informants felt that disparities witha accessing health care is a **very significant** issue.



While 56% of respondents indicated 'No Barriers', those who did report barriers 'Cost or Financial' was the top response (47% n=919), followed by 'No Health Insurance' among those who reported barriers.

Patient to Primary Care Physician Ratio: 1,099 to 1



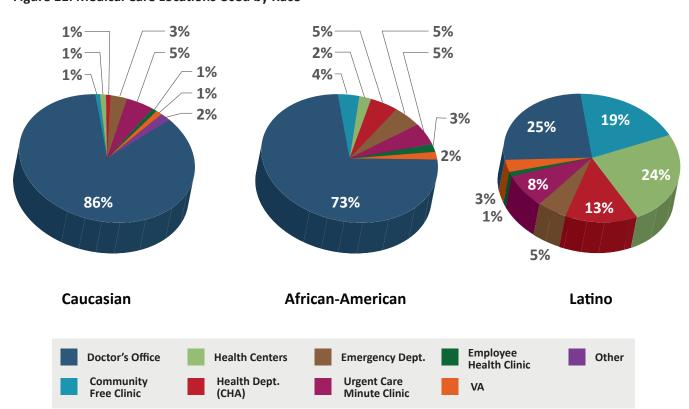
When assessing clinical health services, key informants rated:

- Affordability to clinical health services a <u>very significant</u> issue (62%)
- Access to clinical health services a <u>very significant</u> issue (46%)
- Quality to clinical health services is rated a <u>very significant</u> issue (39%)



A majority of White (86%) and African American (73%) Cabarrus County residents seek medical care through a traditional doctor's office. The Latino population reported the most diversity in their access points for medical care, with only 25% reporting seeking medical care through a doctor's office.

Figure 11: Medical Care Locations Used by Race



Uninsured

Lack of insurance coverage makes it difficult for community members to access the health care they need. When they face barriers to accessing appropriate care, it can create burdens for both them, with large medical bills, and the healthcare system. When analyzing the Community Needs Survey data by barriers to accessing healthcare services, the Latino population was three times as likely to report no health insurance as the greatest barrier when compared to their white, black and Asian counterparts.

Figure 12: Percent of Uninsured Cabarrus County Residents¹⁶

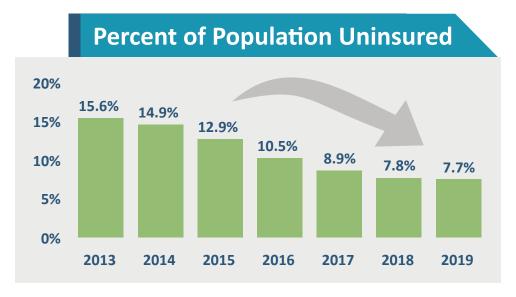


Table 8: Number of Uninsured Cabarrus County Residents by Race/Ethnicity

Race	Number of Uninsured Population		
Total	15,747		
White	9,057		
Black or African American	3,271		
Asian	430		
American Indian, Alaska Native	17		
Native Hawaiian and Other Pacific Islander	10		
Some other race	2,689		
Two or more races	273		
Ethnicity	Number of Uninsured Population		
Hispanic or Latino	4,480		



"It's harder for [lower-income] people who need medication. You're already struggling and if you get a toothache then you have to pay \$50 for medicine, like 'man I have to take out some of my rent money for this medication."

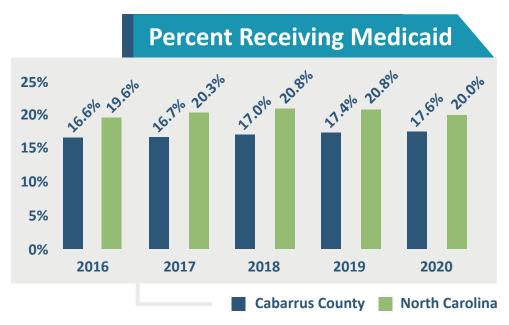
– Teen Parent Focus Group Member

Table 9: Number of Uninsured Children in Cabarrus County 2014-2019

Year	Uninsured Children – 18 and Younger
2014	2,918
2015	2,645
2016	2,424
2017	2,108
2018	1,771
2019	1,945

Medicaid

Figure 13: Percentage of population receiving Medicaid – Cabarrus County and North Carolina





"The group that is in between makes too much income for Medicaid but don't have enough income to go to the doctor. So they just kind of suffer."

- Housing Insecure Focus Group Member

Medicare

In 2019, the U.S. Census Bureau – American Community Survey reported that more than 11,200 (5.2%) Cabarrus County residents were receiving Medicare benefits. In 2018, 9,100 (4.4%) residents who were enrolled in Medicare.



"I'm having to seek out services for medications, exams, and I'm having a real struggle finding all of the information and unemployment will say 'keep searching.' We're going to need to be prepared for more people coming through the system that need Medicare."

- Older Adult Focus Group Member

Hospital Utilization

Inappropriate Use of Atrium Health Cabarrus - Emergency Department - Percent of Patients

Inappropriate use of the Emergency Department happens when a patient utilizes the ED for a condition that could have been treated elsewhere, such as a primary care provider. Inappropriate use of the Emergency Department can result in raised costs and lowered efficiency.

Hospital Readmissions

The Centers for Medicare and Medicaid Services (CMS), have made it a priority to decreasing hospital readmissions. Hosital readmissions are defined as inpatient stays that occur within 30 days of discharge from an initial inpatient hospitalization. Those that are most vulnerable because of public policies, social inequity, and social bias are at higher risk for hospital readmissions.¹⁷

Qualitative feedback from Atrium Health Cabarrus staff indicates that the top reasons for hospital readmissions are:

- 1. Transportation barriers to follow-up care
- 2. Lack of access to medications
- 3. Caregiver assistance
- 4. Access to nutritious, healthy meals

Figure 14: Percent of Patient Readmissions



Communicable Disease and Sexual Health

Coronavirus Disease (COVID-19)

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus.

Most people who test positive for COVID-19 virus experience mild to moderate symptoms with no need for special medical treatment. Older adults, and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

In March of the 2020 Community Health Needs Assessment process, Cabarrus County experienced its first case of COVID-19. By November 2020, nearly 7,000 residents had tested positive and more than 100 people had lost their lives due to the disease. The impact and anticipated ripple effect of COVID-19 on our community was discussed during priority voting.

Figure 15: COVID-19 Data from Nov. 30, 2020

6436				
99	Cabarrus	County	Nov	30, 2020
	То	tal Cases	e	5,854
200	Recover	ed Cases	5	5,569
		Deaths		106
	Total Act	ive Cases	1	l,179
	Cabarrus County F Currently Hos			18
	Active Cases in Lo Car	ong Term e Facility		33
	As of 5:08 PM on Monday, November 30, 2020	ch		CABARRU HEALTH ALLIANCE

Pneumonia and Influenza (Flu)

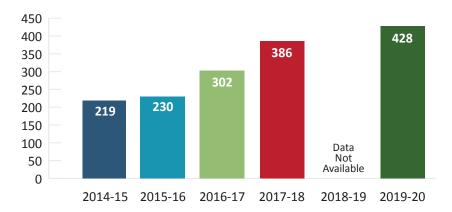
Pneumonia and Influenza are the seventh leading cause of death in Cabarrus County. According to the NC State Center for Health Statistics, 2020 County Health Data Book, the Cabarrus County rate of pneumonia and influenza is 20.4 per 100,000 population, compared to the state at 19.7 per 100,000 population.

National statistics indicate that racial disparities in deaths from influenza like illness (ILI) do exist and are cause by a variety of reasons, such as lack of access to appropriate medical care and flu shots. Flu death data by race is not available at a county level.

Immunizations

In North Carolina, vaccination records are checked when a child is enrolled in a child care facility or school. Children are not allowed to attend school (whether public, private or religious) or a child care facility unless they have received all immunizations appropriate for their age. ⁶⁸ School Nurses review all records for compliance and provide resources to parents whose children are in need of vaccines. Parents have 30 days from the day of enrollment to provide an up-to-date record to avoid exclusion from school.

Figure 16: Number of Cabarrus County Schools and Kannapolis City School with Vaccine Religious Exemptions



Cases of Vaccine Preventable Disease - 2018¹⁸

- Measles 0 cases
- Mumps 0 cases
- Rubella 0 cases
- Pertussis (whooping cough) 2 cases

Sexually Transmitted Infections

While sexually transmitted diseases (STDs) affect individuals of all ages, STDs take a particularly heavy toll on young people. CDC estimates that teens and young adults 15 to 24 make up about a quarter of the sexually active population, but total half of the 20 million new sexually transmitted infections that occur each year in the United States. ⁶⁹

Figure 17: Chlamydia Rate – Newly Diagnosed Chlamydia Infections per 100,000 Population¹⁹

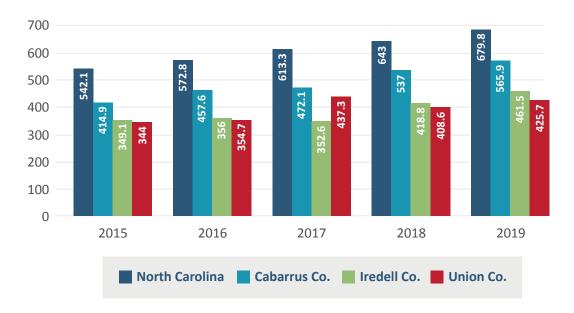


Figure 18: Early Syphilis Rate - Newly Diagnosed Syphilis Infections per 100,000 Population¹⁹

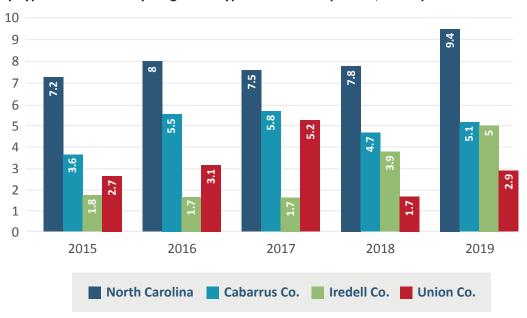
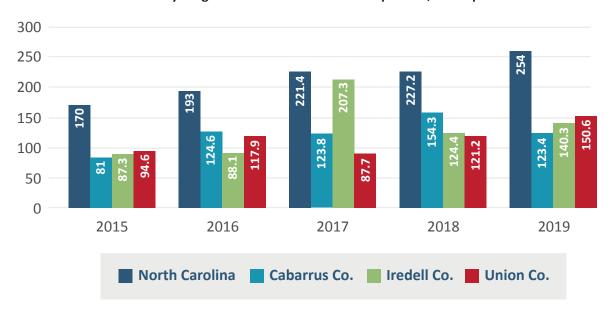
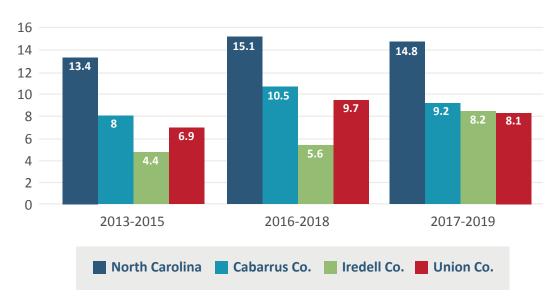


Figure 19: Gonorrhea Rate – Newly Diagnosed Gonorrhea Infections per 100,000 Population¹⁹



HIV infection includes all newly reported HIV infected individuals by the year of first diagnosis, regardless of the stage of infection (HIV or AIDS).

Figure 20: HIV Rate - Average 3-Year Rate of Newly Diagnosed Infections per 100,000 Population¹⁹



Hepatitis C

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). Hepatitis C is spread through contact with blood from an infected person. According to the CDC, today most people become infected with the hepatitis C virus by sharing needles or other equipment used to prepare and inject drugs. For some people, hepatitis C can be acute - mild illness lasting a few weeks and up to 6 months, but for around 75%-85% of people who become infected they develop a chronic HCV infection.²⁰

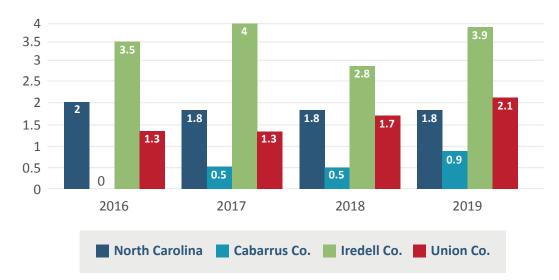


Figure 21: Acute Hepatitis C Annual Rates per 100,000 Population

Hepatitis B

Acute infection ranges from asymptomatic or mild disease to — rarely — fulminant hepatitis. Some acute HBV infections will resolve on their own, but some will develop into chronic infection. Most people with chronic HBV infection are asymptomatic and have no evidence of liver disease. There is a vaccine to prevent hepatitis B infection, however there is currently no cure.

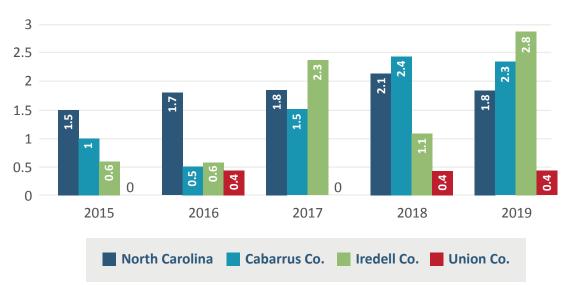


Figure 22: Acute Hepatitis B Annual Rates per 100,000 Population²¹

Chronic Disease

Alzheimer's Disease

The increased death rate of increase of death associated with Alzheimer's disease was noted in the 2017 and 2018 State of the County Health Reports, that trend continues. The rate of death per 100,000 population increased from 36.2 in 2016, to 45.6 in 2017 and 49.8 in 2018. According to the 2020 County Health Data Book, Alzheimer's disease ranks as the third leading cause of death and more recent data puts the age-adjusted mortality rate per 100,000 population at 55.9. At this time, more exploration and research into potential links of increased Alzheimer's disease deaths needs to be conducted.

Cancer - All Locations

Table 10: Cancer Incidence Rates – Age-Adjusted²²

	Breast (Female)	Pros	tate	Lu	ng	Col	on	All Ca	ncers
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
2015-2019	1,022	169.7	719	131.6	695	63.2	438	40.4	5,482	493.9
2014-2018	1,048	178.8	681	128.4	706	67.3	403	38.3	5,359	498.7
2013-2017	1,008	177.6	631	123.9	701	69.4	367	35.7	5,168	496.7
2012-2016	940	171.6	570	116.8	675	69.4	341	34.2	4,905	488.6

Table 11: Cancer Mortality Rates - Age-Adjusted²²

	Breast (I	Female)	Pros	tate	Lur	ng	Colo	n	All Ca	ncers
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
2015-2019	143	24.2	68	18.1	402	37.3	127	11.8	1,594	150.6
2014-2018	143	25.1	76	20.6	419	40.4	132	12.6	1,605	157.4
2013-2017	131	23.6	82	22.8	429	42.8	122	12.1	1,595	161.7
2012-2016	113	21.2	67	19.4	440	45.5	123	12.7	1,560	162.7

Diabetes

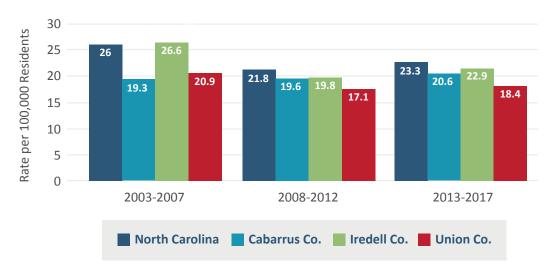
Diabetes is the 8th leading cause of death in Cabarrus County. People with diabetes have very high blood sugar, which causes damage to nerves and blood vessels, and overtime can lead to complications such as heart disease, stroke, kidney disease, and even blindness. People with diabetes are more likely to develop and die from heart disease or stroke.

The most recent data (2017) from the CDC indicates that Cabarrus County has the highest diabetes prevalence rate compared to several neighboring counties.

Figure 23: Diabetes Prevalence⁷⁰



Figure 24: Diabetes Death Rate per 100,000 population⁷¹



Heart Disease

Figure 25: Heart Disease Death Rate per 100,000 population⁷¹



Lung Disease or Illness

Chronic respiratory diseases (CRDs), like chronic obstructive pulmonary disease (COPD), pulmonary hypertensions and asthma, are diseases of the lungs and airways. CRDs are not curable, and many risk factors like tobacco smoke, air pollution, chemicals, and dust can cause frequent respiratory infections in childhood. Asthma and COPD are sadly very common and potentially costly chronic medical conditions, that have been associated with decreased health-related quality of life.

Pediatric Asthma: 6,319Adult Asthma: 13,526

■ Chronic obstructive pulmonary disease (COPD): 12,153²³

Dental Care Access

Much of the oral health data is only available on a regional level. Cabarrus is included in Region 4, which also includes Alexander, Catawba, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly, and Union. According to the NC Oral Health Regional Snapshot, 51% of North Carolina children aged one to two years receive preventive oral health services through Medicaid. Within Region 4, that data is significantly lower at just 28%.²⁴

Having missing teeth or wearing dentures can affect a peron's nutrition. People without teeth or with dentures often prefer soft, easily chewed foods instead of foods such as fresh fruits and vegetables.



"It's crazy. You don't think about how much going to the dentist and cleaning your teeth costs, it cost like over \$200. So for you, insurance covers it, so you don't think about it, but for those without insurance it's so much (money)."

- Youth Focus Group Member

- 46.1% of adults aged 18+ years have had permanent teeth extracted
- 16.6% of adults aged 65+ years had all of their permanent teeth extracted

Patient to Dentist Ratio: 2,344 to 1



The 2020 Community Needs Survey indicated a significant uptick in the number of respondents who reported seeking dental care from a dental office when compared to the 2016 survey. The data also showed a small decrease in the percent of individuals reporting to the Emergency Department for dental care, but the top three answers remained the same: Emergency Department, Cabarrus Health Alliance or private Dental Office.

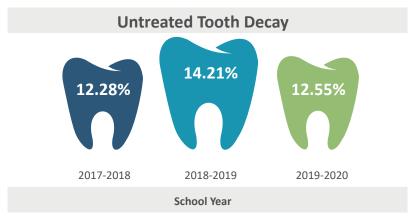
ED (%) 2016: 1.9 2020: 1.35 CHA (%) 2016: 8.7 2020: 9.29 Dental office (%) 2016: 66.1 2020: 81.13



Most key informants felt that availability and affordability of dental services are <u>very significant</u> issues in Cabarrus County, although a majority of key informants (36%) believed quality of dental care services to only be a <u>somewhat significant</u> issue.

- Availability is rated a <u>very significant</u> issue by 41% of respondents.
- Affordability is rated a <u>very significant</u> issue by 57% of respondents.

Figure 26: Percent of Children in Kindergarten with Untreated Tooth Secay – CHA Dental Data



Infant and Maternal Health

Infant Mortality Rate

Cabarrus

County

North

Carolina

Infant mortality rate is not only seen as a measure associated with risk of infant death but is also a potential indicator of the overall health of the community, poverty and socioeconomic status of the community, and available and quality of health services. The health and well-being of children and families across the globe is measured by infant mortality rates.

Table 12: Infant Death Rates per 1,000 Live Births²⁵

	North Carolina	Cabarrus	Iredell	Union
2015	7.3	6.5	9.3	5.1
2016	7.2	5.7	8.3	5.0
2017	7.1	3.9	9.7	4.6
2018	6.8	7.6	8.5	4.9
2019	6.8	5.9	6.4	2.2

It is important to recognize the evident disparities in the infant mortality rate for both Cabarrus County and North Carolina births. Minority community members make up roughly 37% of Cabarrus' population, but nearly 47% of infants deaths. White residents make up just over 63% of the population, but only 50% of infant deaths.

Figure 27: Racial Disparities in Infant Mortality or Death

10%

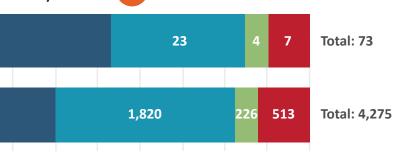
39

1,716

20%

30%

40%



70%

80%

90% 100%



50%

60%

Births

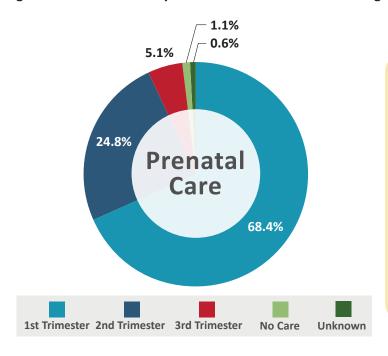
Table 13: Live Births by County and Race

0%

	Report Period	Cabarrus	Union	Iredell	North Carolina
Live Births (rate per 1,000 population)	2014-2018	12.3	10.6	12.0	11.8
White Rate	2014-2018	10.4	9.3	10.8	10.1
African American Rate	2014-2018	12.9	11.7	12.2	12.8
Hispanic Rate	2014-2018	20.5	17.3	17.9	19.4

Prenatal Care

Figure 28: Cabarrus County – Trimester that Prenatal Care Began (2018)





"In the beginning of the pregnancy, they're [healthcare] so keen on, 'oh you know you can't have an abortion right? You can't do this, you can't do that, you can't get rid of the baby....,' and I choose not to. And I think I'm doing something good in general, and I want to be respected for the choices that I make. It just feels like it would be easier for them if I would have [had an abortion], because I've been given so much disrespect."

– Teen Parent Focus Group Member

Teen Pregnancy - 2019²⁶

Table 14: Teen Pregnancies in 2019

Number of pregnancies among 15-19-year-old girls	152
Teen pregnancy rate per 1,000 15-19-year-old girls	20.9
Teen pregnancy rates by race/ethnicity	
African American	22.2
Hispanic	38.2
White	15.1
Teen pregnancy rates by age	
15-17-year-olds	9.5
18-19-year-olds	42.4
Number of pregnancies among 15-17-year-old girls	27
Number of pregnancies among 18-19-year-old girls	107
Percent of repeat pregnancies	15.1% (23 repeat pregnancies)



Key informants were split on rating unintended pregnancy as a <u>very significant</u> (37%) and <u>somewhat significant</u> (37%) issue. 8% stated that was <u>not at all significant</u>.

Health and Wellness

Improving an individual's overall health and well-being, should include consideration of of three major factors: good nutrition, physical activity and healthy body weight. The Office of Disease Prevention and Health Promotion reports that together, these factors can help decrease a person's risk for developing serious health conditions, such as high blood pressure, high cholesterol, diabetes, heart disease, stroke, and cancer.²⁷

Percent of Adults Reporting Fair or Poor Health

According to the Behavior Risk Factor Surveillance System (BRFSS), year-over-year Cabarrus County residents have self-reported poorer health. Self-reported health status is a widely used measure of people's health-related quality of life. In 2016, 14-percent of Cabarrus respondents reported poor or fair health. Two years later, in 2018, 17-percent reported their health to be poor or fair. 60

Obesity

According to the CDC, obesity is a complex health issue that is the result from a combination of causes both individual and genetic. Obesity increases the risk for other health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, stroke, and many other including general poor health status.

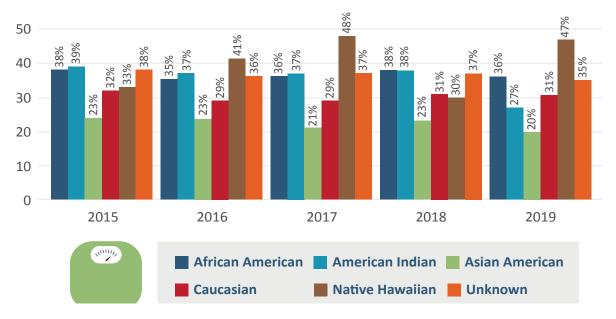
Table 15: Cabarrus County - Adult Obesity

Year	Cabarrus	Rowan	Union	Iredell
2014	31%	34%	28%	31%
2015	32%	33%	30%	29%
2016	36%	38%	32%	31%
2017	34%	38%	32%	32%



64% of key informants believe obesity in Cabarrus County is a <u>very significant</u> issue.

Figure 29: Atrium Health Cabarrus - Patients Overweight and Obese Age 2-18 by Race/Ethnicity



Percent represents percent of patient population served that had a > 85% Body Mass Index.

Food Access

Limited access to sources of healthy and affordable food through supermarkets, supercenters, and grocery stores may make it harder for some Americans to eat a healthy diet. According to the Robert Wood Johnson Foundation – 2020 County Health Rankings, Cabarrus County had a Food Environment Index of 7.8, while North Carolina's index was 6.7. The Food Environment Index ranges from 0 (worst) to 10 (best) and looks at two indicators of the food environment - limited access to healthy foods and food insecurity.

Cabarrus County is one of 18 counties in North Carolina that have six or more census tracts classified as food deserts. The Food Desert Locator developed by USDA's Economic Research Service, defines a food desert census tract as a low-income tract where a substantial number of residents does not have easy access to a supermarket or large grocery stores.

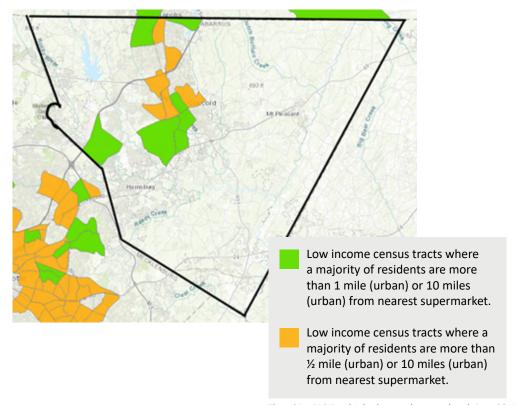


Figure 30: US Department of Agriculture – Food Access Research Atlas

The USDA ERS Food Atlas has not been updated since 2015.



Key informants identified availability (52%), affordability (61%) and quality (46%) of healthy food as **very significant** issues.



"It gets to the point where, since I'm under 22, I can't do separate food stamps since I'm living with her (my mom) and we're getting \$90 in food stamps for 4 people. What's that going to do, like honestly? I have pay bills, get books, and get stuff for the house, gas. At the end of the month we have \$100 left to our name.

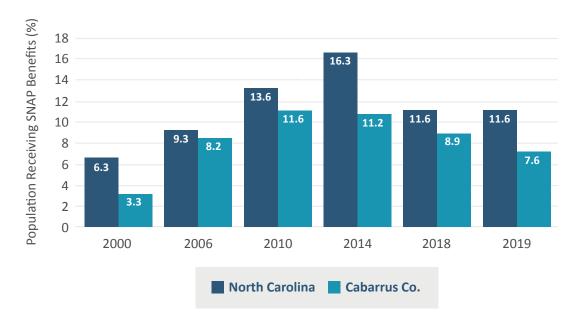
There's no profit to our name."

— Single Parent Focus Group Member

Supplemental Nutritional Assistance Program (SNAP)

The primary focus of SNAP is to provide low-income families and children with comprehensive nutrition education, a healthy diet, obesity prevention, physical activity and better access to food through Food and Nutrition Services (FNS). Individuals may be eligible for FNS if their total income falls below the appropriate gross income limits for their household size.

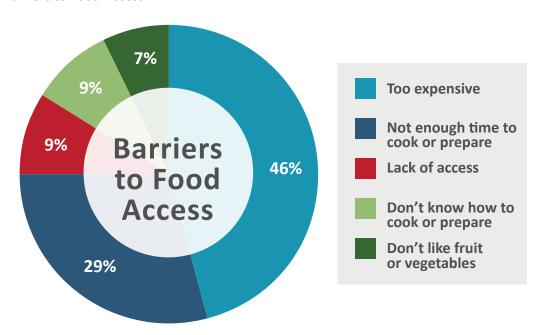
Figure 31: Population Receiving SNAP Benefits²⁸





When asked about barriers to healthy food access,71% of Community Needs Survey respondents reported 'No Barriers', of the 29% of respondents who did report barriers the top two most commonly selected barriers was 'Too Expensive' and 'Not enough time to cook or prepare.'

Figure 32: Barriers to Food Access



36% of Community Needs Survey respondents reported experiencing some type of food insecurity issue over the past year. Respondents could select one or multiple of the following situations:



- Cut the size of our meal
- Left a meal hungry
- Had to skip a meal
- Worried about having enough food
- We didn't have money to purchase enough food
- Didn't eat for a whole day

When evaluating responses by race and ethnicity it became even more clear that food access is a disparity linked to race. The Hispanic (33%) and black (31%) community reported food security issue nearly double that of their white (15%) and Asian (8%) counterparts.

Park Access

The national recommendation for physical activity is at least 150 minutes of moderate aerobic activity a week.

Community Needs Survey respondents were asked about their physical activity levels in a typical week, only 17% reported meeting or exceeding the national recommendation, this is a decrease from 2016, where 24.6% of community members reported at least 150 minutes a week. Responses were disaggregated by race and ethnicity, and there was little difference between races with almost 11% of African Americans and Latinos reporting meeting physical activity guidelines and 15% of Whites.



The top 3 locations where individuals reported exercising were:

- 1. Home
- 2. Neighborhood
- 3. Parks and Trails

The top 3 reasons people reported that they didn't exercise were:

- 1. Lack of time
- 2. Lack of motivation
- 3. Family obligations



Access and quality of recreational opportunities in Cabarrus County were seen as somewhat significant issues – 34% and 42% respectively.

EDUCATION

Education is a crucial social determinant of health (SDOH), which impacts a person's ability to access and understand health information. The quality and amount of education an individual receives can predict their future employment opportunities and income level, which is then linked to where they afford to live and access healthcare. Communities need to recognize that education is not just about the amount of knowledge gained, it is tied to an individual's opportunities for a positive future well-being.⁷²

Early Childhood Education 0 to 5

The zero to five population in Cabarrus County makes up between 6.4% and 6.5% of the population, keeping on pace with other demographic age groups. According to the American Community Survey, in 2019, Cabarrus County had 13,589 children under five years old. Although there has not been an extreme spike in the five and under population, resources for early childhood education and care have become more challenging to access due to cost and availability.



Most key informants felt that availability, affordability, and quality of child care services are **very significant** issues in Cabarrus County.

- Availability is rated a <u>very significant</u> issue by 44% of respondents.
- Affordability is rated a <u>very significant</u> issue by 61% of respondents.
- Quality is rated a <u>very significant</u> issue by 54% of respondents.

According to the American Community Survey, 71% of the children in Cabarrus, younger than age six, live in households where their parents or single parent reports to work.

Table 16: Cabarrus County Parental Work Status

Parental Work Status	Children Under Six ²⁹
Not in labor force	8%
Lives with two parents (one working)	21.2%
Lives with mother only (working)	15.8%
Lives with father only (working)	1.8%
Lives with two parents (both working)	53.3%

Working parents have three main sources for childcare; including Family In-Home Child Care, Center-Based Child Care and Church-Based Daycare or GS-110 programs.

Cabarrus County's licensed child care facilities' capacity is 8,726, but the centers are serving only 4,049 children due to lack of qualified teachers. This shortage of childcare teachers & teacher assistants is mainly due to child staff wages being very low. This shortage translates to long waiting list and child care stress for working parents.

Family In-Home Childcare is more flexible with after-hours care and provides services during closures, but the majority of these places are unregulated.

Church-Based Daycare (GS110) are child care facilities or summer day camps operated by a church, synagogue, or religious charter school and are required to meet or follow different facility requirements.

Center-Based Child Care are usually located in commercial buildings and care for more children than family child care providers. The children are usually divided into groups or classrooms of similarly aged children.

The average annual fees for childcare ranges between \$7,374 for a Family In-Home Child Care to \$9,412 for a Licensed Child Care Center. According to Child Care Resources, Inc., in 2019 there were 47 licensed early child centers in Cabarrus County.³⁰ Currently Only 31-percent of children zero to age five are enrolled in a licensed childcare center.

Subsidized Child Care Cabarrus County Facts 2017-2018:

- 7,066 children are potentially eligible for subsidized child care assistance.
- Children under age 0 to 5 whose parent(s) are working and whose family income is at or below the 200% federal poverty level or children 6-11 whose family income is at or below 133% FPL.
- \$4,415,957 is currently available to serve eligible children.
- Currently 825 children are receiving subsidized child care assistance. This represents 11.68% of all potentially eligible children.



"Childcare is harder to get now. When you make a certain amount of money you don't qualify and you really need someone to watch your child, you can't pay back that amount. You've got to work three jobs just to survive. I just think it's getting worse."

- Single Parent Focus Group Member

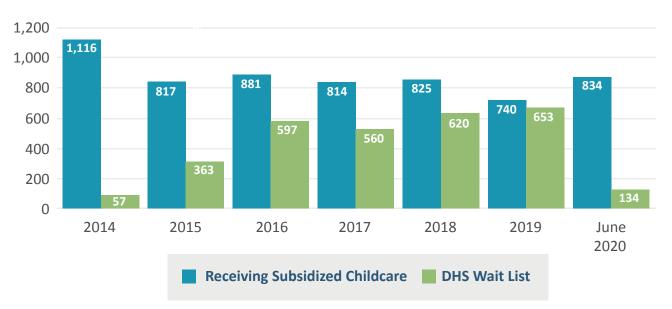


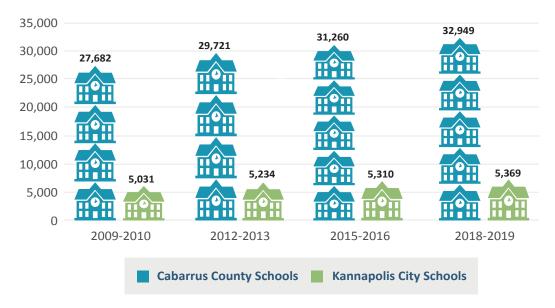
Figure 33: Cabarrus County Subsidized Child Care

Kindergarten through Grade 12 Education



Less than 50% of key informants felt that **graduation rates**, **literacy levels and quality of K-12 education** were **very significant** issues.

Figure 34: Public School Enrollment



According to school records, the number of white students has decreased in both Cabarrus County and Kannapolis City Schools, even as the total number of students has increased. With a growing minority population in the County (Black, Hispanic, and Asian) the student population within both school systems has become more diverse. As of the 2018 – 2019 School Year, Kannapolis City Schools had an extremely diverse student body with nearly a 30/30/30 split between White, Black and Hispanic students. Hispanic students were the largest majority.

Figure 35: Percentage of Children on Free and Reduced Lunch

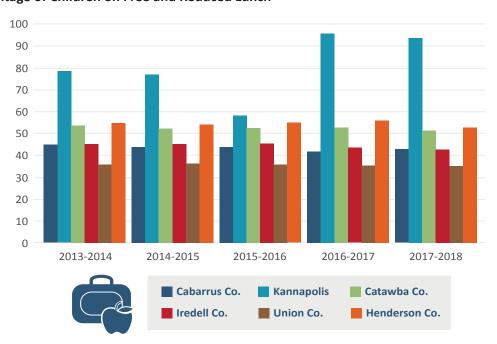
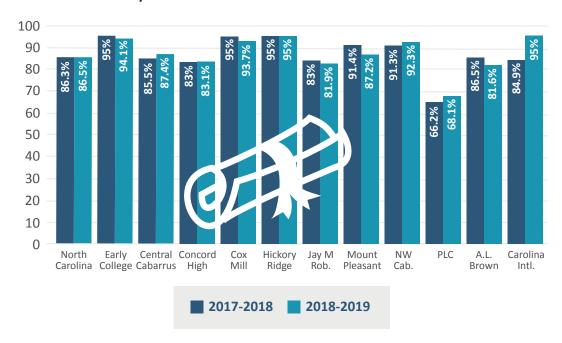


Figure 36: Graduation Rates by School - Percent of 9th Grade Cohort that Graduates in 4 Years



Across the nation, racial disparities in education follow a consistent pattern in which the academic outcomes of African-American and Latino students are poorer compared to Whites. The same pattern is reflected in Cabarrus County. When examining student performance in Math and English-Language Arts, African American and Hispanic students were far more likely to perform below grade level than their white classmates in both, Cabarrus County and Kannapolis City Schools.

Table 17: Cabarrus County Schools - Percent of Students Performing Below Gradel Level 2018-2019

Subject	White	African Ameriacn	HIspanic
Math	24%	49%	48%
English Language Arts	27%	50%	56%



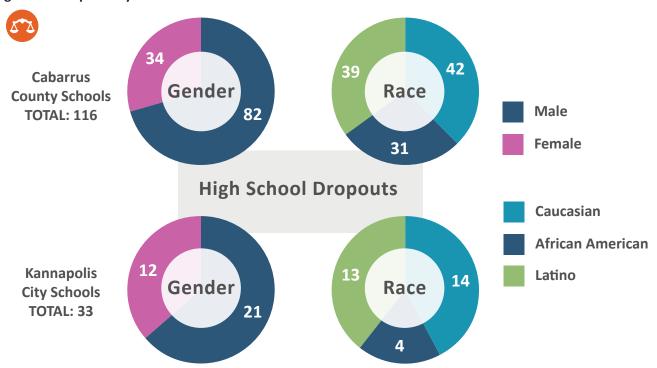
Table 18: Kannapolis City Schools - Percent of Students Performing Below Gradel Level 2018-2019

Subject	White African Ameriacn		HIspanic
Math	46%	71%	60%
English Language Arts	36%	60%	59%



If disparities were evident among students prior to COVID-19, we can predict that the achievement gap has been widened. Many students struggled academically, socially, and emotionally during the virtual learning period. Lack of support at home when parents juggled multiple roles, connectivity issues, lack of motivation, and limited English skills contributed to making school even more challenging, especially for underserved populations.

Figure 37: Dropouts by Race SY19-20 - Grades 7-13





"Our elementary schools are starting to get more diverse in the magnet programs that they offer. We have dual-language programs starting in Kindergarten, we have global studies, arts magnets...and I think our high school is really striving to be both college and career trade focused. They're trying to start those kids earlier to give them some of those opportunities for jobs that don't need much more education past high school to do."

- Housing Insecure Focus Group

Career and Technical Education, Post-Secondary

Cabarrus County and Kannapolis City School Districts have listened and responded to the needs of the business community by creating career academies at area high schools. Career academies are for students who may not want to attend post-secondary school or begin a career right after high school. By fulfilling the needs of area industries through education, we are able to have a skilled workforce and ready talent pipeline in place for any employer who chooses to locate and grow their business in Cabarrus County. Enrollment within both CCS and KCS's Career and Technical Education continues to present rapid growth. During the 2013-2014 school year only 3,400 students participated in CTE programs. By the 2017-2018 school year that number had grown to almost 5,100 students.

Figure 38: Career and Technical Education (CTE) Programs





Jay M. Robinson HS (Automation) Mount Pleasant HS (Sustainability)

Hospitality and Tourism

Hickory Ridge HS

Health Services

Northwest Cabarrus HS

Information Technology

Cox Mill HS

Public Safety

Concord HS

Coming 2020

West Cabarrus HS



Engineering:

Project Lead the Way (PLTW)

Health Sciences

Adobe Academy

Architecture, Construction, and NCCER Certification

Business and Marketing

Family and Consumer Science



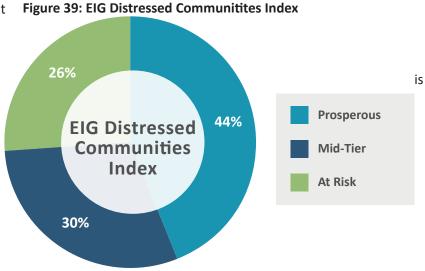
Community Survey respondents were asked to report unmet educational needs for themselves or others in their household. Eight-two percent of individuals reported no unmet educational needs. Of those who reported having unmet needs specific to education, the top three types of education were:

- 1. 23% college course (community college or 4-year college)
- 2. 17% vocational technical or job skill training
- 3. 14% education on accessing community program/services
- 4. 14% computer or internet training

ECONOMIC FACTORS

Throughout this report we acknowledge and point out the array of factors that influence an individual's health, and economic factors are no different. Social and economic factors – education, employment, income, family and social support and community safety account for 40% of an individual's overall health.

Every year, the North Carolina Department of Commerce ranks the state's 100 counties based on economic wellbeing and assigns a Tier designation to each county. The Tier system is used by various state programs to encourage economic activity in the less prosperous areas of the state. ³¹ Cabarrus County is ranked a Tier 3 county (least distressed), when considering factors like: average unemployment rate, median household income, percentage growth in population, adjusted property tax base per capita.



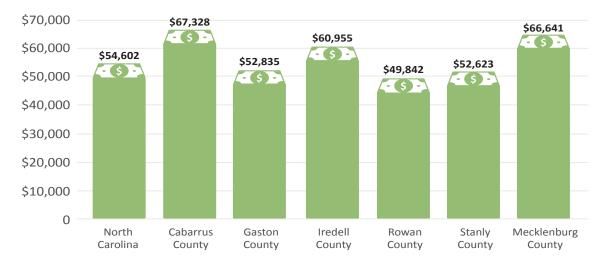
The Economic Innovation Group (EIG)

produces the Distressed Communities Index which evaluates the economic and social state of a community and identifies each zip code as prosperous, comfortable, mid-tier, at-risk or distressed.

Income

Cabarrus County has the highest median income compared to other counties within the region, as well as compared to the state median.

Figure 40: Median Income - 2019



The Robert Wood Johnson Foundation reports that Income inequality within communities can have broad health impacts, including increased risk of mortality, poor health, and increased cardiovascular disease risks. Inequalities in a community can accentuate differences in social class and status and serve as a social stressor. Communities with greater income inequality can experience a loss of social connectedness, as well as decreases in trust, social support, and a sense of community for all residents.³²

Table 19: Median Income by Race - 2019

Race	Median Income
White	\$71,620
Black or African American	\$49,750
Hispanic	\$51,261
Asian	\$132,703
Some Other Race	\$47,074
Two or More Races	\$51,472



Poverty

The U.S. federal poverty level (FPL) is used by the government to assist with determining who is eligible for subsidies, programs, and benefits for benefits and programs. The FPL or poverty guidelines are updated each January to account for inflation by the U.S. Department of Health and Human Services (DHHS).⁷⁷

Table 20: 2019 Federal Poverty Guidelines

Number of People in Household	48 States & DC
One	\$12,490
Two	\$16,910
Three	\$21,330
Four	\$25,750
Five	\$30,170
Six	\$34,590
Seven	\$39,010
Eight	\$43,430

Federal Poverty Level³³

The Community Planning Council reviewed Economic data in November 2019, at which point the report included data from 2017 that indicated that 11.53% or 22,481 individuals in Cabarrus County were living in households where the income below the Federal Poverty Level (FPL) for the last 12-months. Updated data from 2019 shows a



"There is a lot of work out there but they want to pay you \$10 an hour and people can't live off that."

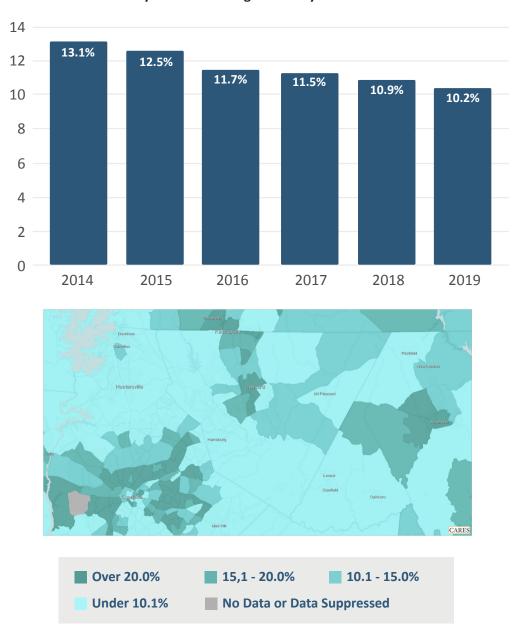
- Housing Insecure Focus Group

continued decrease to 10.2% or 20,920 community residents who are classified as living in poverty. According to the US Census, in 2019, the poverty rate for the United States was 10.5%, the lowest since estimates were first released for 1959. The Federal Poverty Level is an extremely important and relevant measure related to poverty. Individuals who live below the FPL have limited access to health services, healthy food, and other necessities contributing to a poorer health status.



47.4% of Key informants felt that there is **not enough** support and help for individuals and families experiencing crisis (43.24% **disagree** + 4.50% **strongly disagree**)

Figure 41: Percent of Cabarrus County Residents Living in Poverty 2014-2019



Since 2017, poverty rates have continued to decline for all major race and Hispanic origin groups. Two of these groups, Blacks and Hispanics, reached historic lows in their poverty rates in 2019. The poverty rate for Blacks was 13.9% in Cabarrus County compared to 22.5% in North Carolina and 18.8% at a federal level; for Hispanics, percent below poverty in Cabarrus County was 23.9, which was lower than the state at 26.4% but almost 8% higher than the U.S. (15.7%).



"The lack of resources for all types of services prevents us from focusing on this one household for a long enough period of time to ensure they emerge from crisis and don't just end up right back in it, because we have to cut them loose and work with someone else. Being able to stay with them long enough and see them through is part of the challenge."

- Service Provider Focus Group

Table 21: Cabarrus County Federal Poverty Level by Race

	White	Black, African American	Hispanic	American Indian, Alaska Native	Asian
2014	11.4%	19.9%	29.7%	18.9%	7.0%
2015	10.5%	19.1%	28.3%	26.3%	4.9%
2016	9.5%	18.0%	30.5%	16.8%	5.4%
2017	9.6%	16.6%	25.8%	11.9%	4.0%
2018	8.8%	15.3%	26%	5.1%	3.2%
2019	8.1%	13.9%	23.9%	6.3%	2.9%

Figure 42: Children in Poverty

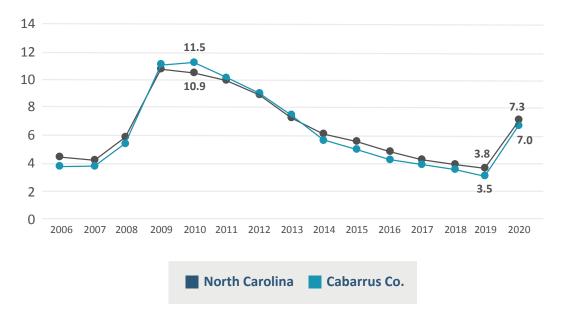


Workforce



Community Survey Respondents were asked about their experiences with discrimination when attempting to access services in the community over the past year. Respondents were given the opportunity select multiple answers or areas of discrimination, but the overwhelming majority (41%) indicated experiencing discrimination when seeking employment or applying for a promotion.

Figure 43: Unemployment Rate



The health care and social assistance industry remain the most common employment sectors in Cabarrus County, and this is due in large part to Atrium Health Cabarrus being the county's largest employer. According to Cabarrus Economic Development, Atrium Health Cabarrus employees more than 4,200 people, followed by Cabarrus County Schools with just over 3,750. Other large employment sectors include retail trade, manufacturing and educational services.

Figure 44: Employment by Industries – Cabarrus County 2018 78





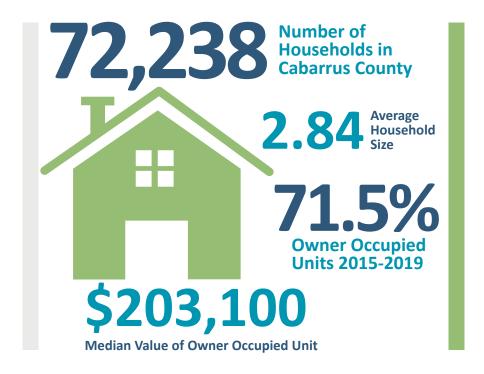
50% of key informants felt that disparities in employment is a **very significant** issue.

PHYSICAL AND BUILT ENVIRONMENT

Housing

Having a safe home, free from physical hazards can promote or impact an individual's good physical and mental health, the opposite can be attributed to poor quality and inadequate housing. Individuals who live in substandard housing are more likely to experience health problems such as chronic diseases and injuries, and can have harmful effects on childhood development. As reported within the Environmental Factors section below, things like poor indoor air quality, lead paint and other hazards commonly coexist in homes, placing children and families at great risk for multiple health problems.⁷³

Figure 45: Cabarrus County Household Characteristics





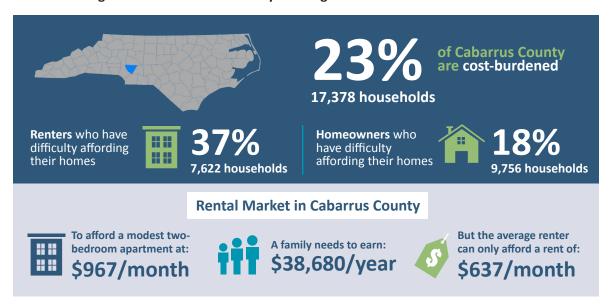
For the last two cycles (2016, 2020) of the Community Needs Assessment, housing has fallen within the top 4 or 6 identified priorities. Key informants rated multiple aspects of housing with significant concern.

- 62% of key informants rated affordability of housing in Cabarrus County a very significant issue
- 60% of key informants rated homelessness a very significant issue
- 53% of key informants rated substandard housing a very significant issue

According to the US Department of Health and Human Services – Office of the Assistant Secretary for Planning and Evaluation, there are five different housing conditions which contribute to housing instability: (1) high housing costs, (2) poor housing quality, (3) unstable neighborhoods, (4) overcrowding, and (5) homelessness.³⁵

High housing costs refers to housing costs, including energy and utilities that takes up more than 30% of a household's gross monthly income. Since low-income families must pay higher proportions of their income on rent, high housing costs disproportionately affect this population. ³⁵

Figure 46: NC Housing Coalition - Cabarrus County Housing Need³⁶



Poor housing quality refers to housing that is lacking complete plumbing or a kitchen, has inadequate heating, has inadequate electricity, or has "upkeep problems" (such as leaks, holes, or peeling paint).³⁵

To assess for substandard housing issues within Cabarrus County, the Community Needs Survey included questions around physical housing issues.



- 323 individuals reported some type of housing issue
- 555 total types of housing issues were reported (individuals could select more than one answer option)
- Top 3 Housing Issues Identified:
 - 233: Leaking Roof
 - 125: Peeling Paint
 - 112: Heating Issues

Unstable neighborhoods are those characterized by conditions such as poverty, crime, and lack of job opportunities. Most subsidized housing is located in neighborhoods with these characteristics. Other problems that characterize unstable neighborhoods include noise, traffic, litter, poor or very limited city services, and undesirable neighbors. ³⁵

Overcrowding refers to more than one person living in a room. Overcrowding is often the result of high housing costs or the lack of housing assistance.³⁵



Community Needs Survey respondents were asked if there were any additional adults or children, that they are not the primary caregiver for, currently living with them because they cannot afford to live on their own. Fifteen-percent (N=370) of respondents reported 'yes', that they had additional individuals living with them, one (N=165) or two (N=101) persons was the most common answer.

Homelessness refers to the lack of a fixed, regular, and adequate nighttime residence. 35

Salvation Army Night Shelter served 310 unique individuals in 2019. The Salvation Army operates the only emergency shelter in Cabarrus County.



93% of Community Needs Survey respondents reported having stable housing over the last year. Of those who reported homelessness (7%), this could mean - lived in a place not meant for habitation; lived in an emergency shelter, or temporary arrangement with friends or family – 12% were Latino, 11% black, and 4% white.

Table 22: Cabarrus County Alternative Housing Options

Alternative Housing Solutions	Units		
Public Housing	174 units		
Section 8	541 vouchers		
Apartments	1,957 units		
Other Subsidized	893 units		
Other Affordable	1,064 units		
Total Housing Support	4,629		

Figure 47: Evictions³⁶

When Housing Costs Too Much

When housing costs become too much, a family can lose their home. This takes an incredible toll not only on a family, but also on the entire community.



3,116 families in Cabarrus County faced an eviction filing this year.

40.9% of all cost-burdened renters.



89 families in Cabarrus County faced a foreclosure this year.

0.9% of all cost-burdened renters.

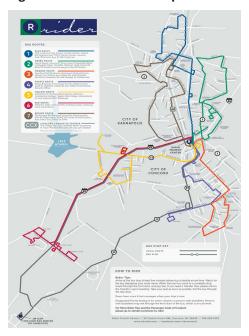
Transportation

Transportation policy and planning are economic and social factors that influence an individual's health and the health of the community. Not only does transportation, if accessible, contribute to an individual's inactivity, but it can also dictate access to health care facilities, food and social services if the person does not have accessible, reliable transportation.



Public transportation options continue to be rated a significant issue (53% very significant) + 34% somewhat significant) by key informants. This is a 12% increase in the rated level of significance according to key informants when compared to their 2016 perspective.

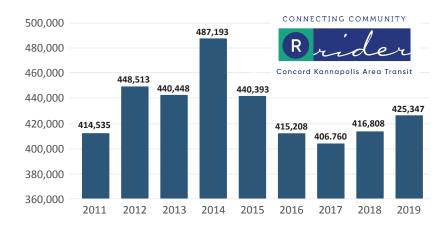
Figure 48: Rider Transit Map



Rider Transit

Rider Transit provides fixed route bus services on seven local routes in Concord and Kannapolis, including the Concord Charlotte Express. Under the Americans with Disabilities Act (ADA), Rider also offers Complementary Paratransit service within ¾ of a mile of the seven local fixed routes.

Figure 49: Rider Transit - Fixed Route Ridership Data



In 2018, Rider Transit developed a Long Range Transportation Plan. A part of that process included extensive community member and rider input. Information collected indicated that 25% of Rider Transit patrons would like to see later service times and additional benches/shelters at stops.

Cabarrus County Transportation Services (CCTS)

CCTS provides door-to-door paratransit serve to all passengers who quality under the following programs:

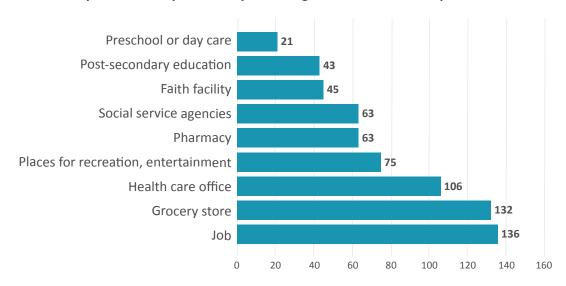
- MEDICAID
- AGING: medical and lunch plus program
- EH: elderly handicap
- RGP: Rural General Public
- CVO: Cabarrus Vocational Opportunities
- WFFA: Work First

Between July 2018 and July 2019, CCTS completed 75,554 trips, serving 1,646 customers.



Community Needs Survey respondents were asked, "Which of the following places have you or someone in your household had a difficult time getting to because transportation was not available? Check all that apply." Fifteen-percent of respondents reported transportation difficulty to one or more of the following locations.

Figure 50: Community Needs Survey - Difficulty Accessing Services due to Transportation Issues



- Average commute time for commuters in Cabarrus County was 27.5 minutes
- 21.2% of commuters had a travel tie to work less than 15 minutes

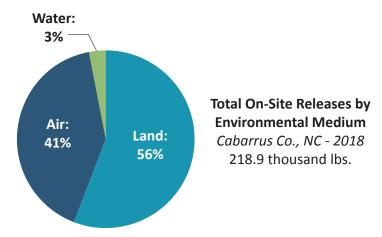
Table 23: Cabarrus Commuting Statistics, 2017

Commute Statistic	Kannapolis	Concord	Cabarrus County	North Carolina
Mean commute time	26.1	26.9	27.5	24.1
Commute alone by auto	85.3%	86.9%	87.1%	85.3%
Commute by carpool	11.9%	11.2%	10.9%	10.3%
Commute by public transportation	0.2%	0.8%	0.5%	1.1%
Commute by bike/ped	1.0%	0.5%	0.7%	2.2%
Commute by other mode	1.5%	0.5%	0.8%	1.1%
Travel time to work less than 15 minutes	25.8%	23.7%	21.2%	27.8% ³⁷

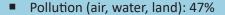
Environmental Factors

The Toxic Release Inventory (TRI) tracks the management of certain toxic chemical that may pose a threat to human health and the environment. A "release" of a chemical means that it is emitted to the air or water, placed in some type of land disposal, or transferred off-site for disposal or release.

Figure 51: Cabarrus Toxic Release Inventory



Key informants rated the following environmental factors as **somewhat significant** issues:



Natural disaster preparedness: 38%

Road maintenance: 51%

One contributing factor to poor air quality/pollution is long commute times. Cabarrus County consists of many work force commuters who travel to Charlotte/Mecklenburg County for work. Key informants (51%) rated long commutes of over 30 minutes a **somewhat significant** issue.



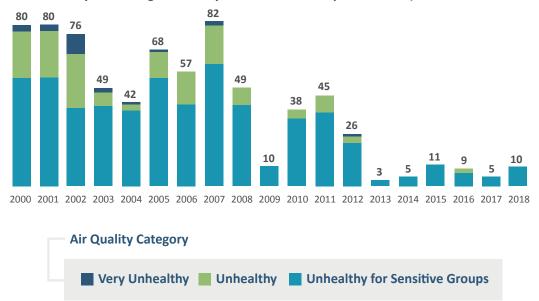
Outdoor

Between 2015 and 2017, the average annual concentration of particulate matter was 8.7 micrograms per cubic meter. Charlotte-Concord-Gastonia, NC-SC Metropolitan Area tied for 1st place for cleanest metropolitan area nationally for 24-hour particle pollution.

Each category for the Air Quality Index (AQI) corresponds to a different level of health concern. The six levels of health concern and what they mean are:

- Good AQI is 0 to 50
- Moderate AQI is 51 to 100
- Unhealthy for Sensitive Groups AQI 101 to 150
- Unhealthy AQI is 151 to 200
- Very Unhealthy AQI 201 to 300
- Hazardous AQI greater than 300

Figure 52: Number of Days Reaching Unhealthy for Sensitive Groups or Above (Charlotte - Concord - Gastonia)



Indoor

According to the Environmental Protection Agency (EPA), Americans, on average, spend approximately 90% of their time indoors, where the concentrations of some pollutants are often two to five times higher than typical outdoor concentrations.⁷⁹

Factors that affect indoor air quality:

- Heating, ventilation, air-conditioning
- Water damage
- Exposure to chemicals
- Occupants and their activities

Examples of indoor pollutants:

- Radon
- Mold
- Carbon monoxide
- Pesticides
- Asbestos

Health conditions associated with poor indoor air quality:

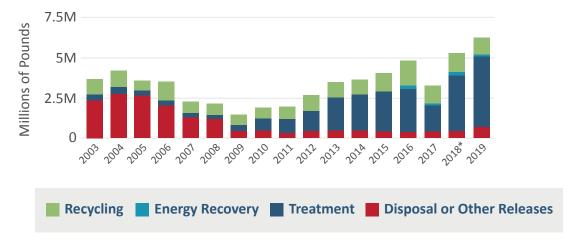
- Asthma
- Respiratory tract infections
- Dizziness
- Headaches
- Allergic reactions

Waste Management

Certain industrial facilities are required to annually report the aoutn of each chemical that is recycled, combusted for energy recovery, treated for destruction, and disposed of or otherwise released on- and off-site. This information is referred to as production-related waste.

The table below documents production-related waste in Cabarrus County over almost two-decades.³⁸ **Recycling** is the most preferred, while **disposal** is the least preferred.

Figure 53: Cabarrus Production-Related Waste Management



SUBSTANCE USE, MENTAL HEALTH AND INTELLECUTAL AND DEVELOPMENTAL DISABILITIES

Substance Use

Substance use can have a wide range of short- and long-term, as well as direct and indirect effects. According to the National Institute on Drug Abuse, these effects often depend on the type of drug used, but some of the short-term health effects include changes in appetite, heart rate, psychosis, and overdose, can occur after just one use. While the data in this section highlights substance use rates among adults and youth in the county, their use has indirect effects on those around them.



68% of key informants rated tobacco, alcohol and drug use as a very significant issue

Alcohol

- 13.5% of adults in Region 4 (Alexander, Cabarrus, Catawba, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly, and Union counties) reported binge drinking and 4.9% reported heavy drinking. – 2019 Behavior Risk Factor Surveillance System
 - Binge Drinking five or more drinks for males or four or more drinks for females on one or more occasions in the past month
 - Heavy Drinking having more than two drinks per day for males and more than one drink per day for females
- 13.7% high school students in Cabarrus County reported drinking one or more drinks of an alcoholic beverage in the last 30 days – 2019 Cabarrus Youth Substance Use Survey
 - According to the Cabarrus Youth Substance Use Survey, half of students report taking alcohol from family members.



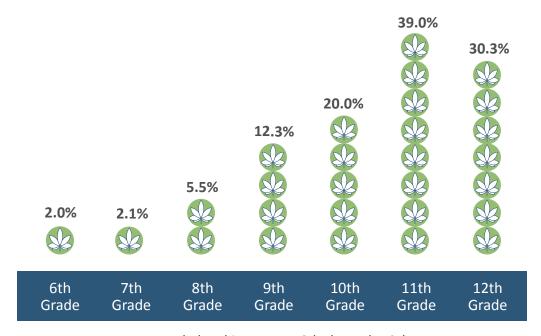
Tobacco - Smoking

- 16% of Cabarrus County adults reported that they currently smoke every day or most days and have smoked at least 100 cigarettes in their lifetime 2017 Behavior Risk Factor Surveillance System
- 1.6% of high school students in Cabarrus County reported smoking all or part of a cigarette in the last 30 days 2019 Cabarrus Youth Substance Use Survey
 - More students report current vapes use (19.2%) than cigarette use (1.6%)
 - One in five youth who reported smoking cigarettes also reported trying to quit.

Marijuana

As grade level increases, 6th through 12th, students are more likely to report lifetime marijuana use. – 2019
 Cabarrus Youth Substance Use Survey

Figure 54: 6th - 12th Grade Self-Reported Student Marijuana Use

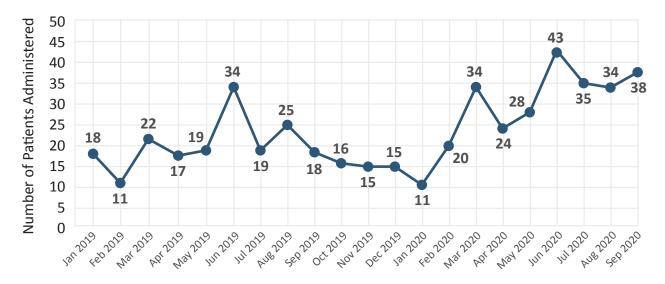


As grade level increases, 6th through 12th, students are more likely to report lifetime marijuana use.

Prescription Medication

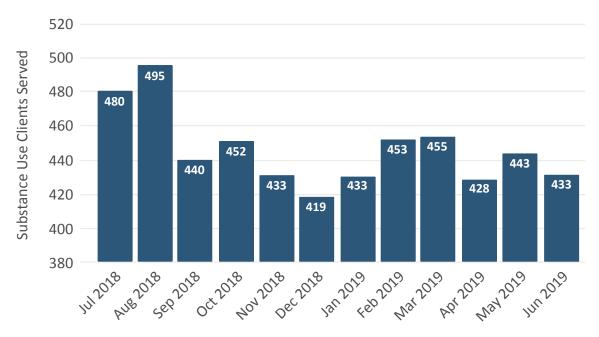
Unintentional overdose deaths: 35 (2019) or 16.2 per 100,000 population, compared to North Carolina 17.2 per 100,000 population.

Figure 55: Cabarrus County Opioid Overdoses - Including Deaths (Cabarrus County EMS Data)



- 4% of students report lifetime prescription medication abuse 2019 Cabarrus Youth Substance Use Survey
 - Of those high school students who report prescription medication abuse
 - 32% report Stimulant misuse
 - 39% report opioid misuse
 - 55% report benzodiazepines

Figure 56: Cardinal Innovations - Substance Use Members Served



The Recovery Research Institute reports that illicit drug use disorder is the most stigmatized health condition in the world, with alcohol use disorder not far behind at fourth. The research further indicates that the degree of stigma is related to the perceived cause of the condition (if perceived not to be someone's fault, stigma is lower) and perceived control over the condition (if perceived not to be under someone's control, stigma is lower).³⁹

In an attempt to assess community stigma around substance use, a question was added to the Community Needs Survey.

Question 30 - I believe that a person addicted to any drug or substance:

- Should be treated like any other member of our community
- Is too weak to stop on their own
- Cannot be trusted
- Deserves access to treatment and recovery support
- Made poor choices and has to deal with the consequences
- Has a disease like diabetes, arthritis, and heart disease
- Should not have access to medical care after repeat overdoses
- Other: ______

Response options were either stigmatizing towards individuals who use substances or in support of seeing them as a human beings. Survey respondents were able to select more than one option, which led to 4,200 total selected responses, with the majority (71%) being positive (answer options in green).

Mental Health

Mental and behavioral health continues to be a top identified need among Cabarrus County residents and community stakeholders. Mental health includes our emotional, psychological, and social well-being. Good mental wellness is important at every stage of life, but limited access to services and providers, as well as the stigma associated with mental illness have left many individuals feel isolated and alone.



All categories of mental health services (access – 76%, affordability – 72% and quality – 56%) in Cabarrus County were rated a **very significant** issue by key informants.

Adverse Childhood Experiences (ACEs) and Trauma

Adverse Childhood Experiences (ACEs) can have tremendous impact on an individual's current and future health status. An ACE score is a tally of different types of abuse, neglect, and other factors that occur in childhood (0-17 years). These experiences can have a variety of negative consequences including increased risk related due to injury, sexually transmitted infections, maternal and child health problems, a wide range of chronic disease along with a list of other negative health consequences.⁷⁴

Figure 57: Origins of Additcion - Trauma and Addiction

Origins of Addiction, Felitti, 2003

People who experience 4 or more ACEs are 500% more likely to abuse alcohol

Individuals who survive 6 or more ACEs are 46 times more likely to be IV drug abusers than people who report no ACEs

People who experience 5
ACEs or more are 7 to 10
times more likely to
report illicit drug use

Trauma truly is the "gateway drug" to addictions

Currently, there is no standardized ACE data collection process in Cabarrus County, making the ACE scores among residents are unknown. In North Carolina, 53% of children have no ACEs, 23% of children have at least one ACE, and 24% have two or more ACEs.⁵⁹

Total Peds Psych (0-17) Total Adult Psych (18-65) Total Geriatric Psych (66+) 140 143 163 263 306 333 321 416 1,378 1,448 1,287 1,464 2016 2017 2018 2019

Figure 58: Atrium Health Cabarrus Emergency Department – Behavioral Health Patients

Patient to Mental Health Provider Ratio: 410 to 1

Within the Community Needs Survey, respondents were asked "Where do you or members of your household go for mental health care? Select one answer." While the location for seeking care is important, there was an overwhelming shift in the percent of respondents who reported having no need for mental health services. In 2016, one-third of respondents reported not needing mental health services. In 2020, that number has jumped to two-thirds. While there is no clear reason for the significant jump, subject matter experts believe that stigma plays a part. According to the American Psychiatric Association, stigma often times comes from a lack of understanding or fear.

Of those who did report needing to seek mental health services, 42% reported that they sought care through a mental health provider, and the second most common point of care was a doctor's office (27%). This data continues to highlight the importance of doctors and primary care physicians maintaining a level of knowledge and training around patient conversations specific to mental health, as well as resources and referrals for patients. On the same topic, respondents were also asked, "If you were to talk with someone besides a family member or friend, about your feelings and problems, who would you go to first?" Respondents were most likely to speak with a priest, pastor, or faith leader, this was also the top response among all race and ethnic groups except Asian community members.

Question 27 of the Community Needs Survey asked respondents:

In the past year, have you or someone in your household wished to talk to someone about: Check all that apply.

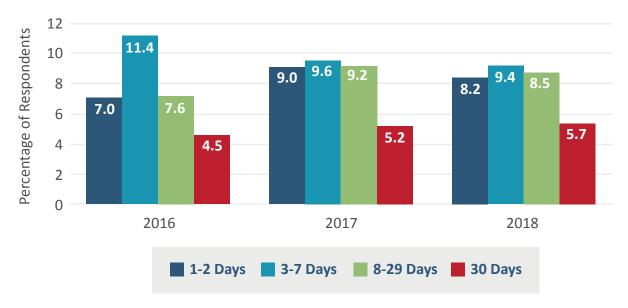
- Did not have a need to talk to someone
- Negative past experiences
- Household finances
- A serious illness or death of a loved one
- Anxiety or depression
- Stresses of raising a family
- Stresses of caring for an older person
- Alcohol or drug dependence
- Marital or relationship problems
- Other:

Anxiety or depression was the number one response among all race and ethnicities, except Asian community members.

The BRFSS asks individuals (AHEC Region: Cabarrus, Mecklenburg, Stanly, Union, Anson, Lincoln, Gaston, Cleveland) to report on their mental health over the last 30 days.⁷⁵

Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

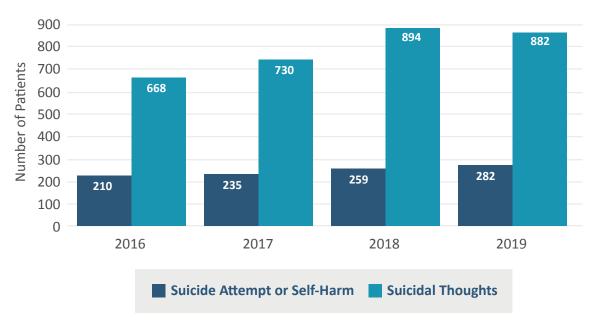
Figure 59: BRFSS - Mentally Health Days (Region 4)



Suicide

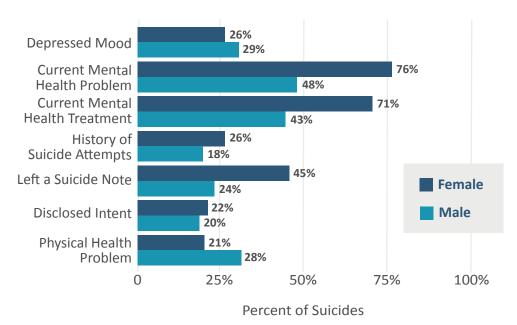
Cabarrus County Suicide Death Rate (2014-2018) 12.4 deaths per 100,000 population.

Figure 60: Atrium Health Cabarrus – Emergency Department Suicide Data



North Carolina Violent Death Reporting System 2009-2018

Figure 61: Circumstances of Suicides – Cabarrus County⁴⁰



 $\rm B^*ased$ on the county of injury occurrence, 94.4% of cases had circumstance information. Zero females and 14 males were missing circumstance information.s

Twenty-nine percent (29.0%) of male and 25.5% of female Cabarrus County suicide victims with circumstance information were characterized as being currently depressed when they completed suicide.



- Seventy-six percent (76.4%) of female and 48.1% of male suicide victims were characterized as having a current mental health problem.
- Females (25.5%) were more likely to have attempted suicide in the past as compared to males (18.0%).

Intellectual and Developmental Disabilities

The American Association on Intellectual and Developmental Disabilities defines IDD as a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. The disability originates before the age of 18.

Individuals with IDD can experience differences in physical abilities compared to those without IDD.

There are multiple conditions that commonly co-exist with individuals with IDD, such as attention-deficit/hyperactivity disorder (ADHD) and cerebral palsy. Individuals with developmental disabilities have a complex set of needs. Often times their families struggle to access appropriate and necessary care.



"It's difficult to get- especially in pediatrics- specialized doctors in the area or you know if you're having some sort of mental health crisis, it feels like there's no help for you here or you have to wait so long."

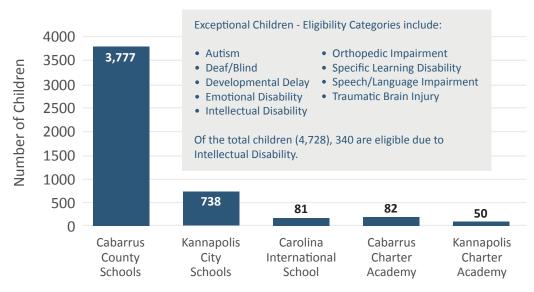
Individuals with Disabilities (Caregivers) Focus Group



Key informants rated access (49%), affordability (52%) and quality (44%) of special needs and development disability services as **very significant** issues.

Children with disabilities who receive special education and related services according to an Individualized Education Plan (IEP) or Services Plan.

Figure 62: Exceptional Children (EC) Head Count - April 2019



Complex Needs for Individuals with Disabilities



People with disability have different types of needs

Therapy, 101 caregiving, specialized education, modified transportation etc.

Affordability

■ In 2015, 27.9% of adults with disabilities that lived in North Carolina reported that within the past 12 months, they could not see a doctor because of the cost, compared to 15.4% of adults without disabilities

Registry of unmet needs for the innovations waiver

 NC Innovation Waiver- Medicaid Waiver designed to meet the needs of individuals or developmental disabilities to get long-term care services and supports

Private Insurance vs. Medicaid

■ While 89.0% of people with disabilities (ages 18-64) in the United States have health insurance coverage, only 44.4% have private health insurance (2017).

SECONDARY DATA - Health Indicators

	Cabarrus County 2020	Summ	ary Rep	ort	
	Health Indicator	Report Period	Cabarrus County	Cabarrus Previous Report Period Trend	North Carolina
	Infant Mortality (<1yr)(rate per 1,000 live births)	2019	5.9	▼	6.8
	Fetal Deaths (per 1,000 deliveries)	2014-18	7.5	▼	6.9
	Neonatal Deaths (<28 days) (per 1,000 live births)	2014-18	3.7	▼	4.8
ıfanı	Post Neo-Natal Deaths (28 days-1 year)(per 1,000 live births)	2014-18	2.2	A	2.4
≥ 28	Live Births (rate per 1,000 population)	2014-18	12.3	▼	11.8
Maternal, Child & Infant Health ^{41,42}	Low Birth Weight (<=2500 g) (% of all live births)	2014-18	8.8	A	9.2
l, Cł lealt	Teen Pregnancy Rate (15-17 years) (per 1,000 females) ⁴³	2018	8.4	A	10.6
erna	Pregnancy Rate (15-19 years) (per 1,000 females)	2018	18.2	▼	24.6
Mat	% Interval of <6 Months (between delivery & conception)	2014-18	13.8	A	12.5
	Unmarried Mothers (% of all live births)	2018	34.3%	▼	40.9
	Heart Disease	2014-18	157.5	▼	158.0
)44	Cancers – All Sites	2014-18	156.8	▼	161.3
tion	Trachea, Bronchus & Lung	2014-18	40.2	▼	44.1
ity) oula	Breast	2014-18	25.1	A	20.9
rtal	Colon, Rectum & Anus	2014-18	12.7	A	13.6
(M 000,	Prostate	2014-18	20.4	▼	19.7
ons 100	Cerebrovascular Disease (Stroke)	2014-18	42.1	▼	43.0
diti	Chronic Lower Respiratory Disease	2014-18	48.5	▼	44.7
Chronic Conditions (Mortality) (age-adjusted rate per 100,000 population) ⁴⁴	Alzheimer's Disease	2014-18	55.9	A	35.7
onic ed r	Pneumonia & Influenza	2014-18	20.8	▼	17.4
Chrc	Diabetes Mellitus	2014-18	18.9	▼	23.7
e-ad	Septicemia	2014-18	10.6	▼	12.8
(ag	Nephritis, Nephrotic Syndrome & Nephrosis	2014-18	18.6	A	16.4
	Chronic Liver Disease & Cirrhosis	2014-18	9.2	▼	10.4
	Unintentional Motor Vehicle Injuries	2014-18	10.4	A	14.5
ality)	All Other Unintentional Injuries	2014-18	47	A	37.0
Injury (Motality) (Rate per 100,000)	Suicide	2014-18	12.4	▼	13.5
	Homicide	2014-18	3.3	▼	6.5
	Chlamydia	2019	565.9	A	679.8
e per on)	Gonorrhea	2019	150.6	▼	254
cabl (ate ulati	AIDS (Newly Diagnosed Average Rates)	2019	1.7	A	5.9
the population of the populati	HIV (Newly Diagnosed Average Rates)	2019	11.8	A	15.6
Communicable seases 45 (Rate p 10,000 populatio	Newly Diagnosed Early Syphilis Average Rate	2019	12.5	A	20.2
Communicable Diseases 45 (Rate per 100,000 population)	Pertussis (incidence per 100,000) ⁴⁶	2018	1	STABLE	3.71
	Tuberculosis ⁴⁷	2019	1.4	A	1.8
er er	Persons per Primary Care Physicians	2018	1,170:1	A	1,400:1
Health 48 Care Provider	Persons per Mental Health Providers	2018	350:1	▼	390:1
T &	Persons per Dentists	2018	2,160:1	•	1,720:1

Health Indicator	Report Period	Cabarrus	Union	Iredell	North Carolina
Life Expectancy at Birth	2017-2019	78.5	80.0	77.9	78.1
White - Life Expectancy at Birth	2017-2019	78.9	80.6	78.5	78.9
African American - Life Expectancy at Birth	2017-2019	76.9	77.8	74.5	75.8
Male - Life Expectancy at Birth	2017-2019	76.3	77.6	75.8	75.5
Female - Life Expectance at Birth	2017-2019	80.5	82.4	79.8	80.7
Infant Mortality	2019	5.9	2.2	6.4	6.8
White Rate	2019	5.8	1.4	5.4	4.7
African American Rate	2019	9.9	3.3	10.8	12.5
Live Births (rate per 1,000 population)	2014-2018	12.3	10.6	12.0	11.8
White Rate	2014-2018	10.4	9.3	10.8	10.1
African American Rate	2014-2018	12.9	11.7	12.2	12.8
Hispanic Rate	2014-2018	20.5	17.3	17.9	19.4
Teen Pregnancy Rate (15-19 yrs. rate per 1,000) ⁴⁹	2019	20.9	11.5	19.5	24.0
White Teen Pregnancy Rate	2019	15.1	6.5	14.8	15.0
African-American Teen Pregnancy Rate	2019	22.2	22.4	41.9	34.4
Hispanic Teen Pregnancy Rate	2019	38.2	26.4	*	40.9
% of Children on Free or Reduced Lunch ⁵⁰	2017-2018	CCS 41.75 KCS 94.32	33.37	42.32	59.37
% High School Degree or Higher, 25 years and older ⁵¹	2019	89.9	89.6	89.3	87.8
% Bachelor's Degree or Higher, 25 years and older	2019	32.3	35.4	28.4	31.3
% of Persons without health insurance, under age 65	2019	10.6%	12.1%	12.3%	13.4%
Unemployment Rate ⁵²	Dec 2020	5.6	5.0	5.7	6.0
Median Household Income	2019	\$67,328	\$80,033	\$60,955	\$54,602
% Persons below poverty level	2019	7.3	7.0	7.4	13.6
% Language other Than English	2019	13.0	14.9	9.4	11.8
Age-Adjusted Death Rates per 100,000 Population ⁵³					
Heart Disease	2014-18	157.5	143.9	178.5	158.0
Cancers – All Sites	2014-18	156.8	147.0	169.2	161.3
Cerebrovascular Disease	2014-18	42.1	37.9	40.2	43.0
Chronic Lower Respiratory Disease	2014-18	48.5	40.3	51.0	44.7
Alzheimer's Disease	2014-18	55.9	48.8	32.7	35.7
Suicide	2014-18	12.4	10.0	12.6	13.5
All Other Unintentional Injury	2014-18	47.0	25.8	33.0	37.0
Diabetes Mellitus	2014-18	18.9	19.2	21.9	23.7
HIV/STD Surveillance Reports – Age-Adjusted Death F	Rates per 100,000 P	opulation ⁵⁴	T	Г	Г
Newly Diagnosed HIV Average Rates	2019	11.8	8.1	8.2	15.6
Newly Diagnosed AIDS Average Rates	2019	1.7	2.0	8.5	6.1
Newly Diagnosed Early Syphilis Average Rates	2019	11.8	9.2	9.1	19.1
Newly Diagnosed Chlamydia Rates	2019	565.9	461.5	425.7	679.8
Newly Diagnosed Gonorrhea Rates	2019	150.6	123.4	140.3	254
Access to Care ⁵⁵	T		T		
Number of Primary Care Physicians	2017	7.7	4.3	3.4	7.0
Number of Registered Nurses	2017	98.4	49.8	48.4	100.7
Number of Dentists	2017	4.5	3.2	2.1	5.0
Number of Physician Assistants	2017	4.0	2.6	3.8	5.9

^{*}Rates based on small numbers (fewer than 20 cases) are unstable and not reported

Leading Cause of Death

Leading Causes of Death 2014-2018	Cabarrus				Previous Report 2010-2014		orth olina
Total Deaths – All Causes	772	2.1	765.3	89	90.2		
	Rank	Rate	Status	Rank	Rate		
Cancer—All Sites	1	159.3	▼	1	191.6		
Diseases of the heart	2	153.1	▼	2	181.9		
Alzheimer's disease	3	49.8	A	5	39.4		
Chronic lower respiratory diseases	4	47.0	▼	3	52.1		
Other Unintentional Injuries	5	45.0	A	6	38.6		
Cerebrovascular Disease (Stroke)	6	40.3	▼	4	48.9		
Pneumonia & Influenza	7	20.4	▼	8	19.7		
Diabetes mellitus	8	19.7	▼	7	27.9		
Nephritis, nephrotic syndrome & nephrosis (kidney disorder)	9	17.8	A	9	18.9		
Suicide	10	12.3	▼	-	-		

^{*}Unadjusted Death Rates per 100,000 Population

Leading Causes	of Death by Age
Ages 0—19	Ages 65—84
1 Conditions Originating in Prenatal Period	1 Cancer—All Forms
2 Birth Defects	2 Disease of the heart
3 Motor Vehicle injuries	3 Chronic lower respiratory disease
Ages 20—39	Ages 85+
1 Other Unintentional Injuries	1 Disease of the heart
2 Motor Vehicle Injuries	2 Alzheimer's disease
Suicide	3 Cancer—All Forms
Ages 40—64	
1 Cancer—All Forms	
2 Diseases of the heart	
3 Other Unintentional Injuries	

Healthy NC 2030 Report Card

		Social and Economic	c Factors			
Health Indicator	Desired Result	Definition	Cabarrus County	North Carolina	Health NC 2030 Target	
Individuals below 200% of federal	Decrease the number of	Percent of individuals with incomes at or below	25.5	32.6	27%	
poverty level	people living in poverty	200% of the Federal Poverty Level	(2015-2019)	(2015-2019)		
Unemployment	Increase economic secu- rity	Percent of population aged 16 and older who are unemployed but seeking work	5.0 (2015-2019)	5.6 (2015-2019)	Reduce unemploy- ment disparity ratio be-tween white and other populations to 1.7 or lower	
			0.765			
Short-term suspensions (per	Dismantle struc- tural racism	Number of out-of-school short-term suspensions in educational facilities for all grades per 10 students	(2019-2020) Cabarrus County Schools	0.98	0.8 per 10 students	
10 students) ⁵⁶			1.67	(2019-2020)		
			(2019-2020) Kannapolis City Schools			
Incarceration rate		Incarceration in North	23057	31358	150 per 100,000	
(per 100,000)		Carolina prisons per 100,000 population	(2019)	(2019)	people	
Adverse	Improve child	Percent of children who have experience two or		15.3%	18%	
childhood experiences ⁵⁹	well-being	more Adverse Childhood Experiences	Not Available	(2018-2019)		
			64			
Third grade read-	Improve third grade reading	Percent of children read- ing at a proficient level or above based on third grade End of Grade ex-	(2019-2020) Cabarrus County Schools	58	80%	
ing proficiency	proficiency	ams; Proficiency defined as Level 3 or higher	50%	(2019-2020)		
			(2019-2020) Kannapolis City Schools			

Physical Environment							
Health Indicator	Desired Result	Definition	Cabarrus County	North Carolina	Health NC 2030 Target		
Access to exercise opportunities ⁶⁰	Increase physical activity	Percent of the population living half a mile from a park in any area, one mile from a recreational center in a metropolitan area, or three miles from a recreational center in a rural area	80%	74%	92%		

Limited access to healthy food ⁶¹	Improve access to healthy food	Percent of people who are low-income that are not in close proximity to a grocery store	7.23% (2015, most recent)	7%	5%
Severe housing problems ⁶²	Improve housing quality	Percent of households with at least 1 of 4 severe housing problems	13%	15%	14%

		Health Behaviors			
Health Indicator	Desired Result	Definition	Cabarrus County	North Carolina	Health NC 2030 Target
Drug Overdose Deaths (per 100,000 population)	Decreased drug overdose deaths	Number of persons who die as a result of drug poisoning per 100,000	16.2 (2019)	17.2 (2019)	18
		population (unintentional poisoning deaths/ overdose deaths)			
Tobacco Use	Decrease tobacco use - Youth	Percentage of high school students reporting current use of any tobacco product	Not Avail- able	18.8%	9%
Tobacco ose	Decrease tobacco use - Adult ⁶³	Percentage of adults reporting current use of any tobacco product	22.8%	22.9%	15%
Excessive Drinking	Decrease excessive drinking ⁶⁴	Percent of adults reporting binge or heavy drinking	13.5%	13.5%	12%
Sugar-sweetened	Reduce over- weight and obesity - Youth	Percent of youth reporting consumption of one or more sugar-sweetened beverages per day	Not Available	19.7% (2019)	17%
beverage consumption	Reduce over- weight and obesity -Adult ⁶⁵	Percent of adults reporting consumption of one or more sugar-sweetened beverages per day	36.0%	35.4% (Region Data – 2019)	20%
HIV Diagnosis (per 100,000 population)	Improve sexual	Number of new HIV diagnoses per 100,000 population	11.8 (2019)	15.6 (2019)	6
Teen Birth Rate	health	Number of births to girls aged 15-19 per 1,000 population	18.2 (2019)	24.6 (2019)	10

	Clinical Care						
Health Indicator	Desired Result	Definition	Cabarrus County	North Carolina	Health NC 2030 Target		
Uninsured	Decrease the uninsured population	Population under age 65 without insurance	10.6%	13.4%	8.0%		
Primary care clinicians (counties at or below 1:1,500 providers to population) ⁶⁶	Increase the primary care workforce	Primary care workforce as a ration of the number of full-time equivalent primary care clinicians to county population (primary care provider to population ratio)	1:1,170	1:1,400	25% decrease for counties above 1:1,500 to population		
Early prenatal care	Improve birth outcomes	Percentage of women who receive pregnancy-related health care services during the first trimester of pregnancy	69.9%	67.4%	80%		
Suicide rate (per 100,000 population)	Improve access and treatment for mental health needs	Age-adjusted number of deaths attributable to self-harm per 100,000 population (suicide rate)	12.3 (2018)	14.4 (2018)	11.1		

Health Outcomes							
Health Indicator	Desired Result	Definition	Cabarrus County	North Carolina	Health NC 2030 Target		
	Decrease infant mortality ⁶⁷	Rate of infant deaths per 1,000 live births	5.9	6.8	6		
Infant mortality (per 1,000 births)	Decrease infant mortality black/white disparity ratio	Disparity ratio between white non-Hispanic and African-American, non-Hispanic infant deaths	2.1	2.47	1.5		
Life expectancy (years)	Increase life expectancy	Average number of years of life remaining for persons who have attained a given age	78.5	78.1	82		

APPENDICES

Appendices can be found online at www.healthycabarrus.org/data/community-needs-assessment or by contacting Marcella Beam, Healthy Cabarrus Executive Director at marcella.beam@cabarrushealth.org or 704-920-1282.

Appendix A: Community Needs Assessment Tools

- Community Needs Survey
- Key Information Survey
- Focus Group Guide

Appendix B: Primary Data Findings

- Community Needs Survey Results
- Key Information Survey Results
- Focus Group Results

Appendix C: Community Planning Council Welcome Packet

- Community Planning Council Member List
- Community Planning Council Job Description
- History of Impact of Healthy Cabarrus

Appendix D: Health Resources Inventory

- Services and Online Resource INventory: NC Care360 and Atrium Health Community Resource Hub
- Health Facilities Inventory
- Support Services

Copies of the Community Planning Council's monthly data presentations can be found online at www.healthycabarrus.org/data/community-needs-assessment.

CITATIONS

- 1. National Assessment of Education Progress. September 22, 2020. Achievement Gaps. https://nces.ed.gov/nationsreportcard/studies/gaps
- 2. United States Environmental Protection Agency. November 3, 2020. Basic Information about the Built Environment. https://www.epa.gov/smm/basic-information-about-built-environment
- 3. MacQueen, K., McLellan, E., Metzger, D., Kegeles, S., Strauss, R., Scotti, R., Blanchard, L., Trotter, R. (2001). What is Community? An Evidence-Based Defintion for Participatory Public Health. Prev Med, volume 67 on Page S58. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446907
- 4. Office of Disease Prevention and Health Promotion. HealthyPeople.gov. Social Determinants of Health Intervention and Resources Discrimination. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/discrimination
- 5. Office of Disease Prevention and Health Promotion. HealthyPeople.gov. Social Determinants of Health Intervention and Resources Food Insecurity. <a href="https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/food-insecurity#:~:text=Food%20insecurity%20is%20defined%20as,some%20time%20during%20the%20year
- 6. Office of Disease Prevention and Health Promotion. HealthyPoeple.gov. Foundation Health Measures Archive Disparities. https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities
- 7. Office of Disease Prevention and Health Promotion. HealthyPoeple.gov. Foundation Health Measures Archive Disparities. https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities
- 8. Johnson, A., Meckstroth, A. June 22, 1998. Office of the Assistant Secretary for Planning and Evaluation. Ancillary Services to Support Welfare to Work. https://aspe.hhs.gov/report/ancillary-services-support-welfare-work
- 9. Survey Monkey. Margin of error calculator. https://www.surveymonkey.com/mp/margin-of-error-calculator.
- 10. United States Census Bureau. American Community Survey 5-Year Estimates Subject Tables. https://data.census.gov/cedsci/all?q=cabarrus%20county
- 11. United States Census Bureau. Quick Facts. https://www.census.gov/quickfacts/fact/table/US/PST045219
- 12. United States Census Bureau. American Community Survey and Puerto Rico Community Survey. 2018. https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2018_ACSSubjectDefinitions.pdf?#
- 13. Office of Disease Prevention and Health Promotion. HealthyPeople.gov. Social Determinants of Health. Interventions and Resources Crime and Violence. https://health.gov/healthypeople.
- 14. North Carolina State Bureau of Investigation. Crime Reporting Crime in North Carolina. Annual Summary of Uniform Crime Reporting Data. http://crimereporting.ncsbi.gov/Reports.aspx
- 15. North Carolina State Bureau of Investigation. Crime Reporting Crime in North Carolina. Arrest by Age by County, 2017. http://crimereporting.ncsbi.gov/public/2017/Arrests/ArrOffAgeCo17.htm
- 16. U.S. Census Bureau; 2019: ACS 5-Year Estimates Subject Tables. Characteristics of Health Insurance Coverage. TableID: S2701. https://data.census.gov/cedsci/table?t=Health&g=0500000US37025&tid=ACSST5Y2019. S2701&hidePreview=false&vintage=2012
- 17. Centers for Medicare and Medicaid Services. Office of Minority Health. Impact of Hospital Readmissions Reduction Initiatives on Vulnerable Populations. https://www.cms.gov/files/document/impact-

readmissions-reduction-initiatives-report.pdf

- 18. NC Department of Health and Human Services. Communicable Disease. Vaccine Preventable Diseases Report in North Carolina 2018. https://epi.dph.ncdhhs.gov/cd/diseases/vpd.html
- 19. NC State Center for Health Statistics. STDs/STIS Facts & Figures Annual Reports. 2019 HIV Annual Report. https://epi.dph.ncdhhs.gov/cd/stds/annualrpts.html
- 20. Centers for Disease Control and Prevention. Viral Hepatitis. Hepatitis C Information. https://www.cdc.gov/hepatitis/hcv/index.htm
- 21. NC State Center for Health Statistics. HIV/STD Facts & Figures. 2019 Hepatitis B & C Annual Report. https://epi.dph.ncdhhs.gov/cd/stds/annualrpts.html
- 22. NC State Center for Health Statistics. County-Level Statistics and Reports. Cancer Incidence and Mortality in North Carolina. https://schs.dph.ncdhhs.gov/data/cancer.cfm
- 23. American Lung Association. State of the Air Report Cards. Cabarrus, North Carolina. https://www.lung.org/research/sota/city-rankings/states/north-carolina/cabarrus
- 24. NC Division of Public Health Oral Health Section. NC Oral Health Regional Snapshot. Region 4. https://publichealth.nc.gov/oralhealth/docs/OralHealthSnapshots-REGION-4-112019.pdf
- 25. NC State Center for Health Statistics. Vital Statistics. 2019 Infant Mortality Statistics for North Carolina. https://schs.dph.ncdhhs.gov/data/vital/ims/2019/
- 26. NC State Center for Health Statistics. Vital Statistics. 2019 Reported Pregnancies. https://schs.dph.ncdhhs.gov/data/vital/pregnancies/2019/
- 27. Office of Disease Prevention and Health Promotion. HealthPeople.gov. 2020 Leading Health Indicators. Nutrition, Physical Activity and Obesity. https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Nutrition-Physical-Activity-and-Obesity
- 28. U.S. Census Bureau. American Community Survey 1 Year Estimates Subject Tables. Food Stamps/ Supplemental Nutrition Assistance Program (SNAP). https://data.census.gov
- 29. U.S. Census Bureau; 2019 American Community Survey 5-Year Estimates; Table B23008. https://data.census.gov
- 30. Child Care Resources, Inc. Child Care Demographics 2019. Cabarrus County Availability. http://www.ccridemographics.com/ccriGraph/location/Cabarrus/availability/2019
- 31. North Carolina Department of Commerce. County Distress Rankings (Tiers). https://www.nccommerce.com/grants-incentives/county-distress-rankings-tiers
- 32. Robert Wood Johnson Foundation. County Health Rankings. Income Inequality 2019. https://www.countyhealthrankings.org/app/north-carolina/2019/measure/factors/44/description?sort=sc-4
- 33. United States Census Bureau. American Community Survey-5 Year Estimate https://data.census.gov/cedsci/table?q=cabarrus%20county%20poverty&tid=ACSST5Y2017.S1701&hidePreview=false
- 34. U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics. https://www.bls.gov/lau/#cntyaa
- 35. US. Department of Health and Human Services. Office of the Assistant Secretary for Planning and Evaluation. Johnson, A. and Meckstroth, A. https://aspe.hhs.gov/report/ancillary-services-support-welfare-work
- 36. NC Housing Coalition. The 2019 Housing Need in Cabarrus County. https://nchousing.org

- 37. 2017 Longitudinal Employer-Household Dynamics (LEHD). 2017. https://lehd.ces.census.gov/
- 38. United States Environmental Protection Agency. 2019 Toxic Release Inventory Factsheet. https://www.epa.gov/toxics-release-inventory-tri-program
- 39. Recovery Research Institute. Research The real stigma of substance use disorders. https://www.recoveryanswers.org/research-post/the-real-stigma-of-substance-use-disorders
- 40. NC Department of Health and Human Services. NC Injury and Violence Prevention Branch Violent Death in North Carolina: Cabarrus County Incidents, 2009-2018. https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/ViolentDeathData.htm
- 41. NC State Center for Health Statistics. Vital Statistics. Infant Mortality Statistics. https://schs.dph.ncdhhs.gov/data/vital/ims/2019
- 42. NC State Center for Health Statistics. County Health Data Book. https://schs.dph.ncdhhs.gov/data/databook
- 43. Sexual Health Initiatives For Teens SHIFT NC. North Carolina 2018 Teen Pregnancies. County Comparisons Cabarrus County. https://www.shiftnc.org/data/map/northcarolina
- 44. NC State Center for Health Statistics. Vital Statistics. Volume 2 Leading Causes of Death. https://schs.dph.ncdhhs.gov/data/vital/lcd/2018
- 45. NC State Center for Health Statistics. STDs/STIs Facts & Figures. Annual Reports. https://epi.dph.ncdhhs.gov/cd/stds/annualrpts.html
- 46. NC Department of Health and Human Services. Division of Public Health Communicable Disease Branch. Vaccine-Preventable Diseases Reported in North Carolina, 2018. https://epi.dph.ncdhhs.gov/cd/figures/AnnualVPDReport2018.pdf
- 47. NC Department of Health and Human Services. Division of Public Health Communicable Disease Branch. North Carolina Tuberculosis Cases and Case Rates by County, 2010-2019. https://epi.dph.ncdhhs.gov/cd/tb/figures/TB County Case Rates 2010 2019.pdf
- 48. Robert Wood Johnson Foundation. County Health Rankings. https://www.countyhealthrankings.org/app/ north-carolina/2021/rankings/cabarrus/county/outcomes/overall/snapshot
- 49. Sexual Health Initiatives For Teens SHIFT NC. North Carolina 2018 Teen Pregnancies. https://www.shiftnc.org/data/map/northcarolina
- 50. North Carolina Department of Public Instruction. Free Reduced Meals Application Data 17 18. https://www.dpi.nc.gov/documents/fbs/resources/data/freereduced/free--reduced-meals---application-data-17-18
- 51. US Census Bureau. 2019 American Community Survey 5-Year Estimates. Education Attainment. https://data.census.gov/cedsci
- 52. North Carolina Department of Commerce. Press Release: North Carolina's December County and Area Employment Figures Released. https://files.nc.gov/nccommerce/press-release/files/Dec-2020-county-release-combined.pdf
- 53. North Carolina Department of Health and Human Services. State Center for Health Statistics. 2020 County Health Data Book. 2014-2018 Race-Sex-Specific Age-Adjusted Death Rates by County. https://schs.dph.ncdhhs.gov/data/databook
- 54. NC State Center for Health Statistics. STDs/STIs Facts & Figures. Annual Reports. https://epi.dph.ncdhhs.

gov/cd/stds/annualrpts.html

- 55. NC State Center for Health Statistics. North Carolina Statewide and County Trends in Key Health Indicators. https://schs.dph.ncdhhs.gov/data/keyindicators
- 56. NC Department of Public Instruction. Discipline, ALP and Dropout Annual Reports. Annual Reports Consolidated Data Reports 2019-2020. https://www.dpi.nc.gov/data-reports/dropout-and-discipline-data/discipline-alp-and-dropout-annual-reports
- 57. NC Department of Public Safety. DPS Research and Planning. Automated System Query Custome Offender Reports.https://webapps.doc.state.nc.us/apps/asqExt/ASQ
- 58. Carson, E. October 2020. Prisoners in 2019. U.S. Department of Justice Office of Justice Programs. https://www.bjs.gov/content/pub/pdf/p19.pdf
- 59. Data Resource Center for Child & Adolescent Helath. 2019 National Survey of Children's Health. North Carolina. Adverse childhood experiences Indicator 6.13. https://www.childhealthdata.org/browse/survey/results?q=8331&r=35
- 60. Robert Wood Johnson Foundation. County Health Rankings. https://www.countyhealthrankings.org
- 61. U.S. Department of Agriculture. Economic Research Services. Food Environment Atlas. https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas
- 62. Robert Wood Johnson Foundation. County Health Rankings. https://www.countyhealthrankings.org
- 63. NC State Center for Health Statistics. 2019 Behavior Risk Factor Surveillance System (BRFSS). Tobacco Use. https://schs.dph.ncdhhs.gov/data/brfss/2019/region4/AnyTobUse.html
- 64. NC State Center for Health Statistics. 2019 Behavior Risk Factor Surveillance System (BRFSS). Alcohol Consumption. https://schs.dph.ncdhhs.gov/data/brfss/2019/region4/ RFBING5.html
- 65. NC State Center for Health Statistics. 2019 Behavior Risk Factor Surveillance System (BRFSS). Sugar Sweetened Beverage. https://schs.dph.ncdhhs.gov/data/brfss/2019/region4/SSBNC2030.html
- 66. Robert Wood Johnson Foundation. County Health Rankings. https://www.countyhealthrankings.org
- 67. NC State Center for Health Statistics. County Health Data Book. https://schs.dph.ncdhhs.gov/data/databook
- 68. North Carolina Department of Health and Human Services. Women's and Children's Branch. North Carolina Immunization Branch. N.C. Immunization Requirements. https://immunize.nc.gov/family/nc_immnz requirements.htm
- 69. Centers for Disease Control and Prevention. National Venter for HIV/AIDS, VIral Hepatisis, STD, and TB Prevention. NCHHSTP Newsroom. Sexually Transmitted Infections among Young Americans. https://www.cdc.gov/nchhstp/newsroom/2013/sam-2013.html
- 70. Centers for Disease Control and Prevention. United States Diabetes Surveillance System Division of Diabetes Translation. Diagnosed Diabetes. https://gis.cdc.gov/grasp/diabetes/DiabetesAtlas.html
- 71. NC State Center for Health Statistics. North Carolina Statewide and County Trends in Key Health Indicators. 2013-2017. https://schs.dph.ncdhhs.gov/data/keyindicators/
- 72. American Public Health Association. The Nation's Health. Education attainment linked to health throughout lifespan: Exploring social determinants of health. McGill, Natalie. August 2016. https://www.thenationshealth.org/content/46/6/1.3

- 73. Robert Wood Johnson Foundation. Housing and Health An RWJF Collection. How Does Housing Affect Health? Authors: Braveman P, Dekker M, Egerter S, Sadegh-Nobari T, and Pollack C. https://www.rwjf.org/en/library/research/2011/05/housing-and-health.html
- 74. Centers for Disease Control and Prevention. Violence Prevention. Preventing Adverse Childhood Expereiences. https://www.cdc.gov/violenceprevention/aces/fastfact.html
- 75. NC State Center for Health Statistics. 2019 Behavior Risk Factor Surveillance System (BRFSS). Healthy Days. https://schs.dph.ncdhhs.gov/data/brfss/2019/region4/MENTHLTH2.html
- 76. NC Department of Public Safety. Juvenille Justice Raise the Age. https://www.ncdps.gov/our-organization/juvenile-justice/key-initiatives/raise-age-nc
- 77. NC Department of Health and Human Services. Office of the Assistant Secretary for Planning and Evaluation. https://aspe.hhs.gov/2019-poverty-guidelines
- 78. DATA USA Economy. https://datausa.io/profile/geo/cabarrus-county-nc#economy
- 79. United States Environmental Protection Agency. Indoor Air Quality. https://www.epa.gov/report-environment/indoor-air-quality#note2