

CHATHAM COUNTY

Community Assessment

2018



CHATHAM
HEALTH ALLIANCE
BUILDING COMMUNITY THROUGH COLLABORATION



Table of Contents

List of Acronyms.....	4
List of Figures.....	6
Acknowledgements.....	8
Highlights.....	11
Executive Summary.....	15
Chapter 1: Background.....	17
Overview.....	18
Community Assessment Process.....	19
Equity and Systems Focus.....	23
Chapter 2: County Description.....	25
Historical and Geographic Overview.....	26
County Governance.....	27
Population.....	29
Chapter 3: Data Collection Process.....	31
Chatham County Community Survey.....	33
Focus Groups and Community Conversations.....	37
Additional Sources.....	40
Chapter 4: Health Impact Priorities.....	41
Overview.....	42
Access to Comprehensive Health Services.....	44
Obesity.....	46
Poverty.....	48
Chapter 5: Data Review and Findings.....	50
Life Expectancy and Leading Causes of Death.....	52
Basic Necessities.....	54
Affordable Housing.....	55
Fair Housing.....	56
Homelessness.....	57
Housing Quality.....	58
Hunger and Food Insecurity.....	59
Behavioral Health.....	60
Adverse Childhood Experiences (ACEs).....	61
Caregiver Services.....	62

Depression and Anxiety.....	63
Intellectual and Developmental Disability (I/DD) Services.....	64
Suicide.....	65
Chronic Disease.....	67
Alzheimer’s Disease.....	68
Asthma.....	69
Cancer.....	70
Cerebrovascular Disease.....	71
Diabetes.....	72
Heart Disease.....	73
Community Cohesion.....	74
Civic Participation and Volunteerism.....	75
Communication and Internet.....	76
Discrimination and Racism.....	77
Geographic Divide.....	78
Knowledge of Services.....	79
Recreation and Entertainment.....	79
Social Isolation.....	80
Economic Growth.....	81
Built Environment.....	82
Development and Rural Preservation.....	84
Transportation.....	85
Unemployment.....	86
Environment.....	87
Air Quality.....	88
Extreme Heat.....	89
Tick-borne Illness.....	90
Water Quality.....	91
Healthcare.....	93
Dental Care.....	94
Uninsured and Underinsured Population.....	95
Personal Development.....	96
Child Care.....	97
Education.....	98

Literacy.....	100
Parenting Services.....	101
Safety.....	102
Child Welfare.....	103
Domestic and Sexual Abuse.....	104
Elder Welfare.....	104
Emergency Preparedness.....	105
Firearm Safety.....	106
Reckless Driving, Drunk Driving, and Traffic Accidents.....	107
Violent Crime.....	108
Sexual Health.....	109
Prenatal Care and Birthing.....	110
Sexually Transmitted Infections (STIs).....	111
Unintended Pregnancy.....	113
Substance Abuse.....	115
Access to Substance Use Treatment.....	116
Alcohol Abuse.....	117
Illicit Drug Use.....	118
Prescription Drug and Opioid Abuse.....	120
Tobacco Use.....	122
Chapter 6: Future Plans.....	124
Reference List.....	126
Appendices.....	143
APPENDIX A: 2017 Youth Risk Behavior Survey – High School.....	144
APPENDIX B: 2017 Youth Risk Behavior Survey – Middle School.....	167
APPENDIX C: 2017 Youth Risk Behavior Survey Results – Chatham County Schools....	175
APPENDIX D: 2018 Chatham County Community Survey.....	180
APPENDIX E: 2018 Chatham County Community Survey Results.....	202
APPENDIX F: 2018 Chatham County Community Survey Results – East/West.....	222
APPENDIX G: 2018 Community Assessment Focus Group Guide.....	225
APPENDIX H: 2018 Focus Group Key Themes.....	227
APPENDIX I: Community Assessment Findings Presentation.....	228
APPENDIX J: Community Assessment Timeline.....	242
APPENDIX K: Infographics.....	244

List of Acronyms

ACA	Patient Protection and Affordable Care Act
ACE	Adverse Childhood Experience
ACS	American Community Survey
ADHD	Attention Deficit/Hyperactivity Disorder
AP	Advanced Placement
AQI	Air Quality Index
ASD	Autism Spectrum Disorder
BIC	Building Integrated Communities
BMI	Body Mass Index
CA	Community Assessment
CASPER	Community Assessment for Public Health Emergency Response
CCCC	Central Carolina Community College
CCCS	Chatham County Community Survey
CCPHD	Chatham County Public Health Department
CDC	U.S. Centers for Disease Control and Prevention
CHA	Community Health Assessment
CHIP	Community Health Improvement Plan
CHNA	Community Health Needs Assessment
CPCA	Central Piedmont Community Action
DSS	Department of Social Services
EPA	U.S. Environmental Protection Agency
FASD	Fetal Alcohol Spectrum Disorder
FBI	U.S. Federal Bureau of Investigation
FDA	U.S. Food and Drug Administration
FVRC	Family Violence and Rape Crisis Services
HIP	Health Impact Priority
HIV	Human Immunodeficiency Virus
HPP	Health Promotion and Policy Division
HUD	U.S. Department for Housing and Urban Development
I/DD	Intellectual or Developmental Disability
IRS	U.S. Internal Revenue Service
IUD	Intrauterine Device
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer and/or Questioning
MCO	Managed Care Organization

MIT	Massachusetts Institute of Technology
NCDEQ	North Carolina Department of Environmental Quality
NCDHHS	North Carolina Department of Health and Human Services
NCDMV	North Carolina Division of Motor Vehicles
NCDOC	North Carolina Department of Commerce
NCDPH	North Carolina Division of Public Health
NCIPH	North Carolina Institute for Public Health
NCSCHS	North Carolina State Center for Health Statistics
NSCH	National Survey of Children's Health
NSLP	National School Lunch Program
PLE	Provider Led Entity
RMSF	Rocky Mountain Spotted Fever
SAC	Scientific Advisory Committee
SDWA	Safe Drinking Water Act
SNAP	Supplemental Nutrition Assistance Program
SOTCH	State of the County Health Report
STARI	Southern Tick-Associated Rash Illness
STI	Sexually Transmitted Infection
TJCOG	Triangle J Council of Governments
UDO	Unified Development Ordinance
USDA	U.S. Department of Agriculture
WHO	World Health Organization
WIC	Women, Infants, and Children Program
WSCC	Whole School, Whole Community, Whole Child
YRBS	Youth Risk Behavior Survey

List of Figures

Figure 1: County Health Rankings Model.....	19
Figure 2: Chatham Community Cohort Ads.....	20
Figure 3: 2018 Chatham Community Assessment Timeline.....	22
Figure 4: North Carolina Map.....	26
Figure 5: Chatham County Townships Map.....	26
Figure 6: Chatham County Election Districts Map.....	28
Figure 7: Chatham County Population Projections, 2000-40.....	29
Figure 8: 2017 Chatham Population Density by Census Block Group.....	30
Figure 9: CCCS Responses by Method.....	33
Figure 10: CCCS Sampling Map.....	34
Figure 11: Top Issues Affecting Health in Chatham.....	35
Figure 12: Top Issues to Improve Quality of Life in Chatham.....	35
Figure 13: CCCS Demographic Comparison to Chatham County.....	36
Figure 14: 2018 Focus Groups and Key Informant Interviews.....	39
Figure 15: Top Ten Issues Affecting Health in Chatham.....	42
Figure 16: Top Three Issues Affecting Health in Chatham (2018 HIPs).....	43
Figure 17: Healthcare Providers per 10,000 Residents.....	45
Figure 18: Percent Overweight and Obese in Chatham by Age Group.....	47
Figure 19: Percent of Chatham Population Living Below the Federal Poverty Level by Census Tract.....	49
Figure 20: Chatham County Leading Causes of Death.....	52
Figure 21: Chatham Life Expectancy by Census Tract.....	53
Figure 22: Food Insecurity among U.S. Households with Children by Household Composition, 2007-17.....	59
Figure 23: Type of Caregiver Services Currently Provided in Chatham Households.....	62
Figure 24: Chatham News and Record Article on Latinx Teen Mental Health.....	65
Figure 25: Percent of High School Students with Suicidal Ideation or Attempts in the Past 12 Months.....	66
Figure 26: North Carolina Adult Current Asthma Prevalence Rates by Household Income.....	69
Figure 27: Chatham Cancer Incidence and Death Rates by Race/Ethnicity per 100,000 Residents.....	70
Figure 28: Chatham Age-Adjusted Stroke Death Rates per 100,000 Residents, 2001-15.....	71
Figure 29: Percentage of U.S. Adults 18 or Older with Diagnosed Diabetes by Education Level, 2013-15.....	72
Figure 30: Chatham Heart Disease Death Rates per 100,000 by Race/Ethnicity, 2014-16.....	73
Figure 31: North Carolina Heart Disease Death Rates per 100,000.....	73
Figure 32: Chatham Home Internet Access.....	76
Figure 33: Racial/Ethnic Disparities in Key Chatham Indicators.....	77
Figure 34: Chatham Public Health Priority Areas Map.....	78

Figure 35: Chatham Healthy Food Stores Access Map.....	82
Figure 36: Chatham Recreational Space Access Map.....	83
Figure 37: Chatham Population and Housing Density per Square Mile, 2000-30.....	84
Figure 38: Chatham Percent of Zero Car Households Map.....	85
Figure 39: Unemployment Rate, 2013-17.....	86
Figure 40: Chatham Permitted Air Emission Sources Map.....	88
Figure 41: Number of Unhealthy Days for Asthma or Other Lung Disease in Chatham, 2008-15.....	88
Figure 42: North Carolina Emergency Department Visits for Heat-Related Illness and Maximum Heat Index, Summer 2018.....	89
Figure 43: Time Since Last Routine Dental Visit among Chatham Adults.....	94
Figure 44: Barriers to Obtaining Healthcare in Chatham.....	95
Figure 45: Average Monthly Cost of Full-Time Child Care in Chatham.....	97
Figure 46: Chatham Poverty Rate by Educational Attainment, 25 Years and Older.....	98
Figure 47: Chatham Median Income by Educational Attainment.....	99
Figure 48: Top U.S. Parental Concerns.....	101
Figure 49: Number of Investigated Reports of Child Abuse and Neglect in Chatham County, 2008-17.....	103
Figure 50: Chatham Households with Smoke or Carbon Monoxide Detectors at Home.....	105
Figure 51: Number of Accidents Caused by Exceeding Legal Speed or Alcohol in Chatham, 2008-16.....	107
Figure 52: Violent Crime Rate per 100,000, 2008-12.....	108
Figure 53: Average Distance to Care for Childbirth in North Carolina, Miles from Residence to Hospital.....	110
Figure 54: Chlamydia Rate per 100,000, 2013-17.....	111
Figure 55: Gonorrhea Rate per 100,000, 2013-17.....	112
Figure 56: U.S. Births per 1000 Females Aged 15-19 Years by Race and Ethnicity, 2007-15.....	114
Figure 57: Type of Substance Use Treatment Wanted Among Chatham Substance Users.....	116
Figure 58: U.S. Overdose Deaths, 1999-2017.....	118
Figure 59: Waves of the Rise in U.S. Opioid Overdose Deaths, 1999-2017.....	120
Figure 60: North Carolina Opioid Prescription Rates.....	121

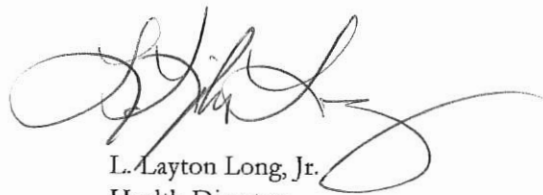
We would like to thank the many people who helped make the 2018 Chatham County Community Assessment a success. Well over 100 volunteers and 45 community organizations contributed to this assessment; with our expanded focus on community well-being, these partnerships became even more critical.

Next, we want to recognize the partners and sponsors in the community whose financial contributions have helped bring this assessment to the point it is today. We would also like to thank the organizations who showed their support for the new assessment process by providing letters of endorsement and reaching out to their clients and communities to encourage them to participate in the process. We are also grateful to the Chatham County Public Health Department for coordinating the Community Assessment process and authoring this report.

We would like to thank the North Carolina Institute for Public Health, who provided guidance and technical assistance for the Chatham Community Cohort Survey. We would also like to thank faculty in the UNC Department of Epidemiology, who encouraged us to take a new approach to the assessment and provided methodological expertise throughout the process.

Further, we would like to recognize all the volunteers and community members who have contributed to the success of the assessment. The Community Cohort Scientific Advisory Committee advised on methodological and ethical issues of the new process. The Survey Development Working Group designed the survey that collected much of the information included in this report. The Focus Group Working Group went out into the community and asked Chatham residents about the biggest issues in their communities. The Prioritization Planning Working Group planned the meeting at which the Health Impact Priorities were determined. Chatham Health Alliance members reviewed community data to determine the Health Impact Priorities (HIPs). The Chatham County Board of Health provided guidance and support of the assessment. We especially want to thank the many survey field volunteers who went door-to-door talking to residents across the county on evenings and weekends to ensure we heard from as diverse a group of residents as possible.

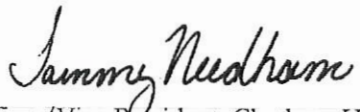
Finally, and most importantly, we are grateful to the residents of Chatham County who took the time to share their perspectives with us through the door-to-door surveys, focus groups, community conversations, and key informant interviews. Their points of view shaped the assessment and were critical to selecting HIPs. We hope that the report brings a better understanding of Chatham County, and we look forward to working with you to improve the health and well-being of those fortunate enough to call Chatham home.




L. Layton Long, Jr.
Health Director
Chatham County Public Health Department



Robert Enders
President
Chatham Hospital

Tammy Needham 
Chief Nursing Officer/Vice President, Chatham Hospital
2018 Chair, Chatham Health Alliance

Jessica Mashburn 
Executive Director, Chatham YMCA
2019 Chair, Chatham Health Alliance

Sponsors List

The following partners and sponsors provided financial support to ensure the success of the Community Assessment:

- Carolina Meadows
- Chatham County Council on Aging
- Chatham County Manager's Office
- Chatham County Public Health Department
- Chatham Drug Free
- Chatham Health Alliance
- Chatham Hospital
- Silver Thread Senior Living Communities
- United Way of Chatham County

Endorsers List

The following organizations showed their support for the new assessment process by providing letters of endorsement and reaching out to their clients and communities to encourage them to participate in the process:

- 15-501 Pharmacy & Carolina Convenient Care
- Central Carolina Community College
- Chatham County Chamber of Commerce
- Chatham County Board of Commissioners
- Chatham County Department of Social Services
- Chatham Education Foundation
- Chatham Reads
- Communities in Schools of Chatham County
- Daymark Recovery Services
- Piedmont Health Services
- Pittsboro Discount Drug & Urgent Care
- Safe Kids Chatham County
- Siler City Development Organization, Inc.
- Town of Siler City
- Tick-Borne Infections Council of North Carolina
- UNC Center for Excellence in Community Mental Health
- Wellness & Education Community Action Health Network

Contributors List

The following community members contributed to the development and completion of the Community Assessment report:

Editor

Shannon Godbout, MSc, Chatham County Public Health Department

Graphic Designer

Ashley Weinberger, Chatham County Public Health Department

Authors

Shannon Godbout, MSc, Chatham County Public Health Department
Laura Hearn, MDA, RD, LDN, Chatham County Public Health Department
Casey Hilliard, MA, Chatham County Public Health Department
Anne Lowry, REHS, Chatham County Public Health Department
Dorothy Rawleigh, CHES, Chatham County Public Health Department
Anna Stormzand, MPH, CHES, Chatham County Public Health Department
Ashley Weinberger, Chatham County Public Health Department
Julie Wilkerson, MPH, Chatham County Public Health Department
Michelle Wright, MPH, CHES, Chatham County Public Health Department
Michael Zelek, MPH, Chatham County Public Health Department

Reviewers

Karen Barbee, EdD, Chatham County Board of Health
Jim Crawford, PhD, Chatham County Boards of Commissioners and Health
Robert Enders, Chatham Hospital
Wanda Fearington, LPN, Chatham County Board of Health
Marcia Herman-Giddens, PA, MPH, DrPH, Chatham County Board of Health
John Kessler, PharmD, Chatham County Board of Health
Lewis Lampiris, DDS, MPH, Chatham County Board of Health
Layton Long, MSA, REHS, Chatham County Public Health Department
Jessica Mashburn, Chatham Health Alliance
Tammy Lynn Morris Lloyd, MD, Chatham County Board of Health
Tammy Needham, MSN, RN, Chatham Hospital
Carol Reitz-Barlow, MSN, RN, CCRN, Chatham County Board of Health
William Roscoe, OD, Chatham County Board of Health
David Webster, DVM, Chatham County Board of Health
Cecil Wilson, Chatham Health Alliance
Michael Zelek, MPH, Chatham County Public Health Department

Scientific Advisory Committee

Dorothy Cilenti, DrPH, UNC Gillings School of Global Public Health
Aaron Fleischauer, PhD, North Carolina Division of Public Health
John Kessler, PharmD, Chatham County Board of Health
Matt Simon, MA, North Carolina Institute for Public Health
Steve Stewart, PhD, Fearington Cares

Photos

Duane Hall
Don Smith


2018

What is the Community Assessment?


The community assessment, or CA, uses high-quality data to better understand the needs, perceptions, and experiences of Chatham County residents and enable focused, collective efforts to build an active, thriving community for all. This process is used to select Health Impact Priorities to target efforts on the most pressing community concerns.

Health Impact Priorities


After reviewing data from a variety of local, state, and national sources, the Chatham Health Alliance prioritized these issues:



Obesity



Access to Comprehensive Health Services



Poverty

The three Health Impact Priorities will be the focus of community action over the next three years.

Who is Involved?

Over 100 volunteers and 45 community organizations contributed to the success of this assessment. The following sponsors helped make this assessment possible:

- Carolina Meadows
- Chatham Health Alliance
- Chatham County Council on Aging
- Chatham Hospital
- Chatham County Manager’s Office
- Silver Thread Senior Living Communities
- Chatham County Public Health Department
- United Way of Chatham County
- Chatham Drug Free

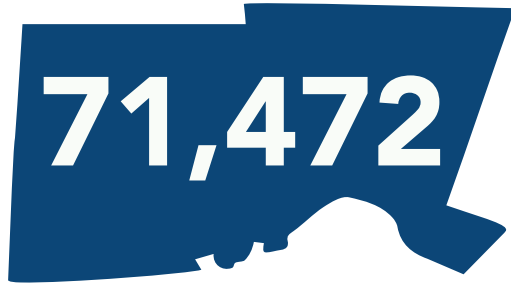
Hundreds of Chatham residents shared their perspectives through community surveys, focus groups, community conversations, and key informant interviews.



What is Next?

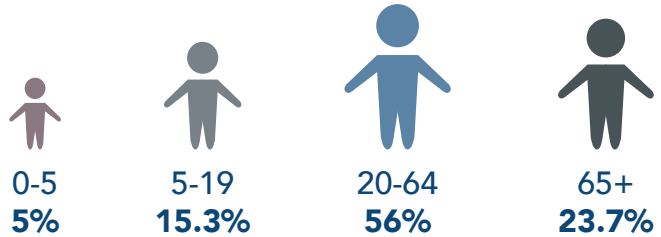
New Chatham Health Alliance subcommittees formed in early 2019 to coordinate work in the community around the Health Impact Priorities. Throughout the coming years, community engagement will continue through the Chatham Community Cohort and community conversations. Collective efforts will continue to work towards optimal health and well-being for all Chatham residents.

Who is Chatham?



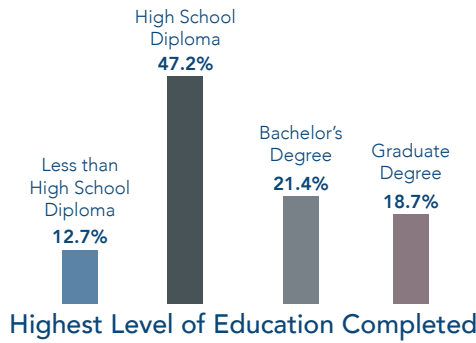
2017 Population

Age Distribution



"People are proud to live in Chatham County"

11.7%
Speak Spanish at home



10.2%
Had trouble accessing healthcare in the past year



18.1% of Chatham County high school students are overweight and an additional 15.4% are obese

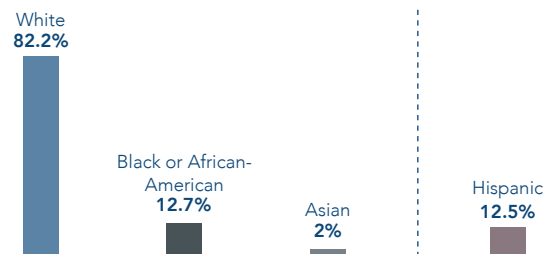


30.6% of Chatham County adults are overweight and an additional 28.8% are obese

Percent in Poverty

13.3% Overall
20.8% Children

Race/Ethnicity



Sources: Chatham County Community Survey, 2018; US Census, 2017; Community Assessment Focus Groups, 2018

For the complete report, visit: www.chathamtalks.org



2018

Evaluación de la Comunidad Condado de Chatham: Puntos Destacados

¿Qué es la Evaluación de la Comunidad?

La Evaluación de la Comunidad, o CA, por sus siglas en inglés, utiliza datos de alta calidad para entender mejor las necesidades, las percepciones y experiencias de los residentes del Condado de Chatham y permite esfuerzos colectivos y enfocados para construir una comunidad activa y próspera para todos. Este proceso se utiliza para seleccionar las Health Impact Priorities Prioridades de Impacto en la Salud, y de esta manera poder orientar los esfuerzos a las preocupaciones más urgentes de la comunidad.

Prioridades de Impacto en la Salud

Después de analizar datos de una variedad de fuentes locales, estatales y nacionales, la Chatham Health Alliance priorizó los siguientes problemas:



Obesidad



Acceso a Servicios de Salud Integrales



Pobreza

Las tres Prioridades de Impacto en la Salud serán el enfoque de la acción comunitaria a través de los próximos tres años.

¿Quiénes son los participantes?

Mas de 100 voluntarios y 45 organizaciones comunitarias contribuyeron al éxito de la evaluación. Los siguientes patrocinadores ayudaron a hacer posible esta evaluación:

- Carolina Meadows
- Chatham County Council on Aging
- Chatham County Manager's Office
- Chatham County Public Health Department
- Chatham Drug Free
- Chatham Health Alliance
- Chatham Hospital
- Silver Thread Senior Living Communities
- United Way of Chatham County

Cientos de residentes del Condado de Chatham compartieron sus perspectivas por medio de encuestas, grupos de enfoque, conversaciones comunitarias y entrevistas a informantes claves.

¿Y Ahora Qué Sigue?

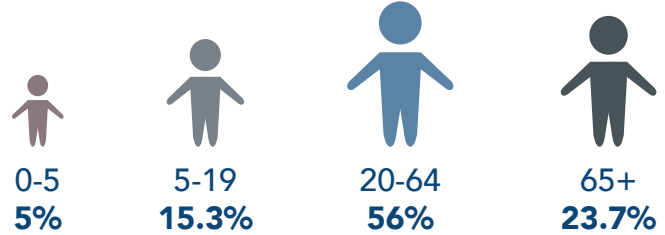
Se formaron nuevos subcomités de la Chatham Health Alliance a principios del año 2019 para coordinar el trabajo en la comunidad alrededor de las Prioridades de Impacto en la Salud. A lo largo de los próximos años, la colaboración de la comunidad continuará a través de la Cohorte de la Comunidad de Chatham y por medio de conversaciones comunitarias. Los esfuerzos colectivos continuarán trabajando para lograr una salud y bienestar óptimos para todos los residentes de Chatham.

¿Quién Es Chatham?



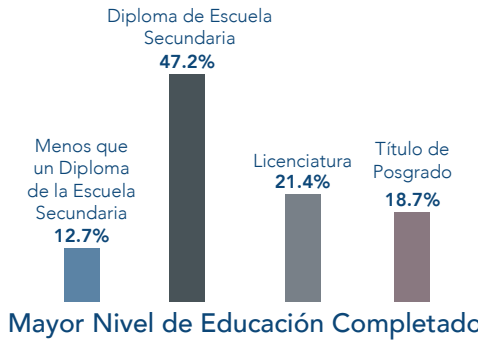
Población del 2017

Distribución de Edades



11.7%

Hablan español en Casa



10.2%

El 10.2% tuvo dificultades en acceder a la atención medica en el último año



El 18.1% de los estudiantes de secundaria en el Condado de Chatham tienen sobrepeso y un 15.4% adicional son obesos



El 30.6% de los adultos en el Condado de Chatham tiene sobrepeso y un 28.8% son obesos

Viviendo en Pobreza

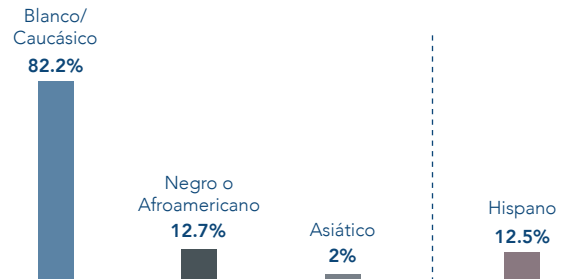
13.3%

En General

20.8%

Niños

Raza/Etnicidad



Fuente: Chatham County Community Survey, 2018; US Census, 2017
Para el informe completo, visite la página www.chathamtalks.org



2018

Community Assessment Chatham County · Executive Summary

Vision Statement

The Community Assessment will be the core resource of high-quality data for improved understanding of the needs, perceptions, and experiences of Chatham residents, enabling focused, collective efforts toward improving community health and well-being.

Leadership

The Community Assessment was a cross-sectoral effort, supported by the leadership of the following sponsor organizations:

- Robert Enders, Chatham Hospital, President
- Layton Long, Chatham County Public Health Department, Health Director
- Jessica Mashburn, Chatham Health Alliance, 2019 Chair; YMCA, Executive Director
- Tammy Needham, Chatham Health Alliance, 2018 Chair; Chatham Hospital, CNO/VP

Partnerships

Over 100 volunteers and 45 community organizations contributed to the success of this assessment. Support ranged from developing data collection tools to contributing financially to assessment activities and conducting surveys. The contributions of these partners allowed this assessment to truly represent the Chatham community.

Category	Number
Behavioral Health Providers	3
Businesses	5
Community Organizations	15
Dental Health Providers	1
Educational Institutions	2
Government (Non-health)	5
Healthcare Providers	2
Hospitals	1
Media Outlets	2
Pharmacies	3
Public Members	8
Public Health Organizations	2
Public School Systems	1

Contracted Services

The North Carolina Institute for Public Health was contracted to select the sample for survey respondents as well as assist with implementation, data collection, and analysis.

Theoretical Framework/Model

The Public Health Framework for Reducing Health Inequities informed the community assessment process. This framework looks at determinants of health on a continuum, ranging from upstream issues like social inequities to downstream issues like mortality. The Socio-ecological Model, which considers the different levels of factors that influence health, ranging from the individual to societal, also provided guidance.

Collaborative Process Summary

Planning for the 2018 Chatham Community Assessment officially began in January 2017, though discussions occurred in late 2016 about expanding beyond the standard community health assessment process. Data, including the community survey and focus groups, were collected in Spring 2018 and analyzed in the summer. Health priorities were determined at a Chatham Health Alliance meeting in October 2018. The complete 2018 Community Assessment report was published in March 2019.

Key Findings

Overweight/obese:

- **30.6%** of adults are overweight and an additional **28.8%** are obese¹
- **18.1%** of youth are overweight and an additional **15.4%** are obese²

Physical activity:

- **36.7%** of adults engaged in vigorous physical activity each week¹
- **81.5%** of adults engaged in moderate physical activity each week¹
- **74.6%** of adults engaged in leisure physical activity in the past month¹

Percent in poverty:

- **13.3%** of residents are living below the poverty line³
- **20.8%** of children are living below the poverty line⁴

Trouble accessing healthcare:

- **10.2%** of adults had trouble accessing healthcare in the past year for the following reasons: *could not get appointment soon enough, once there, wait was too long, could not get through on the phone, office not open convenient hours, too expensive, no insurance, available doctors not in insurance network, needed service not covered by insurance, did not know where to go*¹

Routine Healthcare:

- **79%** of adults have had a routine physical in the last year¹
- **65.2%** of adults have had a routine dental checkup in the last year¹

Next Steps

Step One:

Disseminate Community Assessment findings to the community.

Step Two:

Form new Chatham Health Alliance subcommittees to address each Health Impact Priority.

Step Three:

Continue gathering community input through the Chatham Community Cohort and Community Conversations.

Step Four:

Develop Community Health Improvement Plans in each Alliance subcommittee.

Step Five:

Create strategic plans for the Chatham County Public Health Department and Chatham Hospital.

Step Six:

Work collectively to improve the health and well-being of Chatham County residents.

1. Chatham County Community Survey, 2018; 2. Youth Risk Behavior Survey; 2017, 3. US Census, 2017; 4. Kids Count, 2016

For the complete report, visit: www.chathamnc.org/healthreports

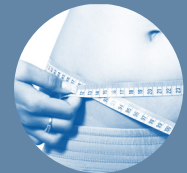


Health Impact Priorities

After reviewing data from a variety of local, state, and national sources, the Chatham Health Alliance prioritized the following Health Impact Priorities:



Access to Comprehensive Health Services



Obesity



Poverty

The three Health Impact Priorities will be the focus of community action over the next three years.



Chapter 1: *Background*

Overview

The 2018 Chatham Community Assessment (CA) is the result of over two years of work to collect and use high-quality data to better understand the needs, perceptions, and experiences of Chatham County residents and guide focused, collective efforts to build an active, thriving community for all. This process was used to establish Health Impact Priorities (HIPs) for the next three years and will inform action plans to address these priorities. The CA brings in data from numerous sources to serve as a central resource and help local agencies, organizations, and community members working on these issues to plan and coordinate their efforts and ensure that the most pressing community concerns are being addressed.

The North Carolina Division of Public Health (NCDPH) requires local health departments through state contract, including the Chatham County Public Health Department (CCPHD), to conduct a Community Health Assessment (CHA) every four years to maintain accreditation. Chatham Hospital, as a tax-exempt hospital, is required under the Patient Protection and Affordable Care Act (ACA) to complete a Community Health Needs Assessment (CHNA) every three years to meet Internal Revenue Service (IRS) requirements. This document fulfills the requirements for both organizations, and future assessments will be conducted every three years to align these efforts.

The 2014 Chatham County Community Health Assessment was the first CHA conducted as a collaborative effort between CCPHD and Chatham Hospital. In addition to satisfying mandated requirements for both organizations, collaborating on the CHA added expertise and credibility to the process while creating synergy

and avoiding duplication of efforts. To guide the process, a Steering Committee of approximately fifty members was formed, representing a broad diversity of individuals and areas of expertise from all areas of the county. This committee ultimately selected the 2014 health priorities: access to healthcare, access to mental health services, and obesity.

The Chatham Health Alliance (Alliance) was established in March 2015 as an extension of the 2014 CHA Steering Committee. The Alliance is a collaborative of local professionals and residents working together to improve health in Chatham County, with a focus on the health priorities identified in the CHA.

Recognizing that the conditions in which people live, work, play, and pray impact community health and well-being, the Alliance decided to take a broad approach to improving health in the county. The 2018 CA is a reflection of this broad approach and expands beyond previous community health assessments with the aim of being a comprehensive community assessment that brings together stakeholders from various sectors, ranging from economic development and education to housing and public safety, and incorporates high-quality, local-level data on the range of issues that affect community well-being.

Vision

The Community Assessment will be the core resource of high-quality data for improved understanding of the needs, perceptions, and experiences of Chatham residents, enabling focused, collective efforts toward improving community health and well-being.

Community Assessment Process

Planning for the 2018 CA officially began in January 2017, though discussions about expanding beyond the standard community health assessment process preceded this. The driving reason behind this decision was the recognition that, in order to truly impact community health, organizations across the county need to collaborate to address the multitude of factors that affect health. This assessment attempts to capture data on a range of these factors, including housing quality, healthy food access, educational attainment, discrimination, public safety, and access to healthcare, among others. Collectively, these factors are known as “determinants of health.”

Traditional clinical care remains an essential element of personal health, though recent research suggests that around eighty percent of health is determined by a combination of social and economic factors, health behaviors, and the physical environment.¹ Adequately addressing these issues in Chatham requires an understanding of the characteristics of the population today and how they may change over time.

A common challenge outside of urban centers is a lack of current, local-level data to track trends and identify topics of concern, an issue that Chatham has long experienced. Because of this, the Alliance decided to collect its own local data by developing a representative, longitudinal community cohort approach. Cohort studies are a common means of assessing the impacts of interventions over time and have been critical to determining causes of disease.

The cohort approach is novel to community assessments, and there were limitations both in terms of financial resources and examples from other communities to use as models

for adapting this process in Chatham. Grant funding and contributions from community sponsors supported the foundation-building and implementation of this approach, and ultimately local buy-in will allow this work to be sustained and driven by local partners and county leadership.

From early 2017 through the summer, a protocol detailing the aims of the cohort as well as the design, methodology, ethical considerations, and a data analysis plan was developed with guidance from epidemiologists at UNC Chapel Hill and the North Carolina Institute for Public Health (NCIPH). This process followed an extensive literature review to determine the best sampling and survey methodologies for the Chatham context. To ensure the community cohort was conducted in an ethical and methodologically sound manner, a Scientific Advisory Committee (SAC) with expertise in research methods and ethics comprised primarily of Chatham residents was recruited to review the protocol; the SAC met multiple times in the summer of 2017 as the

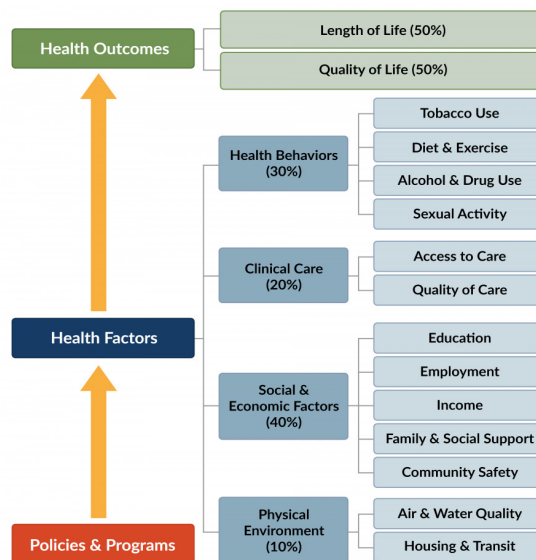


Figure 1: County Health Rankings Model^l

protocol was finalized. A list of SAC members can be found on page 10.

Simultaneously, the Survey Development Working Group formed to refine the Chatham County Community Survey (CCCS) questionnaire that would be used to collect baseline data to inform the CA. This working group met in August 2017 and was comprised of over 40 members representing different sectors in the county. The questionnaire included questions provided by a number of community organizations and helped to ensure that the CCCS looked not only at health issues facing the community, but also examined determinants of health, such as housing and poverty. In addition, members piloted the questionnaire with clients and neighbors to ensure question clarity and assess the survey length.

Understanding the importance of the CA both to the Alliance and in providing local data that could guide their work, many local organizations offered to sponsor or endorse the process. Letters of endorsement were provided in fall 2017, through which organizations described their support for the CA and how the findings would impact their work. Lists of assessment sponsors, partners, and endorsers can be found on page 9. This local buy-in and assistance makes the CA meaningful; community partners have shown they believe in this work and are willing

to support it both with their time and, in many cases, their funds.

To help spread community awareness about the CA and to improve recruitment outcomes for the community cohort, the Alliance worked with a marketing firm to brand and create outreach materials for the CA. “ChathamTalks” was developed as a universally recognizable brand for the assessment and provided the backbone for community outreach and engagement, including the website www.ChathamTalks.org, a logo, mailers, Facebook ads, posters, table tents, and press releases. These materials were available across the county in both English and Spanish.

In early 2018, CCPHD contracted with NCIPH to select the sample of residents recruited to the community cohort as well as assist with training, data collection, and analysis.

In spring 2018, recruitment for the community cohort officially began, as selected residents received a series of mailers asking them to complete the CCCS. Participants were able to complete the survey online, by mail, or in-person as volunteer survey teams went door-to-door in March and April. In the end, 367 surveys were completed, and 340 people consented to be contacted up to twice per year to gather additional insight into the Chatham community. This will yield timely data and allow the Alliance



Figure 2: Chatham Community Cohort Ads

A representative longitudinal community cohort is a group of residents that reflects the demographic composition of the community and is followed over time to track changes in the broader community.

to conduct more detailed assessments of topics of interest, such as the HIPs, emerging issues, and the underlying determinants of health that are critical to building a culture of health. The community cohort also affords the opportunity to gather regular input from a representative sample of the county's population. This is critical for a number of initiatives and will ensure that work in Chatham aligns with and is responsive to community needs. Through this engagement process, the community cohort will provide a statistically representative sample that will allow voices from across the community to be heard and can be tapped into for community input in future initiatives.

The CCCS data serve as the cornerstone for this assessment; however, it would be remiss to understate the role that qualitative data collection through focus groups, community conversations, and key informant interviews play in deepening the understanding of the Chatham community. The Focus Group Working Group formed in early 2018 to strategize around qualitative data collection and develop the focus group guide, which served as a tool to effectively facilitate these discussions. Focus groups, community conversations, and key informant interviews were held across the county from February through July 2018 to engage with a variety of communities, including by geographic location or demographic affiliation; a total of fifteen discussions were held in this period. The data from the CCCS, focus groups, community conversations, and key informant interviews were analyzed to quantify baseline numbers and identify emerging themes in summer 2018. For the CCCS data, this included a sub-county analysis to identify statistically

significant differences in responses from residents in the eastern and western sides of the county. These primary data were then combined with data from a number of sources, including the 2017 Chatham Youth Risk Behavior Survey (YRBS), Chatham County Comprehensive Plan, Chatham Aging Plan, North Carolina State Center for Health Statistics (NCSCHS), U.S. Census, and American Community Survey (ACS), among others, to provide a comprehensive view of the Chatham community.

The Prioritization Planning Working Group met in summer 2018 to plan the October Alliance meeting at which these data were presented and community issues were prioritized. This group decided upon how best to present the data to the larger group as well as the criteria to consider during the prioritization process and the manner in which the priorities would ultimately be determined.

The Alliance met in October 2018 to review data collected through the assessment process. The complete presentation from that meeting can be found in Appendix I. The 2018 HIPs were determined through discussion and several rounds of voting by meeting attendees; an in-depth description of the prioritization process can be found in Chapter 4.

In response to the 2018 HIPs, new Alliance subcommittees formed in early 2019 to mobilize around the identified issues.

This report was developed in the latter months of 2018 and early 2019 and, after incorporating feedback from CA and Alliance leadership and the Board of Health, was submitted to the

NCDPH in March 2019 and the IRS in April 2019.

The next step in the CA process is disseminating the findings in this report to the Chatham community as well as developing Community Health Improvement Plans (CHIPs) in each

Alliance subcommittee and strategic plans for both CCPHD and Chatham Hospital. From there, the Alliance, CCPHD, Chatham Hospital, and community partners will continue to work collectively to improve the health and well-being of Chatham residents.

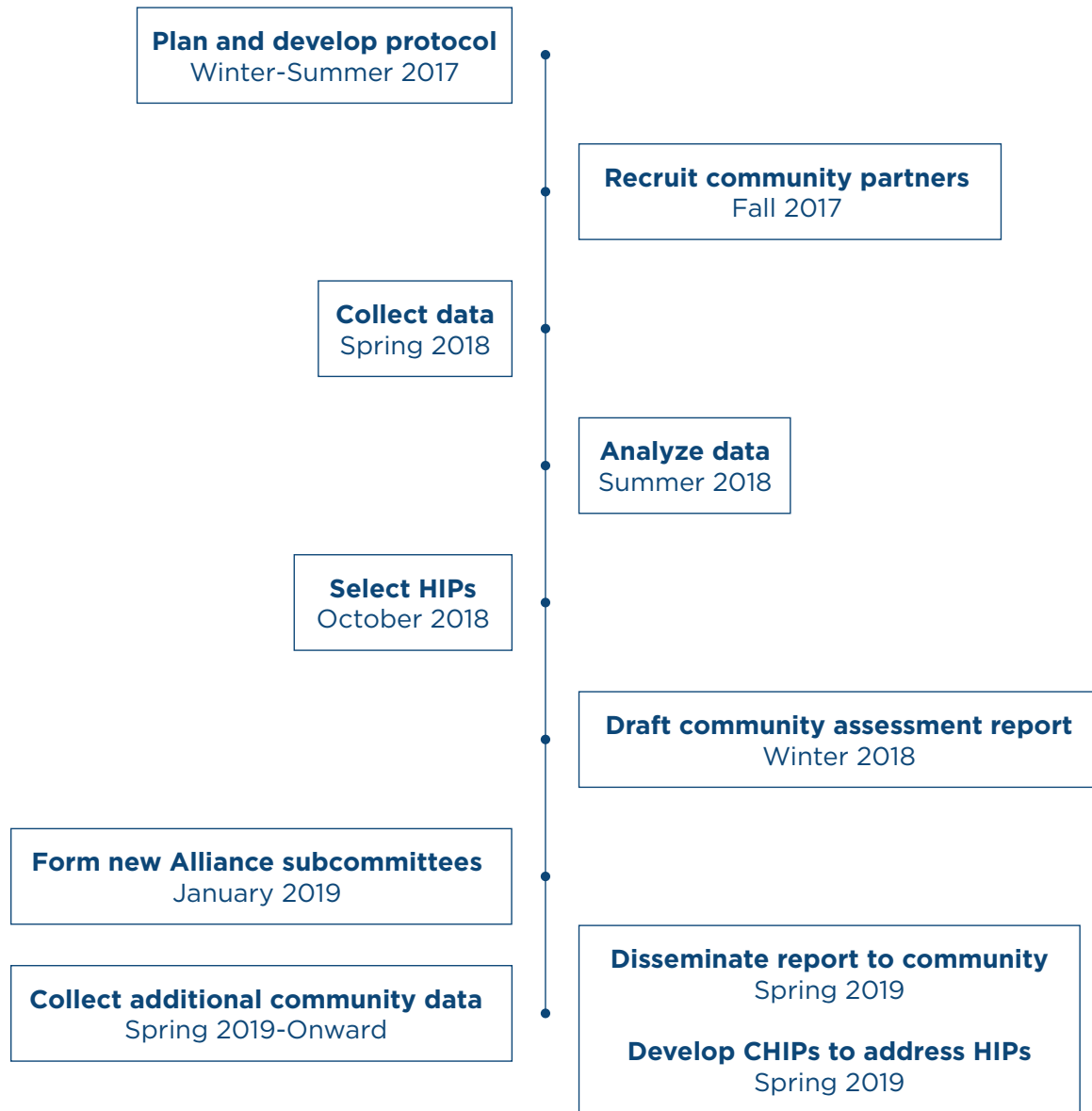


Figure 3: 2018 Chatham Community Assessment Timeline

Equity and Systems Focus

The Chatham Health Alliance and its members are aligned around the shared aim of fostering a healthy community for all Chatham residents, or as the Alliance's vision states, "a Chatham where residents of all races, religions, ethnicities, sexual orientations, and/or gender identities achieve optimal health." At the heart of this vision is a commitment to the pursuit of equity. Equity, as defined by the World Health Organization (WHO), is "the absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically or by other means of stratification."³ The Alliance's pursuit of equity is grounded in the realization that persistent inequities in the community contribute to disparities in health and well-being. Consequently, to foster a community where all individuals have the opportunity to reach their full potential, community-wide issues like poverty, unemployment, poor education, income inequality, inadequate housing, poor access to transportation, exposure to violence, and racial and ethnic discrimination need to be investigated and understood.

From the outset, one of the primary aims of the CA was to monitor community well-being in the broadest sense. As a result, the Alliance adopted a systems-focused approach that included a range of socioeconomic and health factors. Additionally, the approach sought to intentionally engage a representative sample of residents in order to better understand how these factors are impacting all segments of the population. In order to get a representative sample of residents across income levels, the sampling strategy accounted for income level. Recruitment was conducted through a mail campaign and in-person. Surveys could be

completed online, by mail, or by door-to-door surveyors. This allowed the Alliance to engage people with varying literacy levels or who did not access the internet. Additionally, all recruiting and survey materials were distributed in both English and Spanish, and Spanish-speaking surveyors were available in neighborhoods with a high Hispanic/Latinx population. Investing resources in door-to-door recruitment and surveying was essential for obtaining a representative cohort, as the surveys returned via the web and mail skewed White, female, and upper-income. In the end, the community cohort closely mirrored the racial/ethnic makeup of the county: 76.6% White, 13.9% Black/African-American, 10.1% Hispanic/Latinx (ACS 2017 estimates: 82.2% White, 12.7% Black/African-American, 12.5% Hispanic/Latinx).⁴

To gain a deeper understanding of the diversity of priorities in the county, the CA included a number of qualitative data collection methods as well. Focus groups, community conversations, and key informant interviews were held throughout the county and aimed to engage different sub-populations in a format that dug more deeply into the issues. Although the information learned in these sessions is not intended to be representative, the sessions did help to capture the opinions of youth, aging adults, under-represented racial/ethnic groups, parents of young children, child care providers, and healthcare providers.

Finally, to better identify existing disparities, the data in this report are often broken down by sub-population. The acknowledgement of disparities is intended to be a starting point in efforts to understand how issues may affect different populations differently. Further, while determining the HIPs, Alliance members were

asked to consider how each issue impacted existing disparities within the community.

The 2018 CA is just the beginning. The CA's innovative community cohort model will allow the Alliance to continue to learn from county residents and to delve deeper into priority issues using an equity lens to discern disparities and their root causes. Community conversations will continue to engage residents of communities often underrepresented in data collection to better inform programming and implementation

to maximize community impact. Moreover, the Alliance and CCPHD are working with NCIPH to implement an equity-focused analysis of the assessment data that will identify disparities in well-being between population groups in the county, including groups defined by geographic differences. Finally, throughout this process and its ongoing efforts, the Alliance has committed to effective community engagement and identifying systems-level solutions to advance community well-being for all.



Chapter 2: *County Description*

Historical & Geographic Overview

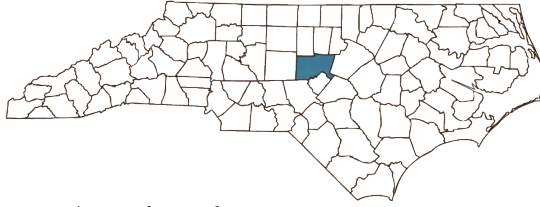


Figure 4: *North Carolina Map*

Chatham County was established in 1771 and was named after the Earl of Chatham, William Pitt. Originally part of Orange County, Chatham County was formed because residents living in the area found it too difficult and expensive to travel to the Orange County government seat, Hillsborough, to do business.⁵ Chatham County has boundaries with Alamance, Orange, Durham, Wake, Harnett, Lee, Moore, and Randolph counties (Figure 4).

Chatham County is 682 square miles in total area.⁴ There are four incorporated towns located in Chatham County: Pittsboro, Siler City, Goldston, and Cary. Pittsboro, established in

1787, is the county seat and home to most county offices as well as the historic courthouse, which is the setting for county Board of Commissioners meetings.⁶ It is located in the center of the county. Pittsboro has been the epicenter of growth in the county in recent years and is projected to double the population of the county in the coming decades. Siler City, located 17 miles west of Pittsboro on US-64, was founded in 1887.⁷ With an estimated population of 8,190 residents, it is the largest municipality located within county borders.⁷ Goldston, located in the southwestern side of the county, is Chatham County's smallest town. Like the other towns, Goldston has a mayor and town board. Cary, while located predominately in Wake County, has annexed a small part of eastern Chatham.⁶ The rest of the county, from Moncure in the southeast and Silk Hope in the northwest, is unincorporated. A map of the county's townships is shown in Figure 5.

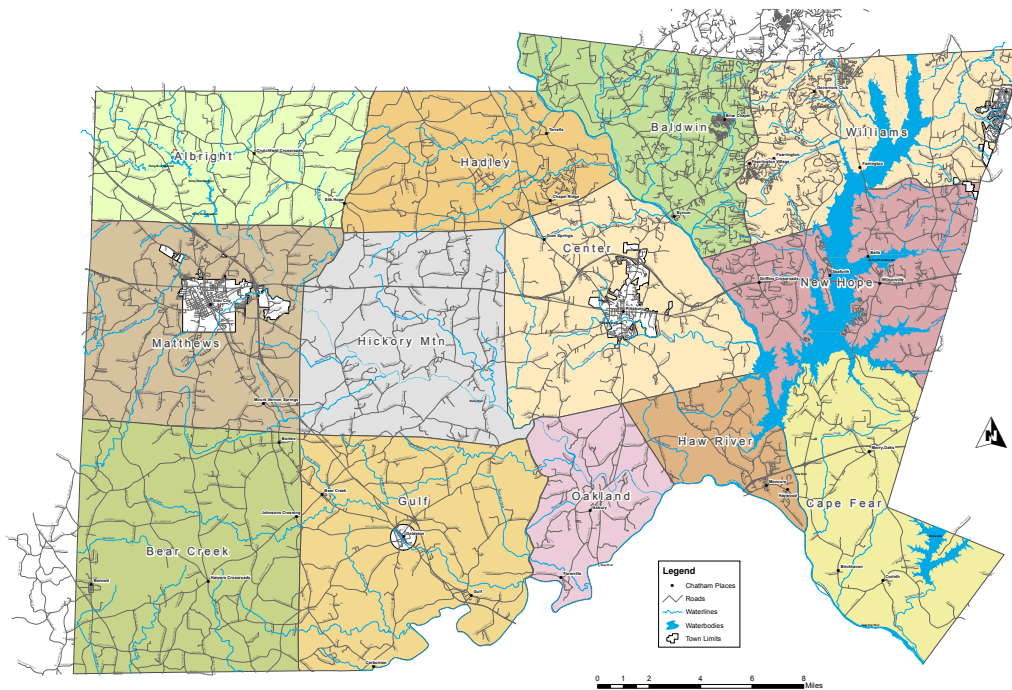


Figure 5: *Chatham County Townships Map*⁶

County Governance

Programs and services

County governments in North Carolina provide a wider array of services or programs than in many states where counties have more limited responsibilities. For example, North Carolina counties typically play a larger role in health and social services than in many states.

On the other hand, counties in North Carolina do not have any responsibility for roads or bridges, which many counties across the nation do. Generally, most of the county's programs and services are mandated or required by state and/or federal government. Only a few programs and services are truly optional.

One of the major changes over the past 25 years is that nearly all counties provide services that once were only offered in towns or cities, such as recreation, water and sewer, and land use planning. Residents of incorporated areas in the county have generally come to expect that such services will be available, which has led to more and more counties initiating these services.

County governing board

A five-member Board of Commissioners governs Chatham County. The commissioners are elected at large, but must reside within a particular district. Commissioners appoint a county manager who administers the day-to-day business of the county, including personnel and budget oversight. The Board of Commissioners also appoints the county attorney, clerk to the Board of Commissioners, and the tax administrator, but they do not appoint other county staff positions.

The Board of Commissioners has general authority over county policies, while several other boards have authority over specific policy areas, such as the Board of Health, Board of

Social Services, Board of Elections, and Soil and Water Conservation District Board. The Board of Commissioners appoints all members of the Board of Health and makes some of the appointments to the Board of Social Services, but neither the Board of Elections nor the Soil and Water District Conservation Board have any commissioner appointments.

County manager's authority

Unlike town managers, the county manager only has hiring authority for about one-third of all county department heads. Even though the county manager has limited authority over selecting department heads, the manager works closely with all of the departments and their leaders because the county often is responsible for funding all or some of their budgets.

Education

Chatham County contributes funds to, but does not govern, the K-12 public education and community college system. The Chatham County School System is governed by its own elected board. Central Carolina Community College (CCCC), which has two campuses in the county, is governed by its own appointed Board of Trustees.

Generally, county resources provide only part of the total funding for K-12 and community colleges, but the county devotes a considerable amount of its resources to public education. For FY 16-17, funding for K-12 schools was 39% of the county's budget.⁸ According to the North Carolina Association of County Commissioners Annual Tax and Budget Survey for FY 2016-17, the county ranked sixth in the state in total spending per student and fourth in per student funding for school current expense/general funds.⁸ The county also was seventh in overall

education resources per capita during FY 16-17.⁸

County offices

Most county offices are in Pittsboro, but a few departments have offices or locations in other parts of the county, such as the Library, Social Services, and the Health Department.

Districts

Chatham County is divided into many types

of districts, and these rarely look alike. Some of these districts include fire districts, township districts, voting precincts, county commissioner voting districts, school board voting districts, and school attendance districts. They all look quite different because, in most cases, state or federal rules require that districts be formed based on different factors. For example, any election districts have to consider population as a primary factor, whereas local land use is a major factor for agriculture districts.

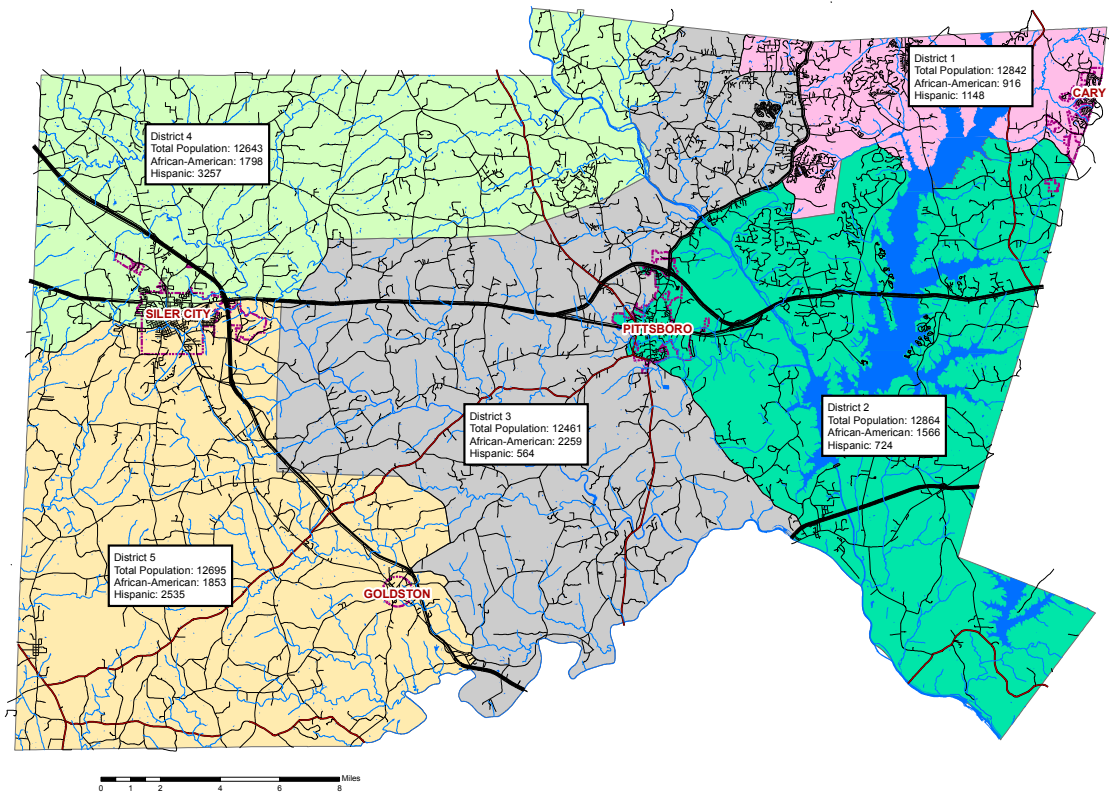


Figure 6: Chatham County Election Districts Map⁶

Population

Chatham County’s population increased from just under 50,000 in 2000 to over 71,000 in 2017, making it one of the fastest growing counties in the state.⁴ On average, Chatham residents are older, have higher educational attainment, and have higher incomes than North Carolina residents as a whole.

Fifty-two percent of county residents are female.⁴ The population is 82.2% White, 12.7% Black/African-American, 2.0% Asian, 1.2% American Indian or Alaska Native, and 1.8% multiracial.⁴ Twelve and a half percent of Chatham residents are Hispanic/Latinx, and 43.5% of Siler City residents identify as Hispanic/Latinx.^{4,7} Over 11% of Chatham residents speak Spanish at home.⁴

The average age of residents is 45.5 years, which is higher than the North Carolina average of 37.8 years.⁹ The average age of residents in Siler City is under 40 years, while in northeast Chatham it is over 56 years.⁹ Nearly one quarter of residents are 65 years or older, and this is expected to increase in the coming decades.⁴

Population density is highest in northeast Chatham and in Siler City; however, Chatham is a predominately rural county. In 2010, the population density of the county was 93.1 persons per square mile, less than half of the population density of the state as a whole.⁴ Sixty-six percent of the population lived in rural areas, which made up 97.5% of the county’s total area.¹⁰

Several factors are contributing to population growth in the county. Chatham County’s proximity to urban areas in the Triangle, particularly the northeastern part of the county, has made it a desirable place to live for those who work in the Triangle area. Chatham Park, a mixed-use development in Pittsboro, is projected to bring 20,000 new households and 60,000 new residents over the next 30 years.¹¹ Furthermore, Chatham County has become a popular retirement destination, with several retirement communities located in the county. With this population shift comes a greater demand for services for older adults, ranging from access to healthcare facilities and

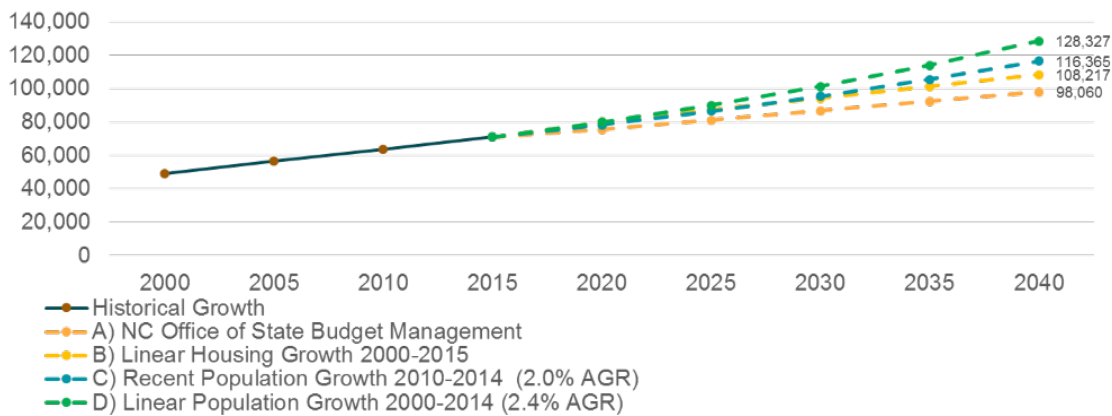


Figure 7: Chatham County Population Projections, 2000-40⁴

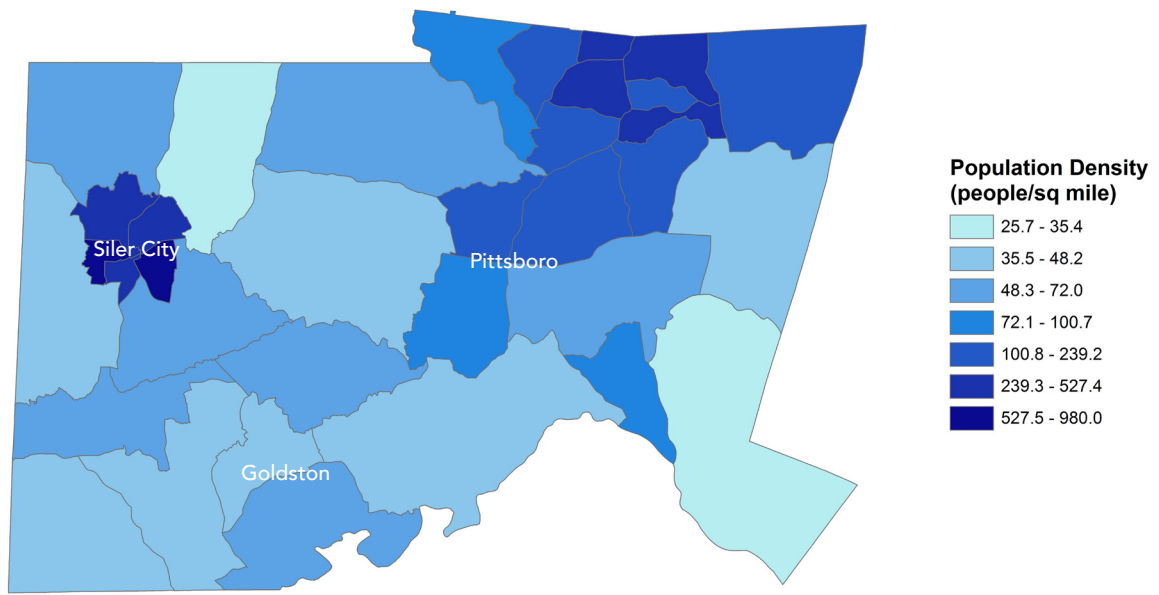


Figure 8: 2017 Chatham Population Density by Census Block Group³⁰

public transportation to nursing homes and recreational facilities.

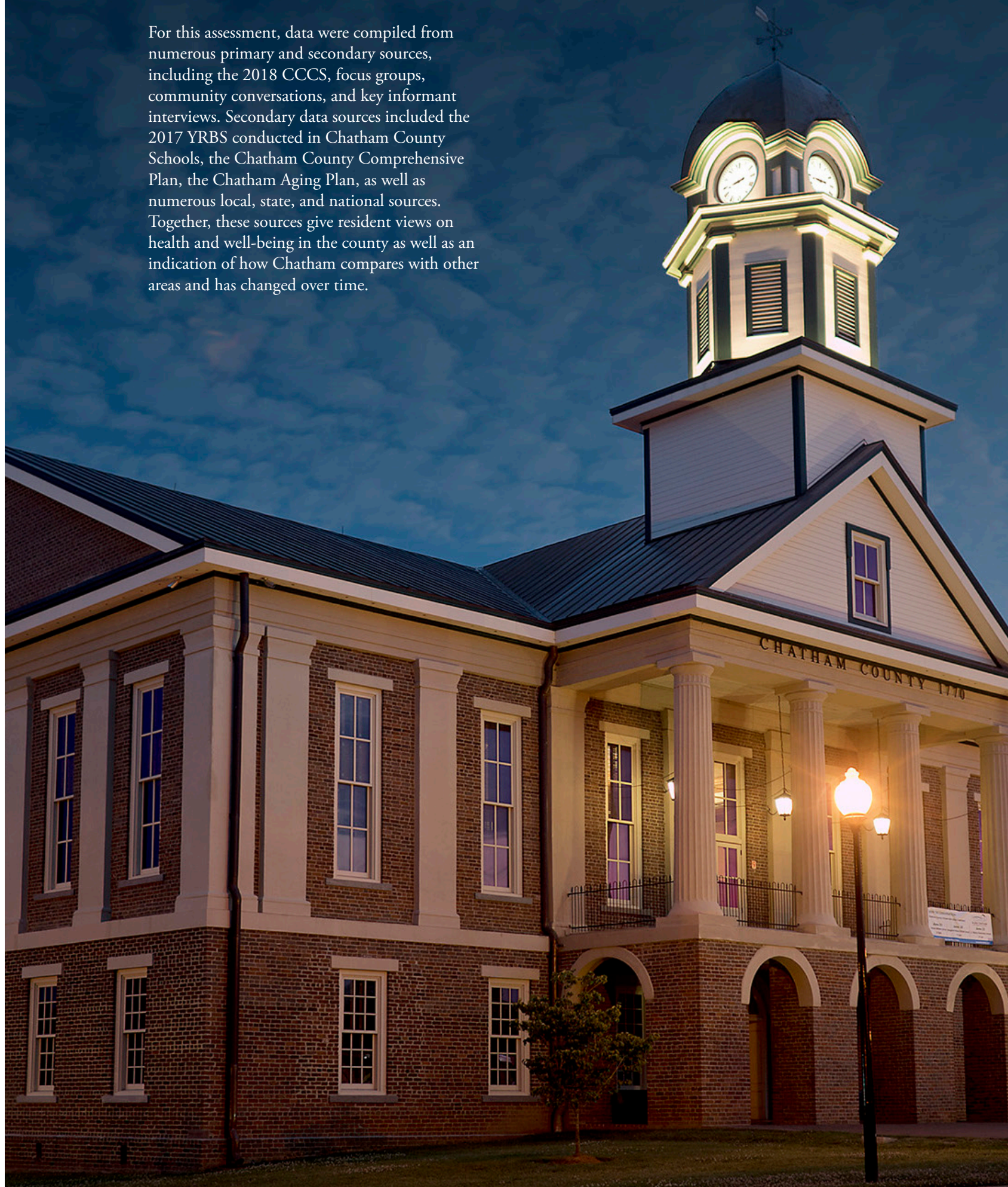
It is important to consider the changing make-up of the county while reading this assessment. Throughout the CA process, planned and potential changes impacting the county remained a topic of discussion. Development in a community can offer many benefits, from economic opportunity to increased access to services, but it can also increase the demand on existing services and infrastructure, from clinics and healthcare facilities to emergency response, police, and even opportunities to be active, like parks and greenways. While some of these

effects can be anticipated, the health impacts of changing demographics and growing population will only become fully clear as growth and development occurs. In an effort to plan for this growth, the county adopted the Chatham County Comprehensive Plan in November 2017 and is in the process of developing a Unified Development Ordinance (UDO). The Comprehensive Plan provides strategic direction in the form of policies, programs and projects that will guide land use, infrastructure investment, and service decisions over the next 25 years, and the UDO will lay out rules for physical development of property.



Chapter 3: *Data Collection Process*

For this assessment, data were compiled from numerous primary and secondary sources, including the 2018 CCCS, focus groups, community conversations, and key informant interviews. Secondary data sources included the 2017 YRBS conducted in Chatham County Schools, the Chatham County Comprehensive Plan, the Chatham Aging Plan, as well as numerous local, state, and national sources. Together, these sources give resident views on health and well-being in the county as well as an indication of how Chatham compares with other areas and has changed over time.



Chatham County Community Survey

The purpose of the CCCS is to get resident perspectives on issues that affect their communities. The Alliance took a broad, new approach to this in 2018, where a representative cohort of Chatham households was recruited to be followed over time to track how trends in determinants of health change as well as to collect timely information on new issues affecting the community. To document this process and conduct the sampling and recruitment in a rigorous manner, a detailed protocol was developed throughout 2017, containing information on the aims of the cohort as well as the design, methodology, ethical considerations, data analysis plan, and data security plan.

To ensure the community cohort was designed in an ethical and methodologically sound manner, a SAC comprised primarily of Chatham residents was assembled in mid-2017. The SAC reviewed the assessment protocol and discussed assessment procedures to ensure that the benefit of conducting the assessment was maximized and risks to participants were minimized. The SAC also reviewed the interim analysis of survey

response demographics conducted mid-way through the data collection process and continue to serve as ad hoc consultants.

Ethical approval for the community cohort was obtained from the NCDPH Institutional Review Board for the Health and Safety of Human Subjects. A Certificate of Confidentiality from the National Institutes of Health (NIH) was also obtained at the urging of the SAC to further protect the identities and information collected from community cohort participants.

The Survey Development Working Group formed in August 2017 to design the CCCS that would be administered to the community cohort. A spectrum of community organizations was represented in this working group, with focus areas ranging from early childhood to older adults and housing, education, economic development, behavioral health, and healthcare. This group was tasked with developing a comprehensive survey comprised primarily of previously validated questions that touched on an array of determinants of health while keeping

Response Type	Completed Survey	Percent of Total
Web	42	11.4%
Mail	22	6%
In-Person	303	82.6%
Total	367	100%

Figure 9: CCCS Responses by Method

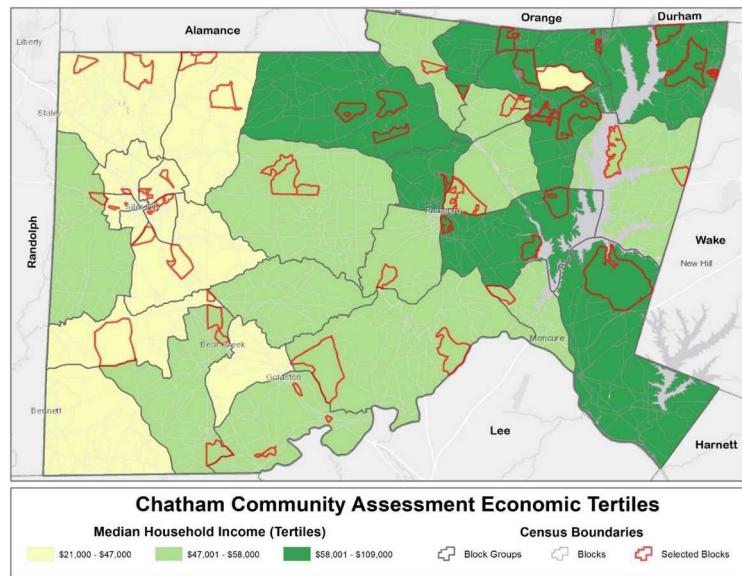


Figure 10: CCCS Sampling Map

the survey to a reasonable length. Working group members piloted the final version with neighbors and clients to assess question clarity as well as ease of completion. The complete CCCS can be found in Appendix D.

In order to spread information about the CCCS and encourage participation, efforts were made to raise awareness among the broader community in early 2018. This included working with a marketing firm to brand and develop materials with messaging appealing to personal and civic motivations to participate in the community cohort. “ChathamTalks” was developed as a universally recognizable brand for the assessment and provided the backbone for community outreach and engagement, including the website www.ChathamTalks.org, a logo, mailers, Facebook ads, posters, table tents, and press releases. These materials were available in both English and Spanish and were distributed across the county. The Alliance also reached out to community partners to spread word about the assessment among their clients and contacts as well as through social media.

Random two-stage cluster sampling based off the Centers for Disease Control and Prevention’s (CDC) Community Assessment for Public Health Emergency Response (CASPER) method was used to select 441 households.¹⁴ In stage one, the initial sampling frame was constructed using Census data to generate census blocks for use as the primary sampling units. A census block is a geographical unit used by the United States Census Bureau and is the smallest geographical unit for which the bureau publishes Census data. In Chatham County, there are a total of 1483 census blocks with a population of at least one person as of the 2010 Census.¹⁵ In order to ensure a representative sample across income levels, the census blocks were stratified by median household income. Since median household income data are only available at the block group level, each census block was assigned the median household income of its block group using the most current ACS five-year estimates. The census blocks were then stratified into three groups: low, medium, and high income tertiles. In each group, 21 census blocks were selected, with their probability of

being selected weighted by population size. In stage two, seven households within each census block were randomly selected. To be included, individuals had to be over the age of 18, be non-institutionalized, and be able to complete the CCCS in English or Spanish. The seven households were randomly selected from each selected block through sequential sampling by NCIPH using a detailed map of the census block viewed in GoogleEarth.¹⁴

Individual recruitment of participants to the community cohort began with a series of three mailers to selected household addresses. The introductory mailer included a phone number and email at CCPHD that individuals could contact with questions about the assessment or to decline participation. A second mailer was sent one week later and further outlined details of the assessment and CCCS, provided a web link to complete the survey online, a hard copy of the survey that could be returned in-person or by mail, and an informed consent form with which participants could opt into the community cohort. A third mailer was sent the following week in a final mailed attempt to encourage participation and informed potential participants that assessment personnel would attempt to contact them in-person at their

residence. Mailed materials were provided in English and Spanish.

If potential participants did not respond to the three mailers, volunteers attempted to contact them in-person at their residence and collect the CCCS by tablet with the survey preloaded in EpiInfo™; bilingual volunteers went to census blocks with higher Spanish-speaking populations.¹⁶ Completed surveys were saved and uploaded to a secure central database. If a selected household declined to participate or could not be contacted through the recruitment process, the closest neighboring household to the left within the same census block was sampled. This door-to-door recruitment continued until a willing participant was located. The door-to-door surveying was conducted in March and April 2018.

A total of 367 surveys were completed either online, by mail, or in-person, and 93% of respondents agreed to be contacted up to twice per year with surveys as part of the community cohort. In the end, the community cohort closely mirrored the income distribution and racial/ethnic makeup of the county (See Figure 13).

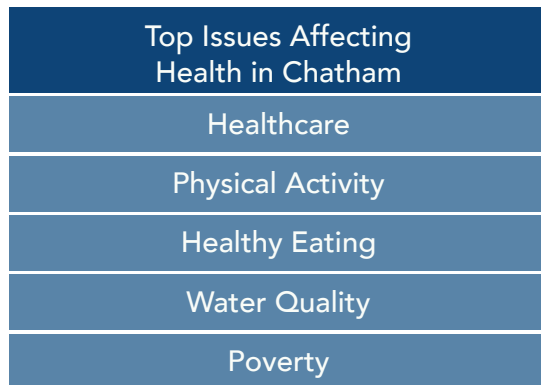


Figure 11: *Top Issues Affecting Health in Chatham*¹⁷

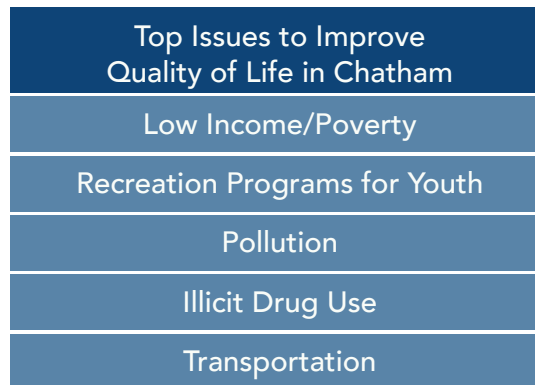


Figure 12: *Top Issues to Improve Quality of Life in Chatham*¹⁷

Once data collection was finished, the surveys were compiled into a dataset in Microsoft Excel and cleaned before being uploaded into EpiInfo™ for analysis. Responses were weighted such that each selected census block was counted equally, regardless of the number of completed surveys from that block. Outputs of weighted frequencies for each survey item were generated, and a report of survey results was developed (Appendix E).

One of the things community cohort

participants were asked to do was to list the top three issues that have the greatest effect on health in their communities. This question is useful to gauge how county residents perceive each issue in their communities. The issues receiving the most top three responses were healthcare (including access, cost, and quality), physical activity (including access), and healthy eating (including access). Overweight or obesity received the most responses in 2014. Responses to this question along with others from the CCCS can be found throughout the CA.

	CCCS Results*	2017 Census Estimates**
Sex		
Male	40.2%	48%
Female	58.9%	52%
Race		
White	76.6%	82.2%
Black/African American	13.9%	12.7%
Hispanic Origin		
Yes	10.1%	12.5%
Household Income		
Under \$10,000 per year	2.7%	6.1%
\$10,000 to \$34,999 per year	23.3%	24.9%
\$35,000 to \$49,999 per year	13.3%	11.8%
\$50,000 to \$74,999 per year	16.5%	19.6%
\$75,000 to \$99,999 per year	12.3%	11%
\$100,000 to \$149,999 per year	16.1%	13.2%
\$150,000 or more per year	15.8%	13.4%

Figure 13: CCCS Demographic Comparison to Chatham County^{4, 17}

*Adults 18 years and older

**All Chatham County Residents

Focus Groups and Community Conversations

Qualitative data collection for the CA was conducted over six months between February and July 2018. Unlike the CCCS, qualitative data collection focused on open-ended conversations with specific groups instead of surveys with a representative sample of residents. This is helpful to gain in-depth insight into experiences and perspectives. Focus groups were scheduled throughout the county in key locations that were determined to provide insight into a variety of communities. The areas of Pittsboro, Siler City, Silk Hope, Goldston, Moncure, and Fearington Village were selected as host sites. They provided significant diversity in target areas such as geographic location, income, and race/ethnicity. Input on focus group locations was solicited from Chatham residents, local service providers, volunteers, CCPHD staff, and community college administration via the Focus Group Working Group. The working group reviewed demographic information and combined it with their own knowledge of the local communities to suggest centrally-located venues and potential local organizations as points of contact.

Throughout the planning phase, the working group was also responsible for review of the focus group guide (Appendix G). This year's guide built on questions from the 2014 CHA, included information from other local health department reports, and exhibited a dedication to questions that addressed equity and inclusion. To guide the discussion process, the working group considered the following criteria:

- Is this an open-ended question?
- Does this question accurately engage the participant to address the correct topic?
- Is this question easy to understand?
- Is this a leading question?

- Does this question allow for additional probes that will not overly influence responses?

A consensus was reached on each question being appropriate and meaningful to assessing various communities throughout the county. Each question was also designed to be well-aligned with the CCCS.

Within CCPHD, a staff member of the Health Promotion and Policy Division (HPP) coordinated working group meetings, developed focus group protocol, and facilitated necessary trainings. During the preparation phase, the focus group coordinator utilized a previously validated focus group training mechanism to prepare an in-person and online training tool for volunteers. These volunteers were recruited from the Alliance and HPP. Training included details for picking up the focus group materials, operating the recorder, the role and responsibilities of the facilitator and co-lead, using the focus group guide, and what to do when the session was complete. Upon completing the training, volunteers were provided with a list of scheduled focus groups for which they could sign up for the roles of facilitator or co-lead.

The focus group protocol required that at least two people be present at each session to fulfill the roles of facilitator and co-lead. Facilitators explained the purpose, confidentiality, and any other requirements for participation. They also led the group through the discussion with the co-lead available to probe as necessary, operate the recorder, and take physical notes.

A modified protocol sheet and focus group guide was developed for youth focus groups.

Questions were again validated using criteria specific to youth discussions. Each youth participant had to be over the age of 12 and sign an assent form for participation that was reviewed by the host site adults. Each youth session facilitator made sure that youth knew that participation was completely voluntary and declining to engage would result in no punishment, penalty, or other form of retribution.

Overall, 15 focus groups or key informant interviews were conducted with a total of 83 participants. Of the 83, there were 22 youth participants who engaged in the two adolescent-focused sessions. Youth focus groups consisted of Black/African-American and Hispanic/Latinx adolescents. The adult focus groups included two sessions that specifically recruited Hispanic/Latinx and Black/African-American participation. To understand the experiences and perspectives of different Chatham residents, the working group felt it was important to attempt to specifically engage with minority communities, young adults (18-35), and participants across various income levels. Because Chatham is a predominantly rural county, it was also important to include sites that would provide feedback from residents outside of city limits and areas more likely to engage in agricultural occupations.

Of the 61 adult participants, 14.8% identified as Black/African-American, 11.5% as Hispanic/Latinx, 55.7% as White, and the remaining 13.1% chose not to self-identify; this is similar to current county demographics. Participants were skewed toward the higher end of the age spectrum, with median age for participation being 49 years and only 16% of participants below age 40. There was limited success with engaging participants at the community college session as well as with the daycare parent group. Where participant numbers were not sufficient

for a focus group discussion, key informant interviews were conducted.

Overall outreach to the 18–40 year demographic proved difficult. When considering some of the unique factors of Chatham, the working group, informed by local data, hypothesized that this age range was difficult to capture because of the high proportion of residents who travel outside of the county for work and leisure activities. Having such close proximity to major cities such as Raleigh, Durham, Chapel Hill, and Greensboro may interfere with participation in local events.

In addition to the focus groups and key informant interviews, four community conversations, an ongoing Alliance initiative aimed at creating a dialogue between the community and the Alliance, were held between April and October 2018. These conversations are held with the intention of engaging the Chatham Black/African-American community and have taken place both on the eastern and western sides of the county. Community conversations are designed to create better rapport between community and organizations before becoming a resource for community-based planning, education, advocacy platforms, and access a population often underrepresented in county decision making.

Chatham is a large county by many standards and houses many diverse and unique communities that are influenced by geographic location. Some central themes that arose from the focus group discussions included:

- Chatham has a great rural landscape that needs to be preserved.
- Chatham is a safe place, where people feel they find comfort and socialization in their respective communities.
- Chatham should increase public

transportation efforts.

- Chatham needs more affordable, “healthy” housing options.
- Chatham needs better local career opportunities to attract and sustain younger generations.

These themes were some of the most consistent throughout all 15 focus groups, community conversations, and key informant interviews. Youth themes were similar to the adult themes, but their focus group questions asked some more direct questions about accessing local

resources and safety. Youth generally feel safe in their communities and are aware of where to go for help in a variety of situations. They identified the need for more local activities, better homes, and wanted to see more civic engagement in their own neighborhoods.

Direct quotes and other themes that arose from the focus group sessions, community conversations, and key informant interviews will be included throughout the rest of this document and will provide depth to some of the other section information.

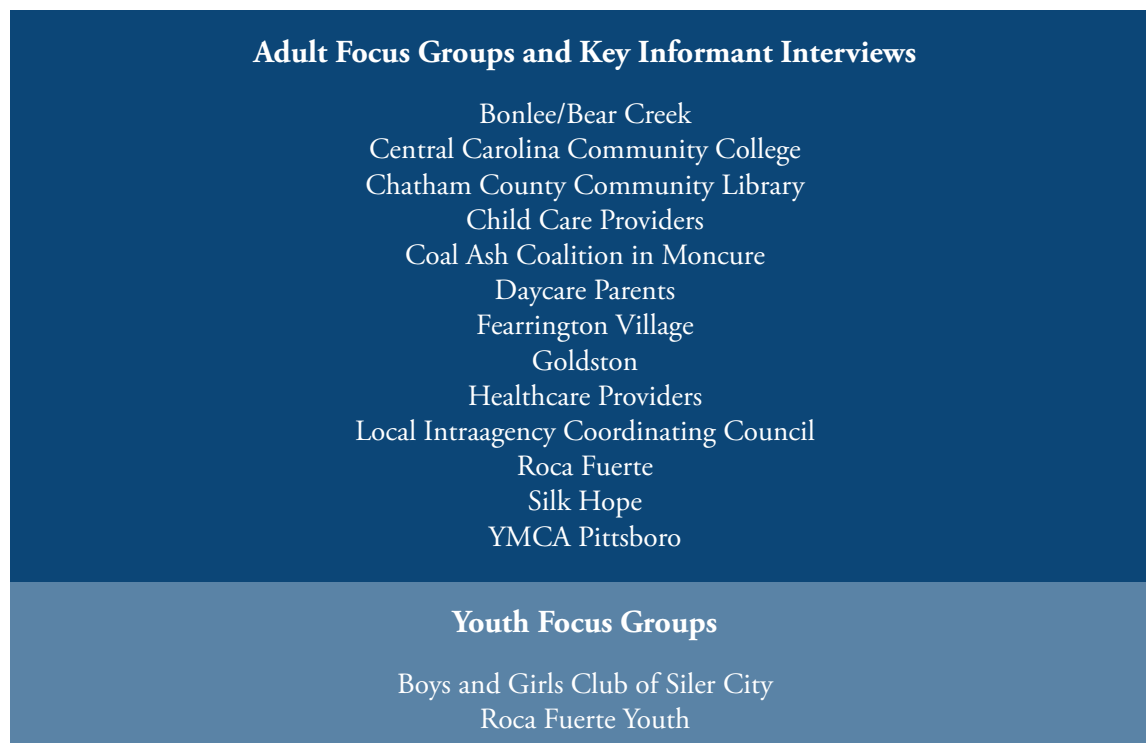


Figure 14: 2018 Focus Groups and Key Informant Interviews

Additional Sources

While the population surveyed through the CCCS was 18 years and older, the 2017 YRBS provided data on middle and high school students in the county. The YRBS was developed by the CDC in 1990 in collaboration with representatives from state and local departments of education and health, other federal agencies, and national education and health organizations. The YRBS collects data on behaviors that fall into the following categories: behaviors that contribute to unintentional injuries and violence, sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, alcohol and other drug use, tobacco use, unhealthy dietary behaviors, and inadequate physical activity. The YRBS is conducted across the state and country, so Chatham results can be compared to North Carolina and the U.S. at large to assess similarities and differences and identify potential areas of concern. Currently, 47 states, six U.S. territories, and 21 of the largest urban school districts in the country participate in biannual administration of the YRBS to scientific samples of high school students, and many of these districts also participate in the middle school YRBS.²⁵⁰ The YRBS is a self-report survey, which should be considered when interpreting and drawing conclusions with the data. A summary of the 2017 YRBS survey results can be found in Appendix C. Local YRBS data are available because Chatham County Schools is participating in the CDC's Whole School, Whole Community, Whole Child (WSCC) pilot project through the North Carolina Department of Public Instruction along with ten other North Carolina counties in order to gain a better understanding of student experiences and address student needs. The WSCC model is student-centered and emphasizes the role of the community in supporting the school, the connections between

health and academic achievement, and the importance of evidence-based school policies and practices.

The 2018-2023 Chatham Aging Plan was the first comprehensive plan developed to support optimal aging in the county. The plan incorporated community input throughout the development process and identified five priority areas: transportation; housing; healthcare coverage and services; caregiving and care services; and social isolation, community engagement, and opportunities for self-fulfillment.

The Chatham County Comprehensive Plan was adopted in November 2017. This document provides strategic direction in the form of policies, programs, and projects that will guide land use, infrastructure investment, and service decisions in the county over the long term. Throughout the plan development process, extensive community data were collected and analyzed. The plan includes the following ten elements: economic development, land use, housing, health, resiliency, environment, parks and recreation, transportation, agriculture, and utilities and public services.

In addition to the data sources mentioned above, information was gathered from several hundred local, state, and national sources. These sources covered a range of topics, from population growth and the economy to health indicators such as obesity rates and leading causes of death. Combining self-reported data and community perspectives from the primary sources with objective statistics from secondary sources provided a comprehensive view of the issues facing Chatham County residents.



Chapter 4: *Health Impact Priorities*

Overview

On October 2, 2018, the Alliance met to review collected data and set the HIPs for the next three years. Nearly 100 community members and organization representatives were in attendance.

The meeting began with an extensive presentation covering much of the data included in this report. The presentation can be found in Appendix I. Data was also presented on posters and infographics, which participants reviewed following the presentation.

After reviewing the available data, participants were asked to individually cast their

vote on the top three issues impacting health in Chatham based on how many people were affected by the issue, how severely people were affected, and how the issue impacted existing disparities within the community. Participants were asked to be intentional in viewing the data without personal biases or through the lens of their work and to focus on the information contained in the presentation. Following the first round of voting, votes were tallied and weighted based on ranking.

The top ten issues following the first round of voting were as follows:

Rank	Issue	1 st Place Votes	2 nd Place Votes	3 rd Place Votes	Total
1	Acces to Healthcare	15	13	5	760
2	Poverty	15	7	0	590
3	Access to Mental Health Services	6	9	4	400
4	Affordable Housing	5	5	11	360
5	Hunger/Food Insecurity	3	6	3	240
6	Obesity	4	6	0	240
7	Domestic and Sexual Violence	3	3	4	190
8	Depression/Anxiety	3	3	2	170
9	Physical Inactivity	5	1	0	170
10	Transportation	2	3	3	150

Figure 15: *Top Ten Issues Affecting Health in Chatham*

The top ten issues were discussed in small groups, and each group was given the opportunity to bring one or two points for consideration back to the larger group for a discussion prior to the final votes being cast. During this discussion, several issues were combined into a single topic for the final vote: access to healthcare and access to mental health services were combined into an overarching issue termed “access to comprehensive health services” and obesity and physical inactivity were grouped together.

In addition to the first round voting considerations, participants were asked to consider the following questions as they cast their final votes: Is this something the Alliance can change through work at the local level? Does the Alliance have the resources and capacity to adequately address this issue? Is the community aware of this issue, and will they support the Alliance’s work around it?

The outcome of the final vote that determined the 2018 HIPs was as follows:

Rank	Issue	1 st Place Votes	2 nd Place Votes	3 rd Place Votes	Total
1	Access to Comprehensive Health Services	37	14	9	1480
2	Poverty	17	13	11	880
3	Obesity and Physical Inactivity	9	16	9	680

Figure 16: *Top Three Issues Affecting Health in Chatham (2018 HIPs)*

The data behind these HIPs are discussed in the rest of this chapter.

Resources:

Chatham County Public Health Department
(919) 742-5641
chathamnc.org/health

Chatham Hospital
(919) 799-4000
chathamhospital.org

Daymark Recovery
(919) 663-2955
daymarkrecovery.org

Piedmont Health Services
(919) 542-4991 or
(919) 663-1744
piedmonthealth.org



Health Impact Priority #1: *Access to Comprehensive Health Services*

Mental health and physical health are fundamentally linked. Poor mental health is a risk factor for chronic physical conditions, and people with serious mental health conditions are at high risk of experiencing chronic physical conditions. Conversely, people with chronic physical conditions are at risk of developing poor mental health. The WHO sums up this linkage with the statement, “There is no health without mental health.”¹⁸ Indeed, this link was the driving factor in the Alliance’s decision at its prioritization meeting to merge access to healthcare and access to mental health services as one issue, Access to Comprehensive Health Services, which emerged as the top issue affecting Chatham County from this assessment.

Many of the same barriers impede access to physical and mental health care, including services not being covered by insurance, lack of insurance, prohibitive costs, transportation, scheduling, and stigma. Healthcare, including access, cost, and quality, was listed as the number one issue affecting community health and seventh leading issue affecting quality of life for Chatham residents in the 2018 CCCS.¹⁷

It also came up in focus group discussions. Ten percent of CCCS respondents reported difficulty accessing health care in the past year, and 10.7% of those respondents reported a mental health provider as the service they had difficulty accessing.¹⁷ Further, many people simply do not know how to access these services. Just 40% of respondents reported knowing where to send someone needing mental health services, though the answers ranged in specificity from naming particular providers to vaguely stating “a counselor.”¹⁷ This mirrored the 2014 Community Health Opinion Survey, which found that 63% surveyed did not know where to refer someone for mental health services.¹⁹

Many residents travel to Chapel Hill, Durham, and Raleigh for doctor’s visits; 46.4% of CCCS respondents reported that their primary care provider was located outside of Chatham County.¹⁷ Chatham also has far fewer healthcare providers for the population than the state average, which is true across healthcare professions (see Figure 17).²⁰ This can be a barrier to accessing health services, especially for those with poor access to transportation.

Services like child birthing centers are not currently available in the county. Services being too expensive and not having insurance were cited as the top barriers to receiving care.¹⁷ Despite these challenges, 79% had been to the doctor for a routine physical in the past year.¹⁷

In July 2017, Daymark Recovery opened a community mental health clinic in Siler City. Patients report satisfaction with services received, and the number of patients helped by the provider has grown so rapidly that they are now looking to expand. However, only 5.4% of residents responded that they were aware of the services offered at the clinic.¹⁷

Another factor that led to Access to Comprehensive Health Services being prioritized was a major reform to the state's Medicaid system that will take effect beginning in 2019. Medicaid Transformation was cited as

an emerging issue in the 2017 SOTCH report and will affect many statewide and in Chatham County. This reform, approved through state legislation in 2015 and being overseen by the North Carolina Department of Health and Human Services (NCDHHS), will shift the system from state-run to managed care provided by provider led entities and managed care organizations (PLE/MCOs). Medicaid enrollees will select health plans through a PLE/MCO, which will be responsible for working with local medical providers to ensure access to services. The plan for Medicaid Transformation also includes a focus on addressing unmet social needs, such as food and housing, which have a substantial impact on health.

More information on Medicaid Transformation can be found at: www.ncdhhs.gov/nc-medicaid-transformation.

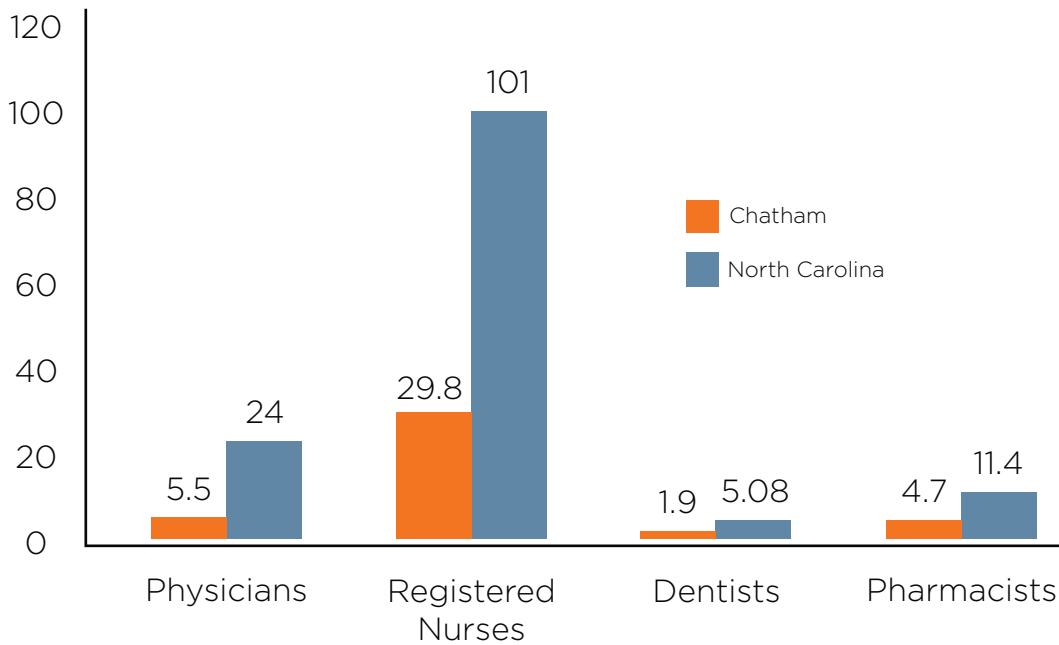


Figure 17: *Healthcare Providers per 10,000 Residents*²⁰

Resources:

Chatham Health Alliance Worksite Wellness Program

(919) 545-8443
chathamhealthallian-
cenc.org/our-work/
current-projects/
worksite-wellness

Chatham YMCA

(919) 545-9622
ymcatriangle.org/
chatham-ymca



Health Impact Priority #2: *Obesity*

Obesity, or an accumulation of excess body fat, has been a growing concern in recent decades as rates rise across the U.S. and within Chatham. In addition to being prioritized in this assessment, obesity was identified as a health priority for the county in 2006, 2010, and 2014.^{19, 21}

Overweight and obesity are determined by an individual's Body Mass Index (BMI), which is a measure of body fat based on height and weight. The average self-reported BMI of Chatham adults in 2018 was 27.2; a BMI of 25-30 is considered overweight, and a BMI above 30 is obese.^{17, 22} Health effects of overweight and obesity are wide ranging and include high blood pressure, diabetes, stroke, heart disease, depression, and certain cancers. Other obesity-related complications include high cholesterol, joint pain, and inflammation.

Obesity is increasing across all age groups, from young children to adults. As of 2018, 28.8% of Chatham adults were obese, and an additional 30.6% were overweight.¹⁷ This is slightly below the North Carolina average of 29.7% obese and

35.9% overweight.²³ Fifteen percent of Chatham high school students were obese in 2017, up from 12% in 2014; this is in line with the North Carolina average.²⁴ Among children ages 2 to 4, nearly one in five were considered obese in Chatham in 2015.²⁵

As with many of the health conditions discussed in this report, obesity disproportionately affects different communities. Black/African-American and Hispanic/Latinx adults are more likely to be obese than Whites and Asians.²⁶ Women are more likely to be obese than men.²⁶ Those with lower education levels are also more likely to be obese.²⁶ This education correlation extends to children, as those with parents who have less than a high school diploma are more than three times more likely to be obese than children with college-educated parents, at 30.4% and 9.5% respectively.²⁶ Further, rural communities are more likely to be obese than their urban or suburban counterparts.²⁶

Good nutrition and physical activity can decrease the risk of obesity. Healthy eating, including access to healthy foods, was cited as

the third biggest issue affecting community health by residents in the CCCS, and physical activity was ranked second.¹⁷

Good nutrition is an important part of leading a healthy lifestyle. A balanced diet, complete with fruits, vegetables, whole grains, lean protein, dairy, and healthy fats, supports achieving and maintaining a healthy weight, reduces risk of chronic diseases, like heart disease and cancer, and promotes overall health.

The majority of Chatham adults report eating at least one serving of fruit and vegetables daily, but half only have one to two servings.¹⁷ This is comparable to 2014 findings.¹⁹

Sugar-sweetened beverages, like fruit juice, regular sodas, and sweet tea, contribute to obesity and obesity-related conditions.²⁷ The CDC recommends limiting sugar-sweetened beverages to help maintain a healthy weight.²⁷ In Chatham, 44.6% of adults reported consuming at least one sugar-sweetened beverage on a typical day, and the percentage of high school students who drank a sugar-sweetened beverage

daily decreased from 59% in 2014 to 19% in 2017.^{17, 24, 28}

As with good nutrition, physical activity can help achieve and maintain a healthy weight and reduce risk of chronic disease. Over 80% of Chatham residents reported engaging in moderate physical activity in a typical week, with an average engagement time of just under two hours.¹⁷ Over one-third reported engaging in vigorous physical activity in a typical week, for an average time of one hour.¹⁷ The CDC recommends 150 minutes of moderate physical activity or 75 minutes of vigorous physical activity per week, or a combination of moderate and vigorous physical activity.²⁹

Obesity is a complex issue that extends beyond the health behaviors discussed above. Community safety, the built environment, and other social and economic factors all play a role in growing obesity rates and can be a driver of the disparities noted above. In order to effectively reverse this trend, determinants of health must be accounted for in strategic planning efforts.

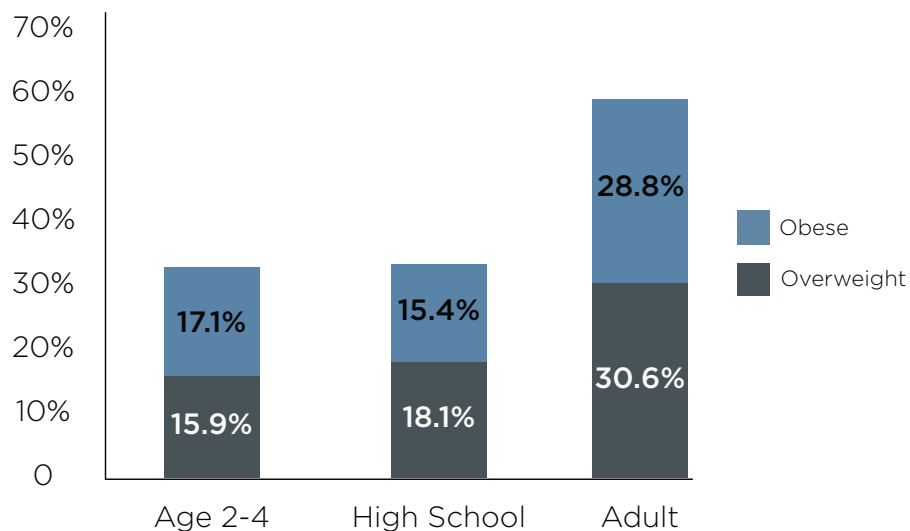


Figure 18: Percent Overweight and Obese in Chatham by Age Group^{17, 24, 30}

Resources:

Department of Social Services

(919) 542-2759
chathamnc.org/services/
social-services

UPLIFT Chatham

(919) 533-7533
upliftchatham.org



Health Impact Priority #3: *Poverty*

Poverty is a broad issue that encompasses a multitude of factors and has a strong link to health outcomes, which helps to explain how it became an Alliance HIP. Since many of the related issues that fall under the umbrella of poverty, like housing and food security, are detailed in this assessment, this section provides a high-level view. The interactions between these issues, often called determinants of health, as well as their relationships to health outcomes, are described by the CDC: “We know that poverty limits access to healthy foods and safe neighborhoods and that more education is a predictor of better health. We also know that differences in health are striking in communities with poor determinants of health such as unstable housing, low income, unsafe neighborhoods, or substandard education. By applying what we know about [determinants of health], we can not only improve individual and population health but also advance health equity.”³¹

Looking specifically at poverty in the Chatham context, the relationship between economic well-being and health, as well as overall quality

of life, was frequently mentioned by Chatham residents. In the CCCS, low income/poverty was the top issue residents thought the county should focus on to improve quality of life in their communities.¹⁷ Furthermore, poverty ranked fifth in the same survey among issues affecting health in their communities.¹⁷

The burden of poverty, when combined with other factors like age or disability status, can worsen these outcomes. Chatham County has a lower percentage of the population living below the poverty level (13.3%, or nearly 9,000 residents) than the state as a whole (16.1%); however, the percentage of children living in poverty (20.8% Chatham; 22.9% North Carolina) is higher than the overall population.³² Furthermore, one quarter of children under five in Chatham, or over 800 children, live in poverty, similar to North Carolina percentages.³²

Chatham’s aging population can also face a disproportionate burden from poverty. As one focus group participant mentioned, “A lot of times seniors are buying their medicine and they’re not buying their food; they eat very

little.”³³ The Chatham County Aging Plan identified poverty as a common issue affecting older adults in Chatham in stakeholder interviews, with a particular concern for those in more rural areas, noting that “studies have demonstrated that older adults residing in rural areas generally have higher poverty rates, live in less adequate housing, are less healthy, have less access to services, and have fewer long-term care options than their urban counterparts.”³⁴

There are also stark disparities based on educational attainment and race/ethnicity. Residents age 25 years and older without a high school degree are seven times as likely to live in poverty as those with a bachelor’s degree.³² Black/African-American residents are nearly twice as likely to live in poverty as White residents, and Hispanic/Latinx residents are nearly three times as likely as White residents to live in poverty.³² Economic indicators also vary geographically across the county, as shown in Figure 19. In the CCCS, 5% of residents on the

eastern side of the county reported a household income below \$20,000, compared to 15% on the western side.¹⁷

These economic issues can create day-to-day challenges. Seven percent of CCCS respondents reported not having enough financial resources to meet their basic needs.¹⁷ These challenges can also be exacerbated by other access issues. In the CCCS, 4.6% of adults responded that they cannot buy affordable healthy food near their homes, while residents on average travel 27 minutes to get to work, most leaving the county.¹⁷ Considering that families with small children are among the most likely to live in poverty, it is important to note that nearly half of those who responded said local childcare options were not affordable.¹⁷

As a HIP, Alliance members will consider these many factors connected to poverty when developing action plans and strategies to address the issue.

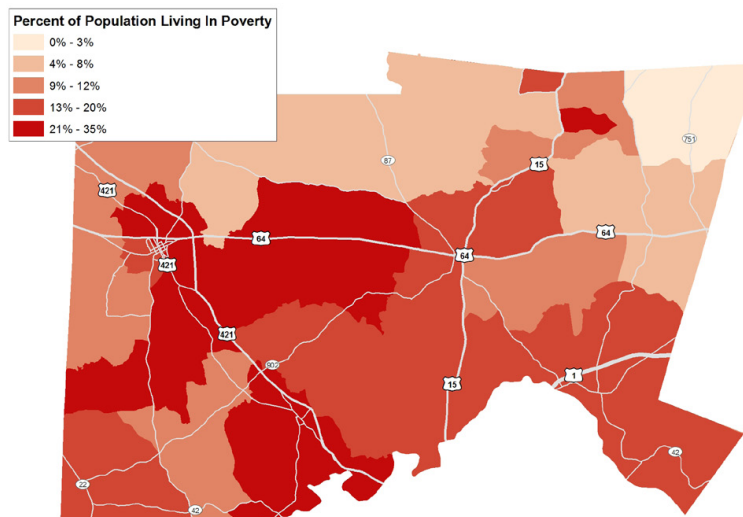



Figure 19: *Percent of Chatham Population Living Below the Federal Poverty Level by Census Tract*⁹



Chapter 5: *Data Review & Findings*



The information in this chapter is alphabetized by category, with the exception of life expectancy and leading causes of death, which are presented first to provide some context of overall health and well-being in the county.

Categories covered in this report include basic necessities, behavioral health, chronic disease, community cohesion, economic growth, environment, healthcare, personal development, safety, sexual health, and substance use.

In addition to local, state, and national data, each topic issue page lists local resources related to the issue addressed. These resource lists are not intended to be comprehensive of all available services in the county, but may provide a starting point for those looking for more information on the topic or to access related resources.

Life Expectancy and Leading Causes of Death

In the 2014 CHA, it was reported that Chatham had the lowest age-adjusted death rate (618 deaths per 100,000 residents) and second highest overall life expectancy at birth (81.6 years) of any county in North Carolina.¹⁹ However, the State of the County Health (SOTCH) report two years later noted the difference in life expectancy in the county between White and Black/African-American residents, at 6.8 years, was the highest in the state from 2013-2015.³⁵ Current estimates from NCSCHS show the overall life expectancy from 2015-2017 has decreased slightly to 81.2 years (fourth highest in the state), with the disparity between Black/African-Americans and Whites dropping to 4.4 years, fifteenth highest in the state.³⁶ Life expectancy for female residents is 5.6 years higher than that of males.³⁶

It is difficult to pinpoint the cause of this slight decline in life expectancy. Nationwide, life expectancy has declined each of the past two years and was 78.6 years in 2017.³⁷ CDC Director Robert Redfield attributed this decline to two primary causes, saying, “Tragically, this troubling trend is largely driven by deaths from drug overdose and suicide. Life expectancy gives us a snapshot of the Nation’s overall health and these sobering statistics are a wakeup call that we are losing too many Americans, too early and too often, to conditions that are preventable.”³⁸ Deaths from drug overdose remain relatively low in Chatham, but remain a concern. Suicide is the ninth leading causes of death in the county.³⁹ As in the 2014 CHA, cancer is the leading cause of death, followed by heart disease (see Figure 20).³⁹

Chatham County Leading Causes of Death		
Rank	2013-2017	2008-2012
1	Cancer	Cancer
2	Diseases of the Heart	Diseases of the Heart
3	Cerebrovascular Disease	Cerebrovascular Disease
4	Chronic Lower Respiratory Diseases	Chronic Lower Respiratory Diseases
5	All Other Unintentional Injuries	Diabetes
6	Alzheimer’s Disease	All Other Unintentional Injuries
7	Diabetes	Unintentional Motor Vehicle Injuries
8	Unintentional Motor Vehicle Injuries	Alzheimer’s Disease
9	Suicide	Suicide
10	Pneumonia and Influenza	Pneumonia and Influenza

Figure 20: *Chatham County Leading Causes of Death*³⁹

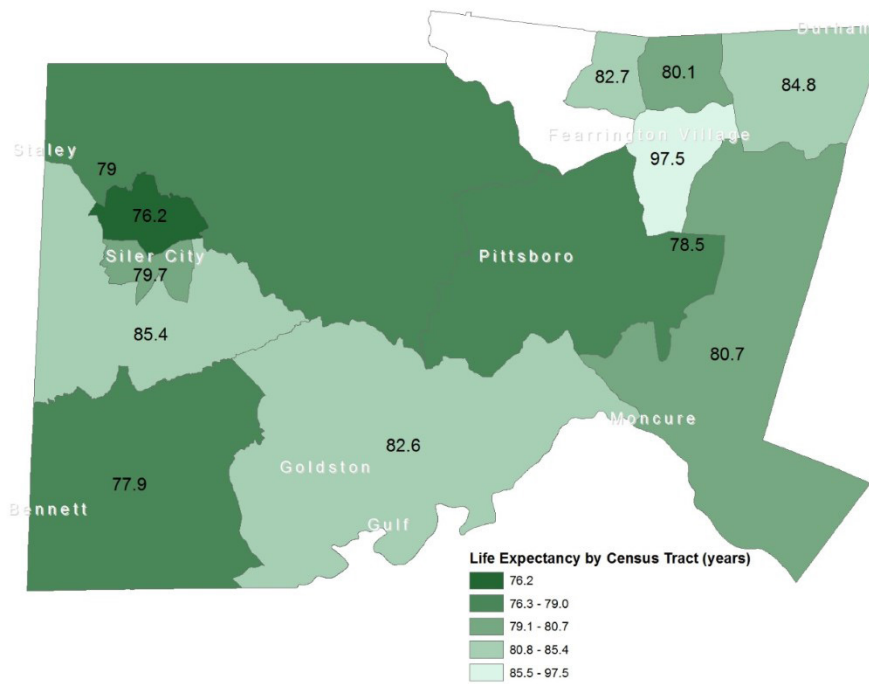


Figure 21: *Chatham Life Expectancy by Census Tract*³⁶

Like the country as whole, the decline in life expectancy in Chatham has been greater in males, decreasing from 79.6 years in 2012-2014 to 78.4 years from 2015-2017.³⁶ Female life expectancy declined by 0.2 years over the same period.³⁶ Life expectancy also varies greatly within the county, as shown in Figure 21. Ferrington Village made national news in 2018 for having the highest life expectancy of any census tract in the country.⁴⁰ While there are many possible explanations, the disparities between life expectancy and their correlation to

economic and educational disparities in different areas of the county are important to note.

It will be important to monitor these trends in the coming years, with a focus on the disparities that may drive them. Data-informed understanding of the factors that create disparities provides better strategies to combat preventable deaths related to the two leading causes of death, cancer and heart disease, as well as other causes that are on the rise, such as Alzheimer's Disease.



Basic Necessities

Affordable Housing · Fair Housing · Homelessness · Housing Quality · Hunger and Food Insecurity

Affordable Housing

In early 2015, the Chatham County Board of Commissioners identified the lack of affordable housing as a priority issue. Affordable housing is identified as housing that costs less than 30% of household income.⁴¹ This includes housing costs such as rent or mortgage payments, utilities, insurance, and property tax. In Chatham County, one quarter of households pay more than what is considered affordable by that standard.⁴² Nearly half of those households spend more than 50% of their income on housing.⁴² Statewide, 32% of households pay over 30% of their income for housing.⁴² Of residents surveyed, 4.6% were concerned about their housing stability in the next two months.¹⁷

Housing needs vary throughout the county and are representative of the variation in income and resources in geographic areas within the county. The Building Integrated Communities (BIC) Siler City community assessment report describes affordable housing in Chatham as an equity issue, citing differences in home ownership and renter-occupied unit rates.⁴³ Older adult households have a lower median income than the general population, and White households' median income is more than twice that of Black/African-American and Hispanic/Latinx households.⁴³ Siler City's Hispanic/Latinx population is higher than the county average,

and Siler also has a higher average of housing units that are renter-occupied.⁴³ Three quarters of renter households in Siler have incomes below \$50,000, and 63% of those households spend over 30% of their income on housing.⁴³

The Chatham County Affordable Housing Advisory Committee is currently working in partnership with the Triangle J Council of Governments (TJCOG) Planning Team to assess the specific housing needs of towns and county-governed communities. Available data indicates that the county lacks affordable options for low and middle-income families.

Chatham does not have any housing owned and operated by the Chatham Housing Authority, the agency tasked with helping low-income residents secure stable housing. The housing authority offers the Housing Choice Voucher program, which assists low-income families, the elderly, and the disabled to afford decent, safe, and sanitary housing in the private market. Unfortunately, the voucher program has requirements on quality and space that are difficult to attain in Chatham, especially for single occupancy.⁴⁴ Thirty-nine percent of renter households are one-person households, yet only 16% of rental units are one-bedroom or studios.⁴⁵

Resources:

Chatham County Affordable Housing Advisory Committee
(919) 545-8398
chathamnc.org/residents/affordable-housing-resources

Chatham Habitat for Humanity
(919) 542-0788
chathamhabitat.org

Chatham Housing Authority
(919) 742-1236
chathamnc.org/government/appointed-boards-and-committees/housing-authority

“There’s not a lot of affordable places to live.”

– Child Care Providers Focus Group

Fair Housing

Resources:

North Carolina Human Relations Commission
(919) 807-4420
ncadmin.nc.gov/citizens/fair-housing

The federal Fair Housing Act prohibits the discrimination in housing against a person based on race or color, religion, sex, national origin, familial status, or disability.⁴⁶ It is illegal to discriminate in the sale or rental of housing, including against individuals seeking a mortgage or housing assistance, or in other housing-related activities.⁴⁶ Persons who identify as LGBTQ+ may pursue claims under the U.S. Department of Housing and Urban Development (HUD)'s Equal Access Rule and state and local anti-discrimination laws that specifically include sexual orientation and/or gender identity as protected classes.⁴⁶

Additionally, North Carolina's State Fair Housing Act prohibits housing discrimination. HUD funds local and state agencies to

investigate and enforce fair housing laws.

Anyone experiencing discrimination can connect with the North Carolina Human Relations Commission (see the resources box for contact information).

Chatham County is currently updating their Analysis of Impediments to Fair Housing study to better understand barriers that exist in the community. The Affordable Housing Advisory Committee hosted a renter's rights forum in the fall of 2018 to supply local renters with resources and information on filing claims and voicing complaints. Landlord responsibilities to renters were reviewed in an effort to encourage a more vocal renter population. Fair housing practices and renter rights directly tie into issues of quality housing.

Homelessness

Homelessness numbers in Chatham are very low, though homelessness takes many forms that may be difficult to capture. Homelessness is generally characterized by extreme poverty and vulnerability and can include staying with family or friends, couch surfing, or living in temporary housing, like a motel. The most recent county homeless count took place on January 31 and February 1, 2019. Fewer than ten homeless individuals were identified in this count, though this is likely an undercount of the complete homeless population in Chatham.⁴⁷

The McKinney-Vento Homeless Assistance Act is a piece of federal legislation that addresses the education of children and youth in homeless situations. The federal law entitles homeless children to a free, appropriate public education, and requires schools to remove barriers to enrollment, attendance, and success in schools. Chatham County Schools provide services that include immediate enrollment, school selection that promotes stability, and other supports.⁴⁸

The McKinney-Vento Act protects all students who do not have a fixed, regular, and adequate residence. The Act expands the definition of homelessness to include:

- Runaway youth;
- Campgrounds or inadequate trailer homes;
- Shelters; and
- Abandoned in a hospital.

The Chatham County Homelessness Task Force organized to address the issue of homelessness in Chatham by applying for Rapid Re-housing funds from HUD in collaboration with the local Salvation Army, the former Family Violence and Rape Crisis (FVRC) center, local churches, Department of Social Services (DSS), and the non-profit Central Piedmont Community Action (CPCA). This partnership resulted in temporary funds to place those identified as homeless into immediate shelter along with additional support for stability.

Regionally, Person, Rockingham, Alamance, Caswell, and Chatham counties do not currently have homelessness shelters. Sheltering referrals for these counties are made to regional shelters as designated by the North Carolina Balance of State Continuum of Care. Other options for care include identifying specialty programs that support individuals who are seniors, veterans, or are differently abled due to both physical and mental capabilities.

Resources:

Salvation Army
919-542-1593 or
919-548-6856
salvationarmycarolinas.
org/greensboro/chatham

“I went to housing and said, ‘look, my kids and I are sleeping in my car.’ They said we don’t offer emergency assistance, so we can’t do nothing to help you.”

– Daycare Parents Focus Group

Housing Quality

Resources:

Central Piedmont
Community Action, Inc.
919-742-2277
cpcanc.org

Rebuilding Together of
the Triangle
919-341-5980
rttriangle.org

Housing quality refers to the physical condition of a person's home as well as the quality of the social and physical environment in which the home is located. Housing quality includes many factors such as air quality, home safety, space per individual, under-insulation, availability of air conditioning, and the presence of mold, asbestos, or lead. The age and original design of the home impact quality. Local neighborhoods can also shape how homes are maintained, and widespread deterioration of a neighborhood can negatively affect mental health.⁴⁹

Poor-quality housing is also associated with negative health outcomes including chronic disease, injury, and poor mental health. Low-income families are more likely to live in homes of poor quality. In Chatham County, 15% of households had at least one of the four following severe housing problems: incomplete kitchen facilities, incomplete plumbing facilities, more than 1.5 persons per room, or cost burden greater than 50%.⁴² Additional housing issues listed above are not captured in this percentage.

Housing Choice Voucher program regulations establish basic housing quality standards which all units must meet before assistance can be paid on behalf of a family.⁴⁵ All rented units must meet standards for decency, safety, and sanitation. Some housing may often be affordable simply because it is older, has deferred

maintenance needs, or is of poor quality. In these types of homes, a family may not be cost burdened by the monthly rent, but may be negatively impacted by excessively high utility bills or health and safety issues.

Quality can ultimately be hard to assess and enforce due to the lack of information on renter rights to request repairs and pursue enforcement options. Some renters may fear retaliation from their landlord, especially in situations where English is not the tenant's first language. Anecdotally, Siler City has experienced increased fear of retaliation against Hispanic/Latinx tenants as a result of national trends in immigration policy and enforcement.⁴³

The Affordable Housing Advisory Committee found that Siler City in particular struggles with housing quality issues. The Siler City Planning Department has identified ten neighborhoods that have both a high proportion of rental properties and properties in poor condition.⁴⁴ Further analysis of tax assessor data showed that out of the 523 housing units in these neighborhoods, 24% are in poor, very poor, or unsound condition.⁴⁴ It is also noted in the data that the southwestern portion of the county contains a significant amount of housing that is in poor or worse condition than housing in the county in general.⁴⁴

“We need affordable housing that doesn't make people sick.”

– LICC Focus Group

Hunger & Food Insecurity

Food insecurity is closely tied to poverty and describes a household’s inability to provide enough food for every person to live an active, healthy life.⁵⁰ Food insecurity can be long-term or temporary and is also one way to assess the risk of hunger. Effects of food insecurity and hunger include serious health complications, particularly when people must choose between spending money on food and medicine or medical care, and can damage a child’s ability to learn and grow.

Low-income households are more likely to experience food insecurity and hunger. In the U.S., 31.6% of low-income households are food insecure, compared to 12.3% of all households.⁵¹ Non-black Hispanic/Latinx households are nearly twice as likely as the national average to be food insecure.⁵¹ Female-headed households with children are also more likely to be food insecure, as seen in Figure 22.⁵² Disabled adults may also be more at risk of food insecurity due to fewer employment opportunities and medical expenses.⁵³

In Chatham County, 10.9% of adults are food insecure; the portion of food insecure children is nearly one in five.⁵⁴ Both of these percentages are lower than the North Carolina state average of 15.4% of adults and 20.9% of children.⁵⁴ Countywide, 2750 children were eligible to receive free or reduced price school meals in 2015.⁵⁵ To be eligible for this program, household income must be below 130% of the poverty line for reduced meals or below 185%

of the poverty line for free meals; the actual dollar amount of these percentages varies by household size.⁵⁵ Further, 2.5% of Chatham households reported sometimes or often not having enough to eat, and 3.1% of high school students reported most of the time or always going hungry because there was not enough food in their home.^{17, 24}

Food assistance programs are available within the county, and range from food pantries offering emergency food assistance to the National School Lunch Program (NSLP), the Supplemental Nutrition Assistance Program (SNAP), and the Women, Infants, and Children (WIC) program.

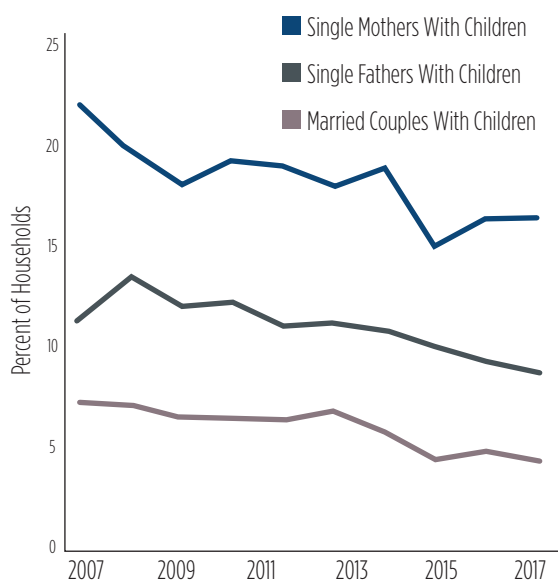


Figure 22: Food Insecurity Among U.S. Households with Children by Household Composition, 2001-17⁵²

“I took care of some children who always asked for more food. They told me they never got seconds at home because Mom always had to have enough for Dad’s lunch the next day.”

– Child Care Providers Focus Group

Resources:

Chatham County Food Assistance Guide
chathamnc.org/services/health/food-assistance

CORA
 (919) 542-5020
corafoodpantry.org

Department of Social Services
 (919) 542-2759
chathamnc.org/services/social-services



Behavioral Health

Adverse Childhood Experiences (ACEs) · Caregiver Services · Depression and Anxiety ·
Intellectual and Developmental Disabilities (I/DD) Services · Suicide

*For more information on Substance Use, please see the category beginning on page 115.
For information on Access to Mental Health Services, please see Access to Comprehensive Health Services on page 44.*

Adverse Childhood Experiences (ACEs)

ACEs are stressful or traumatic events that occur in childhood, including abuse and neglect. They also include household dysfunction, such as witnessing domestic violence or growing up with family members who have substance use disorders. An ACE score can be calculated using a ten question survey developed by the National Survey of Children's Health (NSCH); the higher the score, the more at risk the respondent is of health issues. Health conditions including obesity, diabetes, depression, heart disease, and stroke have been linked to ACEs, as have smoking, alcoholism, drug use, and early death.⁵⁶ The more ACEs a person experiences, the higher their risk of negative health and life outcomes.⁵⁶

According to the 2016 NSCH, 46.3% of U.S. children aged 17 and under reported having at least one ACE, with 26.4% of those children reporting a chronic health condition and 12.8% reporting an emotional or behavioral disorder.⁵⁷ According to the same survey, 49.6% of children aged 17 and under in North Carolina reported having at least one ACE, with 26.2% of those children having a health condition, and 11.1% having an emotional or behavioral disorder.⁵⁷

In 2012, 58% of North Carolina adults reported an ACE score of one or more.⁵⁸ In Chatham County, 14.4% of adults reported high levels of childhood stress.¹⁷

Resources:

Chatham Action on Resilience

chathamactiononresilience.business.site

Chatham County Mental Health Resource Guide

chathamnc.org/mentalhealth

Chatham County Partnership for Children

(919)542-7449
chathamkids.org

Chatham County Substance Use Resource Guide

chathamnc.org/recovery

Caregiver Services

Resources:

Chatham Council on Aging

(919) 542-4512 or

(919) 742-3975

chathamcouncilonaging.org

With Chatham’s growing aging population, caregiver services are increasingly important. However, it is important to note that not all caregiver services are for older adults; family members with chronic illnesses, disabilities, and foster children are also included. While local data on caregiver services are limited, the CCCS found that nearly 10% of Chatham adults are currently caring for someone requiring support for daily activities in their home.¹⁷ While these caregivers were most commonly caring for an elderly or disabled parent, 18.5% of caregivers, or 1.6% of Chatham adults, reported caring for a child with a disability, as shown in Figure 23.¹⁷

Caregivers are subject to high levels of emotional, physical, and financial stress due to their caregiving role; 38% of caregivers for

someone aged 50+ nationwide report high levels of emotional stress, 19% report high levels of physical strain, and 17% report high levels of financial strain.³⁴ Chatham’s Aging Plan found a need for better access to respite services, financial assistance, and social support for caregivers, as well as reliable services for those who need caregiving to take some of the burden off of caregivers.³⁴ One Chatham resident quoted in the Aging Plan captured the importance of these resources, stating, “I am a family caregiver, but I have a lot of help and adequate income. My life would be very hard otherwise.”³⁴ These needs are echoed by others, including parents of children with intellectual and developmental disabilities (I/DD) and those who care for people with mental health or substance use issues.

“If you don’t have a support system, you can get worn down.”

– Child Care Providers Focus Group

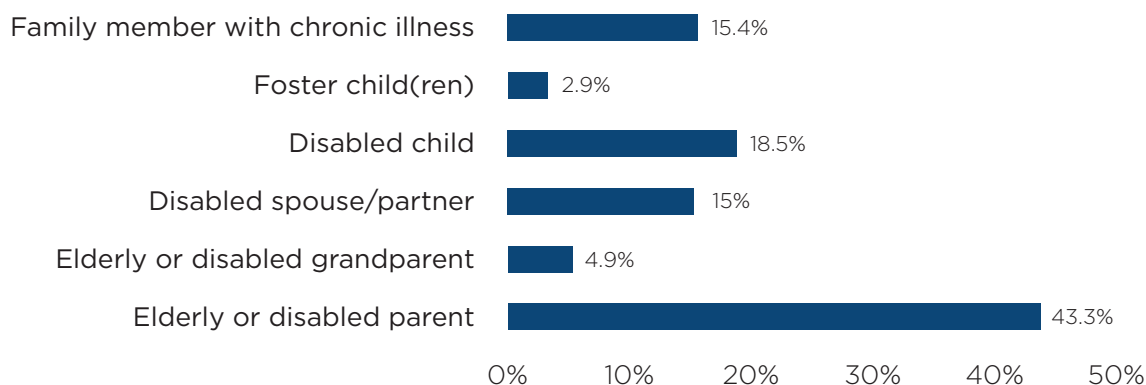


Figure 23: Type of Caregiver Services Currently Provided in Chatham Households¹⁷

Depression & Anxiety

Depression is one of the most common mental health issues in the U.S. and is caused by a combination of genetic, biological, environmental, and psychological factors. Depression can happen at any age, but often begins in adulthood. Many chronic mood and anxiety disorders in adults begin as high levels of anxiety in children.⁵⁹

Data from the 2017 YRBS show anxiety and depression to be common mental health issues among adolescents in Chatham, as they are nationwide. Overall, 33.6% of Chatham high school students reported feeling sad or hopeless almost every day for at least two weeks in the past year, an increase from 28% in 2014.^{24, 28} Nearly one in four middle school students also reported this feeling.²⁴ High school females were more than twice as likely, at 40%, to report feeling sad or hopeless as high school males.²⁴ These numbers are in line with national figures, with 31.5% of U.S. high school students

reporting these feelings.⁶⁰ Nationally, 13% of adolescents had a major depressive episode in the past year, compared to 7% of adults.⁶¹

Nearly half of Chatham adults reported moderate day-to-day stress, and 9.3% said their stress level was high.¹⁷ Furthermore, 20.1% reported having ever been told by a doctor that they had anxiety or depression, and 7.6% reported their mental health status as fair or poor.¹⁷

Despite efforts of the Alliance and its partners to raise awareness of mental health resources in the county, knowledge of mental health services and resources remains an issue. Sixty-one percent of Chatham adults surveyed responding they did not know where to refer someone for mental health services.¹⁷ This was also an issue in the 2014 CHA and is of particular concern given the prevalence of mental health issues like anxiety and depression.

Resources:

**Cardinal Innovations
24/7 Crisis Line**
(800) 939-5911
cardinalinnovations.org

**Chatham County Mental
Health Resource Guide**
[chathamnc.org/
mentalhealth](http://chathamnc.org/mentalhealth)

Daymark Recovery
(919) 663-2955
daymarkrecovery.org

Intellectual and Developmental Disability (I/DD) Services

Resources:

Cardinal Innovations
(800) 939-5911
cardinalinnovations.org

Chatham Trades
(919) 663-3481
chathamtrades.org

Developmental disability is defined as “a severe, chronic disability attributed to a mental/cognitive or physical impairment or combination of mental and physical impairments diagnosed or that become obvious before the age of 22.”⁶² I/DD encompasses a range of conditions, such as autism spectrum disorder (ASD), fetal alcohol spectrum disorder (FASD), and Attention-Deficit/Hyperactivity Disorder (ADHD), among others.⁶³ Over 150,000 North Carolinians are estimated to live with I/DD, and two thirds of those live with family caregivers.⁶⁴

Services for those with I/DD has come up as another area of need for Chatham residents. In addition to services used by the general population, services frequently needed by those with I/DDs include, but are not limited to, developmental therapy, speech therapy,

occupational therapy, and physical therapy, as well as respite services for caregivers. Cardinal Innovations, the local LME/MCO responsible for assuring these and other mental health services in the county through Medicaid oversees a registry of unmet needs, or waitlist, for those in need of I/DD services. While 58 Chatham residents were reported to be on this registry in 2018, many others in need of services may be unaware of this resource.⁶⁵ Access to services can be especially challenging as students age out of the school system, and many note that residents must travel to other counties for certain services.³³

A system assessment of mental health and I/DD service needs in Chatham will be completed in May 2019 and will provide additional information related to this topic.

Suicide

The CDC, which tracks suicide along with suicide attempts and suicidal ideation, or thinking about, considering, or planning suicide, defines suicide as “death caused by self-directed injurious behavior with an intent to die as a result of the behavior.”⁶⁶ The American Psychiatric Society notes that suicide is tied to mental disorders, including depression and alcohol use disorders, with the strongest predictor being previous suicide attempt.⁶⁷

Suicide is a public health issue across the country, with 129 suicides daily and 1.4 million suicide attempts annually.⁶⁸ White males account for around three-quarters of suicide deaths, with firearms being used in half of the total suicide deaths.⁶⁸ In both the 2014 and 2018 assessments, suicide was the ninth leading cause of death in Chatham.³⁹ The effects of suicide go beyond the person who acts to take his or her life: it can have a lasting effect on family, friends, and communities.

North Carolina’s percentage of adults with suicidal thoughts was similar to the national percentage, at 4.5% and 3.9% respectively.⁶⁹ Youth self-reported suicidal ideation statistics in Chatham are concerning, as Figure 25 demonstrates. One in five Chatham high school students reported seriously considering attempting suicide in 2017, 16.7% made a plan about how they would attempt suicide, 11.3% attempted suicide, and 4.7% reported having a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.²⁴ These rates are higher than national statistics, which show 17.2% of U.S. high school students reported seriously considering attempting suicide in 2017, 13.6% made a plan about how they would attempt suicide, 7.4% attempted suicide, and 2.4% reported having a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.⁶⁰ Hispanic/Latinx youth were twice as likely to

Resources:

**Cardinal Innovations
24/7 Crisis Line**
(800) 939-5911
cardinalinnovations.org

Daymark Recovery
(919) 663-2955
daymarkrecovery.org

**National Suicide
Prevention Lifeline**
(800) 273-8255

Therapeutic Alternatives
(877) 626-1772
mytahome.com

UNDER PRESSURE

Chatham’s Latinx teens battle cultural effects on mental health

BY ZACHARY HORNER
News + Record Staff

SILER CITY — Noemi Mora, Cesia Lopez and Lenore Ramos — each 17-year-old seniors at Jordan-Matthews High School — share many similarities with their peers.

They’re in the midst of making some major life decisions, like whether or not to go to college. They’re thinking about careers to pursue. And while they’ll tell you that those decisions add pressure to their lives, each say they face things many of their classmates will never have to confront.

Mora, Lopez and Ramos are Hispanic. And while that’s nothing abnormal in Chatham County, and especially nothing strange in Siler City or at Jordan-Matthews, the three say their day-to-day struggles are unique to their ethnicity.

“I feel like there’s so much

lives.

Looking at the Numbers
Salud America! is a San Antonio-based organization dedicated to “inspir(ing) people to drive community change for health equity for Latino and all kids,” according to its mission statement. In 2017, it put together a review of research on mental health and Latinx — a relatively new gender-inclusive term used to describe people of Latin American origin.

The abstract begins this way: “Latinx youth are far more likely than their peers to have mental health issues, which often go unaddressed and untreated.”

The International Journal of Adolescent Medical Health reported that 22 percent of Latinx youth across the country have depressive symptoms, “a rate higher than any minority group besides Native American youth.” Hispanic high school-



Noemi Mora, Cesia Lopez and Lenore Ramos of Siler City sit in the office of The Hispanic Liaison as they discuss the mental health experience of ‘Latinx’ teenagers. (Staff photo by Michael Frank)

Figure 24: *Chatham News and Record* Article on *Latinx Teen Mental Health*⁷¹

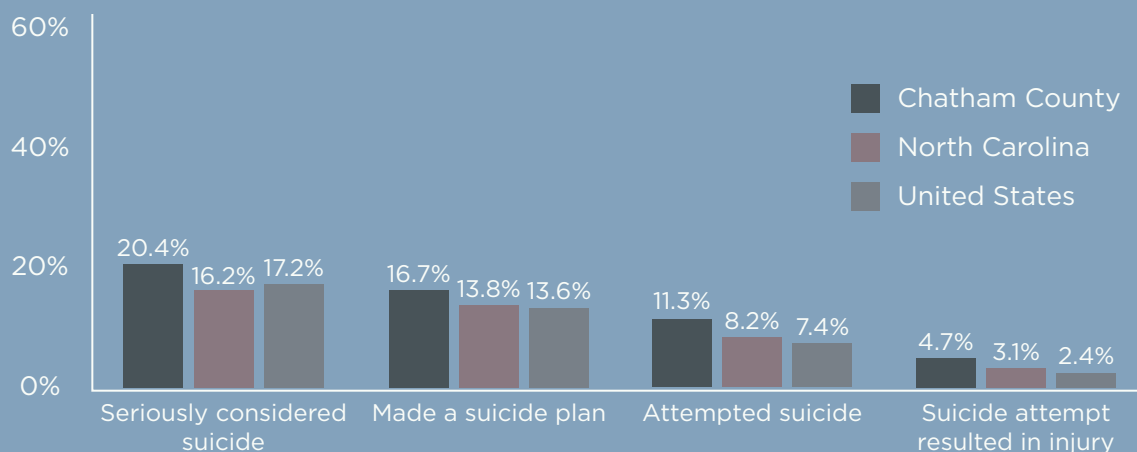


Figure 25: Percent of High School Students Reporting Suicidal Ideation or Attempts in the Past 12 Months⁷¹

report having attempted suicide in the past 12 months.²⁴

Recognizing the growing concern of youth mental health, the BIC steering committee decided to include a focus on mental health among Hispanic/Latinx youth, noting that “Latino youth and their immigrant families face a number of stressful social conditions and barriers to socioeconomic advancement.”⁴³ In late 2018, Chatham News and Record published an article on mental health among Hispanic/Latinx teens.⁷⁰

Statewide, LGBTQ+ high school students were much more likely to report suicidal ideation and attempts. Forty-three percent of LGBTQ+

students reported seriously considering attempting suicide in 2017, compared to 12% of heterosexual students.⁷¹ Further, 38% of LGBTQ+ students made a plan for suicide attempt, 25% attempted suicide, and 11% made a suicide attempt that resulted in an injury needing treatment by a medical professional.⁷¹ In comparison, 11% of heterosexual students made a suicide plan, 5% attempted suicide, and 2% reported a suicide attempt that resulted in an injury needing treatment by a medical professional.⁷¹

Despite these concerning trends, it is important to note that suicide is preventable and both local and national resources, like the National Suicide Prevention Lifeline, exist to help those in need.⁷²



Chronic Disease

Alzheimer's Disease · Asthma · Cancer · Cerebrovascular Disease · Diabetes · Heart Disease

Alzheimer's Disease

Resources:

Chatham Council on Aging

(919) 542-4512 or

(919) 742-3975

chathamcouncilonaging.org

org

Chatham's population is getting older, and with this trend comes increased prevalence of conditions that predominately affect older adults, such as Alzheimer's disease. The Chatham County Aging Plan 2018-2023 was approved in 2018 and noted Chatham's aging demographics, stating, "The population of older adults in North Carolina is not equally distributed among its counties, and some counties will see a more rapid increase in older adults than others within the next decade. Chatham County is projected to have the third fastest rate of aging by 2030; it will also be the fourth oldest county in the state, with regards to proportion of older adults, compared to eighth oldest in 2010."³⁴

According to the Alzheimer's Association, Alzheimer's disease is a form of dementia that

affects memory, thinking, and behavior. While it is most common in adults over 65 years, cases have appeared in younger adults as well.⁷³ The disease progresses over time, and no cure is currently available, though treatments do exist to slow its progression.

In Chatham County, as in the United States as a whole, Alzheimer's disease is the sixth leading cause of death, rising from eighth in the previous assessment.³⁹ The disease not only takes its toll on the individual; it is a common stressor for caregivers and family members. Given the demographic shift highlighted in the Aging Plan, monitoring trends and developing and implementing strategies with a focus on older adults will be critical for them, their families, and the Chatham community as a whole.

Asthma

Asthma is a chronic lung condition that narrows airways and makes it difficult to breathe. Asthma commonly begins in childhood, but can affect people of all ages. Allergies, air pollution, and cigarette smoke are all risk factors for asthma.

In 2015, 8.2% of North Carolinians had asthma, and in 2016, asthma caused 103 deaths statewide.⁷⁴ Twelve percent of Chatham County adults reported ever being told by a medical professional that they had asthma.¹⁷ In the 2017 YRBS, 11.4% of high school students reported currently having asthma.²⁴ Emergency department visits due to asthma more than doubled in 2018 from the previous year, which reversed a downward trend over the last several years.⁷⁵

As with other chronic diseases, rates of asthma vary across demographics. In North Carolina adults, women are more than twice as likely as men to have asthma.⁷⁶ American Indians are also more likely to have asthma, at 14.7%, compared to 8.5% for White, 8.7% for Black/African-American, and 4.2% for Hispanic/Latinx.⁷⁶ Asthma rate disparities exist across income differences as well, as seen in Figure 26, with households earning less than \$15,000 per year having the highest rates of asthma.⁷⁶

In addition to medication, asthma can be controlled through management of environmental triggers, such as reducing exposure to cigarette smoke, dust, mold, and pets.

Resources:

CCPHD Asthma
Intervention Program
(919) 545-8340
chathamnc.org/asthma

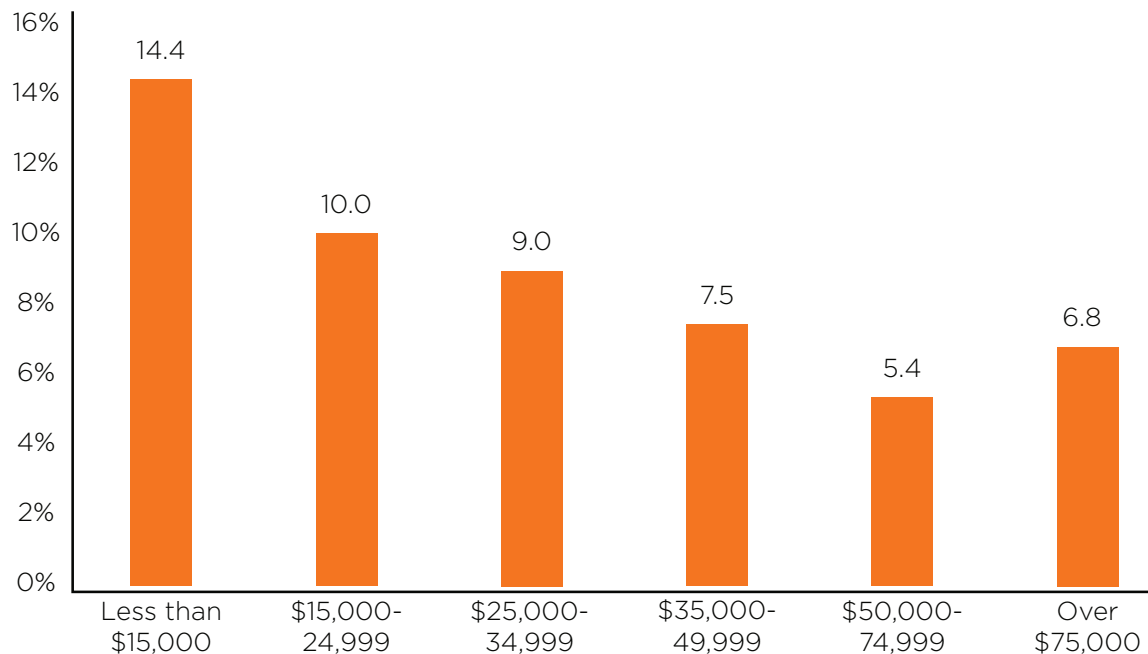


Figure 26: North Carolina Adult Current Asthma Prevalence Rates by Household Income⁷⁶

Cancer

Resources:

CCPHD Breast and Cervical Cancer Control Program
 (919) 742-5641
chathamnc.org/health

Piedmont Health Services
 (919) 542-4991 or
 (919) 663-1744
piedmonthhealth.org

As previously noted, cancer remained the leading cause of death in Chatham in 2016, responsible for one quarter of all deaths.³⁹ Over 12% of CCCS respondents reported having ever been told by a medical professional that they had cancer.¹⁷ Chatham’s cancer death rates are generally lower than the state average, though the incidence rate of female breast cancer is somewhat higher than state average.³⁹ Trachea, bronchus, and lung cancers have the highest death rate among all cancer types and cause about one in four cancer deaths in the county. Given the link between these cancers and tobacco use, effective tobacco cessation and prevention programs are critical, as tobacco use remains prevalent among Chatham residents.

Overall, at 455 cases per 100,000 residents, Chatham’s cancer incidence rates rank among the lowest in the state at 79th.³⁹ However, age-adjusted cancer mortality rates vary greatly by sex and race as shown in Figure 27.⁷⁷ For example, like other causes of death, males have a much higher death rate from cancer than females.⁷⁷ The cancer mortality rate among Black/African-American males in Chatham in particular is more than twice that of White women.⁷⁷ The American Cancer Society notes

this disparity while highlighting some progress, stating, “African Americans have the highest death rate and shortest survival of any racial and ethnic group in the US for most cancers. A continuous reduction in cancer death rates in blacks since the early 1990s has resulted in more than 300,000 cancer deaths averted over the past two decades. Death rates have dropped faster during the most recent time period in blacks than in whites for all cancers combined and for lung, prostate, and colorectal cancer (in women only). As a result, racial disparities for these cancers have narrowed. In contrast, the racial disparity has widened for breast cancer in women and remained constant for colorectal cancer in men, likely due to inequalities in access to care, including screening and treatment.”⁷⁸

Risk for many cancers can be reduced by adjusting lifestyle factors, such as eating healthy, being active, and avoiding harmful exposures. One issue that emerged from the 2017 YRBS was that 7.8% of high school students reported using an indoor tanning device, despite North Carolina banning the use of indoor tanning beds for those under age 18.²⁴ Skin damage associated with tanning is a risk factor for skin cancer.

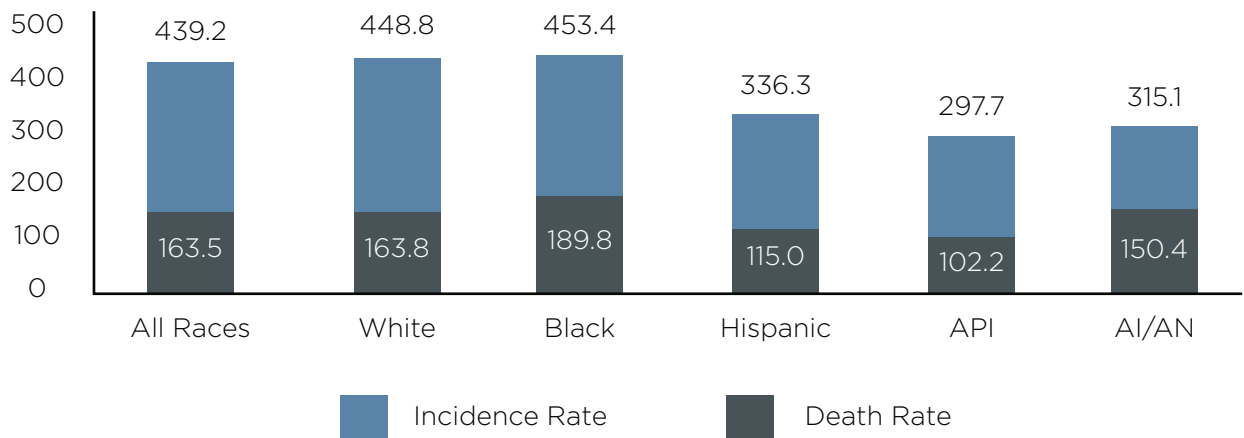


Figure 27: Chatham Cancer Incidence and Death Rates by Race/Ethnicity Per 100,000 Residents⁷⁷

Cerebrovascular Disease

Cerebrovascular disease includes all disorders in which an area of the brain is temporarily or permanently affected by inadequate blood flow or bleeding, such as stroke, aneurysms, and vascular malformations. According to the American Association of Neurological Surgeons, cerebrovascular disease is the most common life-threatening neurological event in the U.S.⁷⁹

Figure 28 shows Chatham age-adjusted stroke death rates as compared to overall North Carolina rates. Chatham's rates are lower than the North Carolina average, but cerebrovascular disease was the third leading cause of death in the county, at 7% of all deaths in 2016.³⁹ Stroke

is also a leading cause of serious long-term disability in the U.S.⁷⁹

Strokes are more common in older adults but can occur at any age. Men are more likely to experience strokes than women, and Black/African-Americans are more likely to die from stroke than Whites.⁷⁹

Risk factors for stroke include smoking, high blood pressure, diabetes, high cholesterol, obesity, and physical inactivity. Many forms of cerebrovascular disease can be prevented with healthy lifestyle choices.

Resources:

Chatham Hospital
(919) 799-4000
chathamhospital.org

Age-Adjusted Stroke Death Rates per 100,000 Residents

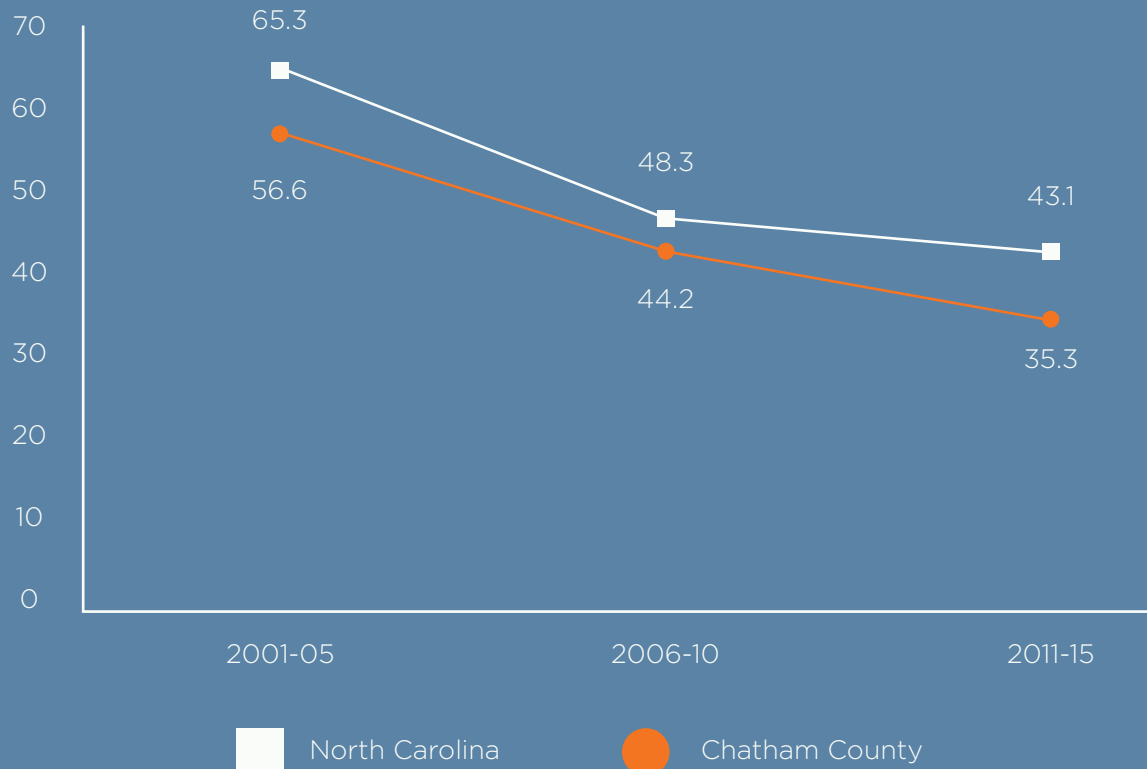


Figure 28: Chatham Age-Adjusted Stroke Death Rates per 100,000 Residents, 2001-15³⁹

Diabetes

Diabetes is a group of diseases that result in too much sugar in the blood. Type 1 diabetes occurs when the body does not make insulin and most commonly appears in childhood. Type 2 diabetes is more common and is generally seen in people over age 40.

Diabetes remains a serious health concern in Chatham and is currently the 7th leading cause of death in Chatham, making up 3% of total deaths.³⁹ In 2018, 15.5% of Chatham County adults reported ever being told by a medical professional they had diabetes.⁵⁵ Diabetes was a health priority in the 2010 CHA, and the 2014 assessment reported that 10.5% of Chatham residents had been diagnosed with diabetes.¹⁹ It is important to note that the 2014 and 2018 figures are not comparable since the sampling methods differ. However, taking into account underlying issues like obesity and that diabetes remains among the leading causes of death in

the county, targeted strategies to address diabetes on both an individual and systems level are as needed as ever.

Racial and ethnic disparities exist among diabetes diagnoses, with 12.7% of Hispanics/Latinx and 12.1% of Black/African-Americans diagnosed with diabetes, compared to 7.4% of Whites.⁸⁰ Additionally, those with less than a high school education are nearly twice as likely to have diabetes as those with more than a high school education (Figure 29).⁸⁰

According to the CDC, one in four people do not know they have diabetes.⁸¹ Diabetes can lead to other chronic health conditions or complicate existing conditions, including hypertension, kidney disease, and heart disease.⁸² Diabetes can be managed through diet, exercise, and medication.

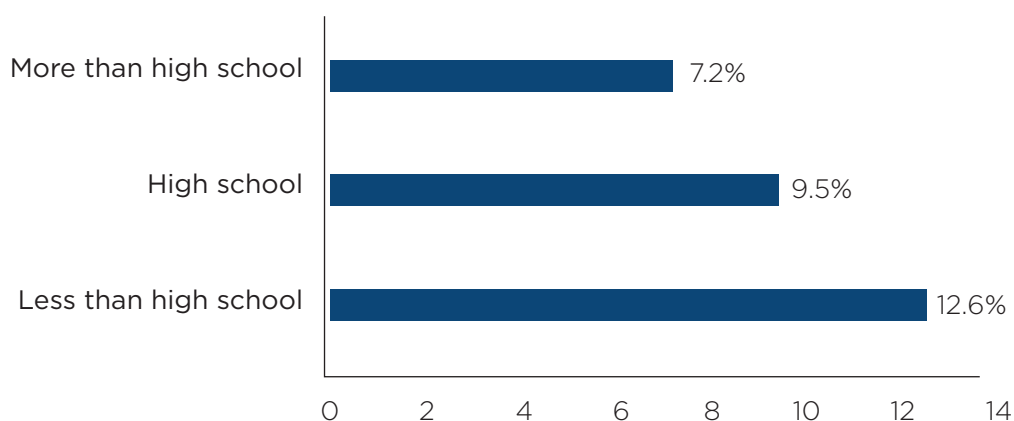


Figure 29: Percentage of US Adults Age 18 or Older with Diagnosed Diabetes by Education Level, 2013-15³⁹

Resources:

CCPHD Diabetes Prevention Program
(919) 742-5641
chathamnc.org/diabetes

Chatham Hospital Diabetes Education Program
(919) 799-4720
chathamhospital.org/ch/care-treatment/diabetes-management

Piedmont Health Services
(919) 542-4991 or
(919) 663-1744
piedmonthealth.org

Heart Disease

Heart disease describes a range of conditions that affect the heart, including blood vessel diseases, arrhythmias, and congenital heart defects.

As in previous years, heart disease is the second leading cause of death in the county, accounting for more than 17% of all deaths.³⁹ Like cancer, 12% of Chatham County adults reported ever being told by a medical professional that they had any kind of cardiovascular or heart disease.¹⁷ Compared to other North Carolina counties, Chatham's heart disease mortality rate remains low.

Black/African-Americans are more likely to die from heart disease in Chatham County than other races or ethnicities, as seen in Figure 30.⁸³ Males also have a higher heart disease mortality rate than females.³⁹

Risk factors for heart disease include high blood pressure, high cholesterol, and smoking. According to the CDC, nearly half of all Americans have at least one of these risk factors.⁸⁴ Heart disease can often be prevented with health lifestyle choices.

Resources:
Chatham Hospital
 (919) 799-4000
chathamhospital.org

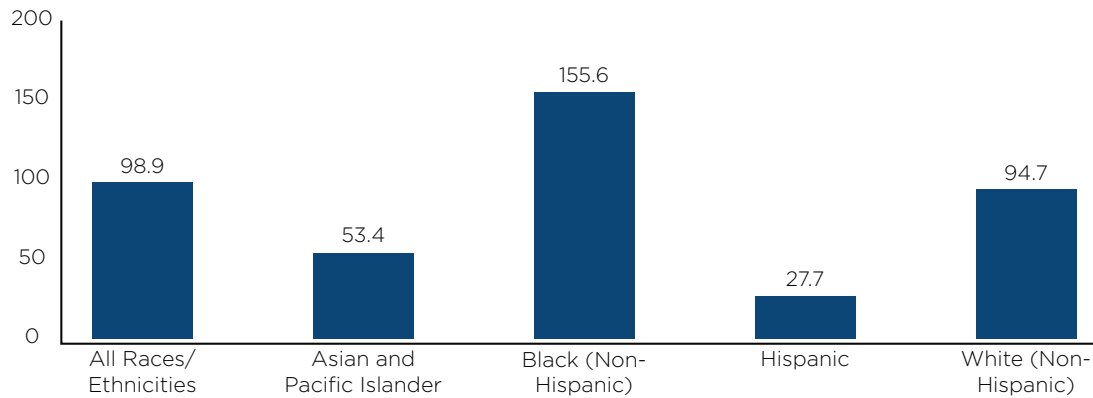


Figure 30: Chatham Heart Disease Rates per 100,000, by Race/Ethnicity, 2014-16⁸³

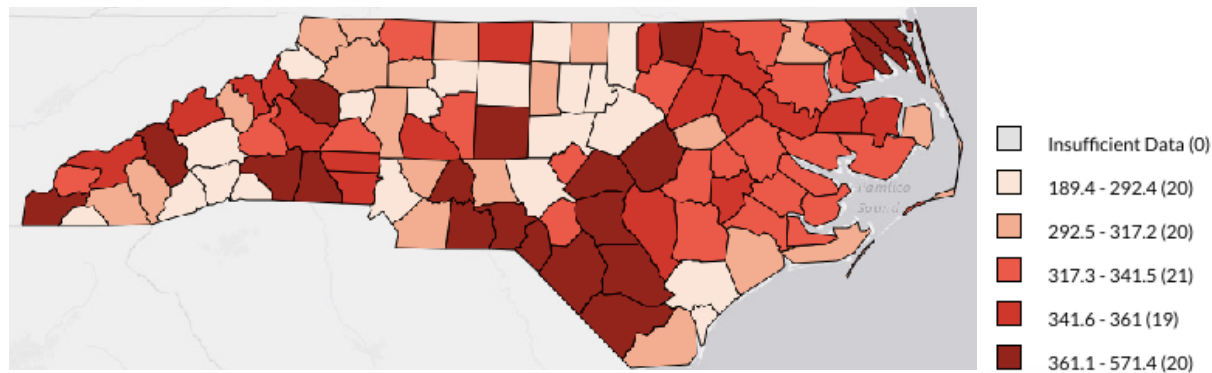


Figure 31: North Carolina Heart Disease Death Rate per 100,000⁸³



Community Cohesion

Civic Participation and Volunteerism · Communication and Internet · Discrimination and Racism ·
Geographic Divide · Knowledge of Services · Recreation and Entertainment · Social Isolation

Civic Participation & Volunteerism

Civic participation is an activity, such as volunteering, voting, or attending community meetings, done with the intention of improving life in the community. Civic participation and volunteerism can reduce social isolation. In the 2018 CCCS, 59.7% of Chatham adults reported belonging to a community organization.¹⁷ Some examples of these organizations include faith-based, sports teams, service groups, and other organizations. The county has a high nonprofit rate, at 41 per 100,000 residents, compared to the North Carolina average of 33 per 100,000.⁸⁵ Additionally, there is a high voter participation rate in Chatham. At 79.1%, it is well above the national average of 58.5%.⁸⁵ In the 2016 general election, Chatham had the highest voter turnout of any county in the state.¹⁸³ Chatham also led the state in early voting in the 2018 election, with 38% of registered voters casting their ballots early, and has ranked among the top ten counties for early voting turnout since 2010.²⁰¹

It is important to recognize that there are some key differences in areas of economic opportunity, need, and health outcomes between the western and eastern parts of the county. Given the economic and social disparities, many of the community services and nonprofits focus their work more in western Chatham.

During qualitative data collection, it emerged that some eastern Chatham communities place high emphasis on volunteerism. These communities had a higher composition of retired residents who felt that they now have the time and means to make significant contributions to Chatham. Civic engagement was rated with high importance and was a centralized part of community identity in the Farrington Village area, though other communities noted the importance of community engagement as well.³³

Resources:

Chatham Connecting
chathamconnecting.org

Chatham Health Alliance
chathamhealth-alliancenc.org

Communication & Internet

Resources:

Chatham County
News + Record
(919) 663-3232
chathamnewsrecord.com

To understand how Chatham residents get information, the CCCS asked questions about communication and internet access. Nearly 98% of adults reported having access to a cell phone, and 84.6% of those people had access to a smartphone.¹⁷

Chatham-specific information sources are often unrecognized or underutilized as options to receive local information, and many Triangle and Triad news sources do not cover Chatham news. The local source most frequently accessed by CCCS respondents was the Chatham News and Record, with 26.6% of adults receiving local information from that source.¹⁷ Other local sources included the Chatham Chatlist, Chatham County Line, Chatham County Magazine, WNCA, NC 2-1-1, Que Pasa, Nextdoor, Chatham County news alerts, and Chatham County CodeRED.¹⁷ Nearly 40% of adults stated they did not access local information from any of these sources.¹⁷

Internet access continues to be an issue in the county. Fewer than 60% of residents reported good quality internet, and there were stark differences in quality across the county.¹⁷ Two-thirds of residents in the eastern half of the county reported having good quality internet, while only 44% of residents in the west felt the same.¹⁷ Over 10% of adults reported that they did not want internet in their home.¹⁷

Residents expressed long-standing frustration with Chatham’s limited internet access. One resident summed up many people’s sentiments saying, “when will most or all of Chatham County join the 21st century in terms of internet access?”⁹ The Comprehensive Plan recognized this issue in its stated goal to “provide infrastructure to support desired development and support economic and environmental objectives.”⁹ Further, the plan specified “high-speed internet/broadband should be available to all and enable education and entrepreneurship.”⁹

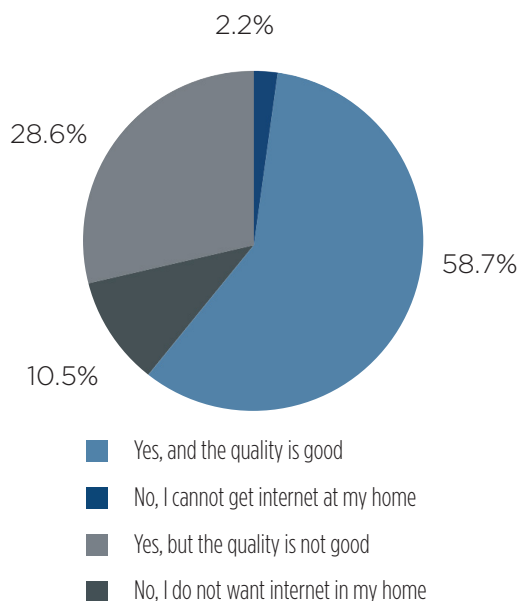


Figure 32: *Chatham Home Internet Access*¹⁷

Having quality access to internet is becoming increasingly important for access to information, opportunities for social connection, and health care. Rural areas without access to specialty care are now working to utilize telemedicine, which requires a strong internet connection. This is an important alternative for people who lack transportation. The internet also provides access to free educational tools, and

many companies now list job postings and accept applications online.

Throughout Chatham, there are locations that provide free access to wireless internet services. All public libraries provide internet connections, in addition to the community college and many local cafes. These locations are utilized by local residents for both work and social activities.³³

Discrimination & Racism

According to the CCCS, only 51.4% of residents agreed or strongly agreed that people of all races, ethnicities, backgrounds, and beliefs are treated fairly in their community.¹⁷ Over one quarter disagreed or strongly disagreed with that statement, and the remaining portion of residents stated that they were neutral, didn't know, or preferred not to say how they felt about that statement, which was among the highest percentages from that type of question in the survey.¹⁷

Discrimination and racism have profound impacts on health and well-being. Populations who experience discrimination and racism experience poorer health outcomes, and it is often reflected physiologically as a state of chronic stress. There are stark contrasts in indicators of well-being between racial and ethnic groups in the county, from poverty and infant mortality to life expectancy (see Figure 33). Disparities between groups do not rest solely on race and ethnicity; they intersect with other determinants for overall well-being, like household income and educational attainment.

Comments in focus groups, community conversations, and the BIC report highlight that some communities of color do not feel adequately represented in local leadership.^{33,34} Community members expressed a desire for more representation in leadership, positive imagery for youth of color, and a better distribution of information and resources in specific communities.³³

While exact measurements of discrimination are difficult, it is important to recognize the impacts of institutional processes can create exclusions that can be passively accepted as norms. In discussing matters of race and culture, focus groups and community conversation specifically targeted minority residents for participation. Communication, transparency, and representation are all components of a healthy, thriving community, identified by community members of color. People want care, but they also want assurance that they will be supported and respected as they navigate local systems.³³

Resources:

Building Integrated Communities
migration.unc.edu/programs/bic

Chatham Organizing for Racial Equity
chathamorganizingracialequity.weebly.com

Race/Ethnicity	Percent in Poverty	Infant Mortality Rate (per 1,000)	Life Expectancy (In Years)
White	11.6%	9.8	83.8
African-American	22.6%	26.7	78
Hispanic/Latinx	32.2%	22.6	Not Available

Figure 33: *Racial/Ethnic Disparities in Key Chatham Statistics*^{4,39}

Geographic Divide

Throughout the assessment, geographic differences across the county emerged. While these differences are often noticed between the east and west sides of the county, pockets of differences emerge throughout the county. These differences include access to resources, cultural and political backgrounds, economic opportunity, and health outcomes.

Chatham County's Comprehensive Plan used some of this information to identify specific zones as health priority areas.⁹ Criteria for assessing public health risk included percent in poverty, zero vehicle households, percent minority population, access to healthy food, access to parks and trails, and death rates.⁹ While there are several places in the east classified as high public health risk areas, the majority of areas with these risk factors lay in the west.⁹

In addition to the disparities in internet quality mentioned previously, households in western Chatham are more likely to rent their home (22.4% west, 7.9% east), drink only bottled or

delivered water (29.7% west, 17.8% east), and report fair or poor physical health (23.2% west, 8.8% east), among other marked geographic differences (see Appendix F).¹⁷

Focus groups revealed that most residents feel that their place of worship is the principal connector in bridging the divides between themselves and other communities in the county.³³ Other social celebrations such as Chatham's "First Friday" help to bring smaller localities together within the more central town locations.

While some of the outlying communities feel that they are able to connect with the towns, there was a strong thread that suggests smaller localities identify with having a more insulated cohesiveness. It is in these geographic areas that people expressed stronger relationships with their neighbors, neighborhood resources, and more commonality socially and economically.³³ The county itself does not figure prominently in individuals' sense of community.³³

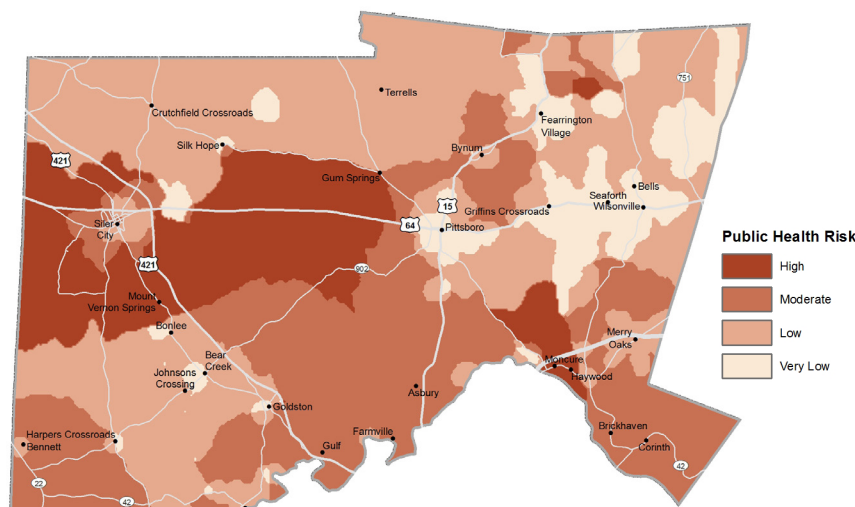


Figure 34: Chatham Public Health Priority Areas Map⁹

Knowledge of Services

Awareness of community resources is generally low in Chatham, and knowledge of substance abuse services has decreased from 2014.^{17, 19} While around 40% of Chatham adults reported being aware of mental health services, fewer than one-third reported being aware of substance abuse services.¹⁷ Awareness of those services was expressed in a broad range of answers, from naming specific providers to more vaguely stating “friends” or “the internet.”¹⁷

This lack of knowledge also extends to safety net health care providers across the county, though adults in the western half of Chatham did report more awareness of these services, at 48% in the

west and 14% in the east.¹⁷ Many resources are available within the county, but the lack of community awareness of these resources can prevent people from accessing services they may need.

When asked about their process to seek help accessing non-health resources, many participants identified their social networks as the first source of information.³³ Churches, neighbors, and communication with organizations that they volunteer or work with also served as information sources.³³ These responses varied by community and the proximity of resources to home.³³

“Resources are limited, and people are not aware of them.”

– CCCS Community Key Informant

Recreation & Entertainment

Recreation and entertainment opportunities contribute to greater quality of life in a community. This includes a multitude of activities and institutions, ranging from restaurants and shopping to sports, parks, museums, and performing arts.

Many focus group participants reported having to travel outside of Chatham for entertainment.³³ Participants were also concerned that the lack of local entertainment

options contributed to youth delinquency.³³

When asked what Chatham County should focus on to improve community quality of life the most, recreation activities for youth was identified second most commonly.¹⁷ Activities for adults was ranked sixth.¹⁷ While new development in Chatham will likely include more entertainment options, completion remains years away.

“I informally polled my AP Government students and 0/29 said that they could see themselves living in Chatham County in 10 years.”

– High School Teacher via Chatham County Comprehensive Plan

Resources:

Chatham Health Alliance
chathamhealth-
alliancenc.org

NC 2-1-1
211
www.nc211.org

Resources:

Chatham County Events
(919) 200-5109
chathamcountyevents.
com

**Chatham County
Parks and Recreation**
(919) 545-8555
chathamnc.org/
government/
departments-programs/
parks-recreation

**Pittsboro Parks and
Recreation**
(919) 533-5480
pittsboronc.gov/parks

**Siler City Parks and
Recreation**
(919) 742-2699

Social Isolation

Resources:

Chatham Connecting
chathamconnecting.org

**Chatham Council
on Aging**
(919) 542-4512 or
(919) 742-3975
chathamcouncilonaging.
org

In addition to geographic isolation, interpersonal and community connections play a role in overall quality of life of people of all ages; however, these factors are particularly important for older adults. One quarter of Chatham adults over age 65 lived alone in 2016, increasing their risk for social isolation.⁸⁶ Living in a rural community like Chatham further increases vulnerability to social isolation.

Health risks associated with social isolation have been compared in magnitude to the dangers of smoking cigarettes and obesity.⁸⁷ Those who lack social connections or report frequent feelings of loneliness tend to suffer higher rates of morbidity, mortality, infection, depression, and cognitive decline.⁸⁸ Isolated individuals are also more vulnerable to natural disasters and other associated threats to health and safety. To address this vulnerability, the Chatham Aging Plan

prioritized social isolation, community engagement, and opportunities for self-fulfillment and includes objectives to “safeguard socially isolated and vulnerable individuals in Chatham County.”³⁴

Recreation and entertainment opportunities combat social isolation. Young adults who were regularly involved in their local community, nonprofits, or were engaged with other parents (if they had children) found that this met their need for community connections.³³

Isolation often occurs differently in the Hispanic/Latinx community. Language barriers can create a point of isolation from the larger Chatham community, which is exacerbated in older adults.³³ However, protective factors occur naturally within families and churches that prioritize engagement.³³



Economic Growth

Built Environment · Development and Rural Preservation · Transportation · Unemployment

For more information on Poverty, please see the Health Impact Priorities chapter on page 41.

Resources:

**Chatham County
Parks and Recreation**
(919) 545-8555
chathamnc.org/
government/
departments-programs/
parks-recreation

**Chatham County
Planning Department**
(919) 542-8204
chathamnc.org/
government/
departments-programs/
planning

Built Environment

The built environment is related to development and community design and can greatly impact health and well-being. According to the CDC, the built environment “includes all of the physical parts of where we live and work (e.g., homes, buildings, streets, open spaces, and infrastructure).”⁸⁹

The built environment includes everything from parks and greenways to stores and community gardens and is a strong predictor of health behaviors and outcomes. For example, parks are linked to increased physical activity, reduced stress, improved mental health, and increased social connectivity.⁹⁰ However, if it is not easy to access a park because of inaccessible or

nonexistent sidewalks, bicycle, or walking paths, people may be prevented from accessing this resource.⁸⁹

Environmental-level improvements can help people to be more physically active and eat better, which can reduce obesity and chronic disease rates. On a national level and within Chatham, there has been a push to incorporate health into planning projects, as community plans can include strategies to advance health through the built environment. The Chatham County Comprehensive Plan is an example of this.

Physical activity, including places to be active,

Healthy Food Store Service Areas

Service Areas (Minutes)

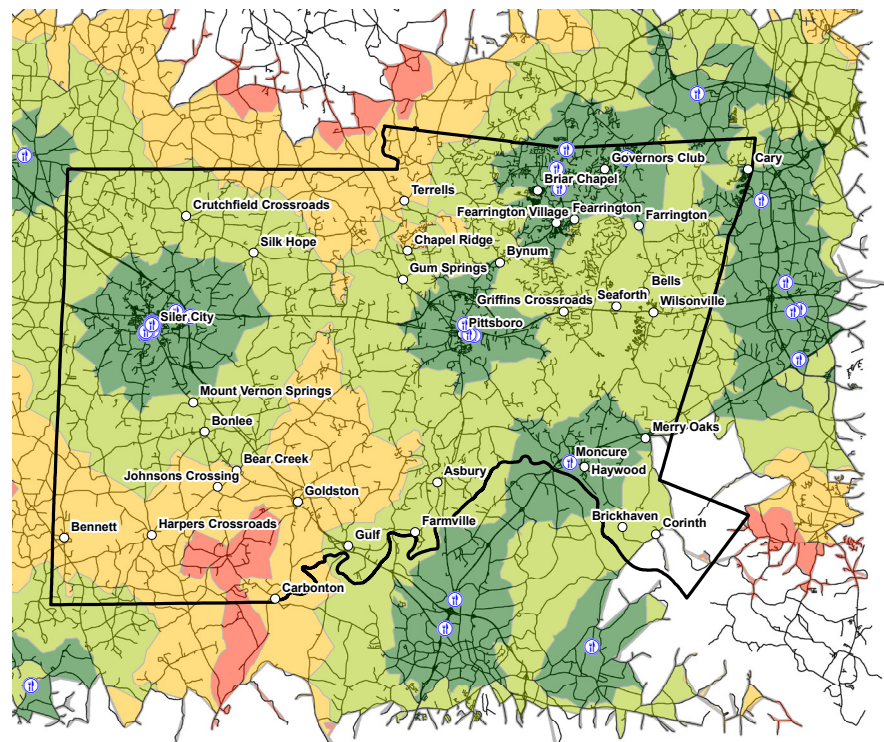
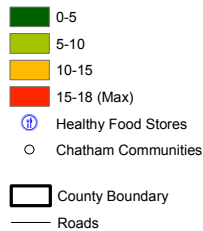


Figure 35: Chatham Healthy Food Stores Access Map⁹

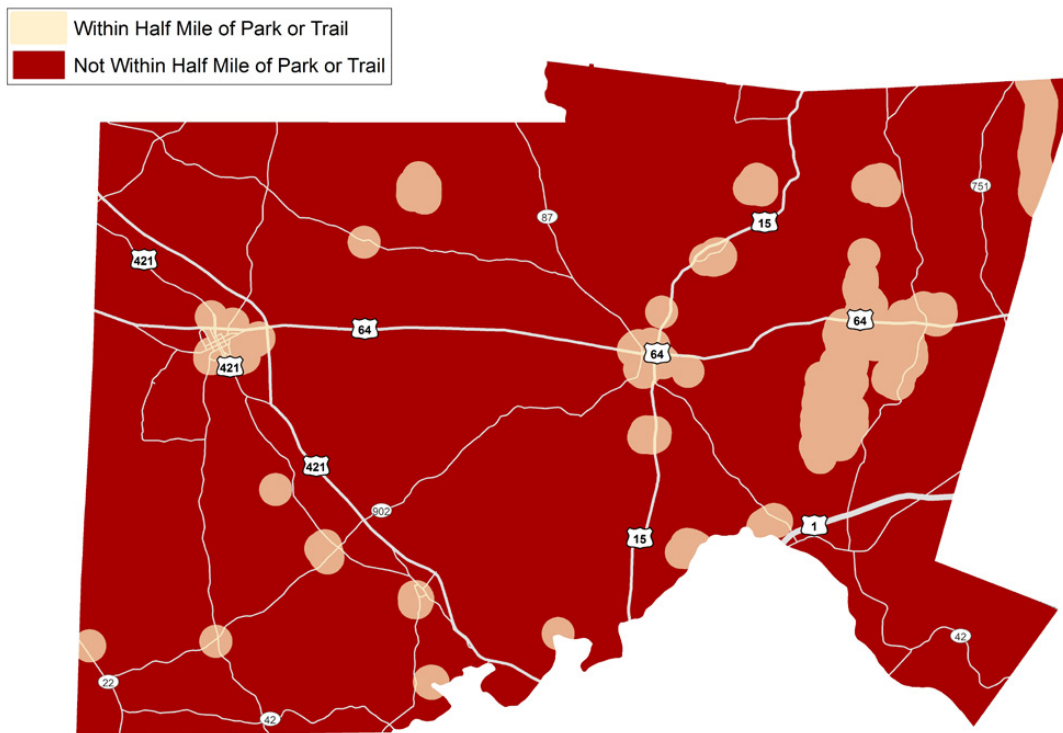


Figure 36: *Chatham Access to Recreational Space Map*⁹

ranked second in the CCCS for issues affecting health of the community.¹⁷ In the survey, 83.2% of respondents agreed or strongly agreed that there are places to be physically active near their home.¹⁷ Figures 35 and 36 show areas of the county that are within half a mile of a park or a trail as well as travel times to healthy food stores. More densely populated areas and the eastern portion of the county generally have better access to healthy food stores and

recreational spaces than rural areas and the southwestern portion of the county. Given the relationship between access to resources in the built environment like recreational areas and stores with healthy food and health outcomes, a systems-level approach aimed at creating healthy environments is gaining traction in the county and across the U.S. as an effective strategy to advance population health.

Development & Rural Preservation

Resources:

Chatham County
Comprehensive Plan
[chathamnc.org/
comprehensiveplan](http://chathamnc.org/comprehensiveplan)

Given its proximity to urban areas and attractiveness to developers, Chatham has been a hotbed for new residents and developers for several years. The county’s population increased from just under 50,000 in the 2000 Census to over 71,000 in 2017.⁴ This growth is expected to accelerate in the coming years, especially with Chatham Park now coming to fruition. According to its plans, “At final buildout, Chatham Park will cover 7,068 acres. In addition, Chatham Park owns over 1,000 acres that are adjacent to the current planned development.”⁹¹ Current estimates predict the county’s population increasing to up to 128,000 by 2040 (Figure 37).⁹² This is an important issue given the concerns of residents voiced in the CCCS and focus groups over local opportunities for employment and access to services.^{17, 33}

Beyond Chatham Park, Mountaire Farms, which recently opened a plant in Siler City is projected to employ over 1,200 people.⁹³ Siler City and Moncure both have certified megasites poised to attract manufacturers that could bring major investments into these communities.⁹⁴

With this growth, however, comes the concern of rural preservation. Preserving rural character was identified as the most important goal during the Comprehensive Planning process.⁹ As the Comprehensive Plan highlights, “Chatham County is at a critical point in its history. It has experienced exceptional growth in recent years,

and is in the path of additional growth, particularly in the northeast portion of the County. The more rural parts of the County are also undergoing changes that threaten agriculture and quality of life.”⁹⁹ To mitigate these impacts, the Comprehensive Plan set out to provide “a strategic guide for future decisions in order to address the most pressing needs of the County and improve the quality of life enjoyed by current and future residents.”⁹⁹

Rural character means different things to different people. For some, it is clean water, forests, and wildlife. For others, it means the preservation of agricultural resources and farming. Many during this assessment also focused on scenic beauty or a lifestyle that includes privacy, peace, and knowing neighbors. As a resident interviewed for the assessment put it, “Pittsboro expanding is a concern. The idea of maintaining its small town feel, like you know your neighbors, I wonder if that’s going to be preserved.”³³ With migration increasing the county’s population and developments reaching into historically agricultural areas, Chatham is entering new territory, caught between its rural roots and growing urban centers. Balancing the opportunities that come from this development with the importance many residents place on preserving the rural character they have come to love about Chatham will continue to be an important consideration in the years to come.

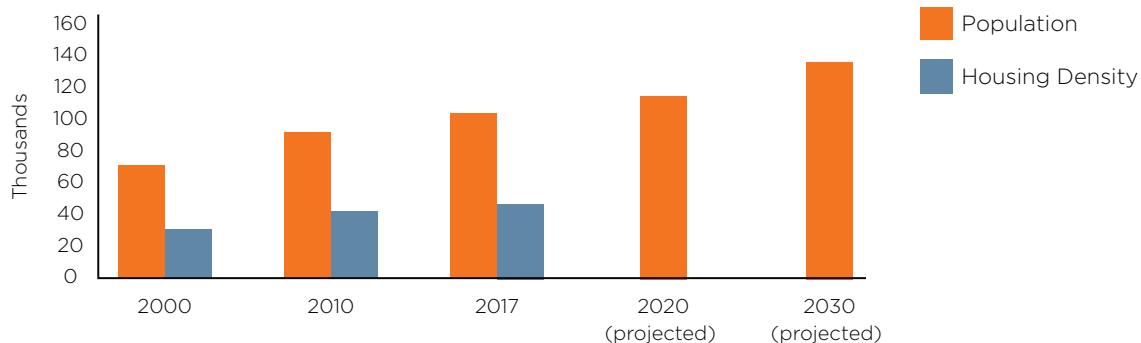


Figure 37: Chatham Population and Housing Density per Square Mile, 2000-30⁹²

Transportation

Transportation is among the most important considerations when accessing services. The considerable role that adequate, accessible transportation plays in a community helps to explain why this issue is so often prioritized in local assessments and plans, including the Comprehensive Plan, Aging Plan, and BIC report. Chatham residents in both the CCCS and focus groups cited transportation and access to public transportation as important issues affecting their communities.^{17, 33} In the community survey, transportation was the fifth highest issue residents wanted the county to focus on to improve quality of life and the eighth ranked issue affecting community health.¹⁷

This can be especially important for certain populations, such as older adults. A respondent to the Aging Plan's community survey explained the importance of transportation to both health and overall quality of life, stating, "Once people cannot drive their car anymore it is hard to get around, whether it is for medical visits or grocery shopping. Isolation and loneliness are the result."³⁴ The BIC report, which aimed "to understand the experiences of immigrant residents in Siler City and Chatham County," stated that residents recommended increasing access to public transportation as a strategy to support community integration and that improved transportation services would also lead to increased well-being and leadership participation for these populations.⁴³ The Chatham County Comprehensive Plan also pointed out that transportation is often a household's second-largest expenditure, while setting forth a vision where "County residents of all ages and abilities can travel safely and easily through the County using a range of appropriate travel modes."⁹ The Comprehensive Plan's recommendations related to transportation

included expanding transit and promoting active transportation, like walking or biking.⁹

While the average Chatham household has two vehicles at home, nearly 3% of survey respondents reported not having access to a car.¹⁷ Figure 38 shows the proportions of households without cars by county regions. Certain groups are more likely to not have access to personal transportation, including older adults and undocumented residents. Lack of transportation is linked to a multitude of issues, including accessing care, healthy foods, and employment, as well as social isolation. Overall, 83.4% of working survey respondents reported traveling to work by car (14.9% work from home), and 97.7% reported using a car when they purchased groceries.¹⁷

Public transportation in the county is run by Chatham Transit Network, and ridership with Chatham Transit has been increasing over the last few years, from nearly 64,000 rides in 2014 to over 90,000 rides in 2018.⁹⁵ While demand for public transportation continues to increase, challenges to providing public transportation services across a county that remains predominately rural persist. As new developments take shape, opportunities to expand public transit may come as well.

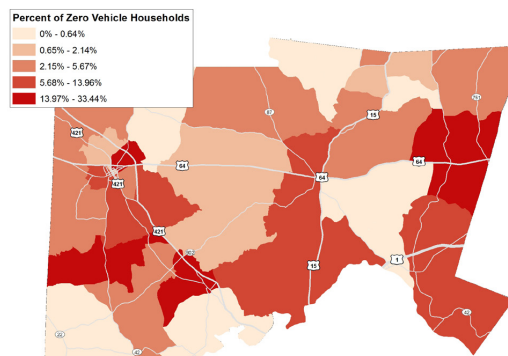


Figure 38: Chatham Percent of Zero Car Households Map⁹

Resources:

Chatham Transit
Network
(919) 542-5136
chathamtransit.org

Unemployment

Resources:

Department of Social Services

(919) 542-2759
chathamnc.org/services/
social-services

NCWorks Chatham County

(919) 545-8005
cccc.edu/careercenter/
chatham

When considering economic growth, the most common indicators are unemployment rates and new job creation.⁹⁶ Chatham's unemployment rate has been steadily decreasing in recent years and is among the lowest in the state, as shown in Figure 39.⁹⁷ The most recent figures from the NC Department of Commerce (NCDOC) put the unemployment rate at 3.3%.⁹⁷ That said, the unemployment rate only tells part of the story. Residents in both the CCCS and focus groups raised concerns over the availability of local jobs and good wages.^{17, 33} Low income/poverty was the most frequently cited issue affecting community well-being in the CCCS.¹⁷ In focus groups, lack of jobs, livable wages, and poverty were common concerns of residents.³³ Delving further into the data helps to explain how in a county with an unemployment rate as low as Chatham's, poverty became a HIP.

First, it is important to note that many residents travel outside of the county, particularly to more urban areas, to find employment. More than 60% of employed Chatham residents travel outside of the county for work, and the average travel time to work is 27 minutes.^{10, 17} According to the ACS, 8.6% of residents travel an hour or more to work.¹⁰ As one focus group participant mentioned, "Chatham County is becoming a bedroom community for people who work outside the county."³³

Access to local employment opportunities can disproportionately affect residents in more rural areas of the county further from these urban centers. In the CCCS, the unemployment rate was slightly higher for respondents in the western side of the county (3.9%) than eastern side (3.5%).¹⁷ Some focus group participants

noted new job opportunities coming to the county while raising the concern that these new jobs would attract employees from outside the county, meaning residents would continue to have to travel outside the county to find work.⁵⁵

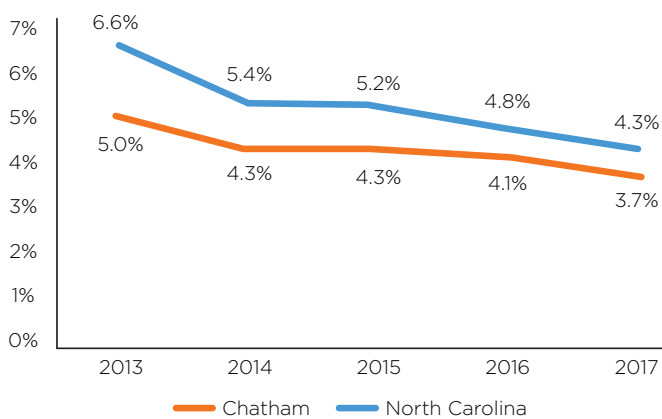


Figure 39: Unemployment Rate, 2013-17⁹⁷

In addition to job availability, an important consideration is wages. Overall, Chatham has among the highest median household incomes in the state at \$59,684, with 29.3% of households reporting incomes of \$100,000 per year or higher.³² On the other hand, 10.7% of households earn less than \$15,000.³² In 2018, NCDOC reported an estimated average hourly wage of Chatham County jobs of \$18.75, though this varies greatly by sector and level of experience.⁹⁷ According to the Massachusetts Institute of Technology (MIT)'s living wage calculator, an adult with one child in Chatham County must earn a living wage of \$24.84 per hour to support their family.⁹⁸ Along with overall unemployment rates, local employment opportunities, wages, and cost of living must all be considered to gain a comprehensive understanding of this issue.



Environment

Air Quality · Extreme Heat · Tick-Borne Illness · Water Quality

Air Quality

Resources:

AirNow
airnow.gov

Air quality is a measure of pollution in the air, indoor and outdoor, and can change regularly. Outdoor air quality takes into account pollutants like ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide, with ground level ozone and particulate matter posing the greatest risks to health.⁹⁹ Indoor air quality refers to air quality within and around buildings and structures.¹⁰⁰ Building materials, cleaning and personal care products, excess moisture, tobacco smoke, radon, and pesticides all impact indoor air quality.¹⁰⁰

Poor air quality has a range of health effects, from acute respiratory diseases to heart disease and stroke.¹⁰¹ Children and the aging population are most impacted by poor air quality.¹⁰¹ Figure 40 shows the location of facilities required to be permitted as an air emissions source, with red being a major air emissions source; the majority of facilities in Chatham are clustered around Moncure.¹⁰²

The Environmental Protection Agency (EPA) updates the Air Quality Index (AQI) daily, which is used to communicate air quality to

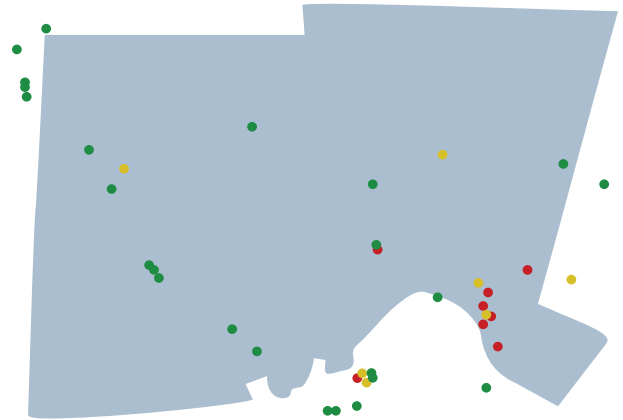


Figure 40: Chatham Permitted Air Emission Sources Map¹⁰²

the public and predicts when air quality will be poor.¹⁰¹ This information can be used to plan for safe and healthy physical activity, particularly for groups more sensitive to air quality.¹⁰¹

Figure 41 shows the number of unhealthy days in Chatham, as classified by the EPA. From 2013-2015, Chatham had zero days classified as unhealthy.¹⁰³ As of 2015, there are no air quality monitoring stations in the county.¹⁰³ The North Carolina Department of Environmental Quality (NCDEQ) oversees air quality monitoring in the state.

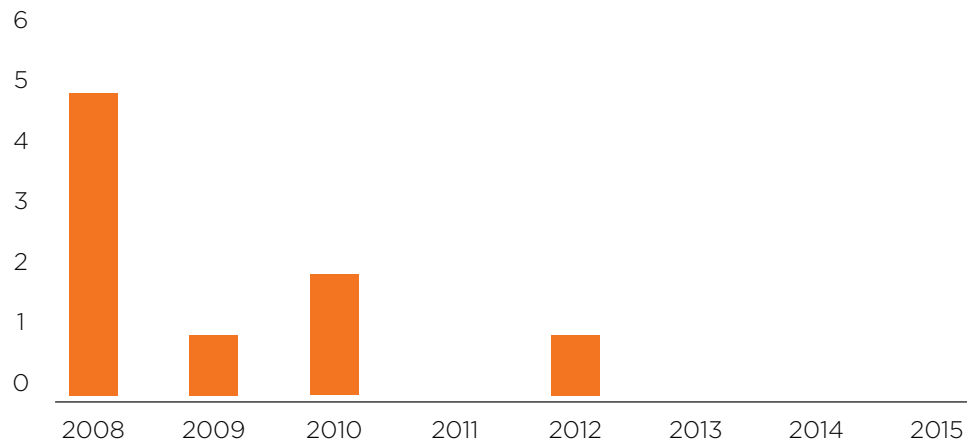


Figure 41: Number of Unhealthy Days for Asthma or Other Lung Disease in Chatham, 2008-15¹⁰³

Extreme Heat

The number and duration of extreme heat events is increasing.¹⁰⁴ The definition of extreme heat varies based on average summertime temperatures, but for most of the United States it is defined as a minimum of two to three days of high heat and humidity with temperatures exceeding 90 degrees.¹⁰⁵

Extreme heat events can trigger a variety of heat stress conditions, such as heat exhaustion or heat stroke. Heat stroke can cause death or permanent disability if emergency treatment is not given. Small children, the elderly, and certain other groups including people with chronic diseases, low-income populations, and outdoor workers have higher risk for heat-related illness.¹⁰⁶ Despite the preventable nature of heat stress conditions, 618 people in the United States are killed by extreme heat every year.¹⁰⁶

Figure 42 shows emergency department visits for heat-related illness in North Carolina between May and September 2018 as well as daily maximum heat indices.¹⁰⁷ As the maximum heat index increased, so did the number of heat-related emergency department visits.

Higher temperatures and respiratory problems are also linked. One reason is that higher temperatures contribute to the build-up of harmful air pollutants.¹⁰⁸ Higher temperatures can also contribute to the increased spread of infectious diseases, such as those spread by mosquitoes or ticks, as the ranges of these bugs expand.¹⁰⁹

Climate change emerged as the seventh biggest health concern among Chatham residents cited in the CCCS and may contribute to an increase in extreme weather events.¹⁷

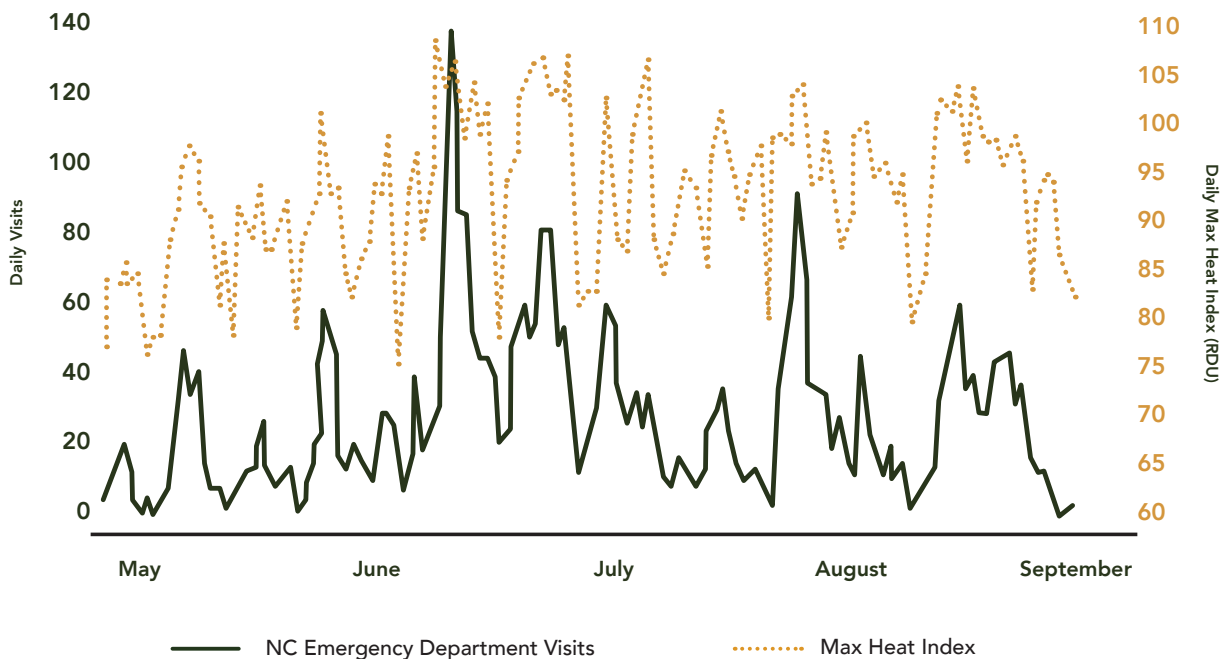


Figure 42: North Carolina Emergency Department Visits for Heat-Related Illness and Maximum Heat Index, Summer 2018¹⁰⁷

Resources:

Chatham County
Environmental Health
Division
(919) 542-8208
chathamnc.org/ticks

Tick-borne Infections
Council of North Carolina
(TIC-NC)
(919) 542-5573
tic-nc.org

Tick-Borne Illness

Chatham County has one of the highest rates of tick-borne illness in North Carolina.³⁰ The incidence of tick-borne illness, including confirmed cases, probable cases, and suspected cases, has risen steadily in Chatham since 2006.³⁰ In 2006, there were 39 cases of tick-borne illness, which increased steadily to 87 cases in 2015.³⁰ The CDC also noted a similar increase in tick-borne illnesses across the nation, reporting 22,527 tick-borne illnesses in 2004, which more than doubled to 48,610 cases in 2016.¹¹⁰ The CDC provides potential reasons for the increase in cases, including a notable increase in tick populations, reforestation of suburban areas, and the geographic spread of deer. The CDC also states that “reported data substantially underestimate disease occurrence, as the data set relies on a person seeking care, a clinician requesting appropriate tests, and providers reporting to local health authorities.”¹¹¹

Nearly 60% of CCCS respondents said someone in their household found a tick on their body in the past year, and 8.3% of adults reported being diagnosed with a tick-borne illness while living in Chatham County.¹⁷ The three most commonly reported tick-borne illnesses in Chatham County are Rocky Mountain Spotted Fever (RMSF), which is included in Spotted Fever Rickettsiosis case numbers, Ehrlichiosis, and Lyme disease.³⁰ Over the last 15 years, Spotted Fever Rickettsiosis accounted for 71% of the cases reported in Chatham, followed by Ehrlichiosis at 20% and Lyme disease at 9%.³⁰ NCDHHS reports slightly different case percentages for tick-borne illness across the state, with 63% of cases attributed to Spotted Fever Rickettsiosis, 27% attributed to Lyme disease, and 10% attributed to Ehrlichiosis.¹¹² Nationwide, Lyme disease accounts for 82% of all reported tick-borne illnesses.¹¹¹ Sixty percent of reported U.S. Spotted Fever Rickettsia cases were from five states: North Carolina, Oklahoma, Arkansas, Tennessee, and Missouri.^{111, 113} It is important to note that not all

tick-borne illnesses are reportable, including southern tick-associated rash illness (STARI), borrelia miyamotoi, Heartland Virus, Bourbon Virus, alpha-gal, and tick paralysis.

Tick-borne illnesses have been a concern nationally for many years, and an increased emphasis has been placed on prevention since Lyme disease was discovered to be a tick-borne illness in the 1970s. Emerging tick-related illnesses continue to be a public health concern. Since 2007, more than three new tick-borne illnesses have been discovered, including Powassan Virus, Heartland Virus, and Bourbon Virus.¹¹⁴ A new tick species, the Asian Longhorned Tick, was discovered in 2017.¹¹⁵ The Asian Longhorned Tick, not normally found in the Western Hemisphere, has not been shown to transmit illness in the United States; however, it is known to transmit illnesses in other countries.¹¹⁵ As of October 2018, the Asian Longhorned Tick has been found in nine eastern states, including North Carolina.¹¹⁵

Another emerging tick issue is an allergy known as alpha-gal, which can develop following a tick bite. When the person eats red meat, or in severe cases comes in contact with items that contain mammal meat, an allergic reaction takes place that includes itching, swelling, weakness, nausea, and anaphylaxis.¹¹⁶ The allergy is atypical, as it may take hours for these symptoms to appear. The impact of alpha-gal on the general population is difficult to quantify, as the allergy is not a reportable condition.

The best way to prevent tick-borne illnesses is to avoid places where ticks live, remove ticks promptly and properly, and discourage ticks from infesting frequented areas. Additionally, wear tick repellent and light-colored long clothing when spending time outside and conduct tick checks when returning indoors.

Water Quality

Concern over water quality has been high recently due to public attention on coal ash, fracking, and lead in community water systems. Water quality emerged as the fourth biggest issue affecting community health according to CCCS respondents.¹⁷ Nearly one quarter of residents reported drinking only bottled or delivered water at their home, while 42.9% drank only tap water, and one third drank a combination of tap and bottled or delivered water.¹⁷

The Safe Drinking Water Act (SDWA) is a federal law that provides regulations to ensure safe drinking water for the public. NCDEQ has jurisdiction for enforcing SDWA regulations for public water supplies in North Carolina. Public water supplies include county, city, town, sanitary districts, and small water systems.

Public water supply systems are required to issue an annual water quality report that describes the laboratory tests that have been conducted on the water system, the results, and if the system is in compliance with federal water quality standards. Typically, these reports can be found on the water system's website. As part of the water quality sampling, public water supplies are required to sample for lead and copper one time every three years. Currently the water systems serving Chatham County are compliant with the lead and copper sampling requirements.

Additional testing of public water supplies is also completed as part of the SDWA Unregulated Contaminant Monitoring Rule. This rule requires the EPA to develop a list for testing based upon new research about contaminants not previously known to impact health or contaminants that may impact public water supply system users. The most recent list included two contaminants that were identified

in surface waters that supply drinking water for public water systems in central North Carolina. Public water supply system operators in the central region are currently working with industry to either capture these contaminants prior to releasing them to the water supply system or substituting the contaminants with another substance that can be properly treated by the public water supply treatment plants. NCDEQ is continuing testing of surface water to evaluate contaminant levels and conduct further follow-up actions.

Nearly 15% of the population in the United States, 33% of North Carolinians, 56.3% of Chatham County residents rely on private drinking water wells for their water.^{17, 117} The SDWA does not provide regulations for private drinking water wells; however, drinking water, irrigation, and livestock wells in Chatham County are required to be permitted prior to construction. All wells permitted since 2008 are required to have sampling completed at the time of construction, though further sampling and protection of the well is the responsibility of the well owner. Based upon private well water samples collected by Chatham County Environmental Health for testing between 1998 and 2010, Chatham County wells generally provide water that meets public drinking water standards. The data does indicate that Chatham County has naturally-occurring iron and manganese present in the soil, as 22% and 33% of wells respectively tested above the recommended level for these contaminants.¹¹⁸ Chatham County strongly encourages well owners to sample their well annually for bacteria and to sample for inorganic parameters every three to five years. Other contaminant sampling may be recommended depending upon the history and current use of the property near the well.

Resources:

**Chatham County
Environmental Health
Department**
(919) 542-8208
[chathamnc.org/
environmentalhealth](http://chathamnc.org/environmentalhealth)

Additional concerns around water quality involve Jordan Lake. Jordan Lake Reservoir is not only a source of water for several municipalities; it also serves as a recreation center for Chatham County and the surrounding areas. Several studies have been conducted in and around Jordan Lake that indicate high levels of eutrophication taking place in the lake.¹¹⁹ This happens when nutrients overload the lake, allowing algal blooms and excessive vegetative growth to take place. In response to the Jordan Lake Reservoir being listed as impaired in 2005, the state legislature enacted the Jordan Lake Rules in 2009 that provided requirements to protect the Jordan Lake watershed area. Session law has delayed implementation of certain rule requirements; however, the Chatham County Watershed Protection Department enforces surface water protections and the Jordan Lake Rules within county boundaries. In 2016, the NC General Assembly funded the Jordan Lake Nutrient Management study being directed by the UNC Chapel Hill Environmental Resource Program to further evaluate water quality in Jordan Lake.

Fracking, or injecting high-pressure fluids into the ground to extract oil or gas, is also a concern for water quality. As of January 2019, no fracking for oil and gas has taken place in North Carolina, and no applications for drilling have been submitted to NCDEQ. On January 22, 2019, the Chatham County Board of Commissioners approved a zoning ordinance amendment that enables staff to determine if additional studies must be conducted as part of a zoning application approval process for certain industries to operate in the county. The study would evaluate the impacts certain industries, including the oil and gas industry, may have on the land and county residents as

well as determine if the proposed industry plan meets the goals for the county established in the Comprehensive Plan.

Coal ash impoundments have become a priority in North Carolina since the Dan River release occurred in 2014. As a result, the state legislature passed the Coal Ash Management Act that required several key actions: the closing of any coal ash impoundments labeled as high risk by December 31, 2019, provided regulatory requirements for the closure of the remaining coal ash impoundments, and required sampling of wells within a half mile of all coal ash impoundments across the state. As a result of the water sampling, questions about hexavalent chromium and vanadium were raised, as many of the samples showed elevated levels. Follow-up sampling throughout the state revealed that hexavalent chromium and vanadium are naturally occurring contaminants. Nationwide debate continues about the appropriate health levels for vanadium and hexavalent chromium in drinking water. The Chatham County coal ash plant, Cape Fear Station, located in the Moncure area was retired in 2012. Duke Energy continues to explore options for removing the remaining coal ash from that site, as the coal ash must be removed by 2028. As part of Duke Energy's plan to close other coal ash impoundments across the state, they selected a company to dispose of the ash in an old mine in the Moncure community. NCDEQ is providing oversight for disposal of the coal ash at the disposal site, and ground and surface water sampling is being completed by the disposal company and Chatham County's environmental consulting firm. The Brickhaven coal ash disposal site is scheduled to stop accepting coal ash in April 2019.



Healthcare

Dental Care • Uninsured and Underinsured Populations

For information on Access to Healthcare, please see Access to Comprehensive Health Services on page 44.

Dental Care

Resources:

Chatham County Dental Resource Guide
chathamnc.org/dentalhealth

Piedmont Health Services
 (919) 542-4991 or
 (919) 663-1744
piedmonthhealth.org

Oral health is critical to overall health, while poor oral health is linked to chronic diseases like heart disease and diabetes, as well as behaviors like tobacco use and consuming foods and beverages high in sugar.^{120, 121} According to the CDC, “Cavities (also called tooth decay) are one of the most common chronic diseases in the United States.¹²¹ By age 34, more than 80% of people have had at least one cavity.¹²¹ More than 40% of adults have felt pain in their mouth in the last year.¹²¹ On average, the nation spends more than \$124 billion a year on costs related to dental care.¹²¹ More than \$6 billion of productivity is lost each year because people miss work to get dental care.”¹²¹

Statewide, 18% of adults age 65 and older had lost all of their teeth due to tooth decay or gum disease as of 2016.¹²² Furthermore, 10% of kindergarten age children who participated in the NC Kindergarten Oral Health Assessment had one or more cavities.¹²³ In the CCCS,

nearly two-thirds of adults reported having been to the dentist for a routine visit in the past year, essentially identical to the findings in 2014.^{17, 19} This did vary geographically across the county, as 70.8% of residents in the east reported a routine dental checkup in the past year, compared to 55.3% in the west.¹⁷ One in ten residents had not been in the past five years, also similar to what was reported in 2014.¹⁷ This number also differed from east to west as 4.2% of residents in eastern Chatham reported not going to the dentist for a routine checkup in more than five years, compared to 16.8% in western Chatham.¹⁷ Dental care and healthcare in general are more concentrated in densely populated areas outside of the county, and Chatham has a relatively low number of dentists per capita, at 1.87 per 10,000 compared to the North Carolina rate of 4.98 per 10,000.²⁰ Just over half of adults surveyed reported having dental insurance.¹⁷

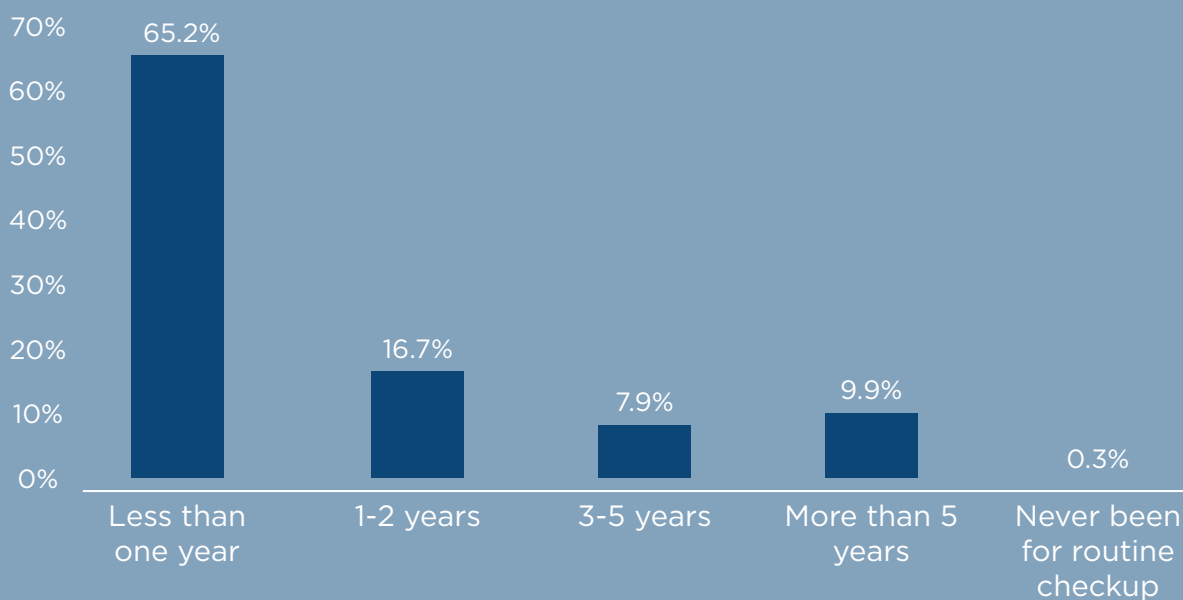


Figure 43: Time Since Last Routine Dental Visit Among Chatham Adults¹⁷

Uninsured & Underinsured Populations

Access to healthcare is “the timely use of personal health services to achieve the best health outcomes” and begins with gaining entry into the system, generally through health insurance.¹²⁴ The CDC reports that “uninsured children and nonelderly adults are substantially less likely to have a usual source of health care or a recent health care visit than their insured counterparts.”¹²⁵ Access to healthcare or umbrella issues has been a health priority in the last two assessments, and lack of affordable or adequate health insurance was a priority in both the 2010 and 2006 assessments. Given the importance of health insurance to healthcare access and overall health, policymakers have sought to reduce the number of uninsured residents nationwide through policy initiatives like the ACA, which sought to make health insurance more affordable for those who need it, particularly those with preexisting conditions. However, certain groups, like undocumented residents and low-income residents who do not qualify for Medicaid or subsidies, still may struggle to find affordable coverage. While many states expanded Medicaid coverage to address this gap, North Carolina was not among them.

The percentage of uninsured Chatham residents has fallen since the years before the ACA took effect. Nearly nine out of ten Chatham adults surveyed reported having health insurance in 2018, up slightly from 2014.^{17, 19} According to the ACS, the percentage of uninsured adults age 18-64 in Chatham decreased from 15% in 2008-2012 to 12.5% in 2013-2017.³² Six percent of Chatham children are uninsured, down from 10% in 2011.¹²⁶

Through the CCCS and focus groups, residents cited challenges that can emerge both in terms of getting health insurance coverage and accessing healthcare without being insured. As one key informant stated, “You have to sacrifice the time you’d be working for school, at which point I’m not insured. I’m no longer working full time, and I don’t qualify for Medicaid.”³³ Some CCCS respondents also cited these challenges, with 10.2% of residents reporting having trouble accessing health care in the past year.¹⁷ The most common barriers to receiving care were cost and lack of insurance (see Figure 44).¹⁷

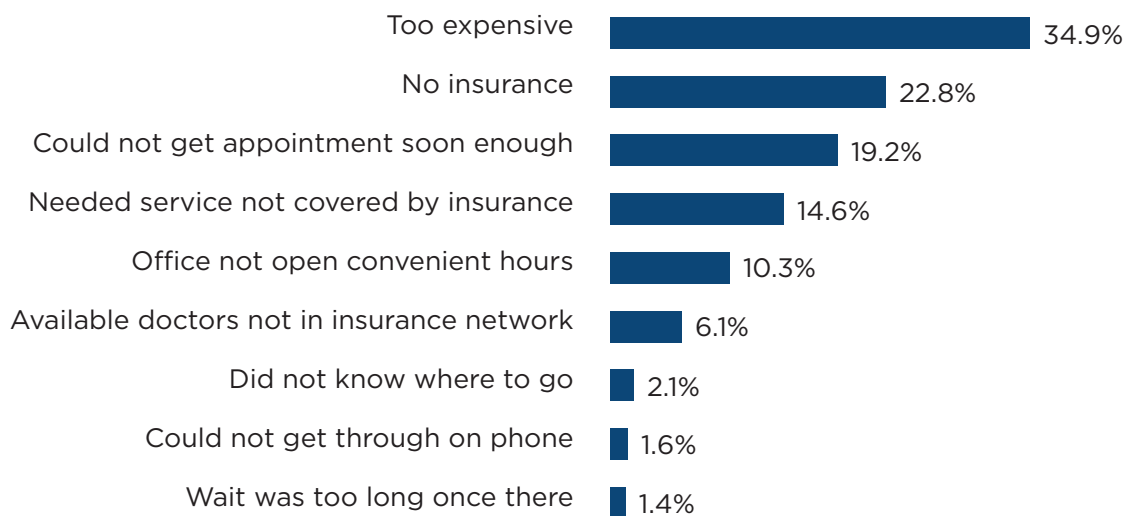


Figure 44: *Barriers to Obtaining Healthcare in Chatham*¹⁷

Resources:

Piedmont Health Services
 (919) 542-4991 or
 (919) 663-1744
piedmonthhealth.org

Department of Social Services
 (919) 542-2759
chathamnc.org/services/social-services



Personal Development

Child Care · Education · Literacy · Parenting Services

Child Care

Early childhood is the most rapid period of development in life and is critical to healthy cognitive, emotional, and physical development of children. Children who experience high quality child care programs are more likely to have better socio-economic, health, behavioral, and academic outcomes.^{127, 128}

In 2017, Chatham County had 2,768 children ages 0-5 needing some type of child care.¹²⁹ Of these children, 1,770 came from families with both parents working, and 998 children had a single working parent; 1,284 were enrolled in regulated child care, and 1,484 were enrolled in unregulated child care.^{32, 130} Currently, 44 licensed childcare facilities operate in Chatham County.¹³¹ These facilities are 100% in compliance with state immunization requirements - a rare accomplishment.¹³² Of Chatham residents surveyed, 54.6% thought that Chatham offered affordable childcare options, and 83% thought the available options were high quality.¹⁷

For many families, the greatest barrier to accessing quality child care is money. In Chatham County, the annual average cost of

child care for one child is \$7,845.¹³² For a parent who works full time and earns minimum wage, this average cost is 52% of their annual income. Nationally, the annual cost of child care is 10% of the median income for married couples and 46% of the median income for single parents.¹³³ In 2017, the hourly mean wage for child care workers in North Carolina was \$10.62, and the annual mean wage \$22,080.¹³⁴ In 2017, the federal poverty level for a family of three was \$20,420.¹³⁵ Both the federal and NC state minimum wage are currently \$7.25.

Licensed child care facilities in North Carolina receive a one through five star rating from the Division of Child Development and Early Education based on a measure of quality of care provided. The star rating assessment is based on staff education and program standards. Staff education is measured by the level of early childhood education and experience that employees have. The assessment of program standards includes the staff-to-child ratio, the square footage per child, the materials available for children to play with, and sanitation practices. For the 2017-2018 fiscal year, the average star rating of licensed child care facilities in Chatham County was 4.1.¹³⁶

Resources:

Chatham County
Partnership for Children
(919) 542-7449
chathamkids.org

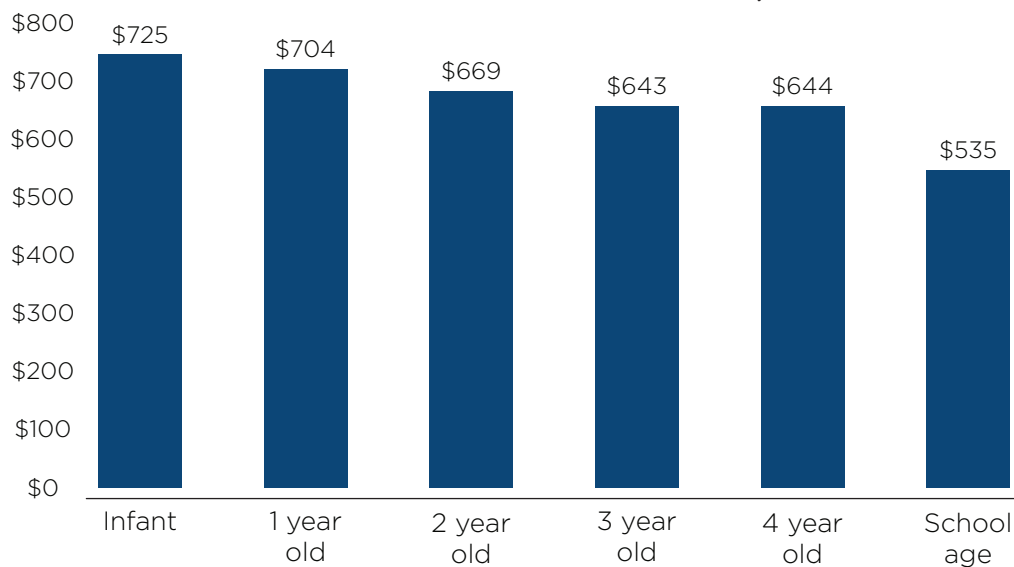


Figure 45: Average Monthly Cost of Full Time Child Care¹²

Education

Resources:

**Central Carolina
Community College**
(800) 682-8353
www.cccc.edu

Chatham County Schools
(919) 542-3626
chatham.k12.nc.us

**Chatham Education
Foundation**
(919) 578-1631
chathameducation
foundation.org

Education is closely correlated with many health and well-being indicators. According to the Office of Disease Prevention and Health Promotion, “education is associated with longer life expectancy, improved health outcomes, [and] health-promoting behaviors like getting regular physical activity, not smoking, and going for routine checkups and recommended screenings.”¹³⁷ Further, increased educational attainment is associated with lower levels of unemployment and higher incomes (Figure 46 and 47).¹³⁸

Disparities in educational attainment between populations are present throughout the U.S. population and can be attributed to a number of social and economic factors. The percentage of

Chatham County adults who held a bachelor’s degree or higher was much higher among White and Asian adults (46.6% and 51.4%, respectively) than Black/African-American or Hispanic/Latinx adults (16.7% and 14.5%, respectively).³² In Chatham, males and females had similar rates of attaining a bachelor’s degree or higher.³²

The Chatham County school system includes 18 schools: one early college, four high schools, three middle schools, five K-8 schools, and five elementary schools.¹³⁹ Over 8,700 students were enrolled in kindergarten through 12th grade in the 2018-19 school year.¹³⁹ Chatham students take Advanced Placement (AP) classes at rates comparable to students across North Carolina

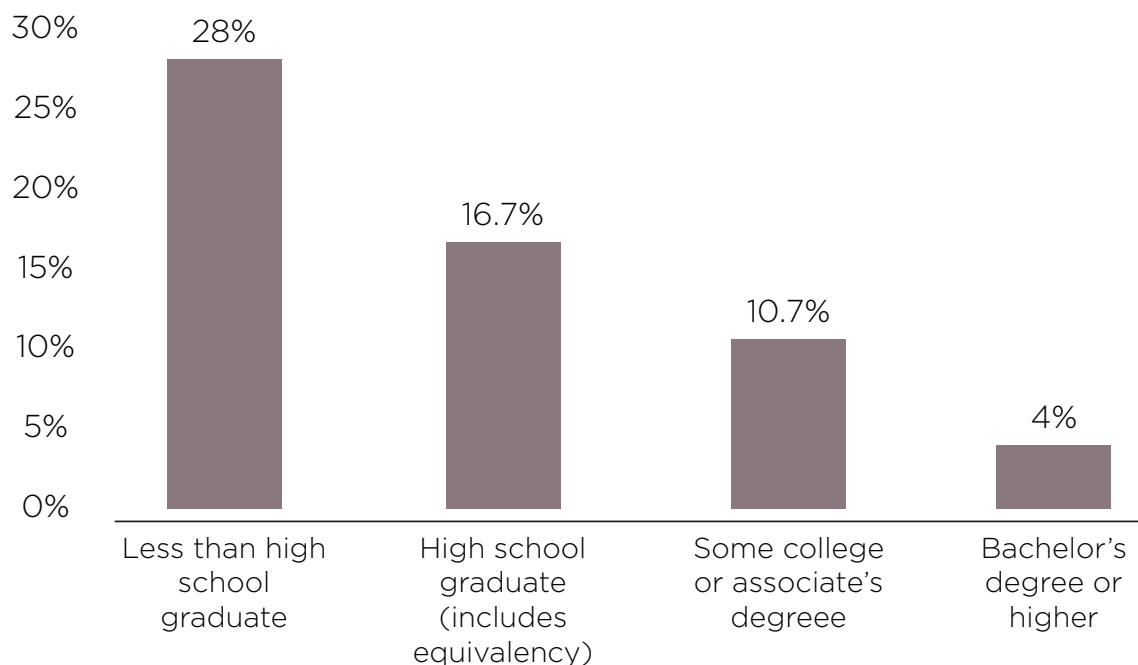


Figure 46: *Chatham Poverty Rate by Educational Attainment 25 Years and Over*¹³⁸

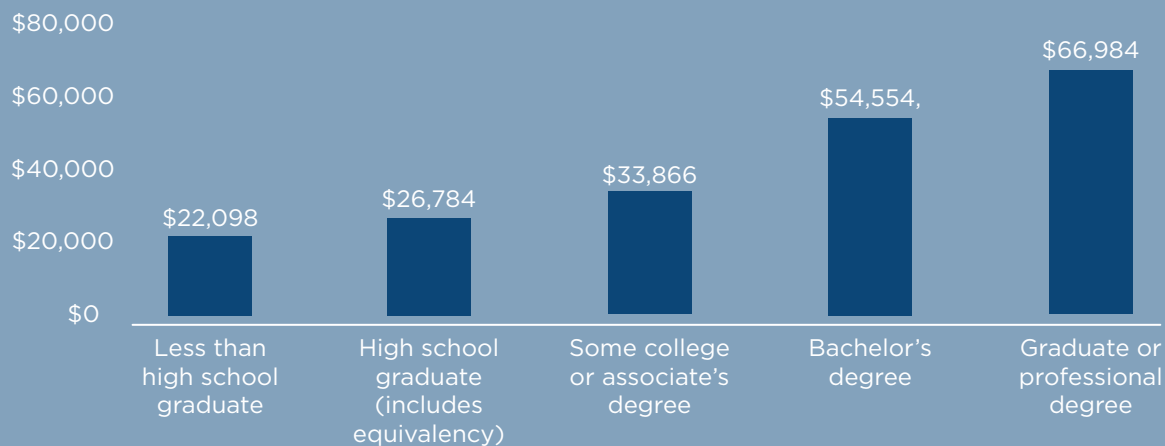


Figure 47: Chatham Median Income by Educational Attainment¹³⁸

and have comparable AP test scores.¹⁴⁰ A higher percentage of Chatham students take the SAT compared to schools across the state (58.6% and 46.8%, respectively), though Chatham students have slightly lower total scores than the state average (1068 and 1090, respectively).¹⁴¹ Chatham students do score higher than the national average SAT score, which is 1049.¹⁴¹ Chatham ACT scores are comparable to ACT scores statewide.¹⁴² Chatham County Schools is the biggest employer in the county, employing around 1,200 people.¹³⁹

The majority of CCCS respondents agreed that Chatham offers quality K-12 schools, and 87.3% of local high school students graduate on time.^{17, 32} This number is on par with North Carolina graduation rates.³² Chatham does have a lower dropout rate than North Carolina, at 1.6% compared 2.3%.¹³⁹ Further, Chatham is highly educated, with 41.8% of residents obtaining a bachelor's degree or higher.¹⁷ Nationally, around one third of people hold a bachelor's degree or higher.¹⁴³

Resources:

Chatham Literacy
(919) 742-0578
chathamliteracy.org

Chatham Reads
chathamreads.org

Literacy

Literacy Advance defines literacy as “the ability to read, write, speak and listen, and use numeracy and technology, at a level that enables people to express and understand ideas and opinions, to make decisions and solve problems, to achieve their goals, and to participate fully in their community and in wider society.”¹⁴⁴

Literacy has a range of social and economic impacts. Those with low literacy are more likely to be unemployed and earn lower wages than the national average.¹⁴⁵ Relatedly, low literacy is correlated with poverty, and 43% of adults with low literacy levels in the U.S. live in poverty.¹⁴⁵ Low literacy has impacts on the economy at large, with \$232 billion in health care costs annually attributed to low health literacy and \$225 billion annually lost to non-productivity in the workforce, crime, and lost tax revenue due to unemployment.¹⁴⁵

Chatham County schools average higher levels of reading, science, and math grade-level proficiency across elementary and middle school grades for the 2017-18 school year than North Carolina averages.¹⁴⁶ For example, 59.3% of Chatham 5th grade students are proficient in reading (compared 54.1% across North Carolina), 73.1% are proficient in science

(68.9% statewide), and 65.1% are proficient in math (59.8% statewide).¹⁴⁶ Proficiency of Chatham high school students, however, is somewhat lower than North Carolina averages, at 54.8% proficiency in Math I (compared to 57.4% across North Carolina), 50.7% proficiency in Biology (58.3% statewide), and 56.8% proficiency in English II (59.8% statewide).¹⁴⁶

Limited English proficiency can also be considered a literacy issue among English language learners in the U.S., many of whom are recent migrants. This limits access to employment and increases risk of living in poverty. The National Center for Education Statistics states “the number of different types of literacy materials in the home, the amount of home reading, and the opportunity to discuss reading are all related to reading proficiency.”¹⁴⁷ In Chatham, 96.4% of all households have reading materials at home; however, only 72% of Spanish-speaking households have reading materials at home.¹⁷

Improved literacy is key to both individual and community well-being. Chatham Literacy is currently conducting an assessment of literacy needs in the county.

Parenting Services

Parents take care of children from infancy to adulthood. Parenting influences the physical, emotional, social, and intellectual development of a child. The parenting role is not always filled by a child’s biological parent. Grandparents, family friends, and foster parents are sometimes the primary caregiver or legal guardian of a child. One-third of Chatham residents live in households with children under 18.¹⁷

Nationwide in 2017, parents of children under age 18 spent on average 1.43 hours per day caring for and helping children in their household.¹⁴⁸ For parents of children under age 6, the time spent was 2.18 hours.¹⁴⁸

In 2017, the top concerns for parents nationwide included bullying, mental health, and kidnappings (see Figure 48).¹⁴⁹ Underage drinking is another top concern among parents nationally.¹⁴⁹ In North Carolina, 94% of middle and high school students said that underage drinking is a problem, while 87% of parents said that underage drinking is a problem.¹⁵⁰ Nationally, two-thirds of parents say they are concerned about their teen spending too much time in front of screens, and over half of U.S. teens say they spend too much time on their cell phones.¹⁵¹

ACEs, discussed on page 61, can have lifelong negative impacts a person’s mental, physical, and emotional health. ACEs prevention measures often focus on providing support services for parents.¹⁵²

Percent saying they worry that each of these might happen to their child/any of their children at some point

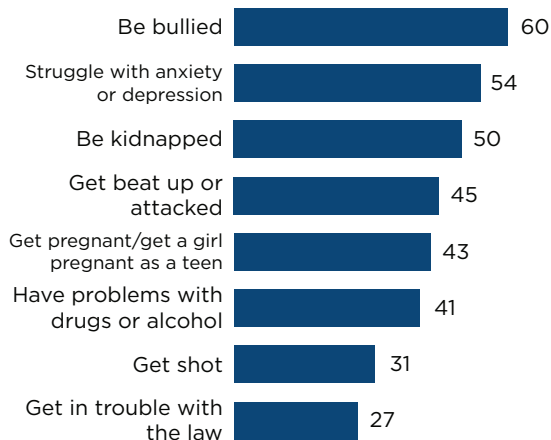


Figure 48: Top US Parental Concerns¹⁴⁹

In Chatham County, the evidence-based Incredible Years Parent Training Program is a free program for parents of children aged 3-6 years old. The program focuses on strengthening parenting competencies and fostering parent involvement in children’s school experiences to promote children’s academic, social, and emotional skills and reduce conduct problems. Data from July 2016 through June 2017 show that six Incredible Years series were completed in Chatham and Orange Counties with a total enrollment of 72 parents/caregivers representing 61 families.¹⁵³ Pre and post-test evaluation from this period shows a decrease in the negative parenting behaviors of using harsh and inconsistent discipline, while the positive parenting behaviors of using appropriate discipline, positive parenting, and setting clear expectations increased.¹⁵³

“I have a parent who stays stressed a lot. She got a job working nights, days, she’s not getting proper rest, she’s got a child, that child stays up at night. That’s a lot”

– Child Care Providers Focus Group

Resources:

CCPHD - Focus on Fathers
(919) 545-8382
chathamnc.org/services/health/health-promotion-and-policy/focus-on-fathers

Chatham County Partnership for Children
(919) 542-7449
chathamkids.org

Communities in Schools Chatham County
(919) 663-0116
cischatham.org

KidScope
(919) 358-9270
chtop.org/Programs/KidScope.html



Safety

Child Welfare · Domestic and Sexual Abuse · Elder Welfare · Emergency Preparedness ·
Firearm Safety · Reckless Driving, Drunk Driving, and Traffic Accidents · Violent Crime

Child Welfare

According to the National Conference of State Legislators, child welfare is “a critical state of responsibility and includes protecting children from abuse and neglect and ensuring that children have safe, stable, and permanent living situations.”¹⁵⁴ Available data on child welfare tend to focus on children in the foster care system, who often have complex medical and social needs.¹⁵⁵

Figure 49 shows investigated reports of abuse and neglect of children in Chatham over time, which have declined in the past decade.¹⁵⁶ Chatham is performing on par or better than

the state and similar counties on many child and family services review measures for children in the foster care system, including recurrence of maltreatment (0%), maltreatment in foster care (0%), reunified within 12 months (50%), reentry into foster care system within 12 months (4.8%), placement stability (97.6%), and children age 12 and under placed in group homes/institutional settings (5.2%).¹⁵⁶

Ensuring child welfare is essential to provide a foundation for health and well-being throughout the lifespan.

Resources:

Department of Social Services
(919) 542-2759
chathamnc.org/services/social-services

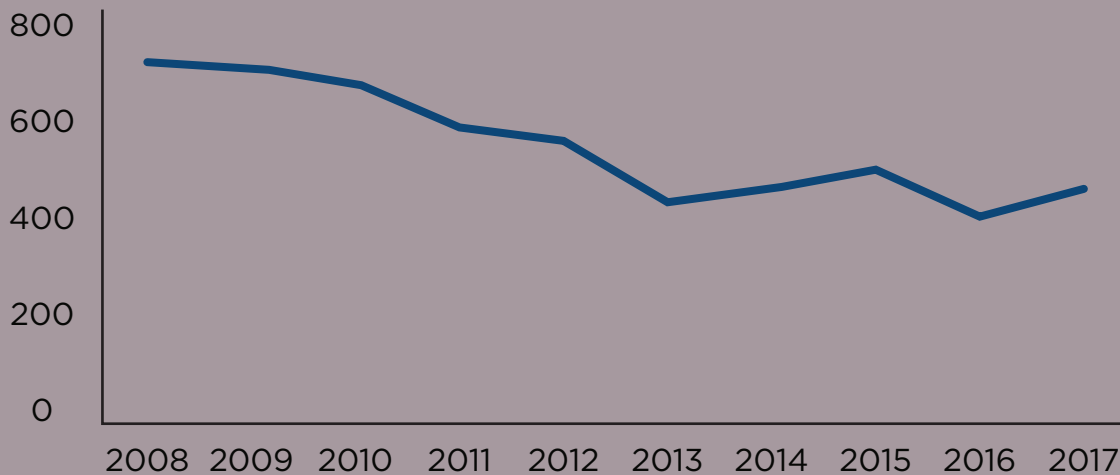


Figure 49: *Number of Investigated Reports of Child Abuse and Neglect in Chatham, 2008-17*¹⁵⁶

Domestic & Sexual Violence

Resources:

Chatham Family Violence Prevention Services

(919) 542-1792
chathamnc.org/
residents/court-sys-
tem-related-programs/
court-related-domes-
tic-violence-services/do-
mestic-violence-services

National Domestic Abuse Hotline

(800) 799-7233
thehotline.org

National Sexual Assault Hotline

(800) 656-4673
online.rainn.org

Domestic violence is also known as intimate partner violence and is defined by the National Domestic Abuse Hotline as “a pattern of behaviors used by one partner to maintain power and control over another partner in an intimate relationship.”¹⁵⁷ Sexual violence is “a sexual act committed against someone without that person’s freely given consent.”¹⁵⁸

It is difficult to get a complete picture of domestic and sexual violence at the state or county level. There is currently no comprehensive surveillance system that collects this data at the sub-state level. The North Carolina Department of Administration collects data only from agencies that they fund and only reports on services provided or clients served; therefore, Chatham data are only available through 2015, and these numbers are likely an underestimate of the overall problem. That said, 427 domestic violence clients and 45 sexual violence clients received services in Chatham in 2015; the majority of these clients, at 94.1%

and 97.8%, respectively, were female.¹⁵⁹ Further, the shelter that housed many of these clients was full 317 days of the year, and 63 clients had to be referred to other shelters due to lack of space.¹⁵⁹

In 2017, 9.9% of Chatham high school students reported experiencing physical dating violence, 13% experienced sexual violence, and 10.9% of students were physically forced to have sexual intercourse.²⁴ Nationwide, 8% of high school students reported experiencing physical dating violence, 9.7% experienced sexual violence, and 7.4% were physically forced to have sexual intercourse.⁶⁰

Family violence prevention involves a continuum of comprehensive services from education to counseling and legal advocacy to emergency resources. The county is in the process of assessing the adequacy of locally available domestic violence resources.

Elder Abuse

Resources:

Chatham Council on Aging

(919) 542-4512 or
(919) 742-3975
chathamcouncilonaging.
org

Chatham County Sheriff's Office

(919) 542-2811
chathamnc.org/
government/
departments-programs/
sheriff-s-office

National Center on Elder Abuse

(800) 677-1116
ncea.acl.gov

The CDC defines elder abuse as “an intentional act or failure to act that causes or creates a risk of harm to an older adult.”¹⁶⁰ Adults age 60 and above are considered older adults.¹⁶⁰ Frequently, elder abuse is committed by a family member or other trusted person and can include physical, sexual, emotional, psychological, or financial abuse or neglect.¹⁶⁰

According to the National Center on Elder Abuse, data on the subject lag by as much as two decades behind that of child or domestic

abuse.¹⁶¹ In 2008, one in ten elders reported emotional, physical, or sexual abuse or potential neglect in the past year.¹⁶² Risk factors for elder abuse include low social support, dementia, poverty, being female, experiencing previous traumatic events, and having poor physical health or impairment.¹⁶¹

As the aging population grows across the U.S. and in Chatham in the coming years, elder abuse is expected to be an increasingly important topic.

Emergency Preparedness

Emergencies can occur at any time or place, and it is important to be prepared. As the frequency and severity of natural disasters such as hurricanes is increasing, residents can take steps to reduce the impacts of these and other emergency events. In 2018 alone, Chatham was affected by two tropical storms, Florence and Michael, which caused flooding and power outages.

An essential element of emergency preparedness is a basic emergency supply kit. These kits should include survival supplies such as non-perishable food, water, flashlights, batteries, and first aid kits. Half of Chatham households reported having a basic emergency supply kit, comparable to the percent of households with these kits nationwide.^{17, 163}

It is important to have both working smoke and carbon monoxide detectors in the home to alert inhabitants to life-threatening events. Nearly 60% of Chatham County households reported having both smoke and carbon monoxide detectors in the home, while 33.3% of residents have smoke detectors only, (see Figure 50).¹⁷ A survey conducted by the National Fire Protection Association found that 96% of U.S. respondents have at least one smoke detector in their household; this is consistent with Chatham County numbers.¹⁶⁴ Working smoke detectors

reduce risk of dying in a house fire by half.¹⁶⁴

Carbon monoxide is an odorless gas produced when burning fuel, such as in cars, fireplaces, and generators, and can be fatal when inhaled in large quantities.¹⁶⁵ In 2015, 393 deaths in the U.S. were attributed to accidental carbon monoxide poisoning.¹⁶⁶ Deaths due to carbon monoxide poisoning often spike following power outages, primarily due to unsafe use of portable generators.¹⁶⁷

Emergency events impact people in the community in different ways, and certain populations such as older adults, those with disabilities, and low-income households, may be more at-risk of adverse outcomes. While it is impossible to be completely prepared for every emergency scenario, having a plan can help mitigate impacts of disaster situations.

Chatham County Emergency Management uses CodeRED to notify enrolled residents on imminent threats to health and safety based on location. These notifications can be received through phone calls, text messages, and email. Currently, just 4.1% of county residents report using CodeRED.¹⁷ More information about the CodeRED alert system can be found in the resources box.

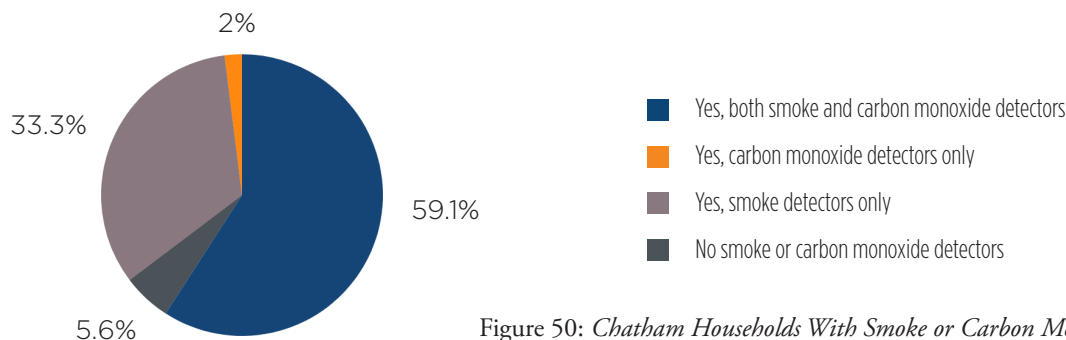


Figure 50: Chatham Households With Smoke or Carbon Monoxide Detectors in Home¹⁷

Resources:

Chatham County CodeRED Emergency Management
 (919) 545-8163
chathamnc.org/government/departments-programs/emergency-operations/alert-chatham

Community Emergency Response Team
chathamcert.org

ReadyNC
readync.org

Firearm Safety

Resources:

Safe Kids North Carolina
(888) 347-3737
ncdoi.com/osfm/safekids

Many families keep a gun in the home. That said, previous research indicates the presence of a handgun in the home nearly triples the chances that someone will be killed there.¹⁶⁸ Every year, guns are used to kill or injure thousands of people.¹⁶⁹ Safe gun storage, including keeping guns in a locked case, is essential to firearm safety. Nationwide, nearly 3000 children were killed by gunshot wounds and nearly 14,000 were injured in 2015.¹⁶⁹ People who report having firearm access are at twice the risk of homicide and more than three times the risk of suicide compared to those who do not have access to firearms.¹⁶⁹

In 2017, 7.6% of Chatham high school students reported carrying a gun, not counting the days when they carried a gun only for hunting or for a sport such as target shooting, on at least one day during the past year, and 18.1% reported carrying a weapon, such as a gun, knife, or club, on at least one day during the past 30 days.²⁴ These numbers are comparable to the North Carolina figures, but higher than those for the total U.S. (at 15.4% and 4.8%, respectively).¹⁶⁰

Limited data on firearm safety are available due to a 90% funding reduction in gun research enacted by the 1996 Dickey Amendment.¹⁷⁰

Reckless Driving, Drunk Driving, and Traffic Accidents

Reckless driving, or driving in a way that endangers others, and drunk driving can lead to traffic accidents, causing property damage, injury, and death. Reckless driving can include excessive lane changing, speeding, or driving while distracted.

In recent years, driving while using a mobile phone has increased, as cell phones have become commonplace. Mobile phones can be a source of distraction for drivers, as people use them to make phone calls, send text messages, or use apps. In 2017, 41.7% of Chatham high school students reported texting or emailing while driving a car or other vehicle, higher than the North Carolina average of 24.9% but close to the national average of 39.2%.^{24, 60} This is an increase from 36% of students reporting this behavior in 2014.²⁸

Teen drivers are more likely than the general population to be involved in traffic accidents.¹⁷¹ According to the CDC, “In 2016, young people ages 15-19 represented 6.5% of the U.S. population. However, they accounted for an estimated \$13.6 billion (8.4%) of the total costs of motor vehicle injuries.”^{172, 173}

Alcohol and driving is also a dangerous combination. Five percent of traffic accidents in Chatham involve alcohol consumption, and 20.4% of high school students reported riding with a driver who had been drinking alcohol, higher than the state average of 15.4%.^{24, 60, 174}

In 2016, 375 people were injured in traffic accidents in the county.¹⁷⁴ Many traffic accidents can be prevented by exhibiting patience, following the rules of the road, and allowing extra distance between vehicles or avoiding traveling in inclement weather.

Resources:

Chatham County Sheriff's Office
 (919) 542-2811
chathamnc.org/sheriff

Safe Kids North Carolina
 (888) 347-3737
ncdoi.com/osfm/safekids

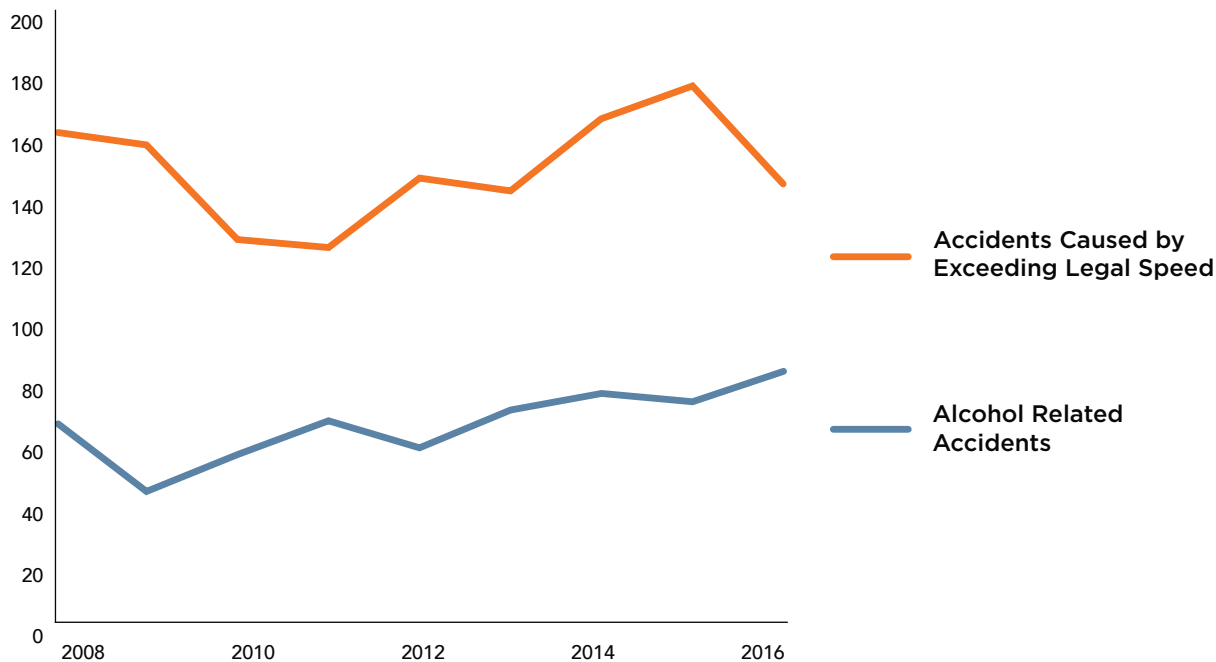


Figure 51: Number of Accidents Caused by Exceeding Legal Speed or Alcohol in Chatham, 2008-16¹⁷⁴

Resources:

Chatham County Sheriff's Office
(919) 542-2811
chathamnc.org/
sheriff

Pittsboro Police Department
(919) 542-3200

Siler City Police Department
(919) 742-5626

Violent Crime

Violent crime is the sum of murders, rapes, robberies, and aggravated assaults reported to law enforcement. High levels of violent crime compromise physical safety and psychological well-being. High crime rates can also deter residents from pursuing healthy behaviors.

Chatham's violent crime rate is much lower than the state rate, at 158 per 100,000 in Chatham and 361 per 100,000 statewide.¹⁷⁵ These rates are lower than the national figure of 382 violent crimes per 100,000.¹⁷⁶ Violent crime has fallen across the U.S. since a peak in the early 1990s.¹⁷⁷ Recent trends for violent crime rates in Chatham County and North Carolina can be found in Figure 52; these rates have remained fairly stable.¹⁷⁵

Pew Research notes that public perception of violent crime rates often does not align with the

data, stating "In 18 of 22 Gallup surveys since 1993 that have asked about national crime, at least six-in-ten Americans said there was more crime in the U.S. compared with the year before, despite the generally downward trend in national violent and property crime rates during most of that period... While perceptions of rising crime at the national level are common, fewer Americans tend to say crime is up when asked about the local level."¹⁷⁷

Crime rates vary widely across the country, and the Federal Bureau of Investigation (FBI) notes this variation may be attributable in part to population density and economic conditions.¹⁷⁷ Additionally, many violent crimes go unreported. According to the Bureau of Justice, only 45% of violent crimes were reported to police in 2017.¹⁷⁷

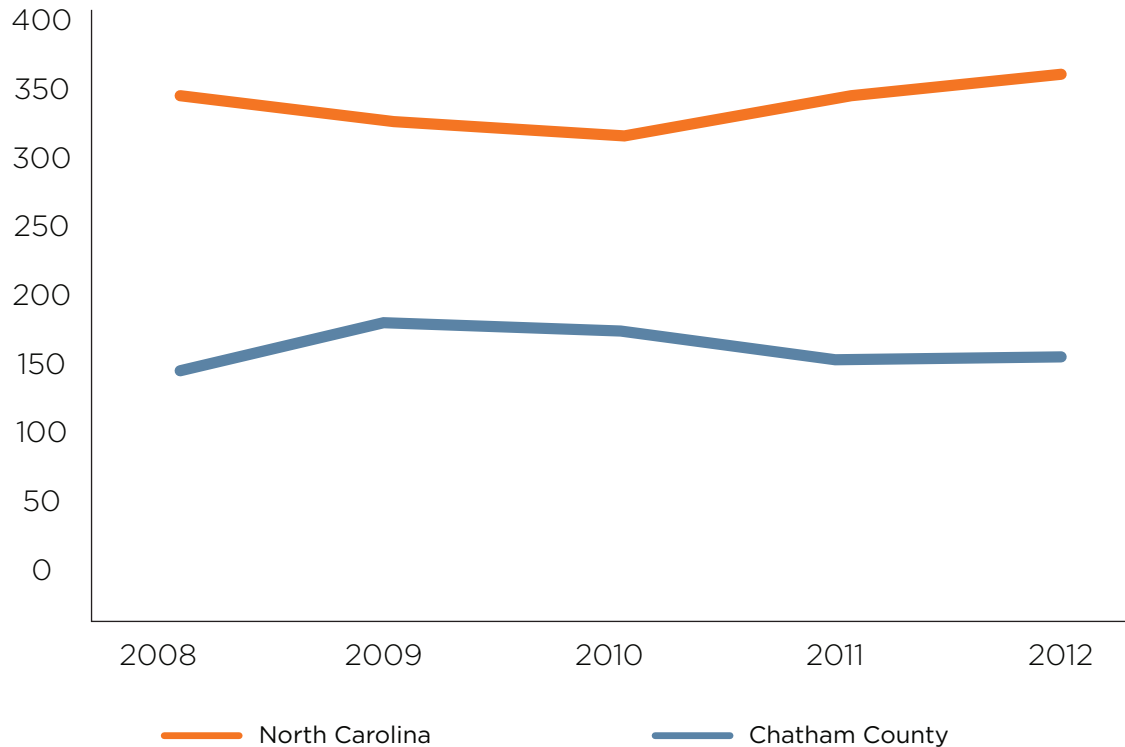


Figure 52: Violent Crime Rate per 100,000, 2008-12¹⁷⁵



Sexual Health

Prenatal Care and Birthing · Sexually Transmitted Infections (STIs) · Unintended Pregnancy

Prenatal Care and Birthing

Resources:

Chatham County Public Health Department
(919) 742-5641
chathamnc.org/health

Piedmont Health Services
(919) 542-4991 or
(919) 663-1744
piedmonthhealth.org

Prenatal care is essential to the healthy growth and development of a child as well as the health of the mother. Seventy-two percent of women in Chatham received early prenatal care in 2015, higher than the state average of 68% and an increase from 2011; however, 4% of births had very late or no prenatal care.^{178, 179}

Six-hundred-and-forty children were born to Chatham residents in 2016, and 10% of those were considered low weight births.^{180, 181} Infants are considered low weight when they are born weighing less than 5.5 pounds.¹⁸² Black/African-American infants are nearly twice as likely as White and Hispanic/Latinx infants to be born at low birth weight.¹⁸² Nine percent of Chatham babies were born prematurely, or before 37 weeks.¹⁸³ Risk factors for preterm birth include late or no prenatal care, obesity, smoking, and hypertension.¹⁸² Low birth weight and prematurity increase the risk of infant mortality and can have lifelong implications on growth and development. The March of Dimes notes significant disparities in infant mortality between Black/African-American and White women, stating, “The [infant mortality] rate for Black women (11.5 per 1000) was 2.2 times greater than that for White women (5.2 per 1,000). This racial gap has widened as infant

mortality rates have declined from 1960 to 2011.”¹⁸²

Maternal mortality rates have risen in the U.S. over the past few decades, in contrast to the rest of the world.¹⁸⁴ Women of color and those lacking access to timely, quality medical care are most likely to die in childbirth or the year that follows.¹⁸⁵

Chatham County ranks in the bottom quarter of North Carolina counties for average distance between home and a hospital offering childbirth services, at 25 miles (see Figure 53).¹⁸⁵ While there are clinics that provide affordable prenatal care, there is no birthing center in Chatham County. Clients of these clinics must go to places like UNC Hospital in Chapel Hill to deliver.

To address this service gap, Chatham Hospital, in partnership with Piedmont Health Services, will be adding a low-risk birthing unit to the hospital that will be supported by a rural family medicine residency program hosted at Piedmont’s Siler City clinic. Recruitment for the residency program will begin in 2019, and construction for the birthing unit is expected to begin in 2020.

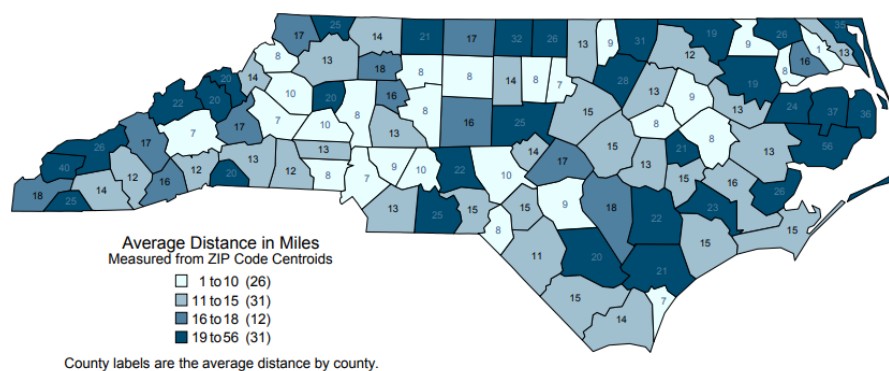


Figure 53: Average Distance to Care for Childbirth, Miles From Residence to Hospital¹⁸⁵

Sexually Transmitted Infections (STIs)

While recent rates in Chatham have remained fairly constant, state and national rates of sexually transmitted infections, known as STIs or STDs, have been increasing (see Figures 54 and 55).¹⁸⁶ The most prevalent STIs are gonorrhea and chlamydia. In 2017, there were 195 reported cases of chlamydia among all ages in Chatham County.¹⁸⁶ In addition, there were 55 reported cases of gonorrhea.¹⁸⁶ Hepatitis C has also seen an increase across the county and state.¹⁸⁷ There were 60 reported cases of chronic hepatitis C in Chatham in 2017.¹⁸⁸ Chatham has very few cases of HIV (fewer than ten reported in 2017); however, nearby counties have much higher rates, including Cumberland, Durham, and Guilford counties.¹⁸⁹

High-risk behaviors contribute to one's risk of transmitting and acquiring an STI. However, it is widely accepted that social barriers, such as poverty, unemployment, and education, also contribute to overall STI prevalence.¹⁹⁰

In the YRBS, Chatham high school students reported sexual activity as well as risky sexual behavior. Forty-one percent of high school students reported ever having sex, and 10.3% of sexually active high school students reported having had sexual intercourse with four or more persons during their life, increasing risk of exposure to STIs.²⁴ Among students that reported being sexually active, 26.5% reported having used alcohol or drugs prior to sexual intercourse the last time they had sex.²⁴ This is higher than the North Carolina and U.S. rates, at 17.7% and 18.8%, respectively.⁶⁰ Condoms are effective at preventing both STIs and pregnancy, though only 57.6% of sexually active Chatham high school students reported using a condom during their last sexual intercourse.²⁴ This is comparable to state and national rates.⁶⁰

While much attention is given to adolescent risky sexual behaviors, such as condom use, multiple partners, and alcohol or drug use prior

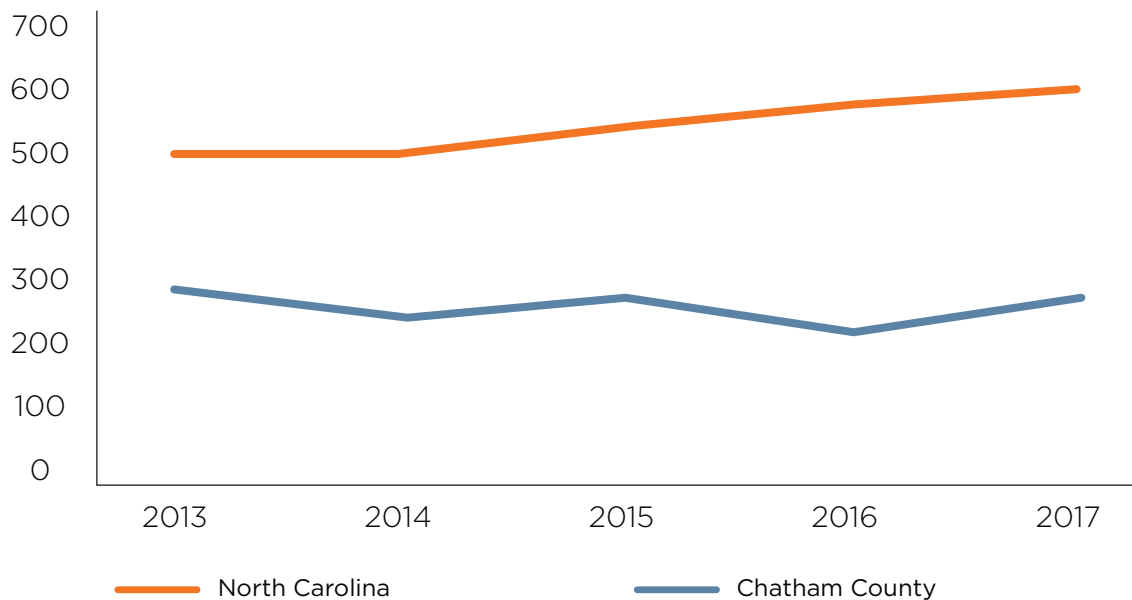


Figure 54: *Chlamydia Rate per 100,000, 2013-17*¹⁸⁶

Resources:

Chatham County Public Health Department
 (919) 742-5641
chathamnc.org/health

Piedmont Health Services
 (919) 542-4991 or
 (919) 663-1744
piedmonthhealth.org

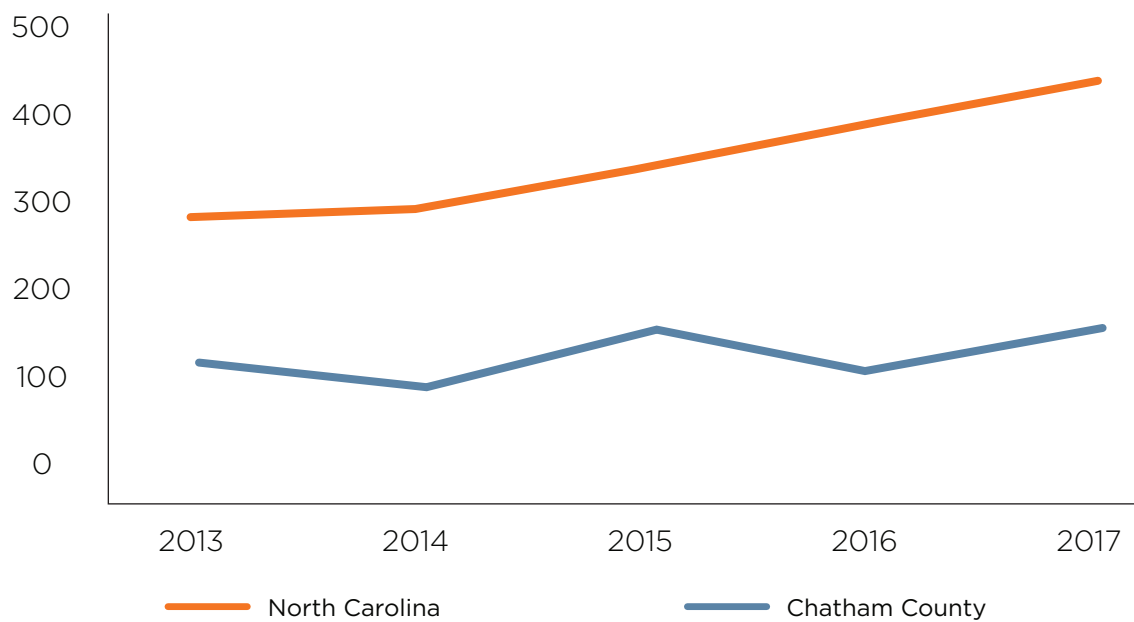


Figure 55: *Gonorrhea Rate per 100,000, 2013-17*¹⁸⁶

to sexual intercourse, not as much is known about adult risky sexual behavior at the county level. However, higher rates of risky sexual behaviors are typically found within 18-24 year olds. Behavior, biology, and culture all contribute to higher STI prevalence among young adults, though STI rates among adults 45 and older are increasing nationwide.¹⁹¹

While anyone engaging in sexual activity is vulnerable to contract a STI, half of the approximately 20 million new STIs in the United States each year occur among individuals 15-24 years old.¹⁹² Gay, bisexual, and other men who have sex with men are affected disproportionately, including experiencing higher rates of syphilis and accounting for more than half of all new HIV infections in the U.S.¹⁹³

When compared to White individuals, disparities persist among racial and ethnic

groups.¹⁹⁴ In North Carolina, Black/African-American men and women have the highest rates of newly diagnosed HIV infections.¹⁹⁵ More than two-thirds of women with newly diagnosed HIV are Black/African-American.¹⁹⁶ While the majority of those living with HIV in North Carolina have viral suppression (preventing transmission to others), Hispanic/Latinx men and women experienced worse health outcomes than other groups.¹⁹⁵ Injection drug use may also be contributing to new HIV infections in North Carolina, as 5% of new infections among men and 9.6% of new infections among women occur among those reporting injection drug use.¹⁹⁷

In addition to promoting evidence-based risk reduction practices, addressing barriers to care and treatment adherence as well as determinants of health are important to addressing STI rates.

Unintended Pregnancy

Unintended pregnancy rates among adolescents and adults are decreasing in the U.S.¹⁹⁸ The most recent data from 2008-2011 show that the unintended pregnancy rate among females 15-44 years old fell from 54 per 1,000 in 2008 to 45 per 1,000 females in 2011.¹⁹⁸ While decreasing, approximately half of all pregnancies in the U.S. are unintended.¹⁹⁹

The social and economic costs of unintended adolescent pregnancies are substantial and can have immediate and long-term impacts on both the parents and children, including adverse physical and mental health outcomes.²⁰⁰ These include inadequate or delayed prenatal care, premature and low birth weight infant, and poor maternal care.²⁰¹ In 2010, there were an estimated \$21 million in direct medical costs associated with unintended pregnancies.²⁰² Unintended adolescent pregnancies also contribute to the high school dropout rate, lower overall school achievement, increased likelihood of incarceration during adolescence, and decreased economic opportunities later in life.²⁰⁰

Nationally, the adolescent pregnancy rate has been falling since it peaked in the 1990s.²⁰³ This is due to strategic prevention efforts and an increase in contraception utilization among adolescents.²⁰³ Similar to the rest of the country, Chatham's adolescent pregnancy rate has fallen, with 33 pregnancies among 15-19 year old females reported in 2017.³⁹ This follows a steady decrease in recent years: 42 pregnancies in 2014, 39 pregnancies in 2015, and 35 pregnancies in 2016.³⁹ In 2017, the majority of adolescent pregnancies occurred to females 18-19 years old.³⁹ From 2013-2017, Chatham's pregnancy rate was 22.5 per 1,000 15-19 year old females compared to the state rate of 30.5 per 1,000 15-

19 year old females.³⁹ Chatham County has the 32nd lowest in the state.³⁹

Adolescent and young women, women with lower levels of income and education, and women who are racial or ethnic minorities are disproportionately affected by unintended pregnancies.¹⁹⁹ These disparities can be seen in Figure 56. The highest burden of unintended pregnancy is among women without a high school diploma (73 per 1,000) and decrease as educational achievement goes up.¹⁹⁹ In 2011, the unintended pregnancy rate for Black/African-American women (79 per 1,000) was double that of non-Hispanic White women (33 per 1,000).¹⁹⁹ Women with an income below 100% of the poverty line had approximately seven times the unintended pregnancy rate of women at or above 200% of poverty.²⁰⁴

Forty-one percent of Chatham high school students reported ever having sexual intercourse, an increase from 37.6% in 2014, and 31% stated they were currently sexually active.^{24,28} This is slightly higher than North Carolina figures, but comparable to U.S. numbers.⁶⁰ In addition, 6.7% of Chatham middle school students reported ever having sexual intercourse.²⁴ Less than half of middle school students also reported being taught about abstaining from sexual activity, at 41%.²⁴ Only 36.4% of sexually active high school students reported they used birth control pills; an intrauterine device (IUD) or implant; or a shot, patch, or birth control ring; and 14% reported using one of these methods in addition to a condom.²⁴ These figures are higher than both state and national numbers.⁶⁰ Among sexually active Chatham high school students, 9.9% reported that they did nothing to prevent a pregnancy during their last sexual intercourse; better than both state and national figures at

Resources:

Chatham County Public Health Department
(919) 742-5641
chathamnc.org/health

Piedmont Health Services
(919) 542-4991 or
(919) 663-1744
piedmonthhealth.org

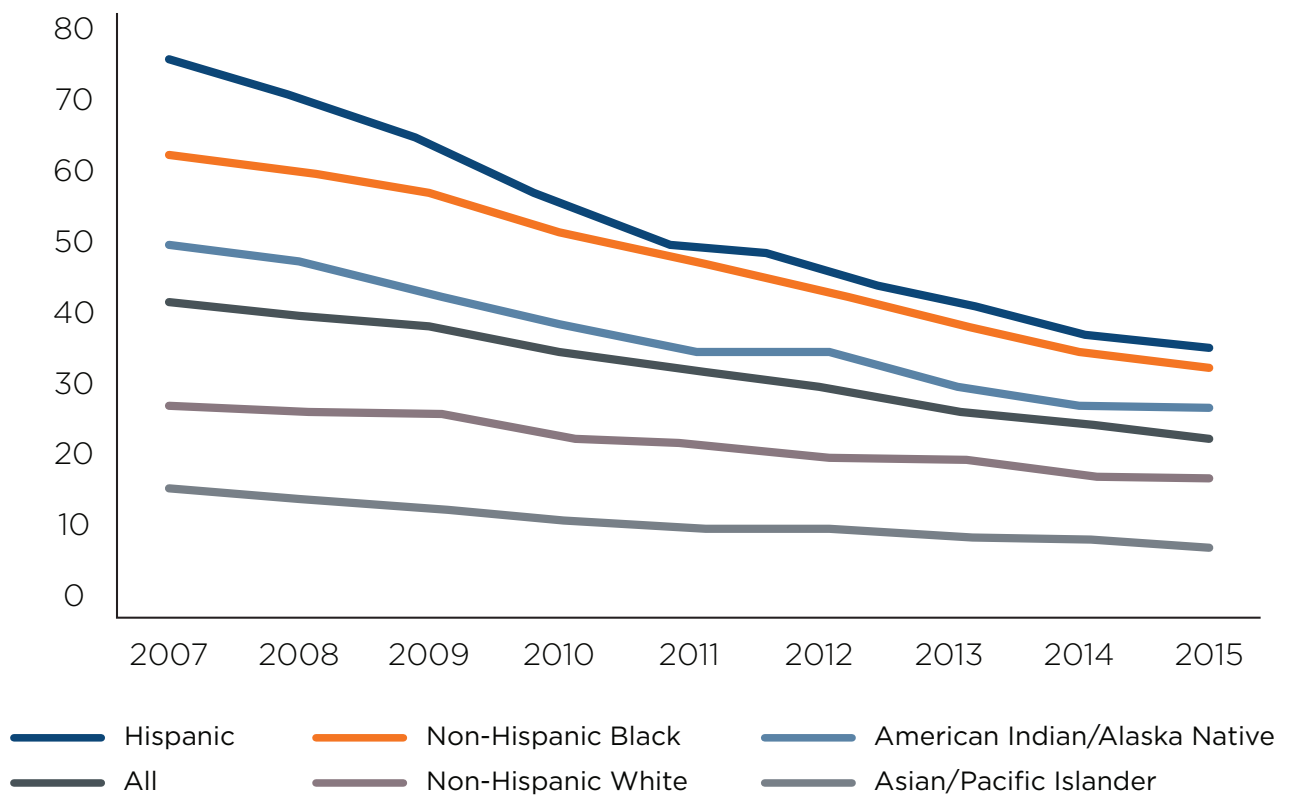


Figure 56: U.S. Births per 1,000 Females Aged 15-19 years, by Race and Hispanic/Latinx Ethnicity 2007-15¹⁹⁹

15.1% and 13.8%, respectively.^{24, 60} Four percent also reported that they had sexual intercourse for the first time before the age of 13, and 10.4% reported having sexual intercourse with someone three years or more older than themselves.²⁴ The CDC placed teen pregnancy prevention as one of their top seven priorities and a “winnable battle” in public health.²⁰⁰ In addition, the CDC’s 6|18 Initiative prioritized six high burden health conditions with effective interventions to improve health and control health care costs. Unintended pregnancy is one of the identified high burden conditions.²⁰⁵ Healthy North Carolina 2020 identified decreasing the percentage of pregnancies that are unintended as one of its statewide pressing health priorities.²⁰⁶

In 2018, CCPHD and Chatham County Schools collaborated to create a new position within the school district to oversee health education, including sexual and reproductive health. The newly created School Health, Wellness, and Physical Activity Instructional Program Facilitator works to ensure that students at all grade levels will receive medically accurate and evidence-based sexual and reproductive health education and prevention messages. Recently, the Board of Education also adopted guidance on sexual and reproductive health that outlines evidence-based curriculums and teacher trainings to address healthy sexuality, healthy relationships, and decrease unintended pregnancies and STIs.



Substance Abuse

Access to Substance Use Treatment · Alcohol Abuse · Illicit Drug Use ·
Prescription Drug and Opioid Abuse · Tobacco Use

Access to Substance Abuse Treatment

Resources:

Cardinal Innovations
(800) 939-5911
cardinalinnovations.org

Chatham Recovery
(919) 663-3303
morseclinics.com/
locations/
chatham-recovery

**Chatham Substance Use
Resource Guide**
chathamnc.org/recovery

Daymark Recovery
(919) 663-2955
daymarkrecovery.org

**Sheriff's Prevention
Partnership on
Controlled Substances**
chathamnc.org/
government/
departments-programs/
sheriff-s-office/
sheriff-s-
prevention-
partnership-on-
controlled-substances

The misuse and abuse of alcohol, illicit drugs, and medications are pressing public health issues that impact the well-being of millions of individuals and communities around the country. The direct and indirect impacts of substance misuse and abuse are far-reaching, including poor mental and physical health, increased spread of communicable disease, loss of productivity, reduced quality of life, increased crime and violence, increased motor vehicle crashes, abuse and neglect of children, and health care costs.²⁰⁷ Over the past two decades, the U.S. has experienced significant upward trends in substance misuse and abuse leading to devastating outcomes. Most notable is a decline in life expectancy over the past two years that is attributed in large part to unintentional deaths associated with alcohol and opioid abuse.³⁷

Substance abuse disorder is a preventable and treatable problem. However, for every federal and state dollar spent on addressing the consequences of substance use, only 1.9 cents is spent on preventing and treating the problem and only a small proportion of individuals who need treatment receive it.^{208, 209} Due to the consequences of substance misuse and abuse, both the CDC and NCDPH have ranked it as a

priority focus area.^{210, 211} Among CCCS respondents, illicit drug use was identified as the sixth biggest issue affecting community health and the fourth most important issue for improving quality of life in the county.¹⁷

Access to substance use treatment is essential in breaking the cycle of addiction.²¹² In the CCCS, 29% of Chatham residents reported knowing where to go to get substance use treatment.¹⁷ When probed further, some respondents were able to give specific resources and others were more vague, listing “a therapist” or “the internet.”¹⁷ This was a decrease from 2014, when 41% of residents reported knowing where to go to get substance use treatment.¹⁹ Fourteen percent of CCCS respondents reported having a friend or family member who wanted substance use treatment or counseling in the past five years.¹⁷ As seen in Figure 57, almost half of those respondents wanted treatment for alcohol abuse, 19% wanted treatment for prescription drugs, 29.1% for illicit drugs, and 19.4% wanted treatment for tobacco use.¹⁷ Of those who reported having a friend or family member who wanted substance use treatment, 85% said the individual got the help they sought.¹⁷

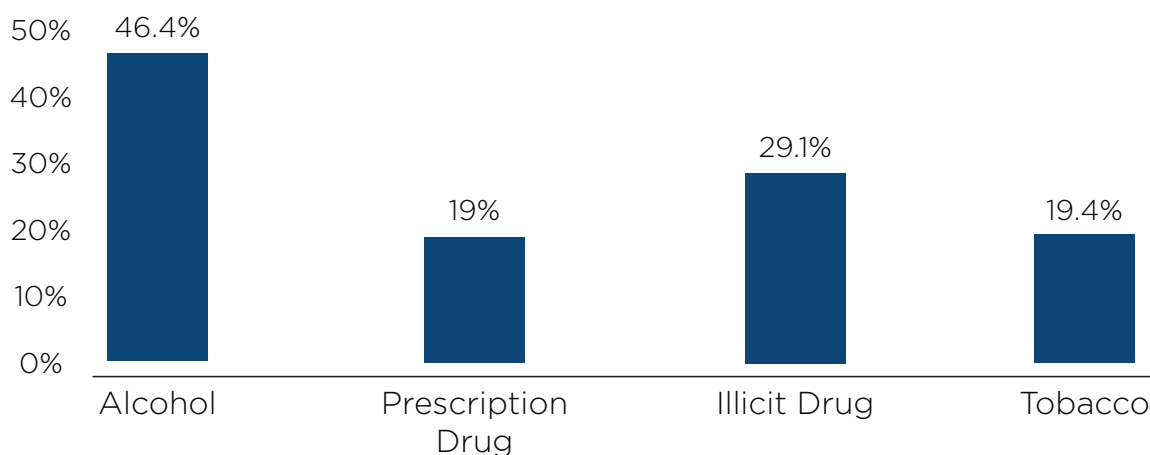


Figure 57: Type of Substance Abuse Treatment Wanted Amongst Chatham Substance Abusers¹⁷

Alcohol Abuse

Excessive alcohol use is the third leading lifestyle-related cause of death in the U.S., with over 80,000 alcohol-related deaths occurring every year.²¹³ Excessive alcohol use includes binge drinking, heavy drinking, and any drinking by pregnant women or individuals under 21 years old. Binge drinking is defined as four drinks for women or five drinks for men in a two hour period.²¹⁴ Heavy drinking is defined as binge drinking on five or more days in the past month.²¹⁴ Binge drinking is the most common form of excessive drinking in the U.S. According to a 2018 study, one in six adults binge drink an average of four times a month, and among youth, binge drinking accounts for 90% of the alcohol they consume.²¹³ Moreover, over half the deaths related to alcohol are the result of binge drinking.²¹⁵ The health consequences of excessive alcohol use include chronic conditions like high blood pressure, cancer, heart disease, stroke, and liver disease. Other health-related consequences associated with alcohol use include increase in risky sexual behaviors, motor vehicle accidents, violence and injuries, and FASD.²¹⁶

Over the past couple of decades, the U.S. has seen a slight decrease in alcohol use disorders, alcohol impaired-driving fatalities, and record low numbers for underage drinking.^{217, 218, 219} However, these bright spots are set against the backdrop of several alarming trends. Since 1999, overall alcohol use, binge drinking, and alcohol caused fatalities have been on the rise.^{220, 221} Between 2007 and 2017, the number of annual deaths attributable to alcohol rose by 35% while the overall death rate rose by only 24%.²²² Additionally, a recent study found that deaths linked to end stage liver damage rose by 65% over the past 17 years.²²³ The leading cause of this rise was alcohol abuse, with adults age 25-34 experiencing the highest average annual increase of 10.5%, and Whites, Hispanics/Latinx, and Native Americans having the highest fatalities.²²³

Another trend is a notable rise in alcohol consumption among women. While men still make up a higher proportion of excessive alcohol users in the U.S., several studies have indicated that the gender gap is closing. For instance, one study found that between 2002 and 2013, high risk and binge drinking rose by 58% among women, while high risk drinking overall rose by 30%.²²⁰

According to the CCCS, 53.1% of Chatham County adults consumed alcohol in the last 30 days.¹⁷ Respondents who had at least one drink in the past 30 days reported drinking an average of eight days per month, with 15% reporting having at least one drink every day.¹⁷ Chatham County residents' current alcohol and self-reported binge drinking rates are similar to North Carolina and the U.S.

According to the NC Division of Motor Vehicles (NCDMV) 2016 Crash Fact Report, the three year average rate of alcohol-related crashes in Chatham County was 4.5%, which was slightly higher than North Carolina as a whole (3.9%).²²⁴ The percent of driving deaths with alcohol involvement was comparable across Chatham County, North Carolina, and the U.S.²²⁵

In 2017, 31.8% of Chatham County high school students reported having at least one drink of alcohol in the last month, and 16.4% reported current binge drinking.²⁴ Additionally, one in five high school students reported that they had ridden in a car with a driver who had been drinking in the last 30 days, while 7.3% reported driving after consuming alcohol.²⁴ Notably, there were no disparities by race, ethnicity, or gender on any of these measures. When comparing 2017 YRBS data on alcohol-related risk behavior among Chatham County youth to outcomes for North Carolina and the U.S., there are no significant differences, though Chatham County high school students were slightly higher on all measures.

Resources:

Chatham Drug Free
(919) 545-5333
chathamdrugfree.org

**Chatham Substance Use
Resource Guide**
chathamnc.org/recovery

Illicit Drug Use

Resources:

Chatham Drug Free
(919) 545-5333
chathamdrugfree.org

Chatham Recovery
(919) 663-3303
morsecclinics.com/
locations/
chatham-recovery

**Chatham Substance Use
Resource Guide**
chathamnc.org/recovery

Daymark Recovery
(919) 663-2955
daymarkrecovery.org

Illicit drugs include marijuana, cocaine/crack, heroin, hallucinogens, inhalants, and prescription psychotherapeutic medications used non-medically. According to the 2017 National Drug Use and Health Survey, 11% of individuals age 12 and older, or 30.5 million Americans, reported current illicit drug use.²⁰⁹

While changes were made to the survey that make it difficult to compare trend data prior to 2015, the Surgeon General observed that in 2014, the 10.5% prevalence rate for current illicit drug use was significantly higher than it was in any year from 2002 to 2013, due in large part to an increase in marijuana use.²²⁶

Notably, the trend upward in illicit drug use has been paralleled by a significant increase in drug overdose deaths. As Figure 58 demonstrates, between 1999 and 2017, overdose deaths in the U.S. have been on a steep incline for both males and females.²²⁷ In 2017 alone, there were 70,237 drug overdose deaths, representing a nearly 10% increase over 2016, which was itself a record year, though it is important to note these numbers include both illicit and prescription drug overdose deaths.²²⁸ The rapid increase in overdose deaths has been driven by the opioid crisis. Sixty-eight percent of overdose deaths in 2017 involved an opioid, and the number of opioid-related overdose deaths was six times higher than in 1999.²²⁹

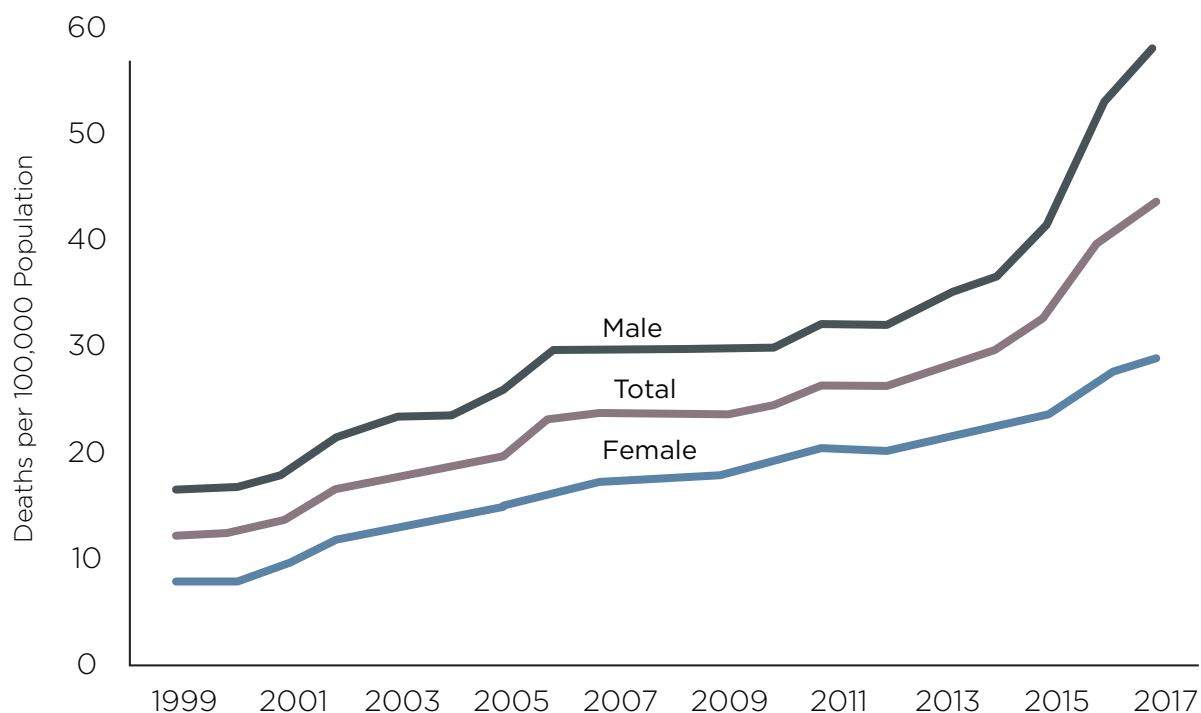


Figure 58: *United States Overdose Deaths 1999-2017*²²⁸

The consequences of illicit drug abuse are not isolated to death rates. In 2017, 7.5 million Americans age 12 years and older had an illicit drug abuse disorder.²³⁰ A substance abuse disorder or addiction is a chronic, relapsing disorder characterized by compulsive drug seeking and use despite adverse consequences.²³¹ Drug abuse disorders are associated with a number of harmful health consequences for the person with the addiction, their family, and community. Health issues often associated with addiction include heart disease, stroke, cancer, HIV/AIDS, hepatitis B and C, lung disease, neonatal abstinence syndrome, and mental disorders.²³¹

Illicit drug abuse disorders also have social and economic impacts. According to the 2011 National Drug Threat Assessment, illicit drug use, abuse, and misuse costs the U.S. more than \$200 billion a year in lost workplace productivity, health care expenses, law enforcement and other criminal justice costs, and losses from motor vehicle crashes.⁴⁵

One-quarter of Chatham County adults reported illicit drug use by a friend or family

member in the past year.¹⁷ Marijuana was by far the most commonly cited illicit drug used, accounting for 83% of responses.¹⁷ In the 2017 YRBS, 37.3% of Chatham high school students reported ever using marijuana, and one fifth reported currently using marijuana.²⁴ This is in line with state and national figures, however, it is an increase from 2014, when 28.9% of Chatham high school students reported ever using marijuana and 15.1% reported current use.^{28, 60}

North Carolina enacted the Good Samaritan 911 Law in 2013, which states a caller can request medical assistance for someone experiencing a drug overdose without fear of prosecution for possession of small amounts of drugs, possession of drug paraphernalia, underage possession or consumption of alcohol, or violating conditions of probation, parole, or post-release.²³²

Locally, the Sheriff's Prevention Partnership on Controlled Substances convened in 2017 and has been working ever since to strengthen collaboration and improve coordination of addiction resources in the county.

Prescription Drug & Opioid Abuse

Resources:

Chatham Drug Free
(919) 545-5333
chathamdrugfree.org

Chatham Recovery
(919) 663-3303
morsecclinics.com/
locations/
chatham-recovery

**Chatham Substance Use
Resource Guide**
chathamnc.org/recovery

Daymark Recovery
(919) 663-2955
daymarkrecovery.org

**Sheriff's Prevention
Partnership on
Controlled Substances**
chathamnc.org/
government/
departments-programs/
sheriff-s-office/
sheriff-s-
prevention-
partnership-on-
controlled-substances

Opioids are a class of drugs that include prescription medications commonly used as pain relievers, such as oxycodone, hydrocodone, codeine, and morphine; synthetic opioids like fentanyl; and illicit drugs including heroin.²³³

Opioid abuse has increased rapidly in recent years, due in large part to the overprescribing of prescription opioid pain medication in the late 1990s and early 2000s. In 2017, the U.S. Department of Health and Human Services declared the opioid epidemic a public health emergency.²³⁴

Nationally, opioids were responsible for over 47,000 overdose deaths and 142,557 emergency

department visits for overdoses in 2017.^{229, 235}

Over the past two decades, the epidemic has evolved with three waves in the rise of opioid overdose deaths (see Figure 59).²³⁶

The opioid epidemic has hit North Carolina particularly hard. According to the NC Injury Violence and Prevention Branch, since 1999 the number of overdose deaths in North Carolina has increased by more than 580%.²³⁷ In addition, there were nearly 12,000 hospitalizations and over 25,000 emergency department visits related to medication and drug poisoning in 2017.²³⁷ Provisional data for 2018 indicates the state has had some success

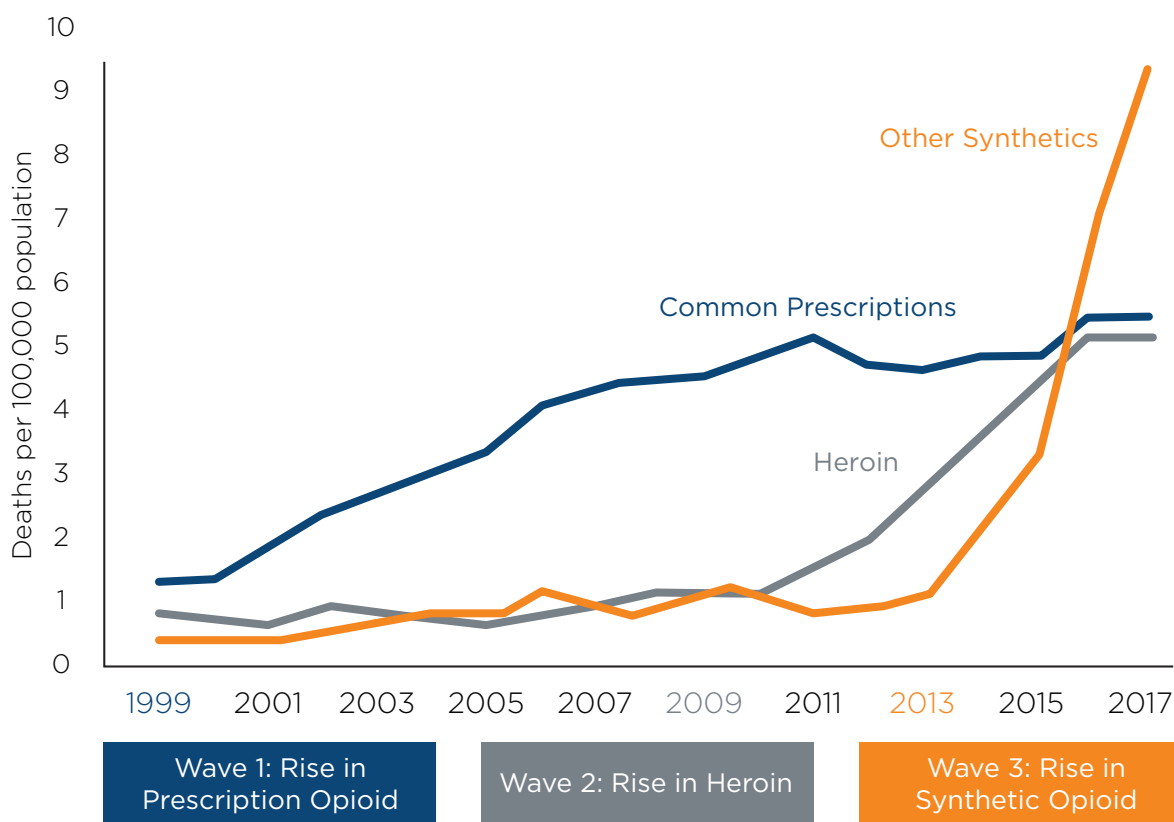


Figure 59: Waves in the Rise in U.S. Opioid Overdose Deaths, 1999-2017²³⁶

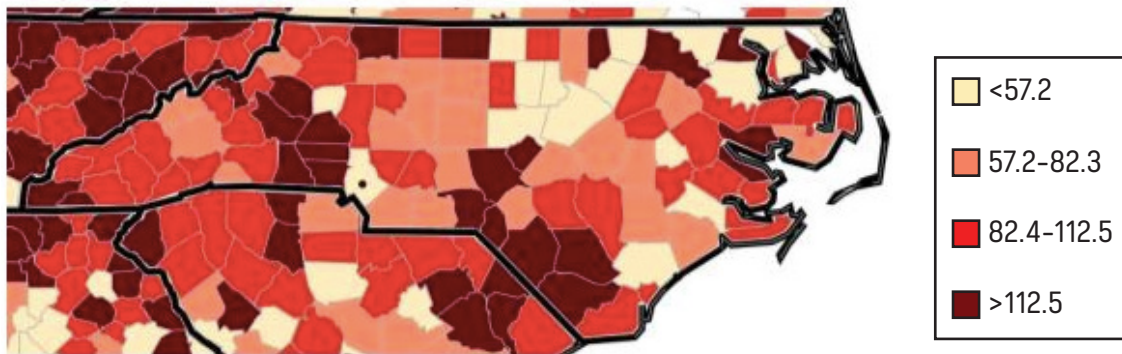


Figure 60: *North Carolina Opioid Prescription Rates*²³⁸

in the prevention of overdose deaths, with 1,177 confirmed opioid-related poisoning deaths compared to 2,018 in 2017 and 1,584 in 2016.²³⁸

Nearly six percent of CCCS respondents reported having a friend or family member who misused prescription drugs in the past year.¹⁷ Prescription drug misuse included using medication without a prescription, taking more than prescribed, or taking more often than prescribed. Among those who reported prescription drug misuse among a friend or family member, nearly two-thirds stated the prescription drugs were prescribed to someone else.¹⁷ Opioids accounted for 74.7% of the misused prescription drugs.¹⁷

The increase in prescription drug misuse is also reflected in Chatham youth. Seventeen percent of Chatham high school students reported ever taking prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it in 2017, up from 11% in 2014.^{24, 28}

Chatham County had a rate of 4.6 opioid overdose deaths per 100,000 between 2012 and 2016.²³⁸ Additionally, between 2012 and 2016, the hospitalization rate for newborns with drug withdrawal syndrome was 6.1 per 1,000 live births, and in 2016, the prescribing rate for outpatient opioid pills was 45.7 per person.²³⁸ Compared to similar data for North Carolina, Chatham County is faring pretty well.

Despite the notably lower rates in Chatham County, the trend upwards in overdose deaths and hospitalizations in North Carolina over the past several years is being mirrored in Chatham County. It also appears that Chatham County did not see a decrease in overdose deaths or hospitalizations in 2018. That said, Chatham County, like the rest of the state, has seen a reduction in opioid prescriptions, multiple provider episodes, and high dose prescriptions. The number of individuals engaged in treatment for substance abuse disorder has also increased.²³⁹

Tobacco Use

Resources:

CCPHD QuitSmart

(919) 545-8445
chathamnc.org/health

QuitlineNC

(800) 784-8669
quitlinenc.com

According to the Surgeon General, tobacco use is the leading cause of preventable death and disease in the U.S. and North Carolina.²⁴⁰ Every year, approximately 480,000 Americans die from tobacco-related illnesses, accounting for approximately one out of every five deaths.²⁴¹ Tobacco smoke is comprised of thousands of chemicals, including 70 that can cause cancer and hundreds that are toxic.²⁴⁰ Both combustible and smokeless tobacco use are linked to many forms of cancers, are harmful to nearly every organ of the body, and cause other diseases such as heart disease and stroke.²⁴¹ Smoking causes 30% of all cancer deaths in the U.S.²⁴¹ Nationwide, smoking-related illnesses cost more than \$300 billion in healthcare costs each year, including almost \$170 billion in direct medical care and \$156 billion in lost productivity.²⁴²

Tobacco use includes cigarettes, electronic cigarettes or vapor products, and smokeless tobacco, like dip and chew. Eighteen percent of Chatham adults reported currently using tobacco, which is comparable to state and regional rates.¹⁷ Nearly 14% of Chatham high school students reported currently smoking cigarettes, compared to the average of 8.9% for all North Carolina high school students.^{24, 243} However, an emerging issue in recent years is the use of electronic vapor products or e-cigarettes.

While nationally there has been a decline in the use of combustible tobacco products among adolescents and adults, tobacco products have evolved to include several different varieties.²⁴⁴ There has been a sharp increase in the use of electronic cigarettes, especially among youth and young adults.²⁴⁵ From 2011 to 2017, current e-cigarette use increased by 894% among high school students in North Carolina.²⁴³ Nearly half of Chatham high school students reported ever using electronic vapor products, and 22.4%

reported current use.²⁴ This is higher than the North Carolina high school current use of e-cigarettes, at 16.9%, and high school students in the U.S., at 13.2%.²⁴³

There are many health concerns surrounding electronic cigarettes. Electronic cigarettes contain nicotine, the highly addictive chemical found in cigarettes, as well as other harmful toxins that can be inhaled through secondhand vapor as well. These products are unregulated, are not approved as a smoking cessation aid, and many of the sweet flavors sold can be especially appealing to youth. Since 90% of smokers begin smoking when they are teenagers, this is particularly concerning.²⁴⁶ Concerns around e-cigarette use include the impact of nicotine exposure to the developing adolescent brain, the renormalization of smoking among youth, and the potential to addict a new generation to tobacco products. Research shows that youth who use multiple tobacco products are at a higher risk for nicotine dependency and may be more likely to use tobacco as an adult.²⁴⁵

Secondhand exposure to tobacco products can have harmful health effects, especially for children. Over one third of Chatham adults reported secondhand smoke exposure in the county in the last year, with many being exposed at home (32.4%), restaurants/bars (15.3%), on sidewalks (24.2%), or at work (12.4%).¹⁷ CCCS respondents also mentioned secondhand smoke exposure in personal vehicles.¹⁷

Disparities in tobacco use and associated morbidity and mortality persist across different populations. These include differences by race, ethnicity, educational level, and socioeconomic status as well as across regions of the country. Adults with less educational attainment and those with lower incomes are more likely to

smoke cigarettes than the general population.²⁴⁷ While Black/African-Americans smoke less than Hispanics/Latinx and Whites, they are more likely to die from smoking-related illnesses than White Americans.²⁴⁷ Black/African-Americans attempt to quit tobacco more often but are less successful at quitting than Whites and Hispanics/Latinx. Historically, tobacco companies have specifically targeted Black/African-American communities, placing larger amounts of advertising and promoting more addictive menthol cigarettes to Black/African-Americans.²⁴⁷ Nearly 90% of Black/African-Americans 12 years and older who smoke use menthol cigarettes.²⁴⁸ In November 2018, the Food and Drug Administration (FDA) stated its intention to ban the sale of menthol-flavored cigarettes.²⁴⁹ Secondhand smoke exposure is also higher among Black/African-American adults and children than other groups.²⁴⁷

Individuals with mental illness or substance use disorders smoke more cigarettes than those without these disorders.²⁴⁷ Adults with a mental illness or substance use disorder make up about 25% of the adult U.S. population but consume approximately 40% of all cigarettes smoked by adults.²⁴⁷ LGBTQ+ adults smoke more cigarettes than heterosexual/straight adults, at 20.5% and 15.3%, respectively.²⁴⁷ LGBTQ+ individuals are less likely to have health insurance or intend to call a quitline, all of which can impact cessation rates.²⁴⁷ Targeted marketing by tobacco companies to the LGBTQ+ community have

also resulted in these higher rates of tobacco use.²⁴⁷

The CDC's 6|18 Initiative prioritized six high burden health conditions with effective interventions to improve health and control health care costs. Tobacco use is one of these high burden conditions. Interventions include increasing access to tobacco cessation treatments and FDA approved cessation medications, removing barriers to access covered cessation treatments, and promoting the increased use of covered treatment benefits by tobacco users.²⁰⁵ In addition, Healthy North Carolina 2020 identified tobacco use and three corresponding objectives to reduce use and exposure as state priorities.

Three quarters of CCCS respondents reported knowing where to go to get help quitting tobacco.¹⁷ Efforts are being made to ensure that evidence-based tobacco treatment is being provided throughout all medical practices in Chatham County. In-person QuitSmart classes are offered twice per year through CCPHD, and partnerships are being formed to increase access to these classes across the county. In addition, the QuitlineNC cessation program is widely promoted. New county programs such as worksite wellness, the healthy homes initiative, and the asthma intervention program provide additional opportunities to partner across sectors and increase referrals into evidence-based cessation programs.



Chapter 6: *Future Plans*

Future Plans

This report was intended to provide a high-level view of the Chatham community and to compile data as completely as possible in a central resource for residents and community-serving agencies and organizations. The appendices of this report contain the full summary results from the CCCS and YRBS in addition to summary subject area infographics intended to provide an alternative format in which to consume the information covered in the Data Review and Findings chapter.

By examining the data and the HIPs in particular, it is clear there is much work to be done to improve the health and well-being of the Chatham community. The Alliance, through the new subcommittees formed in early 2019, will determine what strategies to adopt to address each priority issue. Each subcommittee will undertake a strategic planning process in spring 2019 to develop CHIPs that will guide Alliance work over the next three years. Additionally, CCPHD and Chatham Hospital will develop complementary strategic plans that further address these issues.

The Alliance will continue to engage with community members through the community cohort and community conversations to track trends in the community and identify emerging issues. The longitudinal approach of these efforts will allow the Alliance to develop reports that dive more deeply into topics of interest. Further, the Alliance is currently in the process of conducting an equity analysis of the 2018 CCCS data and a mental health, substance use, and I/DD services assessment that will be completed this spring.

Through these efforts and the work of the broader Chatham community, together, we will work to build an active, thriving community for all.

Reference List

1. What is Health? County Health Rankings. <http://www.countyhealthrankings.org/what-is-health>. Accessed January 25, 2019.
2. About Us. Chatham Health Alliance. <https://www.chathamhealthalliancenc.org/about-us>. Accessed February 21, 2019.
3. QuickFacts Chatham County, North Carolina. United States Census Bureau. <http://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/>. Accessed January 26, 2019.
4. Community Assessment for Public Health Emergency Response (CASPER). Centers for Disease Control and Prevention. <http://www.cdc.gov/nceh/hsb/disaster/casper/default.htm>. Accessed April 26, 2017.
5. Hadley W, Horton D, and Strowd N. Chatham County: 1771-1971. Delmar Publishers. 1971.
6. Towns & Unincorporated Communities. Chatham County, North Carolina. <http://www.chathamnc.org/residents/towns-legislators-other-key-contacts/towns-unincorporated-communities>. Accessed January 25, 2019.
7. QuickFacts Siler City, North Carolina. United States Census Bureau. <http://www.census.gov/quickfacts/silercitytownnorthcarolina>. Accessed January 25, 2019.
8. Chatham County Government 101: The Fundamentals of Chatham County Government. Chatham County, North Carolina. <http://www.chathamnc.org/about-us/county-government-101>. Accessed January 25, 2019.
9. Comprehensive Plan 2017. Plan Chatham. <http://www.chathamnc.org/comprehensiveplan>. Accessed January 29, 2019.
10. County Profile Chatham County (NC) January 2019. North Carolina Department of Commerce. <http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37037.pdf>. Accessed January 29, 2019.
11. Land Sold Near Chatham Park in Pittsboro. See Who Bought It. Herald-Sun. <http://www.heraldsun.com/news/local/article223757940.html>. Accessed January 29, 2019.
12. HC50 Site Visit. Chatham County Planning Department; 2018.
13. Demographics. Chatham County, North Carolina. <https://chathamgis.org>. Accessed December 10, 2014.
14. Community Assessment for Public Health Emergency Response (CASPER). Centers for Disease Control and Prevention. <https://www.cdc.gov/nceh/hsb/disaster/casper/default.htm>.
15. North Carolina 2010 Census Block Maps – County. U.S. Census Bureau. https://www.census.gov/geo/maps-data/maps/block/2010/county/dc10blk_st37_county.html. Accessed April 10, 2017.
16. Epi Info. Centers for Disease Control and Prevention. <https://www.cdc.gov/epiinfo/index.html>. Accessed February 21, 2019.
17. Chatham County Community Survey. Chatham Health Alliance; 2018.
18. Kolappa K, Henderson DC, and Kishore SP. No Physical Health Without Mental Health: Lessons Unlearned? World Health Organization. <https://www.who.int/bulletin/volumes/91/1/12-115063/en/>. Accessed January 25, 2019.

19. State of Chatham 2016. Chatham County Public Health Department. <http://www.chathamnc.org/healthreports>. Accessed January 14, 2019.
20. Click Below to Explore and Download Health Professions Supply Data. Sheps Health Workforce NC. UNC Cecil G. Sheps Center for Health Services Research. <https://nhealthworkforce.unc.edu/>. Accessed January 28, 2019.
21. 2010 Chatham County Community Health Assessment. Chatham County Public Health Department, 2010.
22. Defining Adult Obesity. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/adult/defining.html>. Accessed January 30, 2019.
23. North Carolina State Nutrition, Physical Activity, and Obesity Profile. Centers for Disease Control and Prevention. <https://www.cdc.gov/nccdphp/dnpao/state-local-programs/profiles/north-carolina.html>. Accessed January 30, 2019.
24. 2017 Chatham County Youth Risk Behavior Survey. Chatham County Schools; 2017.
25. Prevalence of Obesity, Overweight, Healthy Weight and Underweight in Children 2 through 4 years of age, By County. North Carolina Pediatric Nutrition and Epidemiology Surveillance System. https://www.eatsmartmovemorenc.com/Data/Texts/0617/2015NC-PedNESS_Obesity-inChildren2to4bycounty.pdf. Accessed January 30, 2019.
26. Inequity and Obesity. The State of Obesity. <https://stateofobesity.org/inequity-obesity/>. Accessed January 30, 2019.
27. Get the Facts: Sugar-Sweetened Beverages and Consumption. Centers for Disease Control and Prevention. <https://www.cdc.gov/nutrition/data-statistics/sugar-sweetened-beverages-intake.html>. Accessed January 30, 2019.
28. 2014 Chatham County Youth Health Behavior Survey. Chatham County Schools; 2014.
29. Executive Summary: Physical Activity Guidelines for Americans. U.S. Department of Health and Human Services. https://health.gov/paguidelines/second-edition/pdf/PAG_ExecutiveSummary.pdf. Accessed January 30, 2019.
30. North Carolina Electronic Disease Surveillance System. North Carolina Division of Public Health. <https://ncedss.ncpublichealth.com/>. Accessed January 21, 2019.
31. NCHHSTP Social Determinants of Health. Centers for Disease Control and Prevention. <https://www.cdc.gov/nchhstp/socialdeterminants/index.html>. Accessed January 25, 2019.
32. American Fact Finder. U.S. Census Bureau. <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>. Accessed January 5, 2019.
33. 2018 Community Assessment Focus Groups. Chatham Health Alliance; 2018.
34. Chatham County Aging Plan 2018-2023. Chatham County Council on Aging; 2018.
35. State of Chatham 2016. Chatham County Public Health Department. <http://www.chathamnc.org/healthreports>. Accessed January 14, 2019.
36. 2017 State of North Carolina and 2015-2017 County Life Expectancy at Birth. North Carolina State Center for Health Statistics. <http://schs.dph.ncdhhs.gov/data/lifexpectancy/2015-2017/2017%20State%20and%202015-2017%20County%20Life%20Expectancies%20at%20birth.html>. Accessed January 14, 2019.
37. Murphy S, Xu J, Kochanek K, and Arias E. Mortality in the United States, 2017. National Cen-

- ter for Health Statistics. <http://www.cdc.gov/nchs/data/databriefs/db328-h.pdf>. Accessed January 14, 2019.
38. Redfield, R. CDC Director's Media Statement on U.S. Life Expectancy. Centers for Disease Control and Prevention. <http://www.cdc.gov/media/releases/2018/s1129-US-life-expectancy.html>. Accessed January 14, 2019.
 39. 2019 County Health Data Book. North Carolina State Center for Health Statistics. <http://schs.dph.ncdhhs.gov/data/databook/>. Accessed January 14, 2019.
 40. How Life Expectancy Varies Across America. The Economist. <http://www.economist.com/democracy-in-america/2018/09/26/how-life-expectancy-varies-across-america>. Accessed January 14, 2019.
 41. Resources. Office of Policy Development and Research. U.S. Department of Housing and Urban Development. http://www.huduser.gov/portal/glossary/glossary_a.html. Accessed January 30, 2019.
 42. Consolidated Planning/CHAS Data. Office of Policy Development and Research. U.S. Department of Housing and Urban Development. <http://www.huduser.gov/portal/datasets/cp.html>. Accessed January 9, 2019.
 43. Building Integrated Communities in Siler City, North Carolina: Community Perspectives and Recommendations for Local Government. University of North Carolina at Chapel Hill. <http://migration.unc.edu/files/2018/06/Siler-City-Community-Perspectives-and-Recommendations-for-Local-Government.pdf>. Accessed January 9, 2019.
 44. Chatham County Affordable Rental Housing Report and Strategy Toolbox. Chatham County Affordable Housing Advisory Committee; 2018.
 45. Housing Quality Standards. U.S. Department of Housing and Urban Development. http://www.hud.gov/program_offices/public_indian_housing/programs/hcv/hqs. Accessed January 30, 2019.
 46. Housing Discrimination Under the Fair Housing Act. U.S. Department of Housing and Urban Development. http://www.hud.gov/program_offices/fair_housing_equal_opp/fair_housing_act_overview. Accessed January 9, 2019.
 47. Elliott N. Upcoming Chatham County Homeless Count. Central Piedmont Community Action, Inc.; 2019.
 48. McKinney-Vento Homeless Assistance Act. Chatham County Schools. <https://www.chatham.k12.nc.us/Page/20862>. Accessed January 9, 2019.
 49. Quality of Housing. Office of Disease Prevention and Health Promotion. U.S. Department of Health and Human Services. <http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/quality-of-housing>. Accessed January 9, 2019.
 50. What is Food Insecurity? Feeding America. <https://www.feedingamerica.org/hunger-in-america/food-insecurity>. Accessed January 30, 2019.
 51. Coleman-Jensen A, Rabbitt MP, Gregory CA, Singh A. Household food insecurity in the United States in 2016. USDA-ERS Economic Research Report No. (ERR-237). 2017.
 52. Interactive Charts and Highlights. Economic Research Service. United States Department of Agriculture. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/interactive-charts-and-highlights/#trends>. Accessed December 28, 2018.

53. Food Insecurity. Office of Disease Prevention and Health Promotion. U.S. Department of Health and Human Services. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/food-insecurity>. Accessed January 30, 2019.
54. Map the Meal Gap: Food Insecurity in North Carolina in 2016. Feeding America. http://www.feedingamerica.org/research/map-the-meal-gap/2016/child/NC_AllCounties_CDs_CFI_2016.pdf. Accessed January 30, 2019.
55. Food Insecurity Statistics in NC. Southeastern University Consortium on Hunger, Poverty, and Nutrition. https://hunger-research.sog.unc.edu/datatable/hunger_data. Accessed January 30, 2019.
56. About Adverse Childhood Experiences. Centers for Disease Control and Prevention. https://www.cdc.gov/violenceprevention/acestudy/about_ace.html. Accessed January 9, 2019.
57. A National and Across-state Profile on Adverse Childhood Experiences Among U.S. Children and Possibilities to Heal and Thrive. The Child and Adolescent Health Measurement Initiative. https://www.cahmi.org/wp-content/uploads/2018/05/aces_brief_final.pdf. Accessed January 9, 2019.
58. Suicide and Adverse Childhood Experiences (ACEs): Preventing Suicide Through Collaborative Upstream Interventions. Injury Control Research Center for Suicide Prevention. https://suicide-prevention-icrc-s.org/sites/default/files/sites/default/files/events/18_3_15_aceswebinarslides.pdf. Accessed January 9, 2019.
59. Anxiety Disorders. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/anxiety/symptoms-causes/syc-20350961>. Accessed January 20, 2019.
60. Youth Risk Behavior Surveillance – United States, 2017. Centers for Disease Control and Prevention. <https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2017/ss6708.pdf>. Accessed January 20, 2019.
61. Major Depression. National Institute of Mental Health. <https://www.nimh.nih.gov/health/statistics/major-depression.shtml>. Accessed January 20, 2019.
62. What is I/DD? North Carolina Council on Developmental Disabilities. <https://nccdd.org/welcome/what-is-i-dd.html>. Accessed January 20, 2019.
63. Specific Types of Developmental Disabilities. Centers for Disease Control and Prevention. <https://www.cdc.gov/ncbddd/developmentaldisabilities/specificconditions.html>. Accessed January 20, 2019.
64. Braddock et al. North Carolina. University of Colorado. <http://stateofthestates.org/documents/NorthCarolina.pdf>. Accessed September 30, 2019.
65. Woodall D. I/DD Waiver Waitlist. Cardinal Innovations; 2018.
66. Definitions: Self-directed Violence. Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/suicide/definitions.html>. Accessed January 20, 2019.
67. Suicide Prevention. American Psychiatric Association. <https://www.psychiatry.org/patients-families/suicide-prevention>. Accessed January 20, 2019.
68. Suicide Statistics. American Foundation for Suicide Prevention. <https://afsp.org/about-suicide/suicide-statistics/>. Accessed January 20, 2019.
69. Behavioral Health Barometer, North Carolina, 2015. Substance Abuse and Mental Health Ser-

- vices Administration. https://www.samhsa.gov/data/sites/default/files/2015_North-Carolina_BH-Barometer.pdf. Accessed January 20, 2019.
70. Horner Z. Chatham's Latinx Teens Battle Cultural Effects on Mental Health. Chatham News and Record. <https://www.chathamnewsrecord.com/stories/jan-17-23-2019,1431>. Published January 17, 2019. Accessed January 20, 2019.
 71. Youth Suicide. North Carolina Public Health Association Public Health Leaders Conference. NC Healthy Schools: Department of Public Instruction. January 24, 2019.
 72. Suicide Prevention. American Psychiatric Association. <https://www.psychiatry.org/patients-families/suicide-prevention>. Accessed January 20, 2019.
 73. What is Alzheimer's? Alzheimer's Association. <https://www.alz.org/alzheimers-dementia/what-is-alzheimers>. Accessed February 1, 2019.
 74. Most Recent Asthma State or Territory Data. Centers for Disease Control and Prevention. https://www.cdc.gov/asthma/most_recent_data_states.htm. Accessed February 1, 2019.
 75. Home. NC DETECT. UNC School of Medicine. <http://ncdetect.org>. Accessed February 1, 2019.
 76. Thie L. Asthma in North Carolina. North Carolina Department of Health and Human Services. <https://www.asthma.ncdhhs.gov/docs/presentations/2017/01-StateOfState.pdf>. February 1, 2019.
 77. Cancer Disparities. Surveillance, Epidemiology, and End Results Program. National Cancer Institute. <https://seer.cancer.gov/statfacts/html/disparities.html>. Accessed January 10, 2019.
 78. Cancer Facts & Figures for African Americans. American Cancer Society. <https://www.cancer.org/research/cancer-facts-statistics/cancer-facts-figures-for-african-americans.html>. Accessed January 10, 2019.
 79. Cerebrovascular Disease. American Association of Neurological Surgeons. <https://www.aans.org/Patients/Neurosurgical-Conditions-and-Treatments/Cerebrovascular-Disease>. Accessed January 10, 2019.
 80. Addressing Health Disparities in Diabetes. Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes/disparities.html>. Accessed January 21, 2019.
 81. A Snapshot: Diabetes in the United States. Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes/library/socialMedia/infographics.html>. Accessed January 21, 2019.
 82. Living with Diabetes. Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes/managing/index.html>. Accessed January 21, 2019.
 83. Interactive Atlas of Heart Disease. Centers for Disease Control and Prevention. <https://nccd.cdc.gov/DHDSPAtlas/detailedpdfreport.aspx?areaIds=37037&themeSubClassId=1&filterIds=9,2,3,4,7&filterOptions=1,1,1,5,1#report>. Accessed January 10, 2019.
 84. Heart Disease Risk Factors. Centers for Disease Control and Prevention. https://www.cdc.gov/heartdisease/risk_factors.htm. Accessed January 10, 2019.
 85. Chatham County, NC. U.S. News and World Report. <https://www.usnews.com/news/healthiest-communities/north-carolina/chatham-county>. Accessed January 10, 2019.
 86. Alamance. North Carolina Department of Health and Human Services. <https://files.nc.gov/ncdhhs/documents/files/NC%20County%20Aging%20Profiles%202016.pdf>. Accessed January 10, 2019.

87. Kim DA, Benjamin EJ, Fowler JH, Christakis NA. Social Connectedness is Associated with Fibrinogen Level in a Human Social Network. The Royal Publishing Society. <https://royalsocietypublishing.org/doi/full/10.1098/rspb.2016.0958>. Published August 31, 2016. Accessed January 10, 2019.
88. Cornwell EY and Waite LJ. Social Disconnectedness, Perceived Isolation, and Health Among Older Adults. *Journal of Health and Social Behavior*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2756979/>. Accessed January 1, 2019.
89. Impact of the Built Environment on Health. Centers for Disease Control and Prevention. <https://www.cdc.gov/nceh/publications/factsheets/impactofthebuiltenvironmentonhealth.pdf>. Accessed January 15, 2019.
90. Barret MA, Miller D, and Frumkin H. Parks and Health: Aligning Incentives to Create Innovation in Chronic Disease Prevention. *Preventing Chronic Disease*. https://www.cdc.gov/pcd/issues/2014/13_0407.htm. Accessed January 15, 2019.
91. Frequently Asked Questions. Chatham Park. <https://www.chatham-park.com/faq/>. Accessed January 15, 2019.
92. Population Projections. Chatham County Planning Department; 2018.
93. Johnson J. 'It's a Job, a Local Job,' Will Chicken Plant Help Siler City Bounce Back? *Herald Sun*. <https://www.heraldsun.com/news/local/counties/chatham-county/article213534034.html>. Published June 22, 2018. Accessed January 15, 2019.
94. Sanford, Chatham County Extend Sewer Service to Moncure Megaproject. Chatham Economic Development Corporation. <https://www.chatham-edc.org/news/sanford-chatham-county-extend-sewer-service-to-moncure-megaproject/>. Published October 25, 2018. Accessed January 15, 2019.
95. Chatham Transit Ridership Report. Chatham Transit Network; 2018.
96. A Year of Strong Economic Growth. U.S. Department of Labor. <https://www.dol.gov/general/economic-growth>. Accessed January 16, 2019.
97. Local Area Unemployment Statistics. Demand Driven Data Delivery System. North Carolina Department of Commerce. <https://d4.nccommerce.com/>. Accessed January 16, 2019.
98. Living Wage Calculation for Chatham County, North Carolina. Living Wage Calculator. Massachusetts Institute of Technology. <http://livingwage.mit.edu/counties/37037>. Accessed January 16, 2019.
99. Air Quality Index (AQI) Basics. AirNow. <https://airnow.gov/index.cfm?action=aqibasics.aqi>. Accessed February 3, 2019.
100. Introduction to Indoor Air Quality. U.S. Environmental Protection Agency. <https://www.epa.gov/indoor-air-quality-iaq/introduction-indoor-air-quality>. Accessed February 3, 2019.
101. Infographic – Air Quality and Physical Activity. Centers for Disease Control and Prevention. <https://www.cdc.gov/air/Infographic-Air-Quality-and-Physical-Activity.html>. Accessed February 3, 2019.
102. EC Emissions Mapping Tool. North Carolina Department of Environmental Quality. <https://deq.nc.gov/about/divisions/air-quality/air-quality-data/nc-emissions-mapping-tool-2010>. September 30, 2018.

103. Air Compare Basic Info. U.S. Environmental Protection Agency. <https://www3.epa.gov/air-compare/#trends>. Accessed September 30, 2019.
104. Mora C, Dousset B, Caldwell IR, Powell FE, Geronimo RC, Bielecki CR, Counsell CWW, Dietrich BS, Johnston ET, Louis LV, Lucas MP, McKenzie MM, Shea AG, Tseng H, Giambelluca TW, Leon LR, Hawkins E, and Trauernicht C. Global Risk of Deadly Heat. *Nature Climate Change*. https://www.nature.com/articles/nclimate3322.epdf?referrer_access_token=NMCHiuwVjfHBfT-31uuyv9RgN0jAjWel9jnR3ZoTv0Nlcpopxh1V5GdQz8yAIWjClhZpJZ3Hom-V0Tk0DRw8ChDSIB90yprMca-WWV0ckhBsr8EMjsDIN3Lz4B5E9_JC_O2-dOTh0oAY-Dlj2dQTJgTdnFiMBXG1cu5GR1e4h0DaFdKI6VIpvTjWLHHk2IujX6HLPzmlf2Iz1C5qKa-9ZCZUJWNIiH3HV0oBV36uluxG2bykh9Sewz0zAtV4VFnf23&tracking_referrer=www.cnn.com. Published June 19, 2017. Accessed February 3, 2019.
105. Extreme Heat. Ready.gov. <https://www.ready.gov/heat>. Accessed February 3, 2019.
106. About Extreme Heat. Centers for Disease Control and Prevention. https://www.cdc.gov/disasters/extremeheat/heat_guide.html. Accessed February 3, 2019.
107. Count of Heat Related Illness Grouped by Date. NCDETECT. <http://ncdetect.org>. Accessed September 30, 2018.
108. The Impact of Weather and Climate Extremes on Air and Water Quality. National Centers for Environmental Information. National Oceanic and Atmospheric Administration. <https://www.ncdc.noaa.gov/news/impact-weather-and-climate-extremes-air-and-water-quality>. Accessed February 3, 2019.
109. Mills JN, Gage KL, Khan AS. Potential Influence of Climate Change on Vector-Borne and Zoonotic Diseases: A Review and Proposed Research Plan. *Environmental Health Perspectives*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2974686/>. Accessed January 21, 2019.
110. Tickborne Disease Surveillance Data System. Centers for Disease Control and Prevention. <https://www.cdc.gov/ticks/data-summary/index.html>. Accessed January 21, 2019.
111. Rosenberg R, Lindsey NP, Fischer M, et al. Vital Signs: Trends in Reported Vectorborne Disease Cases — United States and Territories, 2004–2016. *MMWR Morbidity Mortality Weekly Report* 2018; 67:496–501. <https://www.cdc.gov/mmwr/volumes/67/wr/mm6717e1.htm>. Accessed January 21, 2019.
112. Williams C. Annual Update on Diagnosis and Surveillance for Tickborne Disease. Division of Public Health. https://epi.publichealth.nc.gov/cd/ticks/TBD_memo_2018.pdf. Published May 11, 2018. Accessed January 21, 2019.
113. Tickborne Diseases of the United States. Centers for Disease Control and Prevention. <https://www.cdc.gov/lyme/resources/TickborneDiseases.pdf>. Accessed January 21, 2019.
114. Diamond HS. Lyme Disease and 4 Emerging Tickborne Illnesses. Medscape. <https://reference.medscape.com/slideshow/tick-borne-illnesses-6006369>. Accessed January 21, 2019.
115. What You Need to Know About Asian Longhorned Ticks – A New Tick in the United States. Centers for Disease Control and Prevention. <https://www.cdc.gov/ticks/longhorned-tick/index.html>. Accessed January 21, 2019.
116. Alpha-gal Syndrome. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/alpha-gal-syndrome/symptoms-causes/syc-20428608>. Accessed January 21, 2019.

117. Well Water and Health. North Carolina Department of Health and Human Services. <https://epi.publichealth.nc.gov/oe/wellwater/figures.html>. Accessed January 22, 2019.
118. Chatham County. North Carolina Department of Environmental Quality. https://epi.publichealth.nc.gov/oe/wellwater/county_A-I/chatham.pdf. Accessed January 16, 2019.
119. Jordan Lake Nutrient Management Study Research Symposium. UNC Institute for the Environment. <https://ie.unc.edu/nutrient-study/symposium/>. Accessed January 16, 2019.
120. Oral Health. Office of Disease Prevention and Health Promotion. U.S. Department of Health and Human Services. <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health>. Accessed January 28, 2019.
121. Oral Health Basics. Centers for Disease Control and Prevention. <https://www.cdc.gov/oral-health/basics/index.html>. Accessed January 28, 2019.
122. Explore Oral Health Data by Location, North Carolina. Centers for Disease Control and Prevention. https://nccd.cdc.gov/oralhealthdata/rdPage.aspx?rdReport=DOH_DATA.ExploreBy-Location&rdProcessAction=&SaveFileGenerated=1&isLocation=37&rdICL-iclTopic=ADT&iclTopic_rdExpandedCollapsedHistory=&iclTopic=ADT&isYear=2016&hidLocation=37&hidTopic=ADT&hidYear=2016&irbShowFootnotes=Show&rdICL-iclIndicators=ADT1_1%2cADT1_3%2cADT1_4&iclIndicators_rdExpandedCollapsedHistory=&iclIndicators=ADT1_1%2cADT1_3%2cADT1_4&hidPreviouslySelectedIndicators=&DashboardColumnCount=2&rdShowElementHistory=&rdScrollX=0&rdScrollY=0&rdRnd=67770. Accessed January 28, 2019.
123. Kindergarten Oral Health. North Carolina Oral Health Section. North Carolina Department of Health and Human Services. <https://publichealth.nc.gov/oralhealth/stats/docs/2016-17-KindergartenRegionalSummary.pdf>. Accessed January 28, 2019.
124. Access to Health Services. Office of Disease Prevention and Health Promotion. U.S. Department of Health and Human Services. <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>. Accessed January 28, 2019.
125. Health Insurance and Access to Care. National Center for Health Statistics. Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/data/factsheets/factsheet_hiac.pdf. Published January 2017. Accessed January 28, 2019.
126. Uninsured Population by Age Group in North Carolina. Kids Count Data Center. Annie E. Casey Foundation. <https://datacenter.kidscount.org/data/tables/2281-uninsured-population-by-age-group#detailed/5/4928/false/870,573,869,36,868,867,133,38,35/6192,6193,6194/4766,12956>. Accessed January 28, 2019.
127. Heckman J. Quality Early Childhood Education: Enduring Benefits. <https://heckmanequation.org/resource/quality-early-childhood-education-enduring-benefits/>. Accessed on January 11, 2019.
128. Elango S, García JL, Heckman JJ, and Hojman A. Early childhood education: Quality and access pay off. <http://heckmanequation.org/content/resource/early-childhood-education-quality-and-access-pay>. Accessed January 11, 2019.
129. Child Care Statistical Report for December 2018. NCDHHS Division of Child Develop-

- ment and Early Education. https://ncchildcare.ncdhhs.gov/Portals/0/documents/pdf/S/statistical_detail_report_december_2018.pdf. Accessed January 11, 2019.
130. Child Care in Chatham County 2017 Report. Chatham County Partnership for Children. <http://chathamkids.org/new-report-on-child-care-in-chatham-county/>. Accessed January 9, 2019.
 131. Chatham County Child Care Facilities. NCDHHS Division of Child Development and Early Education. https://ncchildcaresearch.dhhs.state.nc.us/Result_Search.asp. Accessed January 10, 2019.
 132. Monthly Statistical Report May 2017. NC DHHS Division of Child Development and Early Education. https://ncchildcare.ncdhhs.gov/Portals/0/documents/pdf/S/statistical_detail_report_may_2017.pdf. Accessed January 9, 2019.
 133. 2017 Report: Parents and the High Cost of Child Care. Child Care Aware of America. http://usa.childcareaware.org/wp-content/uploads/2017/12/2017_CCA_High_Cost_Report_FINAL.pdf. Accessed January 11, 2019.
 134. Occupational Employment and Wages, May 2017, 39-9011 Childcare Workers. Bureau of Labor Statistics. <https://www.bls.gov/oes/current/oes399011.htm#st>. Accessed January 11, 2019.
 135. 2017 Poverty Guidelines. U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation. <https://aspe.hhs.gov/2017-poverty-guidelines>. Accessed January 11, 2019.
 136. Community Early Childhood Profile-Chatham County: Smart Start's Measures of Impact-Draft Results for Fiscal Year 2017-2018. The North Carolina Partnership for Children. Accessed January 11, 2019.
 137. Social Determinants. Office of Disease Prevention and Health Promotion. U.S. Department of Health and Human Services. <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Social-Determinants>. Accessed February 1, 2019.
 138. Kena G, Hussar W, McFarland J, de Brey C, Musu-Gillette L, Wang X, Zhang J, Rathbun A, Wilkinson-Flicker S, Diliberti M, Barmer A, Bullock Mann E, and Dunlop Velez E. The Condition of Education 2016 (NCES 2016-144). National Center for Education Statistics. U.S. Department of Education. <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016144>. Accessed February 24, 2017.
 139. District Facts. Chatham County Schools. <https://www.chatham.k12.nc.us/Page/20875>. Accessed February 21, 2019.
 140. NC School Report Cards. Public Schools of North Carolina. Department of Public Instruction. http://www.ncpublicschools.org/src/?reportPath=/ReportCard/NC_SRC&_sasapp=Visual+Analytics+Viewer+7.3&reportName=NC+Report+Cards&_locale=en_US. Accessed February 21, 2019.
 141. North Carolina SAT and AP Reports. Public Schools of North Carolina. Department of Public Instruction. <http://www.ncpublicschools.org/accountability/reporting/sat/>. Accessed February 21, 2019.
 142. ACT and ACT WorkKeys Results. Public Schools of North Carolina. Department of Public Instruction. <http://www.ncpublicschools.org/accountability/act/>. Accessed February 21, 2019.
 143. Ryan CL and Bauman K. Educational Attainment in the United States: 2015. U.S. Cen-

- sus Bureau. <https://www.census.gov/library/publications/2016/demo/p20-578.html>. Published March 29, 2016. Accessed February 1, 2019.
144. Defining Literacy. Literacy Advance of Houston. https://www.literacyadvance.org/About_Us/Defining_Literacy/. Accessed February 1, 2019.
 145. Adult Literacy Facts. ProLiteracy. <https://www.proliteracy.org/Resources/Adult-Literacy-Facts>. Accessed February 1, 2019.
 146. School Testing Results. Chatham County Schools. <https://www.chatham.k12.nc.us/Page/20912>. Accessed February 21, 2019.
 147. Reading Proficiency and Home Support for Literacy. National Center for Education Statistics. <https://nces.ed.gov/pubs96/web/96814.asp>. Accessed February 1, 2019.
 148. Average hours per day parents spent caring for and helping household children as their main activity, 2017 annual averages. Bureau of Labor Statistics. United States Department of Labor. <https://www.bls.gov/charts/american-time-use/activity-by-parent.htm>. Accessed January 11, 2019.
 149. Parenting in America: Outlook, Worries, Aspirations are Strongly Linked to Financial Situation. Pew Research Center. http://www.pewresearch.org/wp-content/uploads/sites/3/2015/12/2015-12-17_parenting-in-america_FINAL.pdf. Published December 17, 2015. Accessed January 11, 2019.
 150. The State of Underage Drinking in North Carolina. North Carolina ABC Commission. <https://www.talkitoutnc.org/wp-content/uploads/2015/08/2015-Executive-Summary-Branded.pdf>. Accessed January 11, 2019.
 151. How Teens and Parents Navigate Screen Time and Device Distractions. Pew Research Center. http://www.pewinternet.org/wp-content/uploads/sites/9/2018/08/PI_2018.08.22_teens-screentime_FINAL.pdf. Accessed January 11, 2019.
 152. Felitti VJ et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine*, Volume 14, Issue 4, 245 – 258. [https://www.ajpmonline.org/article/S0749-3797\(98\)00017-8/abstract](https://www.ajpmonline.org/article/S0749-3797(98)00017-8/abstract). Accessed January 13, 2019.
 153. The Incredible Years Preschool and School Age BASIC Parent Training FY 2016-2017 Summary Snapshot. KidSCOPE- Chapel Hill Training-Outreach Project, Inc. Accessed January 11, 2019.
 154. Child Welfare. National Conference of State Legislators. <http://www.ncsl.org/research/human-services/child-welfare.aspx>. Accessed February 1, 2019.
 155. Child Welfare. Center for Health Care Strategies, Inc. <https://www.chcs.org/topics/child-welfare/>. Accessed February 1, 2019.
 156. Child Welfare in North Carolina. University of North Carolina at Chapel Hill Jordan Institute for Families. http://sasweb.unc.edu/cgi-bin/broker?_service=default&_program=cwweb.icfsr3.sas&county=Chatham&label=County&entry=9. February 1, 2019.
 157. What is Domestic Abuse? National Domestic Violence Hotline. <https://www.thehotline.org/is-this-abuse/abuse-defined/>. Accessed February 1, 2019.
 158. Definitions. Centers for Disease Control and Prevention. <https://www.cdc.gov/violencepre>

- vention/sexualviolence/definitions.html. Accessed February 1, 2019.
159. Domestic Violence Program. North Carolina Administration. <https://ncadmin.nc.gov/advocacy/women/domestic-violence-program>. Accessed September 30, 2019.
 160. Understanding Elder Abuse. Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/pdf/em-factsheet-a.pdf>. Accessed February 1, 2019.
 161. Research. National Center on Elder Abuse. <https://ncea.acl.gov/whatwedo/research/statistics.html>. Accessed February 1, 2019.
 162. Acierno R, Hernandez MA, Amstadter AB, Resnick HS, Steve K, Muzzy W, Kilpatrick DG. Prevalence and Correlates of Emotional, Physical, Sexual, and Financial Abuse and Potential Neglect in the United States: The National Elder Mistreatment Study. *American Journal of Public Health* 2010; 100:292–7.
 163. Are You Prepared? Centers for Disease Control and Prevention. <https://emergency.cdc.gov/preparedness/pdf/infographic-are-you-prepared.pdf>. Accessed January 31, 2019.
 164. Ahrens M. Smoke Alarms in U.S. Home Fires. National Fire Protection Association. <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Detection-and-signaling/ossmokealarms.ashx?la=en>. Accessed January 31, 2019.
 165. What is Carbon Monoxide? Centers for Disease Control and Prevention. <https://www.cdc.gov/co/faqs.htm>. Accessed January 31, 2019.
 166. QuickStats: Number of Deaths Resulting from Unintentional Carbon Monoxide Poisoning, by Month and Year – National Vital Statistics System, United States, 2010-2015. Centers for Disease Control and Prevention. <https://www.cdc.gov/mmwr/volumes/66/wr/mm6608a9.htm>. Accessed January 31, 2019.
 167. Damon SA, Poehlman JA, Rupert DJ, and Williams PN. Storm-Related Carbon Monoxide Poisoning: An Investigation of Target Audience Knowledge and Risk Behaviors. U.S. Department of Health and Human Services. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4559492/>. Accessed January 31, 2019.
 168. Leary WE. Gun in Home? Study Finds It a Deadly Mix. *New York Times*. <https://www.nytimes.com/1993/10/07/us/gun-in-home-study-finds-it-a-deadly-mix.html>. Published October 7, 1993. Accessed February 21, 2019.
 169. Gun Violence: Facts and Statistics. Children’s Hospital of Philadelphia Research Institute. <https://injury.research.chop.edu/violence-prevention-initiative/types-violence-involving-youth/gun-violence/gun-violence-facts-and#.XFp6Fml7nIU>. Accessed February 1, 2019.
 170. Raphelson S. How the NRA Worked to Stifle Gun Violence Research. National Public Radio. <https://www.npr.org/2018/04/05/599773911/how-the-nra-worked-to-stifle-gun-violence-research>. Published April 5, 2018. Accessed February 21, 2019.
 171. Teen Drivers: Get the Facts. Centers for Disease Control and Prevention. https://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html. Accessed February 1, 2019.
 172. WISQARS (Web-based Injury Statistics Query and Reporting System). Centers for Disease Control and Prevention. <https://www.cdc.gov/injury/wisqars/index.html>. Accessed July 26, 2018.
 173. Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States: April 1, 2010 to July 1, 2016. U.S. Census Bureau. <https://factfinder.census.gov/faces/>

- tableservices/jsf/pages/productview.xhtml?pid=PEP_2016_PEPAGESEX&prodType=table. Accessed July 24, 2018.
174. North Carolina State Highway Patrol Collision Information. North Carolina Department of Public Safety. <https://www2.ncdps.gov/Index2.cfm?a=000003%2C000014%2C002745>. Accessed January 14, 2019.
 175. LINC Report. Log Into North Carolina. http://data.osbm.state.nc.us/pls/linc/dyn_linc_rframe.show?p_arg_names=geoid&p_arg_values=0,19,&p_arg_names=count&p_arg_values=2&p_arg_names=varid&p_arg_values=1101,5001,&p_arg_names=countv&p_arg_values=2&p_arg_names=year&p_arg_values=2016,2015,2014,2013,2012,2016,2015,2014,2013,2012,&p_arg_names=count_y&p_arg_values=10. Accessed February 1, 2019.
 176. Violent Crime. Federal Bureau of Investigation. <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/violent-crime>. Accessed February 1, 2019.
 177. Gramlich J. 5 Facts About Crime in the U.S. Pew Research Center. <http://www.pewresearch.org/fact-tank/2019/01/03/5-facts-about-crime-in-the-u-s/>. Accessed February 1, 2019.
 178. Healthy and Ready for Success. NC Child. <https://www.ncchild.org/wp-content/uploads/2017/05/chatham.pdf>. Accessed January 7, 2019.
 179. Percent of Births with Very Late or No Prenatal Care Beginning 2011 in North Carolina. Kids Count Data Center. Annie E. Casey Foundation. <https://datacenter.kidscount.org/data/tables/7634-percent-of-births-with-very-late-or-no-prenatal-care-beginning-2011?loct=5#detailed/5/4910-5009/false/870,573,869,36,868,867/any/15530,14781>. Accessed January 7, 2019.
 180. Live Births in North Carolina. Kids Count Data Center. Annie E. Casey Foundation. <https://datacenter.kidscount.org/data/tables/2294-live-births?loc=35&loct=5#detailed/5/4910-5009/false/870,573,869,36,868,867,133,38,35,18/any/4792>. Accessed January 7, 2019.
 181. Percent of Low Birthweight Births by Race and Ethnicity Beginning 2011 in North Carolina. Kids Count Data Center. Annie E. Casey Foundation. <https://datacenter.kidscount.org/data/tables/7637-percent-of-low-birthweight-births-by-race-and-ethnicity-beginning-2011?loc=35&loct=5#detailed/5/4910-5009/false/870,573,869,36,868,867/1,3944,2641,3,13/14784,14785>. Accessed January 7, 2019.
 182. Racial and Ethnic Disparities in Birth Outcomes. March of Dimes. https://www.marchof-dimes.org/March-of-Dimes-Racial-and-Ethnic-Disparities_feb-27-2015.pdf Accessed January 31, 2019.
 183. 2016 General Election Maps. North Carolina State Board of Elections. <https://www.ncsbe.gov/Data-Stats/2016-Election-Data-and-Statistics>. Accessed February 19, 2019.
 184. MacDorman MF, Declercq E, Cabral H, and Morton C. Is the United States Maternal Mortality Rate Increasing? Disentangling Trends from Measurement Issues. *Obstetric Gynecology*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5001799/>. Published September 2016. Accessed January 7, 2019.
 185. Siler City Rural Family Medicine Residency and Chatham Birthing Services. UNC School of Medicine. January 21, 2019.
 186. Sexually Transmitted Disease Surveillance. Centers for Disease Control and Prevention. <https://epi.publichealth.nc.gov/cd/figures.html>. Accessed January 10, 2019.

187. Hepatitis C Questions and Answers for Healthcare Professionals. Centers for Disease Control and Prevention. <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#section1>. Accessed January 10, 2019.
188. Facts & Figures. North Carolina Division of Public Health. North Carolina Department of Health and Human Services. <https://epi.publichealth.nc.gov/cd/stds/annualrpts.html>. Accessed January 10, 2019.
189. North Carolina Disease Data Dashboard. North Carolina Division of Public Health. North Carolina Department of Health and Human Services. <https://public.tableau.com/profile/nc.cdb#!/vizhome/NCD3NorthCarolinaDiseaseDataDashboard/DiseaseMapsandTrends>. Accessed January 10, 2019.
190. STD Health Equity. Centers for Disease Control and Prevention. <https://www.cdc.gov/std/health-disparities/default.htm#ftn5>. Accessed January 10, 2019.
191. STDs in Adolescents and Young Adults. Centers for Disease Control and Prevention. <https://www.cdc.gov/std/stats17/adolescents.htm>. Accessed January 10, 2019.
192. Adolescents and Young Adults. Centers for Disease Control and Prevention. <https://www.cdc.gov/std/life-stages-populations/adolescents-youngadults.htm>. Accessed January 11, 2019.
193. CDC Fact Sheet: What Gay, Bisexual, and Other Men Who Have Sex with Men Need to Know About Sexually Transmitted Diseases. Centers for Disease Control and Prevention <https://www.cdc.gov/std/life-stages-populations/stdfact-msm.htm>. Accessed January 11, 2019.
194. STDs in Racial and Ethnic Minorities. Centers for Disease Control and Prevention. <https://www.cdc.gov/std/stats17/minorities.htm>. Accessed January 11, 2019.
195. Health Equity and HIV in North Carolina, 2017: Heterosexual and Injection Drug Exposure. North Carolina Division of Public Health. North Carolina Department of Health and Human Services. https://epi.publichealth.nc.gov/cd/stds/figures/factsheet_healthequityHIV_men-womenIDU_2017.pdf. Accessed January 11, 2019.
196. HIV and Women in North Carolina, 2017. North Carolina Division of Public Health. North Carolina Department of Health and Human Services. https://epi.publichealth.nc.gov/cd/stds/figures/factsheet_HIVandWomenNC_2017.pdf. Accessed January 11, 2019.
197. HIV in North Carolina, 2017. North Carolina Division of Public Health. North Carolina Department of Health and Human Services. https://epi.publichealth.nc.gov/cd/stds/figures/factsheet_HIV_2017_rev11272018.pdf. Accessed January 11, 2019.
198. Finer LB and Zolna MR. Declines in Unintended Pregnancy in the United States, 2008-2011. *New England Journal of Medicine*. <https://www.nejm.org/doi/full/10.1056/NEJMs1506575>. Published March 3, 2016. Accessed January 12, 2019.
199. Finer LB and Zolna MR. Shifts in Intended and Unintended Pregnancies in the United States, 2001-2008. *American Journal of Public Health*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011100/>. Published February 2014. Accessed January 12, 2019.
200. About Teen Pregnancy. Centers for Disease Control and Prevention. <https://www.cdc.gov/teenpregnancy/about/index.htm>. Accessed January 12, 2019.
201. Johnson J and Raynor D. Chatham County Ranks No. 1 in North Carolina for Early Voting. Durham and Orange Aren't Far Behind. *Herald-Sun*. <https://www.heraldsun.com/news/local/>

- article220980935.html. Published November 3, 2018. Accessed February 3, 2019.
202. Sonfield A and Kost K. Public Costs from Unintended Pregnancies and the Role of Public Insurance Programs in Paying for Pregnancy-Related Care: National and State Estimates for 2010. Guttmacher Institute. <https://www.guttmacher.org/report/public-costs-unintended-pregnancies-and-role-public-insurance-programs-paying-pregnancy>. Published February 2015. Accessed January 12, 2019.
 203. Santelli JS, Duberstein Lindberg L, Finer LB, and Singh S. Explaining Recent Declines in Adolescent Pregnancy in the United States: The Contribution of Abstinence and Improved Contraceptive Use. *American Journal of Public Health*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1716232/>. Published January 2007. Accessed January 12, 2019.
 204. Unintended Pregnancy in the United States. Guttmacher Institute. <https://www.guttmacher.org/fact-sheet/unintended-pregnancy-united-states>. Published January 2019. Accessed January 12, 2019.
 205. CDC's 6|18 Initiative: Accelerating Evidence into Action. Centers for Disease Control and Prevention. <https://www.cdc.gov/sixeighteen/>. Accessed January 12, 2019.
 206. Healthy North Carolina 2020: A Better State of Health. North Carolina Division of Public Health. North Carolina Department of Health and Human Services. <https://publichealth.nc.gov/hnc2020/>. Accessed January 12, 2019.
 207. Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. Office of the Surgeon General. U.S. Department of Health and Human Services. Published November 2016.
 208. Shoveling Up II: The Impact of Substance Abuse on Federal, State and Local Budgets. The National Center on Addiction and Substance Abuse at Columbia University. <https://www.centeronaddiction.org/addiction-research/reports/shoveling-ii-impact-substance-abuse-federal-state-and-local-budgets>. Published May 2009. Accessed January 18, 2019.
 209. Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health. Center for Behavioral Health Statistics and Quality. Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2017-nsduh-annual-national-report>. Accessed January 18, 2019.
 210. Healthy People 2020 Focus Areas at a Glance. Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_focus_areas.htm. Accessed January 14, 2019.
 211. Unintentional Poisoning from Prescription Drugs. North Carolina Division of Public Health. <https://www.injuryfreenc.ncdhhs.gov/preventionResources/UnintentionalPoisoning.htm>. Accessed January 14, 2019.
 212. Substance Abuse Treatment and Family Therapy. Center for Substance Abuse Treatment. <https://www.ncbi.nlm.nih.gov/books/NBK64269/>. Accessed February 15, 2019.
 213. Alcohol Related Disease Impact (ARDI). Centers for Disease Control and Prevention. www.cdc.gov/ARDI. Accessed January 18, 2019.
 214. Drinking Levels Defined. National Institute on Alcohol Abuse and Alcoholism. National Institutes of Health. <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/>

- moderate-binge-drinking. Accessed February 21, 2019.
215. Kanny D, Nami TS, Liu Y, Lu H, and Brewer RD. Annual Total Binge Drinks Consumed by U.S. Adults. *American Journal of Preventive Medicine*. 54 (2018): 486-496.
 216. Alcohol Use and Your Health. Centers for Disease Control and Prevention. <https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm>. Accessed January 18, 2019.
 217. Lipari R and Van Horn S. CBHSQ Report: Trends in Substance Use Disorders among Adults aged 18 or Older. Substance Abuse and Mental Health Services Administration. https://www.samhsa.gov/data/sites/default/files/report_2790/ShortReport-2790.html. Accessed January 18, 2019.
 218. Traffic Safety Notes: 2016 Fatal Motor Vehicle Crashes Overview. National Highway Traffic Safety Administration. <https://www.nhtsa.gov/press-releases/usdot-releases-2016-fatal-traffic-crash-data>. Accessed January 18, 2019.
 219. Monitoring the Future Survey: High School and Youth Trends. National Institute on Drug Abuse. National Institutes of Health. <https://www.drugabuse.gov/publications/drugfacts/monitoring-future-survey-high-school-youth-trends>. Accessed January 19, 2019.
 220. Grant B, Chou P, Saha T, et. al. Prevalence of 12-Month Alcohol Use, High-Risk Drinking, and DSM-IV Alcohol Use Disorder in the United States, 2001-2002 to 2012-2013: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *JAMA Psychiatry*. 74 (2017): 911-923. <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2647079>. Accessed January 19, 2019.
 221. CDC WONDER: Underlying Cause of Death 1999-2017. National Center for Health Statistics. Centers for Disease Control and Prevention. <http://wonder.cdc.gov/ucd-icd10.html>. Accessed January 19, 2019.
 222. Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 392 (2018): 1015-1035. <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2818%2931310-2>. Accessed January 19, 2019.
 223. Tapper E. and Parikh N. Mortality due to cirrhosis and liver cancer in the United States, 1999-2016: observational study. *BMJ* 362 (2018). <https://www.bmj.com/content/362/bmj.k2817>. Accessed January 19, 2019.
 224. North Carolina 2016 Traffic Crash Facts. North Carolina Division of Motor Vehicles. North Carolina Department of Transportation. <https://connect.ncdot.gov/business/DMV/DMV%20Documents/2016%20Crash%20Facts.pdf>. Accessed January 19, 2019.
 225. Fatality Analysis Reporting System Encyclopedia. National Highway Traffic Administration. <https://www-fars.nhtsa.dot.gov/Main/index.aspx>. Accessed January 19, 2019.
 226. The Surgeon General’s Warning on Marijuana. Centers for Disease Control and Prevention. <https://www.cdc.gov/mmwr/preview/mmwrhtml/00001143.htm>. Accessed January 14, 2019.
 227. Understanding the Epidemic. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/epidemic/index.html>. Accessed January 14, 2019.
 228. Hedegaard H, Miniño A and Warner M. Drug Overdose Deaths in the United States, 1999–2017. Centers for Disease Control and Prevention. <https://www.cdc.gov/nchs/data/data-briefs/db329-h.pdf>. Accessed January 19, 2019.

229. Opioid Overdose: Understanding the Epidemic. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/epidemic/index.html>. Accessed January 19, 2019.
230. National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia). Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHsaePercentsExcelCSVs2017/NSDUHsaePercents2017.pdf>. Accessed January 19, 2019.
231. Drugs, Brains, Behavior: The Science of Addiction. National Institute on Drug Abuse. National Institutes of Health. <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preface>. Accessed January 19, 2019.
232. Sheriff's Prevention Partnership on Controlled Substances. Chatham County, North Carolina. <https://www.chathamnc.org/government/departments-programs/sheriff-s-office/sheriff-s-prevention-partnership-on-controlled-substances>. Accessed February 5, 2019.
233. Opioids. National Institute on Drug Abuse. National Institutes of Health. <https://www.drugabuse.gov/drugs-abuse/opioids>. Accessed January 24, 2019.
234. HHS Acting Secretary Declares Public Health Emergency to Address National Opioid Crisis. U.S. Department of Health and Human Services. <https://www.hhs.gov/about/news/2017/10/26/hhs-acting-secretary-declares-public-health-emergency-address-national-opioid-crisis.html>. Published October 26, 2017. Accessed January 24, 2019.
235. Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses- United States, July 2016-September 2017. Centers for Disease Control and Prevention. <https://www.cdc.gov/mmwr/volumes/67/wr/mm6709e1.htm>. Accessed January 19, 2019.
236. National Drug Threat Assessment. National Drug Intelligence Center. U.S. Department of Justice. <https://www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf>. January 19, 2019.
237. NC Overdose Data: Trends and Surveillance. North Carolina Injury and Violence Prevention Branch. North Carolina Department of Health and Human Services. Accessed January 14, 2019.
238. Poisoning Data. North Carolina Department of Health and Human Services. <https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm>. Accessed January 24, 2019.
239. NC Opioid Action Plan Data Dashboard. North Carolina Department of Health and Human Services. <https://injuryfreenc.shinyapps.io/OpioidActionPlan/>. Accessed January 24, 2019.
240. A Report of the Surgeon General: How Tobacco Smoke Causes Disease. Centers for Disease Control and Prevention. https://www.cdc.gov/tobacco/data_statistics/sgr/2010/consumer_booklet/pdfs/consumer.pdf. Accessed January 5, 2019.
241. Health Effects of Cigarette Smoking. Centers for Disease Control and Prevention. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm. Accessed January 5, 2019.
242. Economic Trends in Tobacco. Centers for Disease Control and Prevention. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/economics/econ_facts/index.htm. Accessed January 5, 2016.
243. 2017 North Carolina Youth Tobacco Survey. North Carolina Department of Health and Human Services. <https://www.tobaccopreventionandcontrol.ncdhhs.gov/data/yts/index.htm>. Accessed January 5, 2019.

244. The Health Consequences of Smoking – 50 Years of Progress. U.S. Department of Health and Human Services. <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>. Accessed January 5, 2019.
245. E-Cigarette Use Among Youth and Young Adults. U.S. Department of Health and Human Services. https://e-cigarettes.surgeongeneral.gov/documents/2016_SGR_Full_Report_non-508.pdf. Accessed January 5, 2019.
246. Youth and Tobacco Use. Centers for Disease Control and Prevention. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm. Accessed January 5, 2019.
247. Tobacco-Related Disparities. Centers for Disease Control and Prevention. <https://www.cdc.gov/tobacco/disparities/index.htm>. Accessed January 5, 2019.
248. Menthol: Facts, Stats and Regulations. Truth Initiative. <https://truthinitiative.org/news/menthol-facts-stats-and-regulations>. Published August 31, 2018. Accessed January 5, 2019.
249. Stein R. FDA Seeks Ban on Menthol Cigarettes to Fight Teen Smoking. National Public Radio. <https://www.npr.org/sections/health-shots/2018/11/15/668192356/fda-seeks-ban-on-menthol-cigarettes-to-fight-teen-smoking>. Accessed February 21, 2019.
250. A Guide to Conducting Your Own Youth Risk Behavior Survey. Centers for Disease Control and Prevention. https://www.cdc.gov/healthyyouth/data/yrbs/pdf/yrbs_conducting_your_own.pdf. Published June, 2014. Accessed February 28, 2019.



Appendices

2017 State and Local Youth Risk Behavior Survey

This survey is about health behavior. It has been developed so you can tell us what you do that may affect your health. The information you give will be used to improve health education for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

Completing the survey is voluntary. Whether or not you answer the questions will not affect your grade in this class. If you are not comfortable answering a question, just leave it blank.

The questions that ask about your background will be used only to describe the types of students completing this survey. The information will not be used to find out your name. No names will ever be reported.

Make sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of the person giving you the survey.

Thank you very much for your help.

Directions

- Use a #2 pencil only.
- Make dark marks.
- Fill in a response like this: A B ● D.
- If you change your answer, erase your old answer completely.

1. How old are you?
 - A. 12 years old or younger
 - B. 13 years old
 - C. 14 years old
 - D. 15 years old
 - E. 16 years old
 - F. 17 years old
 - G. 18 years old or older

2. What is your sex?
 - A. Female
 - B. Male

3. In what grade are you?
 - A. 9th grade
 - B. 10th grade
 - C. 11th grade
 - D. 12th grade
 - E. Ungraded or other grade

4. Are you Hispanic or Latino?
 - A. Yes
 - B. No

5. What is your race? **(Select one or more responses.)**
 - A. American Indian or Alaska Native
 - B. Asian
 - C. Black or African American
 - D. Native Hawaiian or Other Pacific Islander
 - E. White

6. How tall are you without your shoes on?
 Directions: Write your height in the shaded blank boxes. Fill in the matching oval below each number.

Example

Height	
Feet	Inches
5	7
③	⑩
④	①
●	②
⑥	③
⑦	④
	⑤
	⑥
	●
	⑧
	⑨
	⑩
	⑪

Height	
Feet	Inches
③	⑩
④	①
⑤	②
⑥	③
⑦	④
	⑤
	⑥
	⑦
	⑧
	⑨
	⑩
	⑪

7. How much do you weigh without your shoes on?
 Directions: Write your weight in the shaded blank boxes. Fill in the matching oval below each number.

Example

Weight		
Pounds		
1	5	2
①	①	①
●	①	①
②	②	●
③	③	③
	④	④
	●	⑤
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨

Weight		
Pounds		
①	①	①
①	①	①
②	②	②
③	③	③
	④	④
	⑤	⑤
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨

The next 4 questions ask about safety.

8. How often do you wear a seat belt when **riding** in a car driven by someone else?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
9. During the past 30 days, how many times did you **ride** in a car or other vehicle **driven by someone who had been drinking alcohol**?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or more times
10. During the past 30 days, how many times did you **drive** a car or other vehicle **when you had been drinking alcohol**?
- A. I did not drive a car or other vehicle during the past 30 days
 - B. 0 times
 - C. 1 time
 - D. 2 or 3 times
 - E. 4 or 5 times
 - F. 6 or more times
11. During the past 30 days, on how many days did you **text or e-mail** while **driving** a car or other vehicle?
- A. I did not drive a car or other vehicle during the past 30 days
 - B. 0 days
 - C. 1 or 2 days
 - D. 3 to 5 days
 - E. 6 to 9 days
 - F. 10 to 19 days
 - G. 20 to 29 days
 - H. All 30 days

The next 11 questions ask about violence-related behaviors.

12. During the past 30 days, on how many days did you carry **a weapon** such as a gun, knife, or club?
- A. 0 days
 - B. 1 day
 - C. 2 or 3 days
 - D. 4 or 5 days
 - E. 6 or more days
13. During the past 30 days, on how many days did you carry **a weapon** such as a gun, knife, or club **on school property**?
- A. 0 days
 - B. 1 day
 - C. 2 or 3 days
 - D. 4 or 5 days
 - E. 6 or more days
14. **During the past 12 months**, on how many days did you carry a **gun**? (Do **not** count the days when you carried a gun only for hunting or for a sport, such as target shooting.)
- A. 0 days
 - B. 1 day
 - C. 2 or 3 days
 - D. 4 or 5 days
 - E. 6 or more days
15. During the past 30 days, on how many days did you **not** go to school because you felt you would be unsafe at school or on your way to or from school?
- A. 0 days
 - B. 1 day
 - C. 2 or 3 days
 - D. 4 or 5 days
 - E. 6 or more days
16. During the past 12 months, how many times has someone threatened or injured you with **a weapon** such as a gun, knife, or club **on school property**?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or 7 times
 - F. 8 or 9 times
 - G. 10 or 11 times
 - H. 12 or more times

17. During the past 12 months, how many times were you in a **physical fight**?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or 7 times
 - F. 8 or 9 times
 - G. 10 or 11 times
 - H. 12 or more times
18. During the past 12 months, how many times were you in a **physical fight on school property**?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or 7 times
 - F. 8 or 9 times
 - G. 10 or 11 times
 - H. 12 or more times
19. Have you ever been physically forced to have sexual intercourse when you did not want to?
- A. Yes
 - B. No
20. During the past 12 months, how many times did **anyone** force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or more times

21. During the past 12 months, how many times did **someone you were dating or going out with** force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)
- A. I did not date or go out with anyone during the past 12 months
 - B. 0 times
 - C. 1 time
 - D. 2 or 3 times
 - E. 4 or 5 times
 - F. 6 or more times
22. During the past 12 months, how many times did **someone you were dating or going out with** physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)
- A. I did not date or go out with anyone during the past 12 months
 - B. 0 times
 - C. 1 time
 - D. 2 or 3 times
 - E. 4 or 5 times
 - F. 6 or more times

The next 2 questions ask about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.

23. During the past 12 months, have you ever been bullied **on school property**?
- A. Yes
 - B. No
24. During the past 12 months, have you ever been **electronically** bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)
- A. Yes
 - B. No

The next 5 questions ask about sad feelings and attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide, that is, taking some action to end their own life.

25. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing some usual activities?
- A. Yes
 - B. No

26. During the past 12 months, did you ever **seriously** consider attempting suicide?
A. Yes
B. No
27. During the past 12 months, did you make a plan about how you would attempt suicide?
A. Yes
B. No
28. During the past 12 months, how many times did you actually attempt suicide?
A. 0 times
B. 1 time
C. 2 or 3 times
D. 4 or 5 times
E. 6 or more times
29. **If you attempted suicide** during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?
A. **I did not attempt suicide** during the past 12 months
B. Yes
C. No

The next 4 questions ask about cigarette smoking.

30. Have you ever tried cigarette smoking, even one or two puffs?
A. Yes
B. No
31. How old were you when you first tried cigarette smoking, even one or two puffs?
A. I have never tried cigarette smoking, not even one or two puffs
B. 8 years old or younger
C. 9 or 10 years old
D. 11 or 12 years old
E. 13 or 14 years old
F. 15 or 16 years old
G. 17 years old or older
32. During the past 30 days, on how many days did you smoke cigarettes?
A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

33. During the past 30 days, on the days you smoked, how many cigarettes did you smoke **per day**?
- A. I did not smoke cigarettes during the past 30 days
 - B. Less than 1 cigarette per day
 - C. 1 cigarette per day
 - D. 2 to 5 cigarettes per day
 - E. 6 to 10 cigarettes per day
 - F. 11 to 20 cigarettes per day
 - G. More than 20 cigarettes per day

The next 3 questions ask about electronic vapor products, such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo. Electronic vapor products include e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens.

34. Have you ever used an electronic vapor product?
- A. Yes
 - B. No
35. During the past 30 days, on how many days did you use an electronic vapor product?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
36. During the past 30 days, how did you **usually** get your own electronic vapor products? (Select only **one** response.)
- A. I did not use any electronic vapor products during the past 30 days
 - B. I bought them in a store such as a convenience store, supermarket, discount store, gas station, or vape store
 - C. I got them on the Internet
 - D. I gave someone else money to buy them for me
 - E. I borrowed them from someone else
 - F. A person 18 years old or older gave them to me
 - G. I took them from a store or another person
 - H. I got them some other way

The next 3 questions ask about other tobacco products.

37. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, Copenhagen, Camel Snus, Marlboro Snus, General Snus, Ariva, Stonewall, or Camel Orbs? (Do not count any electronic vapor products.)
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
38. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars**?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
39. During the past 12 months, did you ever try **to quit** using **all** tobacco products, including cigarettes, cigars, smokeless tobacco, shisha or hookah tobacco, and electronic vapor products?
- A. I did not use any tobacco products during the past 12 months
 - B. Yes
 - C. No

The next 4 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

40. During your life, on how many days have you had at least one drink of alcohol?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 9 days
 - D. 10 to 19 days
 - E. 20 to 39 days
 - F. 40 to 99 days
 - G. 100 or more days

41. How old were you when you had your first drink of alcohol other than a few sips?
- A. I have never had a drink of alcohol other than a few sips
 - B. 8 years old or younger
 - C. 9 or 10 years old
 - D. 11 or 12 years old
 - E. 13 or 14 years old
 - F. 15 or 16 years old
 - G. 17 years old or older
42. During the past 30 days, on how many days did you have at least one drink of alcohol?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
43. During the past 30 days, how did you **usually** get the alcohol you drank?
- A. I did not drink alcohol during the past 30 days
 - B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
 - C. I bought it at a restaurant, bar, or club
 - D. I bought it at a public event such as a concert or sporting event
 - E. I gave someone else money to buy it for me
 - F. Someone gave it to me
 - G. I took it from a store or family member
 - H. I got it some other way

The next 2 questions ask about how many drinks of alcohol you have had in a row, that is, within a couple of hours. For the first question, the number of drinks you need to think about is different for female students and male students.

44. During the past 30 days, on how many days did you have **4** or more drinks of alcohol in a row (if you are **female**) or **5** or more drinks of alcohol in a row (if you are **male**)?
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 to 5 days
 - E. 6 to 9 days
 - F. 10 to 19 days
 - G. 20 or more days

45. During the past 30 days, what is the largest number of alcoholic drinks you had in a row?
- A. I did not drink alcohol during the past 30 days
 - B. 1 or 2 drinks
 - C. 3 drinks
 - D. 4 drinks
 - E. 5 drinks
 - F. 6 or 7 drinks
 - G. 8 or 9 drinks
 - H. 10 or more drinks

The next 3 questions ask about marijuana use. Marijuana also is called grass, pot, or weed.

46. During your life, how many times have you used marijuana?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 to 99 times
 - G. 100 or more times
47. How old were you when you tried marijuana for the first time?
- A. I have never tried marijuana
 - B. 8 years old or younger
 - C. 9 or 10 years old
 - D. 11 or 12 years old
 - E. 13 or 14 years old
 - F. 15 or 16 years old
 - G. 17 years old or older
48. During the past 30 days, how many times did you use marijuana?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times

The next 10 questions ask about other drugs.

49. During your life, how many times have you used **any** form of cocaine, including powder, crack, or freebase?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
50. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
51. During your life, how many times have you used **heroin** (also called smack, junk, or China White)?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
52. During your life, how many times have you used **methamphetamines** (also called speed, crystal, crank, or ice)?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
53. During your life, how many times have you used **ecstasy** (also called MDMA)?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times

54. During your life, how many times have you used **synthetic marijuana** (also called K2, Spice, fake weed, King Kong, Yucatan Fire, Skunk, or Moon Rocks)?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
55. During your life, how many times have you taken **steroid pills or shots** without a doctor's prescription?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
56. During your life, how many times have you taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it? (Count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.)
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 9 times
 - D. 10 to 19 times
 - E. 20 to 39 times
 - F. 40 or more times
57. During your life, how many times have you used a needle to inject any **illegal** drug into your body?
- A. 0 times
 - B. 1 time
 - C. 2 or more times
58. During the past 12 months, has anyone offered, sold, or given you an illegal drug **on school property**?
- A. Yes
 - B. No

The next 9 questions ask about sexual behavior.

59. Have you ever had sexual intercourse?
- A. Yes
 - B. No

60. How old were you when you had sexual intercourse for the first time?
- A. I have never had sexual intercourse
 - B. 11 years old or younger
 - C. 12 years old
 - D. 13 years old
 - E. 14 years old
 - F. 15 years old
 - G. 16 years old
 - H. 17 years old or older
61. During your life, with how many people have you had sexual intercourse?
- A. I have never had sexual intercourse
 - B. 1 person
 - C. 2 people
 - D. 3 people
 - E. 4 people
 - F. 5 people
 - G. 6 or more people
62. During the past 3 months, with how many people did you have sexual intercourse?
- A. I have never had sexual intercourse
 - B. I have had sexual intercourse, but not during the past 3 months
 - C. 1 person
 - D. 2 people
 - E. 3 people
 - F. 4 people
 - G. 5 people
 - H. 6 or more people
63. Did you drink alcohol or use drugs before you had sexual intercourse the **last time**?
- A. I have never had sexual intercourse
 - B. Yes
 - C. No
64. The **last time** you had sexual intercourse, did you or your partner use a condom?
- A. I have never had sexual intercourse
 - B. Yes
 - C. No

65. The **last time** you had sexual intercourse, what **one** method did you or your partner use to **prevent pregnancy**? (Select only **one** response.)
- A. I have never had sexual intercourse
 - B. No method was used to prevent pregnancy
 - C. Birth control pills
 - D. Condoms
 - E. An IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon)
 - F. A shot (such as Depo-Provera), patch (such as Ortho Evra), or birth control ring (such as NuvaRing)
 - G. Withdrawal or some other method
 - H. Not sure
66. During your life, with whom have you had sexual contact?
- A. I have never had sexual contact
 - B. Females
 - C. Males
 - D. Females and males
67. Which of the following best describes you?
- A. Heterosexual (straight)
 - B. Gay or lesbian
 - C. Bisexual
 - D. Not sure

The next 2 questions ask about body weight.

68. How do **you** describe your weight?
- A. Very underweight
 - B. Slightly underweight
 - C. About the right weight
 - D. Slightly overweight
 - E. Very overweight
69. Which of the following are you trying to do about your weight?
- A. **Lose** weight
 - B. **Gain** weight
 - C. **Stay** the same weight
 - D. I am **not trying to do anything** about my weight

The next 9 questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

70. During the past 7 days, how many times did you drink **100% fruit juices** such as orange juice, apple juice, or grape juice? (Do **not** count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
- A. I did not drink 100% fruit juice during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
71. During the past 7 days, how many times did you eat **fruit**? (Do **not** count fruit juice.)
- A. I did not eat fruit during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
72. During the past 7 days, how many times did you eat **green salad**?
- A. I did not eat green salad during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
73. During the past 7 days, how many times did you eat **potatoes**? (Do **not** count french fries, fried potatoes, or potato chips.)
- A. I did not eat potatoes during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day

74. During the past 7 days, how many times did you eat **carrots**?
- A. I did not eat carrots during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
75. During the past 7 days, how many times did you eat **other vegetables**? (Do **not** count green salad, potatoes, or carrots.)
- A. I did not eat other vegetables during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
76. During the past 7 days, how many times did you drink a **can, bottle, or glass of soda or pop**, such as Coke, Pepsi, or Sprite? (Do **not** count diet soda or diet pop.)
- A. I did not drink soda or pop during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
77. During the past 7 days, how many **glasses of milk** did you drink? (Count the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)
- A. I did not drink milk during the past 7 days
 - B. 1 to 3 glasses during the past 7 days
 - C. 4 to 6 glasses during the past 7 days
 - D. 1 glass per day
 - E. 2 glasses per day
 - F. 3 glasses per day
 - G. 4 or more glasses per day

78. During the past 7 days, on how many days did you eat **breakfast**?
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 days
 - E. 4 days
 - F. 5 days
 - G. 6 days
 - H. 7 days

The next 5 questions ask about physical activity.

79. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 days
 - E. 4 days
 - F. 5 days
 - G. 6 days
 - H. 7 days
80. On an average school day, how many hours do you watch TV?
- A. I do not watch TV on an average school day
 - B. Less than 1 hour per day
 - C. 1 hour per day
 - D. 2 hours per day
 - E. 3 hours per day
 - F. 4 hours per day
 - G. 5 or more hours per day
81. On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Count time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media.)
- A. I do not play video or computer games or use a computer for something that is not school work
 - B. Less than 1 hour per day
 - C. 1 hour per day
 - D. 2 hours per day
 - E. 3 hours per day
 - F. 4 hours per day
 - G. 5 or more hours per day

82. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 days
 - E. 4 days
 - F. 5 days
83. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)
- A. 0 teams
 - B. 1 team
 - C. 2 teams
 - D. 3 or more teams

The next question asks about concussions. A concussion is when a blow or jolt to the head causes problems such as headaches, dizziness, being dazed or confused, difficulty remembering or concentrating, vomiting, blurred vision, or being knocked out.

84. During the past 12 months, how many times did you have a concussion **from playing a sport or being physically active**?
- A. 0 times
 - B. 1 time
 - C. 2 times
 - D. 3 times
 - E. 4 or more times

The next 5 questions ask about other health-related topics.

85. Have you ever been tested for HIV, the virus that causes AIDS? (Do **not** count tests done if you donated blood.)
- A. Yes
 - B. No
 - C. Not sure
86. When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?
- A. During the past 12 months
 - B. Between 12 and 24 months ago
 - C. More than 24 months ago
 - D. Never
 - E. Not sure

87. Has a doctor or nurse ever told you that you have asthma?
- A. Yes
 - B. No
 - C. Not sure
88. On an average school night, how many hours of sleep do you get?
- A. 4 or less hours
 - B. 5 hours
 - C. 6 hours
 - D. 7 hours
 - E. 8 hours
 - F. 9 hours
 - G. 10 or more hours
89. During the past 12 months, how would you describe your grades in school?
- A. Mostly A's
 - B. Mostly B's
 - C. Mostly C's
 - D. Mostly D's
 - E. Mostly F's
 - F. None of these grades
 - G. Not sure

**This is the end of the survey.
Thank you very much for your help.**

2017 Middle School Youth Risk Behavior Survey

This survey is about health behavior. It has been developed so you can tell us what you do that may affect your health. The information you give will be used to improve health education for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

Completing the survey is voluntary. Whether or not you answer the questions will not affect your grade in this class. If you are not comfortable answering a question, just leave it blank.

The questions that ask about your background will be used only to describe the types of students completing this survey. The information will not be used to find out your name. No names will ever be reported.

Make sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of the person giving you the survey.

Thank you very much for your help.

Directions

- Use a #2 pencil only.
- Make dark marks.
- Fill in a response like this: A B ● D.
- If you change your answer, erase your old answer completely.

1. How old are you?
 - A. 10 years old or younger
 - B. 11 years old
 - C. 12 years old
 - D. 13 years old
 - E. 14 years old
 - F. 15 years old
 - G. 16 years old or older

2. What is your sex?
 - A. Female
 - B. Male

3. In what grade are you?
 - A. 6th grade
 - B. 7th grade
 - C. 8th grade
 - D. Ungraded or other grade

4. Are you Hispanic or Latino?
 - A. Yes
 - B. No

5. What is your race? **(Select one or more responses.)**
 - A. American Indian or Alaska Native
 - B. Asian
 - C. Black or African American
 - D. Native Hawaiian or Other Pacific Islander
 - E. White

The next 4 questions ask about safety.

6. **When you ride a bicycle**, how often do you wear a helmet?
 - A. I do not ride a bicycle
 - B. Never wear a helmet
 - C. Rarely wear a helmet
 - D. Sometimes wear a helmet
 - E. Most of the time wear a helmet
 - F. Always wear a helmet

7. **When you rollerblade or ride a skateboard**, how often do you wear a helmet?
- A. I do not rollerblade or ride a skateboard
 - B. Never wear a helmet
 - C. Rarely wear a helmet
 - D. Sometimes wear a helmet
 - E. Most of the time wear a helmet
 - F. Always wear a helmet
8. How often do you wear a seat belt when **riding** in a car?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
9. Have you ever ridden in a car driven by someone who had been drinking alcohol?
- A. Yes
 - B. No
 - C. Not sure

The next 2 questions ask about violence-related behaviors.

10. Have you ever carried a **weapon**, such as a gun, knife, or club?
- A. Yes
 - B. No
11. Have you ever been in a physical fight?
- A. Yes
 - B. No

The next 2 questions ask about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.

12. Have you ever been bullied **on school property**?
- A. Yes
 - B. No
13. Have you ever been **electronically** bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)
- A. Yes
 - B. No

The next 3 questions ask about attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide or killing themselves.

14. Have you ever **seriously** thought about killing yourself?
A. Yes
B. No
15. Have you ever made a **plan** about how you would kill yourself?
A. Yes
B. No
16. Have you ever **tried** to kill yourself?
A. Yes
B. No

The next 4 questions ask about cigarette smoking.

17. Have you ever tried cigarette smoking, even one or two puffs?
A. Yes
B. No
18. How old were you when you first tried cigarette smoking, even one or two puffs?
A. I have never tried cigarette smoking, not even one or two puffs
B. 8 years old or younger
C. 9 years old
D. 10 years old
E. 11 years old
F. 12 years old
G. 13 years old or older
19. During the past 30 days, on how many days did you smoke cigarettes?
A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days
20. During the past 30 days, on the days you smoked, how many cigarettes did you smoke **per day**?
A. I did not smoke cigarettes during the past 30 days
B. Less than 1 cigarette per day
C. 1 cigarette per day
D. 2 to 5 cigarettes per day
E. 6 to 10 cigarettes per day
F. 11 to 20 cigarettes per day
G. More than 20 cigarettes per day

The next 3 questions ask about electronic vapor products, such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo. Electronic vapor products include e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens.

21. Have you ever used an electronic vapor product?
- A. Yes
 - B. No
22. During the past 30 days, on how many days did you use an electronic vapor product?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
23. During the past 30 days, how did you **usually** get your own electronic vapor products? (Select only **one** response.)
- A. I did not use any electronic vapor products during the past 30 days
 - B. I bought them in a store such as a convenience store, supermarket, discount store, gas station, or vape store
 - C. I got them on the Internet
 - D. I gave someone else money to buy them for me
 - E. I borrowed them from someone else
 - F. A person 18 years old or older gave them to me
 - G. I took them from a store or another person
 - H. I got them some other way

The next 2 questions ask about other tobacco products.

24. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, Copenhagen, Camel Snus, Marlboro Snus, General Snus, Ariva, Stonewall, or Camel Orbs? (Do not count any electronic vapor products.)
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days

25. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars?**
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days

The next 2 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

26. Have you ever had a drink of alcohol, other than a few sips?
- A. Yes
 - B. No
27. How old were you when you had your first drink of alcohol other than a few sips?
- A. I have never had a drink of alcohol other than a few sips
 - B. 8 years old or younger
 - C. 9 years old
 - D. 10 years old
 - E. 11 years old
 - F. 12 years old
 - G. 13 years old or older

The next 2 questions ask about marijuana use. Marijuana also is called grass, pot, or weed.

28. Have you ever used marijuana?
- A. Yes
 - B. No
29. How old were you when you tried marijuana for the first time?
- A. I have never tried marijuana
 - B. 8 years old or younger
 - C. 9 years old
 - D. 10 years old
 - E. 11 years old
 - F. 12 years old
 - G. 13 years old or older

The next 4 questions ask about other drugs.

30. Have you ever used **any** form of cocaine, including powder, crack, or freebase?
- A. Yes
 - B. No
31. Have you ever sniffed glue, breathed the contents of spray cans, or inhaled any paints or sprays to get high?
- A. Yes
 - B. No
32. Have you ever taken **steroid pills or shots** without a doctor's prescription?
- A. Yes
 - B. No
33. Have you ever taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it? (Count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.)
- A. Yes
 - B. No

The next 4 questions ask about sexual intercourse.

34. Have you ever had sexual intercourse?
- A. Yes
 - B. No
35. How old were you when you had sexual intercourse for the first time?
- A. I have never had sexual intercourse
 - B. 8 years old or younger
 - C. 9 years old
 - D. 10 years old
 - E. 11 years old
 - F. 12 years old
 - G. 13 years old or older
36. With how many people have you ever had sexual intercourse?
- A. I have never had sexual intercourse
 - B. 1 person
 - C. 2 people
 - D. 3 people
 - E. 4 people
 - F. 5 people
 - G. 6 or more people
37. The **last time** you had sexual intercourse, did you or your partner use a condom?
- A. I have never had sexual intercourse
 - B. Yes
 - C. No

The next 2 questions ask about body weight.

38. How do **you** describe your weight?
- A. Very underweight
 - B. Slightly underweight
 - C. About the right weight
 - D. Slightly overweight
 - E. Very overweight
39. Which of the following are you trying to do about your weight?
- A. **Lose** weight
 - B. **Gain** weight
 - C. **Stay** the same weight
 - D. I am **not trying to do anything** about my weight

The next question asks about eating breakfast.

40. During the past 7 days, on how many days did you eat **breakfast**?
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 days
 - E. 4 days
 - F. 5 days
 - G. 6 days
 - H. 7 days

The next 5 questions ask about physical activity.

41. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 days
 - E. 4 days
 - F. 5 days
 - G. 6 days
 - H. 7 days

42. On an average school day, how many hours do you watch TV?
- A. I do not watch TV on an average school day
 - B. Less than 1 hour per day
 - C. 1 hour per day
 - D. 2 hours per day
 - E. 3 hours per day
 - F. 4 hours per day
 - G. 5 or more hours per day
43. On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Count time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media.)
- A. I do not play video or computer games or use a computer for something that is not school work
 - B. Less than 1 hour per day
 - C. 1 hour per day
 - D. 2 hours per day
 - E. 3 hours per day
 - F. 4 hours per day
 - G. 5 or more hours per day
44. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
- A. 0 days
 - B. 1 day
 - C. 2 days
 - D. 3 days
 - E. 4 days
 - F. 5 days
45. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)
- A. 0 teams
 - B. 1 team
 - C. 2 teams
 - D. 3 or more teams

The next question asks about concussions. A concussion is when a blow or jolt to the head causes problems such as headaches, dizziness, being dazed or confused, difficulty remembering or concentrating, vomiting, blurred vision, or being knocked out.

46. During the past 12 months, how many times did you have a concussion **from playing a sport or being physically active**?
- A. 0 times
 - B. 1 time
 - C. 2 times
 - D. 3 times
 - E. 4 or more times

The next 3 questions ask about other health-related topics.

47. Has a doctor or nurse ever told you that you have asthma?
- A. Yes
 - B. No
 - C. Not sure
48. On an average school night, how many hours of sleep do you get?
- A. 4 or less hours
 - B. 5 hours
 - C. 6 hours
 - D. 7 hours
 - E. 8 hours
 - F. 9 hours
 - G. 10 or more hours
49. During the past 12 months, how would you describe your grades in school?
- A. Mostly A's
 - B. Mostly B's
 - C. Mostly C's
 - D. Mostly D's
 - E. Mostly F's
 - F. None of these grades
 - G. Not sure

**This is the end of the survey.
Thank you very much for your help.**

Appendix C: 2017 Youth Risk Behavior Survey Results - Chatham County Schools

Results

The 2017 Youth Risk Behavior Survey (YRBS) was completed by 968 students in four public and charter high schools and 950 students in eight public and charter middle schools in Chatham County during the spring of 2017. The high school response rate was 100%, the high school student response rate was 72%, and the overall high school response rate was 72%. The middle school response rate was 100%, the middle school student response rate was 81%, and the overall middle school response rate was 81%. The results are representative of all students in grades 6-12. High school students completed a self-administered, anonymous, 99-item questionnaire, and middle school students completed a self-administered, anonymous, 70-item questionnaire. Survey procedures were designed to protect the privacy of students by allowing for anonymous and voluntary participation. Local parental permission procedures were followed before survey administration. Chatham County's participation in the YRBS data collection was part of the Whole School, Whole Child, Whole Community (WSCC) pilot program through North Carolina's Department of Public Instruction. The data were collected by the WSCC program at the Department of Public Instruction and sent to the CDC for processing.

Behavior	Chatham Middle Schools (%)	NC Middle Schools (%)
Rarely or never wore a bicycle helmet	64.2	72.3
Rarely or never wore a helmet when rollerblading or skateboarding	66.5	75.5
Rarely or never wore a seat belt when riding in a car driven by someone else	4.7	4.5
Ever ridden with a driver who had been drinking alcohol	19.6	19.6
Ever carried a weapon (such as a gun, knife, or club)	32.4	34.4
Did not go to school because they felt unsafe at school or on their way to or from school	3.6	5.6
Threatened or injured with a weapon on school property	4.1	5.7
Ever in a physical fight	37.3	46.0
Ever bullied on school property	44.7	43.6
Ever electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media)	21.9	21.8
Felt sad or hopeless (almost every day for >2 weeks in a row so that they stopped doing some usual activities)	23.5	25.4
Ever seriously considered attempting suicide	20.4	21.4
Ever made a plan about how they would attempt suicide	13.1	13.7
Ever attempted suicide	10.1	10.0
Currently smoke cigarettes (past 30 days)	5.7	5.3
Currently smoke cigarettes frequently (on 20 or more days of past 30 days)	0.4	0.6
Currently smoke cigarettes daily	0.3	0.5
Ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens)	13	19.2
Currently use an electronic vapor product (past 30 days)	6.9	9.7
Ever drank alcohol (other than a few sips)	14.5	21.2
Drank alcohol for the first time before age 11 years (other than a few sips)	7.7	8.9
Usually got the alcohol they drank by someone giving it to them	33.6	26.1
Ever used marijuana	7.3	11.0
Tried marijuana for the first time before age 11 years	2.3	4.0
Currently use marijuana (past 30 days)	5.8	6.8
Ever used cocaine (any form of cocaine, including powder, crack, or freebase)	1.6	2.2
Ever used inhalants (sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high)	4.8	7.0
Ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it	3.5	6.4
Offered, sold, or given an illegal drug on school property	5.9	6.7
Have been taught about abstaining from sexual activity	41	53.7
Ever had sexual intercourse	6.7	10.1
Describe themselves as slightly or very overweight	29.7	26.5
Were trying to lose weight	46.8	41.8
Did not eat breakfast	13.8	11.8
Ate breakfast on all 7 days	46.3	44.0
Were physically active at least 60 minutes per day on 5 or more days	56.3	55.6
Did not participate in at least 60 minutes of physical activity on at least 1 day	8.7	11.0
Were physically active at least 60 minutes per day on all 7 days	31.8	32.7
Watched television 3 or more hours per day	21.4	27.2
Played video or computer games or used a computer 3 or more hours per day	40	45.4
Attended physical education (PE) classes on 1 or more days	80.6	77.1
Attended physical education (PE) classes on all 5 days	6.8	44.1
Played on at least one sports team	59.8	57.7
Had ever been told by a doctor or nurse that they had asthma	17.8	22.5
Got 8 or more hours of sleep on an average school night	51.9	50.1
Described their grades in school as mostly A's or B's	78	73.7
Reported that there is gang activity in their school	13.1	14.9
Have seen other students being bullied in their school	58	62.6
Have been the victim of teasing or name calling because someone thought they were gay, lesbian, or bisexual	21	20.4

Exercised to lose weight or to keep from gaining weight	69.3	67.8
Ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight	46.3	44.2
Have ever gone without eating for 24 hours or more to lose weight or to keep from gaining weight	16.9	16.2
Walk or ride their bike to school on five days	16.2	6.1
Consider themselves to have a disability	8.3	11.8
Are limited in any way in any activities because of a disability or health problem	8.7	10.3
Have trouble learning, remembering, or concentrating because of a disability or health problem	8.7	13.6
Have been taught about AIDS or HIV infection in school	44.6	60.4
Have been taught about chlamydia, gonorrhea, syphilis, human papillomavirus, or genital warts	20.4	38.5
Usually talk with their parent or other adult family member when they have questions about sexually transmitted infections (STIs), HIV, AIDS, or pregnancy prevention	52.6	21.7
Reported their parents or other adult family talked with them about what they expect to do or not to do when it comes to sex	40.2	44.2
Had been told by a doctor or nurse that they had asthma and who still have asthma	7.9	-
Saw a doctor or nurse for a check-up or physical exam when they were not sick or injured	62.8	76.2
Saw a dentist for a check-up, exam, teeth cleaning, or other dental work	71.8	84.3
Never saw a dentist for a check-up, exam, teeth cleaning, or other dental work	1.2	1.6
Strongly agree or agree that they feel good about themselves	65.7	69.3
Disagree or strongly disagree that they feel alone in their life	61.5	66.0
Would most likely talk with their parent or other adult family member about their feelings	32.7	24.2
Strongly agree or agree that their teachers really care about them and give them a lot of encouragement	59	54.7
Reported that some of their classroom teachers provide short physical activity breaks during regular class time	48.5	23.1
Are alone without a parent or adult three or more hours per day on an average school day	12.3	16.9
Participate in school activities other than sports (band, drama, clubs, or student government)	51.8	44.2
Usually slept in the home of a friend, family member, or other person because they had to leave their home or their parent or guardian cannot afford housing	1.7	-

Behavior	Chatham High Schools (%)	NC High Schools (%)	US High Schools (%)
Rarely or never wore a seat belt (when riding in a car driven by someone else)	8.3	6.7	5.9
Rode with a driver who had been drinking alcohol in the past 30 days	20.4	15.4	16.5
Drove a car or other vehicle when they had been drinking alcohol in the past 30 days	7.3	5.4	5.5
Texted or e-mailed while driving a car or other vehicle in the past 30 days	41.7	38.0	39.2
Carried a weapon (such as a gun, knife, or club) in the past 30 days	18.1	18.4	15.7
Carried a weapon on school property (such as a gun, knife, or club) in the past 30 days	4.8	3.4	3.8
Carried a gun (not including for hunting or sport) in the past 12 months	7.6	6.5	4.8
Did not go to school because they felt unsafe at school or on their way to or from school in the past 30 days	8.8	10.1	6.7
Threatened or injured with a weapon on school property in the past 12 months	8.5	6.9	6.0
Were in a physical fight in the past 12 months	20.3	22.1	23.6
Were in a physical fight on school property in the past 12 months	8	7.6	8.5
Ever physically forced to have sexual intercourse	10.9	8.4	7.4
Experienced sexual violence (being forced by anyone to do sexual things) in the past 12 months	13	11.9	9.7
Experienced sexual dating violence (being forced by someone they were dating or going out with to do sexual things) in the past 12 months	7.8	6.1	6.9
Experienced physical dating violence (being physically hurt on purpose by someone they were dating or going out with) in the past 12 months	9.9	8.2	8.0
Were bullied on school property in the past 12 months	21.8	18.7	19.0
Were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media) in the past 12 months	16.2	13.9	14.9
Felt sad or hopeless almost every day for >2 weeks in a row so that they stopped doing some usual activities in the past 12 months	33.6	29.4	31.5
Seriously considered attempting suicide in the past 12 months	19.8	16.2	17.2
Made a plan about how they would attempt suicide in the past 12 months	16.7	13.8	13.6
Attempted suicide in the past 12 months	11.3	8.2	7.4
Had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse in the past 12 months	4.7	3.1	2.4
Currently smoke cigarettes (past 30 days)	13.6	12.1	8.8
Currently smoke cigarettes frequently (on 20 or more days of past 30 days)	2.5	2.1	2.6
Currently smoke cigarettes daily	2	1.6	2.0
Ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hokkah pens)	46	44.1	42.2
Currently use an electronic vapor product (past 30 days)	22.4	22.1	13.2
Had their first drink of alcohol before age 13 years (other than a few sips)	17.1	15.6	15.5
Currently drink alcohol (past 30 days)	31.8	26.5	29.8
Usually got the alcohol they drank by someone giving it to them	34.7	60.5	43.5
Currently binge drink (past 30 days)	16.4	12.4	13.5
Ever used marijuana	37.3	36.5	35.6
Had tried marijuana for the first time before age 13 years	7.7	6.6	6.8
Currently use marijuana (past 30 days)	20.8	19.3	19.8
Ever used cocaine (any form of cocaine, including powder, crack, or freebase)	8.6	5.3	4.8
Ever used inhalants (sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high)	8.6	9.2	6.2
Ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it	17	15.0	14.0
Offered, sold, or given an illegal drug on school property in past 12 months	27.2	21.9	19.8
Ever had sexual intercourse	41.2	37.7	39.5
Had sexual intercourse for the first time before age 13 years	4.1	3.9	3.4
Had sexual intercourse with four or more persons during their life	10.3	8.9	9.7
Currently sexually active (past 3 months)	31.2	25.3	28.7
Drank alcohol or used drugs before last sexual intercourse	26.5	17.7	18.8
Used a condom during last sexual intercourse	57.6	56.4	53.8
Used birth control pills before last sexual intercourse	26.7	17.3	20.7
Used an IUD or implant before last sexual intercourse	4.3	4.5	4.1
Used a shot, patch, or birth control ring before last sexual intercourse	5.4	4.9	4.7
Used birth control pills; an IUD or implant; or a shot, patch, or birth control ring before last sexual intercourse	36.4	31.7	29.4
Used both a condom and birth control pills; an IUD or implant; or a shot, patch, or birth control ring before last sexual intercourse	14	8.8	8.8
Did not use any method to prevent pregnancy during last sexual intercourse	9.9	15.1	13.8
Were classified as obese (>95th percentile for body mass index)	15.4	15.4	14.8
Were classified as overweight (>85th percentile for body mass index)	18.1	15.5	15.6
Describe themselves as slightly or very overweight	31.6	30.2	31.5
Were trying to lose weight	48.9	43.6	47.1
Did not drink fruit juice (100% fruit juices) in past 7 days	33.3	31.5	-
Did not eat fruit in past 7 days	14.2	14.0	-
Did not eat fruit or drink 100% fruit juices in past 7 days	8.2	7.3	5.6
Ate fruit or drank 100% fruit juices one or more times per day in past 7 days	58.6	57.2	60.8
Ate fruit or drank 100% fruit juices two or more times per day in past 7 days	29.8	28.4	31.3
Ate fruit or drank 100% fruit juices three or more times per day in past 7 days	17.8	17.4	18.8
Did not eat green salad in past 7 days	40.3	42.2	-
Did not eat potatoes in past 7 days	38.4	41.6	-

Did not eat carrots in past 7 days	56.3	57.2	-
Did not eat other vegetables in past 7 days	18.2	17.8	-
Did not eat vegetables (green salad, potatoes), carrots, or other vegetables in past 7 days	8.2	6.8	7.2
Ate vegetables (green salad, potatoes), carrots, or other vegetables in past 7 days	60.7	59.0	59.4
Ate vegetables two or more times per day in past 7 days	24.8	25.1	26.6
Ate vegetables three or more times per day in past 7 days	11.8	12.4	13.9
Did not drink a can, bottle, or glass of soda or pop in past 7 days	26.5	24.4	27.8
Drank a can, bottle, or glass of soda or pop one or more times per day in past 7 days	22.9	22.3	18.7
Drank a can, bottle, or glass of soda or pop two or more times per day in past 7 days	14.7	14.5	12.5
Drank a can, bottle, or glass of soda or pop three or more times per day in past 7 days	7.1	8.1	7.1
Did not eat breakfast in past 7 days	20.6	14.3	14.1
Ate breakfast on all 7 days	30.2	33.9	35.3
Were physically active at least 60 minutes per day on 5 or more days in past 7 days	40	42.3	46.5
Did not participate in at least 60 minutes of physical activity on at least 1 day in past 7 days	22.7	19.8	15.4
Were physically active at least 60 minutes per day on all 7 days	21.1	22.3	26.1
Watched television 3 or more hours per day on average school day	18.4	23.1	20.7
Played video or computer games or used a computer 3 or more hours per day on average school day	41.2	41.5	43.0
Attended physical education (PE) classes on 1 or more days in an average week	31.4	39.5	51.7
Attended physical education (PE) classes on all 5 days in an average week	24	24.5	29.9
Had a concussion from playing a sport or being physically active in past 12 months	17.4	15.4	15.1
Had ever been tested for human immunodeficiency virus (HIV)	12.2	10.8	9.3
Had ever been told by a doctor or nurse that they had asthma	24.6	24.6	22.5
Got 8 or more hours of sleep on an average school night	21.6	23.7	25.4
Described their grades in school as mostly A's or B's	79.4	76.5	-
Reported that there is gang activity in their school	19.2	27.1	-
Have seen other students being bullied in their school	48	51.0	-
Have been the victim of teasing or name calling because someone thought they were gay, lesbian, or bisexual	16.8	13.2	-
Reported liquor as the type of alcohol they usually drank	45.3	40.4	-
Reported their partners were three or more years older than themselves the last time they had sexual intercourse	10.4	5.6	-
Exercised to lose weight or to keep from gaining weight	58.3	57.9	-
Ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight	41.8	37.5	-
Drank a can, bottle, or glass of a sugar-sweetened beverage (one or more times per day)	19.3	-	-
Walk or ride their bike to school on five days	4.2	4.9	-
Consider themselves to have a disability	16.2	12.6	-
Are limited in any way in any activities because of a disability or health problem	13.6	12.1	-
Have trouble learning, remembering, or concentrating because of a disability or health problem	17.4	15.4	-
Have had sex education in school	84.8	85.4	-
Have been taught about AIDS or HIV infection in school	84.4	85.5	-
Usually talk with their parent or other adult family member when they have questions about sexually transmitted infections (STIs), HIV, AIDS, or pregnancy prevention	35.3	21.0	-
Have used a guide or list of places to find sexual health services	18.4	13.6	-
Reported their parents or other adult family talked with them about what they expect to do or not to do when it comes to sex	61.4	61.2	-
Saw a dentist for a check-up, exam, teeth cleaning, or other dental work	71.8	84.3	75.7
Never saw a dentist for a check-up, exam, teeth cleaning, or other dental work	1.2	1.6	1.5
Used an indoor tanning device	7.8	7.8	5.6
Strongly agree or agree that they feel good about themselves	63.5	68.2	-
Disagree or strongly disagree that they feel alone in their life	54.4	57.0	-
Would most likely talk with their parent or other adult family member about their feelings	19	17.8	-
Strongly agree or agree that their teachers really care about them and give them a lot of encouragement	52	54.5	-
Reported that some of their classroom teachers provide short physical activity breaks during regular class time	20.5	17.1	-
Are alone without a parent or adult three or more hours per day on an average school day	24.7	25.4	-
Usually slept in the home of a friend, family member, or other person because they had to leave their home or their parent or guardian cannot afford housing	3.6	-	-
Have ever slept away from their parents or guardians because they were kicked out, ran away, or were abandoned	7	7.1	-
Most of the time or always went hungry because there was not enough food in their home	3.1	2.3	-



**CHATHAM
HEALTH ALLIANCE**
BUILDING COMMUNITY THROUGH COLLABORATION



2018 Chatham County Community Survey

To complete the survey online, visit
www.chathamhealthalliancenc.org/survey

Para completar la encuesta en línea, visite
www.chathamhealthalliancenc.org/encuesta

SECTION 1: HOUSEHOLD

This first section of questions will focus on your household. All the opinions you share with us will be completely confidential and will be reported as a group summary. You may decline to answer any question by selecting “Prefer not to say”.

1. Including yourself, how many people of all ages live in your household more than half the year? A household includes all persons who are current residents of a house, apartment, or mobile home. Enter number in box below.

Individuals

- Don't know
 Prefer not to say

How are these people related to you? Select all that apply.

- Husband or wife
 Biological son or daughter
 Adopted son or daughter
 Stepson or stepdaughter
 Brother or sister
 Father or mother
 Grandchild
 Parent-in-law
 Son-in-law or daughter-in-law
 Other relative
 Roomer or boarder
 Housemate or roommate
 Unmarried partner
 Foster child
 Other nonrelative
 Prefer not to say

2. Are there any children under the age of 18 years currently living in your household?

- Yes
- No
- Prefer not to say

What are the ages of the children in your household? List all ages of children 0-17 years old. Enter ages in boxes below. Leave blank if you do not have any children under 18 years old in your household.

Child 1: _____years	Child 4: _____years
Child 2: _____years	Child 5: _____years
Child 3: _____years	Other: _____years

3. Are you currently caring for – (select all that apply)

- Elderly or disabled parent
- Elderly or disabled grandparent
- Disabled spouse/partner
- Disabled child
- Foster child(ren)
- Family member with chronic illness
- I am not caring for anyone who fits these descriptions
- Prefer not to say

4. Does anyone in your household, including yourself, need support to be independent in daily activities because of a – (select all that apply) *Daily activities include feeding, toileting, selecting proper attire, grooming, maintaining continence, putting on clothes, bathing, walking, and transferring (such as moving from bed to wheelchair).*

- Physical disability
- Developmental disability
- Difficulty seeing or hearing
- Mental illness
- Substance abuse or dependence
- Medical conditions
- Dementia or Alzheimer’s
- Trouble speaking, reading, or understanding English
- None of these applies to my household
- Prefer not to say

5. Is your home: (Choose one)

- Owned by you or someone in this household with a mortgage or loan (include home equity loans)
- Owned by you or someone in this household free and clear (without a mortgage or loan)
- Rented
- Occupied without payment of rent
- Don’t know
- Prefer not to say

6. What best describes your home? *Include all apartments, flats, etc, even if vacant. (Choose one)*

- A mobile home
- A one-family house detached from any other house (ex: single-family house)
- A one-family house attached to one or more houses (ex: townhouse)
- An apartment or condo
- Boat, RV, van, etc
- Prefer not to say

7. How much money do you spend per month on housing expenses at this residence? *Please include rent or mortgage payments, real estate taxes, homeowner or renter insurance, homeowner or condominium association fees, and utilities (including gas, electricity, fuel oil, trash collection, water, and sewer).*

- Less than \$250 per month
- \$250 to \$499 per month
- \$500 to \$874 per month
- \$875 to \$1249 per month
- \$1250 to \$1874 per month
- \$1875 to \$2499 per month
- \$2500 to \$3749 per month
- \$3750 or more per month
- Don't know
- Prefer not to say

8. Are you worried or concerned that in the next two months you may NOT have stable housing that you own, rent, or stay in as part of a household?

- Yes
- No
- Don't know
- Prefer not to say

9. How many cars, vans, and trucks are kept at home for use by members of your household?

- None
- One
- Two
- Three
- Four
- Five
- Six or more
- Prefer not to say

10. How do you travel to work? Select all that apply.

- Walk
- Bicycle
- Motorcycle or moped
- Car or truck
- Public transportation
- I work from home
- I do not work
- Prefer not to say

11. How do you travel to buy groceries? Select all that apply.

- Walk
- Bicycle
- Motorcycle or moped
- Car or truck
- Public transportation
- Groceries are delivered to me
- I do not buy groceries
- Prefer not to say

12. Which of the following sources of water do you drink at home? (Choose one)

- Only tap water (public or well)
- Only bottled/delivered water
- Both tap water and bottled/delivered water
- Other: Please Specify: _____
- Do not drink water at home
- Don't Know
- Prefer not to say

What is the source of tap water in your home?

- Public or private water company
- Public or private well
- Other: Please Specify: _____
- Don't know
- Prefer not to say

13. Does your household have working smoke and carbon monoxide detectors? (Choose one)

- Yes, smoke detectors only
- Yes, carbon monoxide detectors only
- Yes, both smoke detectors and carbon monoxide detectors
- No
- Don't know
- Prefer not to say

14. Does your household have a basic emergency supply kit? *These kits contain water, non-perishable food, any necessary prescriptions, first aid supplies, flashlight and batteries, blanket, etc.*

- Yes
- No
- Don't know
- Prefer not to say

15. What type of pet(s) do you have? Select all that apply.

- Cats
- Dogs
- Reptiles (snakes, lizards, turtles, etc) or amphibians (frogs, toads, salamanders, etc)
- Fish
- Rabbits, ferrets, hedgehogs, or rodents (gerbils, hamsters, guinea pigs, mice, rats, etc)
- Birds
- Other: Please Specify: _____
- I do not have any pets
- Prefer not to say

SECTION 2: COMMUNICATION

This next section of questions will focus on how you receive and share information. Again, all the opinions you share with us will be completely confidential and will be reported as a group summary.

16. Do you have access to a cellphone for personal use?

- Yes
- No
- Prefer not to say

Is it a smartphone?

- Yes
- No
- Prefer not to say

17. In a typical week, how often do you access the Internet? (Choose one)

- More than once per day
- Once per day
- 4 to 6 times per week
- 2 or 3 times per week
- Once per week
- Less than once per week
- I do not access the Internet
- Prefer not to say

18. Do you access the Internet in your home? (Choose one)

- Yes, and the quality is good
- Yes, but the quality is not good (too slow, unreliable, etc)
- No, I cannot get Internet access at my home
- No, I do not want Internet access in my home
- Prefer not to say

19. Of the following, where do you receive your local news or information? Select all that apply.

- Chatham Chatlist
- Chatham County Line
- Chatham County Magazine
- Chatham News and Record
- WNCA
- 2-1-1
- Que Pasa
- Nextdoor social network
- Chatham County news alerts (eNotifications)
- Chatham County CodeRED
- None of the above
- Prefer not to say

SECTION 3: HEALTH

This next section of questions will focus on your health.

20. In general, would you say that your physical health is:

- Excellent
- Very good
- Good
- Fair
- Poor
- Prefer not to say

21. Have you ever been told by a doctor, nurse, or other health professional that you have any of the listed health conditions?

	Yes	No	Don't Know	Prefer not to say
Arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asthma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any kind of cardiovascular or heart disease (not high blood pressure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depression or anxiety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes (not during pregnancy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High cholesterol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lung disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overweight/obesity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have been diagnosed with cancer, please list the type(s) of cancer in the box below.

22. Have you ever been diagnosed with a tick-borne illness while living in Chatham County?

- Yes
- No
- No, but I have been prescribed antibiotics as a precaution for a tick bite
- Don't know
- Prefer not to say

If yes, with what tick-borne illness(es) were you diagnosed? Select all that apply.

- Lyme Disease
- Rocky Mountain Spotted Fever
- Anaplasmosis
- STARI or Southern Tick-Associated Rash Illness
- Ehrlichiosis
- Tularemia or Rabbit Fever
- Babesiosis
- Tick-borne Relapsing Fever
- Alpha-gal
- Other: Please Specify: _____
- Don't know
- Prefer not to say

23. In the past year, did you or someone in your household find a tick on their body?

- Yes
- No
- Don't know
- Prefer not to say

**24. Do you have health insurance or some type of health plan that helps you pay medical expenses?
*Examples are Medicare, Medicaid, employer-based coverage, or private insurance.***

- Yes
- No
- Don't know
- Prefer not to say

If yes, which of the following types of health insurance do you have? Select all that apply.

- Medicare
- Medicaid or Health Choice
- Health insurance through your employer or spouse's employer
- Privately purchased insurance
- Military, Tricare, CHAMPUS, or Veterans' Administration benefits
- Covered by parent's insurance (between ages 18-26)
- University or college insurance plan
- I have insurance, but do not know the source
- Other: Please Specify: _____

If privately purchased, was your insurance purchased through the Health Insurance Marketplace or Exchange, or healthcare.gov? This is also known as the Affordable Care Act or Obamacare.

- Yes
- No
- Don't know
- Prefer not to say

25. Do you have dental insurance?

- Yes
- No
- Don't know
- Prefer not to say

26. About how long has it been since you last visited a doctor for a routine physical exam or wellness checkup? Do not include times you visited the doctor because you were sick or pregnant, or emergency room visits. (Choose one)

- Less than one year
- 1-2 years
- 3-5 years
- More than 5 years
- I have never been to the doctor for a routine checkup
- Don't know
- Prefer not to say

27. About how long has it been since you last visited a dentist for a routine checkup or cleaning? Do not include times you visited the dentist because of pain or an emergency. (Choose one)

- Less than one year
- 1-2 years
- 3-5 years
- More than 5 years
- I have never been to the dentist for a routine checkup
- Don't know
- Prefer not to say

28. Is there a health provider that you usually visit when you are sick or need advice about your health?

- Yes
- No
- Prefer not to say

About how long does it take you to travel to this health provider?

minutes

- Don't know
- Prefer not to say

Is this health provider inside Chatham County?

- Yes
- No
- Don't know
- Prefer not to say

29. In the past 12 months, did you or someone in your household have a problem getting the health care you needed from any type of health care provider, dentist, pharmacy, or other facility?

- Yes
- No
- Don't know
- Prefer not to say

If yes, what type of provider did you or someone in your household have trouble accessing? Select all that apply.

- Dentist
- General practitioner
- Eye care/optometrist/ophthalmologist
- Pharmacy/prescriptions
- Pediatrician
- OB/GYN
- Mental health provider
- Substance abuse treatment provider
- Hospital
- Urgent care center
- Specialist: Please specify: _____
- Prefer not to say

What was the problem that prevented you or someone in your household from getting the necessary health care? Select all that apply.

- Could not get through on the telephone.
- Could not get an appointment soon enough.
- Once getting there, the wait to receive care was too long.
- The office was not open convenient hours.
- Did not have transportation.
- It was too expensive.
- Did not have health insurance.
- Available doctors were not in the insurance network.
- The needed service was not covered by insurance.
- Could not speak the language well enough or an interpreter was not available.
- Did not know where to go.
- Other: Please Specify: _____
- Prefer not to say

30. Are you aware of the services offered by the following medical facilities? Select all that apply.

- Chatham Cares Pharmacy
- Chatham County Public Health Department
- Chatham Hospital
- Daymark Recovery
- El Futuro
- Piedmont Health Senior Care (PACE)
- Piedmont Health Services – Moncure
- Piedmont Health Services – Siler City
- I am not familiar with any of these
- Don't know
- Prefer not to say

SECTION 4: HEALTHY EATING/ PHYSICAL ACTIVITY

This next section of questions will focus on eating and exercise.

31. How tall (in feet and inches) are you without shoes?

ft inches

- Prefer not to say

32. How much do you weigh (in pounds) without shoes?

pounds

- Prefer not to say

33. About how many servings of fruits and vegetables do you eat each day? *One small apple, one banana, or one half cup of broccoli are all examples of a serving.*

- None
- 1-2 servings
- 3-4 servings
- 5-6 servings
- 7 or more servings
- Don't know
- Prefer not to say

34. About how many cans, bottles, or glasses of sugar-sweetened beverages, such as regular sodas, sugar-sweetened tea, or energy drinks, do you drink each day?

- None
- One
- Two
- Three
- Four or more
- Don't know
- Prefer not to say

35. Which of these statements best describes the food eaten in your household in the last 12 months? (Choose one)

- Enough of the kinds of food we want to eat
- Enough, but not always the kinds of food we want to eat
- Sometimes not enough to eat
- Often not enough to eat
- Don't know
- Prefer not to say

36. In the past month, other than your job, did you participate in any physical activities or exercise such as running, exercise classes or groups, sports, gardening, or walking for exercise?

- Yes
- No
- Prefer not to say

37. Where do you go to exercise or engage in physical activity? Select all that apply.

- Private gym or pool
- Park
- Public recreation center
- Neighborhood
- Home
- Senior center
- Other: Please Specify: _____
- Prefer not to say

38. During a typical week, do you engage in vigorous-intensity sports, fitness, or recreational activities that last at least 10 minutes? In general, if you're doing vigorous-intensity activity, it is difficult to talk.

- Yes
- No
- Prefer not to say

If yes, in a typical week, how much time do you spend doing vigorous-intensity activities? (Example: 4 hours, 30 minutes)

hours minutes

39. During a typical week, do you engage in moderate physical activity that lasts at least 10 minutes? This might include brisk walking or gardening, for example.

- Yes
- No
- Prefer not to say

If yes, in a typical week, how much time do you spend doing moderate-intensity activities? (Example: 4 hours, 30 minutes)

hours minutes

SECTION 5: BEHAVIORAL HEALTH

This next section of questions will focus on your mental health and substance use in your community.

40. In general, would you say that your mental health is:

- Excellent
- Very good
- Good
- Fair
- Poor
- Prefer not to say

41. On average, how many hours of sleep do you get in a 24-hour period?

hours

- Prefer not to say

42. How would you describe your day-to-day level of stress?

- High
- Moderate
- Low
- Prefer not to say

43. How stressful was your childhood?

- High
- Moderate
- Low
- Prefer not to say

44. Do you know where someone in your community who has experienced abuse (including physical, verbal, emotional/psychological, or sexual abuse) could go to get the help they may need?

- Yes
- No
- Prefer not to say

If yes, where would you refer that person to get the help they may need?

45. Do you know where someone in your community who may need mental health services like counseling or treatment could go to get them?

- Yes
- No
- Prefer not to say

If yes, where would you refer that person for mental health services?

46. Do you know where someone in your community who may need substance abuse services or treatment for alcohol or drug addiction could go to get them?

- Yes
- No
- Prefer not to say

If yes, where would you refer that person for substance abuse services?

47. Do you smoke cigarettes, cigars, pipes, hookah or water pipes, electronic cigarettes (e-cigarettes or vapor/vape products), or use smokeless tobacco such as chew, dip, snuff, or snus? Select all that apply.

- No
- Yes, cigarettes
- Yes, cigars
- Yes, pipes
- Yes, hookah/water pipes
- Yes, electronic cigarettes (e-cigarettes, vapor/vape products)
- Yes, smokeless tobacco (chew, dip, snuff, snus)
- Prefer not to say

If yes, do you know where you would go for help to quit?

- Yes
- No
- Prefer not to say

48. In the past 12 months, have you been exposed to secondhand smoke in Chatham County?

- Yes
- No
- Don't know
- Prefer not to say

If yes, where do you think you are exposed to secondhand smoke most often? (Select all that apply)

- Home
- Workplace
- Parks
- Restaurants or bars
- School
- Sidewalks
- Hospital
- Other: Please Specify: _____
- Prefer not to say

49. In the past 30 days, on how many days have you had at least one drink of any alcoholic beverages?

days

- Prefer not to say

50. In the past 12 months, do you have a friend or family member who has used any form of prescription drugs without a prescription, used more than prescribed, used more often than prescribed, or used for any reason other than a doctor's instructions, even one time?

- Yes
- No
- Don't know
- Prefer not to say

If yes, were the drugs prescribed for this person?

- Yes
- No
- Don't know
- Prefer not to say

If yes, were any of these prescription drugs for pain, such as codeine, Vicodin, Percocet, morphine, oxycodone, Tramadol, fentanyl, hydrocodone, or OxyContin?

- Yes
- No
- Don't know
- Prefer not to say

51. Do you have a friend or family member who has used any illicit drugs in the past 12 months, including marijuana, methamphetamines, cocaine, heroin, or ecstasy, even just one time? Select all that apply.

- No
- Yes, marijuana
- Yes, methamphetamines
- Yes, cocaine or crack
- Yes, heroin
- Yes, ecstasy
- Yes, other illicit drugs: _____
- Yes, unknown drug(s)
- Prefer not to say

52. During the past 5 years, did you have a friend or family member who wanted treatment or counseling for alcohol, drug, or tobacco use?

- Yes
- No
- Prefer not to say

If yes, for what issue did your friend or family member want treatment? Select all that apply.

- Alcohol
- Prescription drug
- Illicit drug (such as heroin, cocaine, or methamphetamines)
- Tobacco
- Prefer not to say

If yes, did this person get treatment?

- Yes
- No
- Don't know
- Prefer not to say

SECTION 6: COMMUNITY

The following questions focus on aspects of your community. Please tell us whether you “strongly agree”, “agree”, “disagree” or “strongly disagree” with each of the next few statements thinking specifically about your community as you see it.

53. People of all races, ethnicities, backgrounds, and beliefs in my community are treated fairly. Consider any form of discrimination as well as programs and institutions that treat diversity as an asset.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Don't know
- Prefer not to say

54. There are places to be physically active near my home. Consider parks, trails, neighborhood sidewalks, places to walk, playgrounds, gyms, recreation centers, etc. that are near where you live.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Don't know
- Prefer not to say

55. There are high quality K-12 schools where I live.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Don't know
- Prefer not to say

56. I have enough financial resources to meet my basic needs. Consider income for purchasing food, clothing, shelter, and utilities.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Don't know
- Prefer not to say

57. I can buy affordable healthy food near my home. Consider grocery stores, supermarkets, corner stores, and farmers markets that sell fresh fruits, vegetables, lean meats, and other healthy options.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Don't know
- Prefer not to say

58. Are you a member of any community organizations, like a community group, church or synagogue, or local professional organizations?

- Yes
- No
- Prefer not to say

59. Does your household have access to books and other reading materials?

- Yes
- No
- Prefer not to say

60. Which of the following best describes the childcare options where you live? (Choose one)

- They are affordable, but they are not high quality.
- They are affordable and high quality.
- They are not affordable, but they are high quality.
- They are not affordable and not high quality.
- Don't know
- Prefer not to say

61. Keeping in mind yourself and the people in your community, what issues have the greatest effect on health in your community? Please list three.

1.

2.

3.

62. What topics should Chatham focus on to improve quality of life in your community the most?

Please choose five issues from the list below. If you select "Other", please list the issue on the line.

- Pollution (of air, water, land)
- Dropping out of school
- Low income/poverty
- Homelessness
- Lack of/inadequate health care (including primary and specialty care)
- Lack of/inadequate mental health resources
- Lack of/inadequate services for those with intellectual and developmental disabilities
- Lack of/inadequate substance abuse treatment services (including alcohol and drug)
- Lack of affordable child care
- Recreational programs for youth
- Hopelessness
- Discrimination/racism
- Lack of community support
- Tickborne illness
- Lack of affordable or safe housing
- Lack of clean drinking water
- Alcohol abuse
- Tobacco use
- Illicit drug abuse
- Prescription drug abuse
- Unsafe sex, including STDs, teenage pregnancy
- Access to healthy and affordable foods
- Elder neglect and abuse
- Child neglect and abuse
- Domestic violence
- Violent crime (murder, assault)
- Rape/sexual assault
- Lack of exercise
- Reckless/drunken driving
- Lack of information on community services
- Entertainment and recreation opportunities for adults
- Transportation
- Other: Please specify: _____
- Don't know
- Prefer not to say

SECTION 7: DEMOGRAPHICS

We're almost finished! We just need to know a little more about who you are. Just to remind you, all the information you give us will be completely confidential. It will be reported only as a group summary.

63. What is your age?

years

Prefer not to say

64. What is your sex?

Male

Female

Other

Prefer not to say

65. How would you describe your race or ethnicity? Select all that apply.

White or Caucasian

Black or African American

Asian

American Indian or Alaskan Native

Other: Please specify: _____

Don't know

Prefer not to say

Are you of Hispanic or Latino origin?

Yes

No

Don't know

Prefer not to say

66. Which language is most often spoken in your home? (Choose one)

English

Spanish

Other: Please specify: _____

Prefer not to say

67. What is your marital status? (Choose one)

Married

Widowed

Divorced

Separated

Unmarried partner

Never married

Prefer not to say

68. What is the total number of years you have lived in Chatham County? *If you have lived in Chatham County for less than one year, please enter 0.*

years

Prefer not to say

69. What is the highest level of school that you have completed? *If you are currently enrolled, mark the previous grade or highest degree received. (Choose one)*

- No schooling completed
- Nursery school
- Kindergarten
- Grade 1 through 11: Please specify what grade: _____
- 12th grade, no diploma
- Regular high school diploma
- GED or alternative credential
- Some college credit, but less than 1 year of college credit
- 1 or more years of college credit, no degree
- Associate's degree (AA, AS, etc)
- Bachelor's degree (BA, BS, etc)
- Master's Degree (MA, MS MEng, Med, MSW, MBA, etc)
- Professional degree beyond a bachelor's degree (MD, DDS, DVM, LLB, JD, etc)
- Doctorate degree (PhD, EdD, etc)
- Prefer not to say

70. What is your employment status? Select all that apply.

- Employed full-time
- Employed part-time
- Retired
- Student
- Armed forces/military
- Self-employed
- Stay at home parent
- Unable to work due to illness or injury
- Unemployed for less than one year
- Unemployed for more than one year
- Prefer not to say

71. During the past 12 months, how many hours did you usually work each week?

hours

Prefer not to say

72. How many minutes did it usually take you to get from home to work last week?

minutes

Prefer not to say

73. What is the TOTAL income per year of all the members in your household combined? *Total income includes wages, salary, commissions, bonuses, or tips from all jobs; interest, dividends, net rental income, royalty income, or income from estates and trusts; Social Security or Railroad Retirement; Supplemental Security Income (SSI); any public assistance or welfare payments from the state or local welfare office; retirement, survivor, or disability pensions; and any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony. (Choose one)*

- Under \$10,000 per year
- \$10,000 to \$19,999 per year
- \$20,000 to \$34,999 per year
- \$35,000 to \$49,999 per year
- \$50,000 to \$74,999 per year
- \$75,000 to \$99,999 per year
- \$100,000 to \$149,999 per year
- \$150,000 to \$249,999 per year
- \$250,000 to \$499,999 per year
- \$500,000 or more per year
- Don't know
- Prefer not to say

Including yourself, how many people does this income support?

individuals

Prefer not to say

74. What question would you like to see asked in future surveys?

Appendix E: 2018 Chatham County Community Survey Results

This Appendix includes the weighted results of the 2018 Chatham County Community Survey. Responses were weighted such that each selected census block was counted equally, regardless of the number of completed surveys from that block, to account for the sampling strategy and ensure results are representative of the county population.

“Prefer not to say” and “Don’t know” responses were excluded from these calculations if they totaled fewer than 3% of all responses.

1. **Including yourself, how many people of all ages live in your household more than half the year? A household includes all persons who are current residents of a house, apartment, or mobile home.**

1	18.8%
2	42.9%
3	13.7%
4	14.4%
5	5.9%
6	2.8%
7	1.0%
8	0.2%
9	0.0%
10	0.3%

How are these people related to you? Select all that apply.

Husband or wife	63.4%
Biological son or daughter	32.5%
Adopted son or daughter	2.7%
Stepson or stepdaughter	0.5%
Brother or sister	2.8%
Father or mother	5.3%
Grandchild	3.5%
Parent-in-law	0.0%
Son-in-law or daughter-in-law	0.5%
Other relative	1.8%
Roomer or boarder	0.0%
Housemate or roommate	1.8%
Unmarried partner	3.1%
Foster child	0.0%
Other nonrelative	1.7%

2. **Are there any children under the age of 18 years currently living in your household?**

Yes	34.7%
No	65.3%

Of households with children –

What are the ages of the children in your household? List all ages of children 0-17 years old.

Under 1	3.6%
1	5.0%
2	7.1%
3	4.7%
4	6.7%
5	4.0%
6	4.9%
7	3.9%
8	4.3%
9	8.2%
10	6.5%
11	7.1%
12	6.8%
13	7.7%
14	6.1%
15	2.9%
16	4.6%
17	6.0%

3. Are you currently caring for – (select all that apply)

Elderly or disabled parent	3.9%
Elderly or disabled grandparent	0.4%
Disabled spouse/partner	1.3%
Disabled child	1.7%
Foster child(ren)	0.3%
Family member with chronic illness	1.4%
Not caring for anyone fitting descriptions	91.0%

Of those currently caring for -

Elderly or disabled parent	43.3%
Elderly or disabled grandparent	4.9%
Disabled spouse/partner	15.0%
Disabled child	18.5%
Foster child(ren)	2.9%
Family member with chronic illness	15.4%

4. Does anyone in your household, including yourself, need support to be independent in daily activities because of a – (select all that apply) *Daily activities include feeding, toileting, selecting proper attire, grooming, maintaining continence, putting on clothes, bathing, walking, and transferring (such as moving from bed to wheelchair).*

Physical disability	4.6%
Developmental disability	0.7%
Difficulty seeing or hearing	0.9%
Mental illness	0.4%
Substance abuse or dependence	0.2%
Medical conditions	2.8%
Dementia or Alzheimer's	0.9%
Trouble speaking, reading, or understanding English	0.0%
None applies	90.6%

Of households reporting support needed –

Physical disability	49.6%
Developmental disability	7.7%
Difficulty seeing or hearing	9.7%
Mental illness	4.6%
Substance abuse or dependence	1.9%
Medical conditions	30.3%
Dementia or Alzheimer's	9.2%
Trouble speaking, reading, or understanding English	0.0%

5. Is your home: (Choose one)

Owned by household with mortgage or loan	48.1%
Owned by household free and clear	34.9%
Rented	14.5%
Occupied without payment of rent	2.5%

6. What best describes your home? *Include all apartments, flats, etc, even if vacant. (Choose one)*

Mobile home	13.2%
One-family detached	79.6%
One-family attached	3.6%
Apartment or condo	3.7%
Boat, RV, van, etc	0.0%

7. How much money do you spend per month on housing expenses at this residence? *Please include rent or mortgage payments, real estate taxes, homeowner or renter insurance, homeowner or condominium association fees, and utilities (including gas, electricity, fuel oil, trash collection, water, and sewer).*

Less than \$250	4.5%
\$250-499	9.8%
\$500-874	19.3%
\$875-1249	11.3%
\$1250-1874	12.7%
\$1875-2499	10.0%
\$2500-3749	9.4%
\$3750 or more	2.3%
Don't know	10.1%
Prefer not to say	10.8%

8. Are you worried or concerned that in the next two months you may NOT have stable housing that you own, rent, or stay in as part of a household?

Yes	4.6%
No	95.4%

9. How many cars, vans, and trucks are kept at home for use by members of your household?

0	2.5%
1	20.2%
2	40.7%
3	20.2%
4	9.0%
5	4.4%
6 or more	2.9%

Median number of vehicles at home: 2

10. How do you travel to work? Select all that apply.

Walk	1.2%
Bicycle	0.0%
Motorcycle or moped	0.4%
Car or truck	52.9%
Public transportation	0.7%
I work from home	9.5%
I do not work	36.5%

Of those who work –

Walk	1.8%
Bicycle	0.0%
Motorcycle or moped	0.7%
Car or truck	83.4%
Public transportation	1.2%
I work from home	14.9%

11. How do you travel to buy groceries? Select all that apply.

Walk	1.7%
Bicycle	0.0%
Motorcycle or moped	0.0%
Car or truck	97.1%
Public transportation	0.5%
Groceries are delivered to me	0.8%
I do not buy groceries	0.6%

Of those who buy groceries –

Walk	1.7%
Bicycle	0.0%
Motorcycle or moped	0.0%
Car or truck	97.7%
Public transportation	0.5%
Groceries are delivered to me	0.8%

12. Which of the following sources of water do you drink at home? (Choose one)

Only tap water	42.9%
Only bottled/delivered water	23.0%
Both tap and bottled/delivered water	32.3%
Other	1.8%
Do not drink water at home	0.0%

What is the source of tap water in your home?

Public or private water company	43.7%
Public or private well	56.3%

13. Does your household have working smoke and carbon monoxide detectors? (Choose one)

Yes, smoke detectors only	33.3%
Yes, carbon monoxide detectors only	2.0%
Yes, both smoke and carbon monoxide detectors	59.1%
No	5.6%

14. Does your household have a basic emergency supply kit? *These kits contain water, non-perishable food, any necessary prescriptions, first aid supplies, flashlight and batteries, blanket, etc.*

Yes	50.1%
No	49.9%

15. What type of pet(s) do you have? Select all that apply.

Cats	27.9%
Dogs	48.9%
Reptiles	0.0%
Fish	4.3%
Rabbits, ferrets, hedgehogs, rodents	1.2%
Birds	2.8%
Other	5.8%
Do not have pets	33.3%

Of those who have pets -

Cats	41.8%
Dogs	73.3%
Reptiles	0.0%
Fish	6.4%
Rabbits, ferrets, hedgehogs, rodents	1.8%
Birds	4.3%
Other	8.8%

16. Do you have access to a cellphone for personal use?

Yes	97.6%
No	2.4%

Is it a smartphone?

Yes	84.2%
No	15.8%

17. In a typical week, how often do you access the Internet? (Choose one)

More than once per day	68.4%
Once per day	12.1%
4 to 6 times per week	3.9%
2 or 3 times per week	4.2%
Once per week	0.9%
Less than once per week	1.0%
I do not access the internet	9.4%

Of those who access the Internet –

More than once per day	75.5%
Once per day	13.4%
4 to 6 times per week	4.3%
2 or 3 times per week	4.6%
Once per week	1.0%
Less than once per week	1.1%

18. Do you access the Internet in your home? (Choose one)

Yes and the quality is good	58.7%
Yes but the quality is not good	28.6%
No I cannot get internet at my home	2.2%
No I do not want internet in my home	10.5%

Of those who access Internet at home –

Yes and the quality is good	67.2%
Yes but the quality is not good	32.8%

19. Of the following, where do you receive your local news or information? Select all that apply.

Chatham Chatlist	12.6%
Chatham County Line	9.5%
Chatham County Magazine	7.2%
Chatham News and Record	26.6%
WNCA	6.0%
2-1-1	6.0%
Que Pasa	1.8%
Nextdoor	6.9%
Chatham County news alerts (e-notify)	6.0%
CodeRED	4.1%
None of the above	39.0%

20. In general, would you say that your physical health is:

Excellent	14.5%
Very good	37.4%
Good	32.9%
Fair	12.0%
Poor	3.1%

21. Have you ever been told by a doctor, nurse, or other health professional that you have any of the listed health conditions?

Arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	30.5%
Asthma	11.9%
Any kind of cardiovascular or heart disease	11.8%
Cancer	12.4%
Depression or anxiety	20.1%
Diabetes (not during pregnancy)	15.5%
High blood pressure	39.7%
High cholesterol	28.2%
Lung disease	3.8%
Overweight/obesity	28.8%

22. Have you ever been diagnosed with a tick-borne illness while living in Chatham County?

Yes	8.3%
No	89.8%
No, but prescribed antibiotics as a precaution for a tick bite	1.9%

If yes, with what tick-borne illness(es) were you diagnosed? Select all that apply.

Lyme Disease	30.3%
Rocky Mountain Spotted Fever	29.9%
Anaplasmosis	0.0%
STARI	3.4%
Ehrlichiosis	22.2%
Tularemia or Rabbit Fever	0.0%
Babesiosis	0.0%
Tick-borne Relapsing Fever	0.0%
Alpha-gal	14.2%

23. In the past year, did you or someone in your household find a tick on their body?

Yes	57.8%
No	42.2%

24. Do you have health insurance or some type of health plan that helps you pay medical expenses?
Examples are Medicare, Medicaid, employer-based coverage, or private insurance.

Yes	89.3%
No	10.7%

If yes, which of the following types of health insurance do you have? Select all that apply.

Medicare	41.2%
Medicaid or Health Choice	8.7%
Health insurance through your employer or spouse's employer	47.4%
Privately purchased insurance	27.2%
Military, Tricare, CHAMPUS, or VA benefits	2.1%
Covered by parent's insurance (ages 18-26)	1.0%
University or college insurance plan	0.2%
Other	5.7%

If privately purchased, was your insurance purchased through the Health Insurance Marketplace or Exchange, or healthcare.gov? This is also known as the Affordable Care Act or Obamacare.

Yes	23.3%
No	72.5%
Don't know	4.2%

25. Do you have dental insurance?

Yes	52.1%
No	47.9%

26. About how long has it been since you last visited a doctor for a routine physical exam or wellness checkup? *Do not include times you visited the doctor because you were sick or pregnant, or emergency room visits. (Choose one)*

Less than one year	79.0%
1-2 years	14.4%
3-5 years	2.6%
More than 5 years	3.7%
Never been for routine checkup	0.3%

27. About how long has it been since you last visited a dentist for a routine checkup or cleaning? *Do not include times you visited the dentist because of pain or an emergency. (Choose one)*

Less than one year	65.2%
1-2 years	16.7%
3-5 years	7.9%
More than 5 years	9.9%
Never been for routine checkup	0.3%

28. Is there a health provider that you usually visit when you are sick or need advice about your health?

Yes	90.2%
No	9.8%

About how long does it take you to travel to this health provider?

Median: 19 minutes; Range: 3-60 minutes

Is this health provider inside Chatham County?

Yes	53.6%
No	46.4%

29. In the past 12 months, did you or someone in your household have a problem getting the health care you needed from any type of health care provider, dentist, pharmacy, or other facility?

Yes	10.2%
No	89.8%

If yes, what type of provider did you or someone in your household have trouble accessing? Select all that apply.

Dentist	33.7%
General practitioner	41.0%
Eye care/optometrist/ophthalmologist	10.3%
Pharmacy/prescriptions	13.6%
Pediatrician	2.1%
OB/GYN	5.3%
Mental health provider	10.7%
Substance abuse treatment provider	4.2%
Hospital	6.4%
Urgent care center	12.1%
Specialist	14.6%

What was the problem that prevented you or someone in your household from getting the necessary health care? Select all that apply.

Could not get through on phone	1.6%
Could not get appointment soon enough	19.2%
Once there, wait was too long	1.4%
Office not open convenient hours	10.3%
No transportation	0.0%
Too expensive	34.9%
No insurance	22.8%
Available doctors not in insurance network	6.1%
Needed service not covered by insurance	14.6%
Language barrier	0.0%
Did not know where to go	2.1%
Other	18.3%
Prefer not to say	4.7%

30. Are you aware of the services offered by the following medical facilities? Select all that apply.

Chatham Cares Pharmacy	19.7%
Chatham County Public Health Department	36.9%
Chatham Hospital	50.5%
Daymark Recovery	5.4%
El Futuro	4.5%
Piedmont Health Senior Care (PACE)	8.4%
Piedmont Health Services - Moncure	15.6%
Piedmont Health Services - Siler City	15.9%
I am not familiar with any of these	33.7%

33. About how many servings of fruits and vegetables do you eat each day? *One small apple, one banana, or one half cup of broccoli are all examples of a serving.*

None	3.4%
1-2 servings	50.5%
3-4 servings	33.0%
5-6 servings	11.0%
7 or more	2.1%

34. About how many cans, bottles, or glasses of sugar-sweetened beverages, such as regular sodas, sugar-sweetened tea, or energy drinks, do you drink each day?

None	55.4%
One	27.0%
Two	7.7%
Three	5.1%
Four or more	4.8%

35. Which of these statements best describes the food eaten in your household in the last 12 months? (Choose one)

Enough of the kinds of food we want to eat	84.0%
Enough, but not always the kinds of food we want to eat	13.5%
Sometimes not enough to eat	1.7%
Often not enough to eat	0.8%

36. In the past month, other than your job, did you participate in any physical activities or exercise such as running, exercise classes or groups, sports, gardening, or walking for exercise?

Yes	74.6%
No	25.4%

37. Where do you go to exercise or engage in physical activity? Select all that apply.

Private gym or pool	23.1%
Park	18.3%
Public recreation center	2.7%
Neighborhood	32.7%
Home	39.7%
Senior center	1.6%
Other	12.1%
Prefer not to say	3.4%

38. During a typical week, do you engage in vigorous-intensity sports, fitness, or recreational activities that last at least 10 minutes? In general, if you're doing vigorous-intensity activity, it is difficult to talk.

Yes	36.7%
No	63.3%

39. During a typical week, do you engage in moderate physical activity that lasts at least 10 minutes? This might include brisk walking or gardening, for example.

Yes	81.5%
No	18.5%

40. In general, would you say that your mental health is:

Excellent	31.6%
Very good	34.9%
Good	25.9%
Fair	6.9%
Poor	0.7%

41. On average, how many hours of sleep do you get in a 24-hour period?

Median: 7.1 hours; Range: 3-16 hours

42. How would you describe your day-to-day level of stress?

High	9.3%
Moderate	46.7%
Low	44.0%

43. How stressful was your childhood?

High	14.4%
Moderate	21.4%
Low	60.5%
Prefer not to say	3.7%

44. Do you know where someone in your community who has experienced abuse (including physical, verbal, emotional/psychological, or sexual abuse) could go to get the help they may need?

Yes	39.3%
No	60.7%

45. Do you know where someone in your community who may need mental health services like counseling or treatment could go to get them?

Yes	39.5%
No	60.5%

46. Do you know where someone in your community who may need substance abuse services or treatment for alcohol or drug addiction could go to get them?

Yes	29.0%
No	71.0%

47. Do you smoke cigarettes, cigars, pipes, hookah or water pipes, electronic cigarettes (e-cigarettes or vapor/vape products), or use smokeless tobacco such as chew, dip, snuff, or snus? Select all that apply.

No	81.8%
Yes, cigarettes	13.9%
Yes, cigars	1.0%
Yes, pipes	0.0%
Yes, hookah/water pipes	0.0%
Yes, electronic cigarettes	1.3%
Yes, smokeless tobacco	1.9%

Of those reporting tobacco use –

Cigarettes	76.5%
Cigars	5.6%
Pipes	0.0%
Hookah/water pipes	0.0%
Electronic cigarettes	7.3%
Smokeless tobacco	10.6%

If yes, do you know where you would go for help to quit?

Yes	74.9%
No	25.1%

48. In the past 12 months, have you been exposed to secondhand smoke in Chatham County?

Yes	36.7%
No	63.3%

If yes, where do you think you are exposed to secondhand smoke most often? (Select all that apply)

Home	32.6%
Workplace	12.5%
Parks	6.3%
Restaurants or bars	15.4%
School	0.6%
Sidewalks	24.5%
Hospital	0.6%
Other	21.6%

49. In the past 30 days, on how many days have you had at least one drink of any alcoholic beverages?

Percent who did not drink alcohol in the past 30 days: 46.9%

Of those who had at least one drink of any alcoholic beverages in the past 30 days –

Median number of days had at least one drink: 8 days; Range: 1-30 days

Mean number of days had at least one drink: 12.6 days; Range: 1-30 days

1	7.3%
2	14.1%
3	4.7%
4	6.6%
5	7.3%
6	4.3%
7	2.4%
8	4.3%
10	4.8%
12	3.1%
14	0.7%
15	8.0%
18	0.4%
20	8.3%
24	0.7%
25	3.6%
27	1.1%
28	2.1%
29	1.3%
30	14.8%

50. In the past 12 months, do you have a friend or family member who has used any form of prescription drugs without a prescription, used more than prescribed, used more often than prescribed, or used for any reason other than a doctor’s instructions, even one time?

Yes	5.9%
No	94.1%

If yes, were the drugs prescribed for this person?

Yes	29.9%
No	62.2%
Don't know	7.8%

If yes, were any of these prescription drugs for pain, such as codeine, Vicodin, Percocet, morphine, oxycodone, Tramadol, fentanyl, hydrocodone, or OxyContin?

Yes	74.7%
No	18.5%
Don't know	6.8%

51. Do you have a friend or family member who has used any illicit drugs in the past 12 months, including marijuana, methamphetamines, cocaine, heroin, or ecstasy, even just one time? Select all that apply.

No	75.9%
Yes, marijuana	20.0%
Yes, methamphetamines	2.3%
Yes, cocaine or crack	1.8%
Yes, heroin	1.7%
Yes, ecstasy	0.0%
Yes, other	1.2%
Yes, unknown	2.2%

Of those reporting illicit drug use by a friend or family member –

Marijuana	83.3%
Methamphetamines	9.6%
Cocaine or crack	7.4%
Heroin	7.1%
Ecstasy	0.0%
Other	5.0%
Unknown	9.1%

52. During the past 5 years, did you have a friend or family member who wanted treatment or counseling for alcohol, drug, or tobacco use?

Yes	14.2%
No	85.8%

If yes, for what issue did your friend or family member want treatment? Select all that apply.

Alcohol	44.5%
Prescription drug	18.3%
Illicit drug	27.9%
Tobacco	18.6%
Prefer not to say	4.1%

If yes, did this person get treatment?

Yes	76.5%
No	13.2%
Don't know	10.3%

53. People of all races, ethnicities, backgrounds, and beliefs in my community are treated fairly. *Consider any form of discrimination as well as programs and institutions that treat diversity as an asset.*

Strongly agree	14.0%
Agree	37.4%
Neutral	13.8%
Disagree	21.1%
Strongly disagree	5.7%
Don't know	8.0%

Strongly agree/agree	51.4%
Neutral	13.8%
Strongly disagree/disagree	26.8%
Don't know	8.0%

54. There are places to be physically active near my home. *Consider parks, trails, neighborhood sidewalks, places to walk, playgrounds, gyms, recreation centers, etc. that are near where you live.*

Strongly agree	34.5%
Agree	48.7%
Neutral	3.7%
Disagree	9.8%
Strongly disagree	3.3%

Strongly agree/agree	83.2%
Neutral	3.7%
Strongly disagree/disagree	13.1%

55. There are high quality K-12 schools where I live.

Strongly agree	15.1%
Agree	41.3%
Neutral	12.2%
Disagree	5.2%
Strongly disagree	2.2%
Don't know	24.1%

Strongly agree/agree	56.4%
Neutral	12.2%
Strongly disagree/disagree	7.4%
Don't know	24.1%

56. I have enough financial resources to meet my basic needs. *Consider income for purchasing food, clothing, shelter, and utilities.*

Strongly agree	40.7%
Agree	47.2%
Neutral	5.6%
Disagree	3.9%
Strongly disagree	2.5%

Strongly agree/agree	88.0%
Neutral	5.6%
Strongly disagree/disagree	6.4%

57. I can buy affordable healthy food near my home. *Consider grocery stores, supermarkets, corner stores, and farmers markets that sell fresh fruits, vegetables, lean meats, and other healthy options.*

Strongly agree	39.4%
Agree	50.0%
Neutral	6.0%
Disagree	3.4%
Strongly disagree	1.3%

Strongly agree/agree	89.4%
Neutral	6.0%
Strongly disagree/disagree	4.6%

58. Are you a member of any community organizations, like a community group, church or synagogue, or local professional organizations?

Yes	59.7%
No	40.3%

59. Does your household have access to books and other reading materials?

Yes	96.4%
No	3.6%

60. Which of the following best describes the childcare options where you live? (Choose one)

Affordable, but not high quality	1.4%
Affordable and high quality	10.7%
Not affordable, but high quality	7.6%
Not affordable and not high quality	2.4%
Don't know	77.9%

Of those responding to childcare question –

Affordable	54.6%
Not affordable	45.4%

High quality	83.0%
Not high quality	17.0%

61. Keeping in mind yourself and the people in your community, what issues have the greatest effect on health in your community? Please list three.

1. Healthcare (Access, Cost, Quality)	12.2%
2. Physical Activity (Including Access)	10.5%
3. Healthy Eating (Including Access)	9.5%
4. Water Quality (Including Sewer)	7.0%
5. Poverty	4.8%
6. Illicit Drug Use	4.2%
7. Environment General/Climate Change (including air)	3.7%
8. Transportation (Including Public)	3.6%
9. Pollution (Including Litter)	3.1%
10. Aging/Services for Seniors	3.0%

63. What is your age?

Median: 56 years; **Range:** 19-92 years

18-24 years	3.8%
25-34 years	8.0%
35-44	13.9%
45-54	17.2%
55-64	19.8%
65-74	23.0%
75-84	12.1%
85+	2.3%

64. What is your sex?

Male	40.2%
Female	58.9%
Other	0.3%
Prefer not to say	0.5%

65. How would you describe your race or ethnicity? Select all that apply.

White or Caucasian	76.6%
Black or African American	13.9%
Asian	0.6%
American Indian or Alaskan Native	0.4%
Other	5.5%
Prefer not to say	2.9%

Are you of Hispanic or Latino origin?

No	88.2%
Yes	10.1%
Don't know	0.5%
Prefer not to say	1.2%

66. Which language is most often spoken in your home? (Choose one)

English	92.9%
Spanish	5.6%
Other	1.4%

67. What is your marital status? (Choose one)

Married	61.8%
Widowed	10.1%
Divorced	10.5%
Separated	1.5%
Unmarried partner	3.6%
Never married	11.3%
Prefer not to say	1.1%

68. What is the total number of years you have lived in Chatham County? *If you have lived in Chatham County for less than one year, please enter 0.*

Median: 24 years; Range: 0-85 years

69. What is the highest level of school that you have completed? *If you are currently enrolled, mark the previous grade or highest degree received. (Choose one)*

No schooling	0.5%
Nursery school	0.0%
Kindergarten	0.3%
Grade 1-11	7.7%
12th grade, no diploma	2.8%
Regular high school diploma	16.5%
GED or alternative credential	3.7%
Some college credit, but less than 1 year	5.6%
1 or more years college credit, no degree	10.1%
Associate's	9.9%
Bachelor's	23.5%
Master's	10.0%
Professional degree beyond bachelor's	3.7%
Doctorate	4.6%
Prefer not to say	1.0%

70. What is your employment status? Select all that apply.

Employed full-time	33.6%
Employed part-time	11.5%
Retired	36.9%
Student	1.0%
Armed forces/military	0.0%
Self-employed	9.1%
Stay at home parent	6.3%
Unable to work due to illness or injury	4.8%
Unemployed for less than one year	1.7%
Unemployed for more than one year	2.0%
Prefer not to say	0.5%

71. During the past 12 months, how many hours did you usually work each week?

Of those who worked –

Median: 40 hours; **Mean:** 37 hours; **Range:** 1-70 hours

72. How many minutes did it usually take you to get from home to work last week?

Of those who worked -

Median: 23 minutes; **Mean:** 27 minutes; **Range:** 0-225 minutes

73. What is the TOTAL income per year of all the members in your household combined? Total income includes wages, salary, commissions, bonuses, or tips from all jobs; interest, dividends, net rental income, royalty income, or income from estates and trusts; Social Security or Railroad Retirement; Supplemental Security Income (SSI); any public assistance or welfare payments from the state or local welfare office; retirement, survivor, or disability pensions; and any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony. (Choose one)

Under \$10,000	1.8%
\$10,001-19,999	5.5%
\$20,000-34,999	9.9%
\$35,000-49,999	8.8%
\$50,000-74,999	10.9%
\$75,000-99,999	8.1%
\$100,000-149,999	10.6%
\$150,000-249,999	7.6%
\$250,000-499,999	2.6%
\$500,000 or more	0.3%
Don't know	8.7%
Prefer not to say	25.1%

Including yourself, how many people does this income support?

Median: 2.7 people; **Range:** 0-10 people

Appendix F: 2018 Chatham County Community Survey Results - East/West

While the previous appendix includes responses from the CCCS for the entire county, it is important to note that sub-county geographic differences can be present in the data throughout the assessment. The new approach to the CA allowed for data to be broken down to compare the eastern and western halves of the county, with the dividing line being State Hwy 87 N/US Hwy 501. Approximately an equal number of responses were received from each side of the county in this survey. This appendix includes data from the CCCS with statistically significant differences in responses between the eastern and western halves of the county. A statistically significant result is a difference that has a low probability of being due to chance, less than 5% in this context. This appendix only contains results that are statistically significant between east and west Chatham, so it is not comprehensive of all CCCS questions or question responses. If a CCCS question or response is not included in this appendix, no statistically significant difference was noted in responses between respondents from the eastern and western portions of the county. The complete CCCS results can be found in Appendix E.

		East	West
4. Reason support needed for daily living activities	Medical conditions	1.0%	5.3%
	None applies	94.0%	85.7%
5. Home ownership	Owned by household with mortgage or loan	52.4%	39.5%
	Rented	7.9%	22.4%
12. Home drinking water source	Only bottled/delivered water	17.8%	29.7%
13. Smoke and carbon monoxide detectors	Yes, smoke detectors only	26.9%	40.8%
	Yes, both smoke and carbon monoxide detectors	66.2%	48.1%
17. Weekly internet access frequency	More than once per day	75.8%	57.3%
	I do not access the internet	4.5%	15.6%
18. Home internet access	Yes, and the quality is good	68.2%	44.2%
	No, I do not want internet in my home	3.6%	19.2%
19. Local news/information source	Chatham News and Record	19.4%	35.3%
	WNCA	1.9%	11.3%
	Que Pasa	0.5%	3.5%
20. Self-described health status	Excellent	20.0%	7.0%
	Very good	41.4%	31.2%
	Good	28.5%	38.1%
	Fair	8.2%	16.8%
	Poor	0.5%	6.3%
	Prefer not to say	1.3%	0.6%
24. Type of health insurance	Health insurance through your employer or spouse's employer	46.9%	34.1%
27. Time since last routine dental checkup	Less than one year	70.8%	55.3%
	More than five years	4.3%	16.8%
28. PCP in Chatham	Yes	45.0%	64.8%

29. Problem that prevented healthcare access	Too expensive	17.7%	49.2%
*Of those who reported trouble accessing healthcare			
30. Aware of services offered by medical facility	Chatham Cares Pharmacy	8.6%	34.2%
	Chatham County Public Health Department	26.6%	50.2%
	Chatham Hospital	31.9%	74.6%
	Daymark Recovery	2.3%	9.4%
	Piedmont Health Services - Siler City	7.1%	27.4%
	I am not familiar with any of these	48.1%	14.2%
36. Physical activity outside job in past month	Yes	83.3%	61.7%
37. Location of exercise	Private gym or pool	30.5%	13.2%
38. Vigorous physical activity in typical week	Yes	44.9%	24.6%
	No	54.6%	73.6%
39. Moderate physical activity in typical week	Yes	87.6%	71.6%
	No	11.9%	27.2%
40. Self-described mental health status	Excellent	34.7%	26.5%
	Very good	40.6%	26.5%
	Good	17.3%	36.4%
	Fair	6.8%	6.8%
	Poor	-	1.5%
	Prefer not to say	0.5%	2.4%
51. Illicit drug use in past year	Yes, marijuana	24.3%	13.7%
	Yes, cocaine or crack	0.4%	3.6%
	Yes, unknown	0.8%	4.0%
54. Places to be physically active near home	Strongly agree	48.2%	14.5%
	Agree	39.3%	58.6%
	Neutral	3.3%	0.8%
	Disagree	7.3%	8.3%
	Strongly disagree	-	3.4%
	Don't know	0.7%	0.0%
	Prefer not to say	1.1%	0.0%
56. Have enough financial resources to meet basic needs	Strongly agree	51.0%	25.7%
	Agree	40.0%	55.1%
	Neutral	2.8%	9.1%
	Disagree	2.6%	5.5%
	Strongly disagree	2.1%	3.0%
	Prefer not to say	1.5%	1.7%
57. Can buy affordable healthy food near home	Strongly agree	51.4%	22.4%
	Agree	38.1%	64.6%
	Neutral	6.1%	5.6%
	Disagree	2.6%	4.3%
	Strongly disagree	0.8%	1.9%
	Prefer not to say	1.1%	1.1%

59. Household has access to books/reading materials	Yes	98.3%	92.6%
62. What topics should Chatham focus on to improve quality of life	Pollution (of air, water, land)	27.0%	15.2%
	Homelessness	18.6%	9.8%
	Entertainment and recreation opportunities for adults	10.3%	27.2%
65. Race	Other	3.9%	10.4%
65. Hispanic	Yes	6.0%	15.4%
67. Marital status	Married	69.6%	51.6%
	Widowed	3.1%	14.0%
	Divorced	3.7%	13.6%
	Separated	-	3.4%
	Unmarried partner	2.4%	5.2%
	Never married	11.6%	11.0%
	Prefer not to say	1.1%	1.2%
68. Number of years in Chatham		19.0	31.7
69. Level of education	Bachelor's degree or higher	57.3%	21.6%
73. Household income	Under \$10,000	0.5%	3.4%
	\$10,001-19,999	3.2%	8.5%
	\$20,000-34,999	6.6%	14.4%
	\$35,000-49,999	8.6%	9.1%
	\$50,000-74,999	8.6%	13.9%
	\$75,000-99,999	8.1%	8.2%
	\$100,000-149,999	15.8%	3.9%
	\$150,000-249,999	9.7%	4.8%
	\$250,000-499,999	4.2%	0.5%
	\$500,000 or more	0.5%	-
	Don't know	7.5%	10.3%
Prefer not to say	26.6%	23.1%	

Appendix G: 2018 Community Assessment Focus Group Guide

Opening

Thank you for taking the time to meet with us for this discussion group. We recognize that your time is valuable and we appreciate your participation today. My name is _____ and I am from _____. I am here today with _____ from _____. We are working in partnership with the Chatham Health Alliance, Chatham County Health Department and Chatham Hospital – these agencies and community members are interested in learning about the health of Chatham County residents.

The information we gather here will be summarized and shared with the community and made available to agencies within the county. A copy of the report will be sent to the state office of the Department of Health and Human Services. We will also share this with the community through local libraries, agencies, and the health department website at www.chathamnc.org/publichealth. If you would like to receive a copy of the executive summary by e-mail, please put your name and address on the sign-up sheet (note taker pass around sign-up sheet).

Confidentiality

While we talk today, I want you to feel free to share your opinions even if they are different from the opinions of others. There are no right or wrong answers. I am here to help facilitate the discussion and listen to what you have to say. (NOTETAKER'S NAME) _____ will be taking notes. If there are no objections, we will be recording this discussion to make sure we do not miss any comments. Please try and speak up so the recorder can pick up your answer. After this discussion, we will listen to the recording and write down all of the responses, then we will erase/destroy the recording. Since this is a group discussion, you do not have to wait for me to call on you to speak. Anything we say here is confidential. I ask that when you all leave today that you remember to respect others' privacy and not share any information outside of this discussion. We will talk for about 1 hour to 1 ½ hours.

You are here because you voluntarily agree to participate in this group discussion. However, if for any reason you feel uncomfortable and do not want to continue in the discussion, you are free to withdraw at any time. This will not affect in any way the services you receive in the future from Chatham County or any other agency.

Again, no names will be attached to the information that we collect. All of this information can be found on the half sheet located at your seat. Is this OK with everyone?

(DO NOT CONTINUE UNTIL EVERYONE AGREES OR DISMISSES THEMSELVES. ONCE YOU ARE READY TO BEGIN, TURN ON THE RECORDER).

Opening

Let's start with introductions.

1. One at a time, please introduce yourselves, using your first name only, and tell us where you live in Chatham County and how long you've lived there.

Community-Focused Questions

For the next couple questions, we will be talking about your community.

2. What do you consider to be your community in Chatham County?
 - a. County? Town? A particular neighborhood or other geographical area? A group?
 - b. Imagine someone was going to join your community, how would you describe your community to them?

3. What do you think are the strengths or good things about your community?
 - a. Neighbors? Housing? Recreation activities? Transportation? Employment? Schools? Community services? Access to resources? Faith-organizations?
4. What are your concerns about your community?
 - a. Neighbors? Housing? Recreation activities? Transportation? Employment? Schools? Community services? Access to resources?
5. If you needed help for some reason, where would you turn to for help in your community?
 - a. For different types of help? Legal? Health/Mental Health? Financial?
 - b. What people would you turn to?
 - c. What community organizations would you turn to?
6. What resources or activities would you like to see in your community that are not here now?
 - a. Neighbors? Housing? Recreation activities? Transportation? Employment? Schools? Community services? Access to resources?
 - b. What are some the obstacles you see for new projects in your community?
7. How does your community connect with other communities?
8. Do you think all races and ethnicities are treated fairly in your community?

Health

For the rest of today's discussion we will be talking about people's health here in Chatham County.

9. Since we will be talking about health, what does being healthy mean to you personally?
 - a. Physically? Mentally?
10. Another way to think about health is looking at the health of a community, not individuals. To you, what would a healthy community look like?
11. What do you think the major health issues in your community are?

Begin to use flip chart to identify major issues

12. What are the major causes of health issues in your community?
13. What would you suggest as a solution to the issues that we have discussed today?
14. Are there groups of people within your community whose health issues seem to be overlooked, or whose health needs are not met?
 - a. Who? Older Adults? Men? Women? Minority Groups? People who live in rural areas?
 - b. In what ways?
 - c. Why do you think that might be?

Closing

15. Of all the issues we have talked about today, what issues do you think are the most important for your community to address?

Use stickers to identify major issues recorded earlier

16. Thinking about the conversations we've had today about your community and health, is there anything that we have not asked or that you would like to add?
 - a. Is there anything that we can do to make this focus group experience better?

Thank you so much for your participation today, sharing your knowledge and experiences here will help local agencies to understand the priorities of the community members and recognize areas of growth throughout the county. Again, once we finish with collecting and analyzing information from the assessment, it will be made available to the public.

Appendix H: 2018 Focus Group Key Themes

Chatham County has some unique cultural factors influenced by its diverse body of residents and the agricultural nature of the area as well as its geographic proximity to some of the most prominent urban areas in the state. Residents share an appreciation for the sense of familiarity that comes from living in a small-town environment and benefit from some of the ripple effects associated with the progressive political and economic ideology of their neighboring counties.

In the qualitative research, residents had some shared views concerning the overall strengths and weaknesses of the county. From the perspective of those engaged in the focus groups, what makes Chatham strong is the internal bond of communities and strong ties to long-standing organizations such as churches. It was repeatedly expressed that the value of Chatham lies in its sense of comradery, southern hospitality, and amount of green space. The feeling that there is an inherent kindness in those who live in the communities can be viewed as a protective factor. Community members and neighbors are considered an active resource here.

Diving deeper into this as an identified strength, it was found that the relationships intensified based on the self-identification of communities. For example, participants who live in the town of Silk Hope identified this as their community, while participants in Community Conversations identify with people outside of geographic boundaries and inside of commonalities such as racial/ethnic identity and religious denomination. In some ways, these relationships created insulated identities that can isolate the group from feeling connected to the entire county.

Interestingly, when identifying key themes of concern for residents, all participating groups mentioned several weaknesses almost identically: the need for an improved public transportation system, lack of economic resources, and a need for more activities to engage both youth and adults. Many participants expressed a desire for better paying jobs and mentioned this as a necessary advancement to retain residents through adulthood. Breaking down these themes by group provides more insight into the importance of addressing these concerns. Older adults are invested in aging in place, and their views on transportation are rooted in the need for access as they continue to progress in age and may not be able to independently transport themselves. This also influences concern for social engagement locally to reduce isolation and the associated negative health outcomes.

Residents of Chatham share many commonalities and are invested in the overall well-being of their communities. It has been important throughout the assessment process to capture the voice of residents in the most detailed and accurate way possible. The greatest takeaway is that while the key themes shed light on different aspects of the county, the perspectives at the root of these themes must be acknowledged and highlight the diverse approaches that will need to be taken moving forward with applying the information gained.

Appendix I: Community Assessment Findings Presentation



**2018 Chatham County
Community Assessment
Prioritization Meeting**

Our vision is an **active, thriving community for all**
- a Chatham where residents of all races, religions, ethnicities,
sexual orientations, and/or gender identities achieve optimal health

October 2nd, 2018

Partners and Sponsors



Endorsers

- 15-501 Pharmacy & Carolina Convenient Care
- Central Carolina Community College
- Chatham Chamber of Commerce
- Chatham County Board of Commissioners
- Chatham County Department of Social Services
- Chatham Education Foundation
- Chatham Reads
- Communities in Schools of Chatham County
- Daymark Recovery Services
- Piedmont Health Services
- Pittsboro Discount Drug & Urgent Care
- Safe Kids Chatham County
- Siler City Development Organization, Inc.
- Town of Siler City
- Tick-Borne Infections Council of North Carolina (TIC-NC)
- UNC Center for Excellence in Community Mental Health

Volunteers & Contributors

- Community Cohort Scientific Advisory Committee
- Survey Development Working Group
- Focus Group Working Group
- Prioritization Planning Working Group
- Chatham County Board of Health
- Survey field volunteers



Presentation Overview

- Process and background
- Summary of data sources
- Description of each issue



Prioritization Process

1. Review data on each issue
2. Briefly ask questions about the data
3. Individually vote top 3 issues based on first round considerations
4. Using votes, narrow list to top 10
5. Briefly discuss/review top 10 issues as a group
6. Individually vote top 3 issues based on second round considerations
7. Tally votes and select top 3 issues priority issues

Voting Considerations

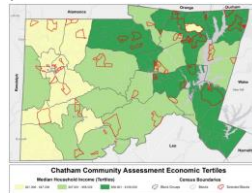
- **First Round:**
 - How many people are affected by this issue, and how severely are they affected?
 - Will this issue impact existing disparities within the community?
- **Second Round:**
 - Is this something the Alliance can change through work at the local level?
 - Does the Alliance have the resources and capacity to adequately address this issue?
 - Funding, time constraints, expertise
 - Is the community aware of this issue, and will they support the Alliance's work around it?

Summary of Data

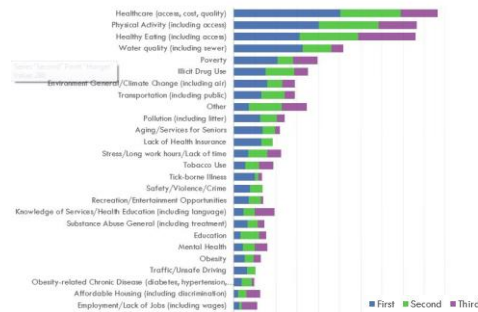
- **Primary**
 - 2018 Chatham County Community Survey
 - Focus groups
 - Community conversations
 - Key informant interviews
- **Secondary**
 - 2017 Youth Risk Behavior Survey (YRBS)
 - Chatham County Comprehensive Plan
 - Chatham Aging Plan
 - Local, state, and national sources

2018 Community Survey

- Resident perspectives on issues in their communities
- Innovative cohort approach, representative of county population
- 366 households – 83% response rate
 - Census blocks stratified by income
 - 21 blocks selected in each tertile
 - 7 households randomly selected in each identified block



Top Community Survey Health Issues



Top Issues to Improve Quality of Life

1. Low income/poverty
2. Recreation programs for youth
3. Pollution
4. Illicit drug abuse
5. Transportation
6. Entertainment and recreation opportunities for adults
7. Lack of/inadequate healthcare
8. Lack of affordable or safe housing
- 9a. Lack of information on community services
- 9b. Access to healthy and affordable foods

Focus Groups

- Bonlee/Bear Creek
- Boys and Girls Club of Siler City youth
- Central Carolina Community College
- Chatham County Community Library
- Child care providers
- Coal Ash Coalition in Moncure
- Daycare parents
- Ferrington Village
- Goldston
- Healthcare providers
- Local Intraagency Coordinating Council
- Roca Fuerte
- Roca Fuerte youth
- Silk Hope
- YMCA Pittsboro

Key Focus Group Themes

- Affordable housing
- Substandard housing
- Lack of jobs for residents
- Livable wage
- Geographic disconnect
- Hunger
- Poverty
- Lack of diversity in leadership
- Increase access to healthcare services in rural areas
- Aging in place
- New development
- Isolation
- Faith and family values
- Internet
- Obesity
- Tobacco

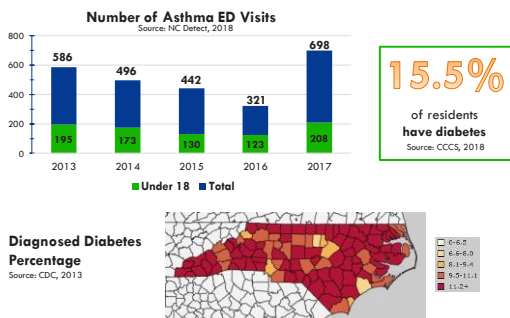
Secondary Data Sources

- 2017 Youth Risk Behavior Survey (YRBS)
- US Census
- American Community Survey
- NC LINC (Log Into North Carolina)
- NC State Center for Health Statistics (SCHS)
- NC Department of Commerce
- NC Health Information Portal
- CCPHD data
- NC Institute of Medicine (NCIOM)
- CCPHD Healthy Food Vendor Report
- Centers for Disease Control and Prevention (CDC)
- County Health Rankings
- UNC School of Social Work, Child Welfare
- US HUD (Housing and Urban Development)
- NC Homeless Education Program
- NC Detect
- ChathamGIS.com
- Chatham County Schools
- NC DHHS
- Feeding America
- Communitycommons.org
- NC Department of Instruction
- NC Electronic Disease Surveillance System
- Chatham County Comprehensive Plan
- Chatham County Aging Plan 2018-2023
- NC Child
- Building Integrated Communities Report
- 2018 Chatham County Community Survey
- US News and World Report

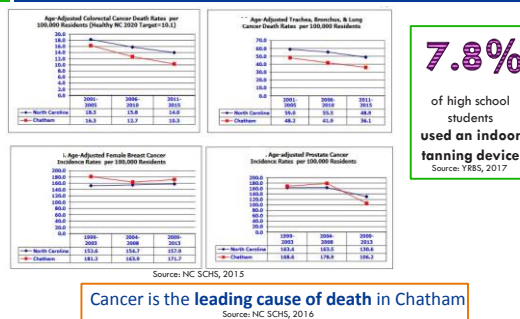
PRIORITIZATION TOPICS

Chronic Disease

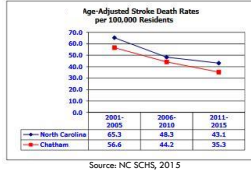
Asthma & Diabetes



Cancer



Cerebrovascular Disease & Heart Disease

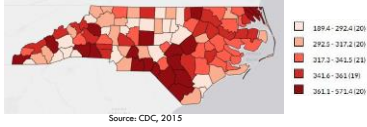


11.8%

of residents have ever been told they have heart disease

Source: CCCS, 2018

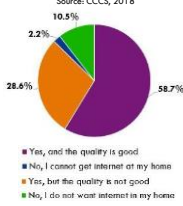
Heart Disease Death Rate Per 100,000



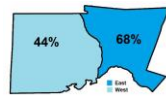
Community Cohesion

Communication/Internet

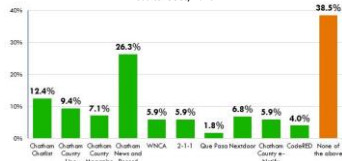
Home Internet Access



Residents with Quality Internet Access



Local News/Information Source



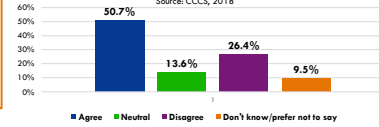
Discrimination/Racism

Race/Ethnicity	% in Poverty	Infant Mortality Rate (per 1,000)	Life Expectancy
White	11.6%	9.8	83.8
African-American	22.6%	26.7	78
Hispanic	32.2%	22.6	-

Source: ACS, 2016; NC SCHS, 2016

"Latinos are underrepresented in elected and appointed leadership positions, as well as staff positions."
—Building Integrated Communities Report

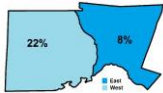
People of All Races/Ethnicities/Backgrounds/ Beliefs are Treated Fairly in my Community



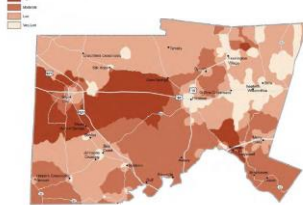
"We live in America; people of color are not treated fairly here."
- Ferrington Village Focus Group

Geographic Divide

Renter Occupied Households



Public Health Priority Areas

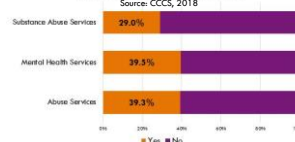


Households Needing Support for Independent Daily Living



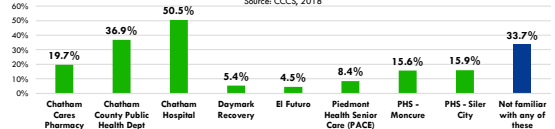
Knowledge of Services

Awareness of Community Resources



"Resources are limited, and people are not aware of them."
- CCCS Community Key Informant

Awareness of Medical Facility Services



Recreation/Entertainment Opportunities

Residents thought the county should focus on recreation and entertainment opportunities to improve quality of life in Chatham

Zero

movie theaters
and bowling
alleys
in Chatham

"Most kids grow up and go onto college and they try to move on."
— Child Care Providers Focus Group

Social Isolation & Civic Participation/Volunteerism

59.7%

of residents belong to a
community organization
Source: CCCS, 2018

"Once people cannot drive their car anymore, it is hard to get around. Whether it is for medical visits or grocery shopping. Isolation and loneliness is the result." – Chatham County Aging Plan

79%

of residents
vote
Source: US News, 2016

Economic Growth & Development

Built Environment

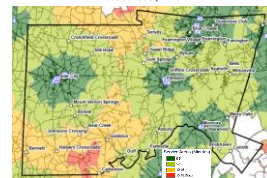
86.4%

of residents agree there are places
to be physically active near home
Source: CCCS, 2018

Access to Recreational Space
Source: CCCS, 2017



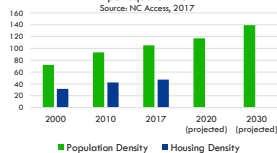
Access to Healthy Food Stores
Source: CCCS, 2017



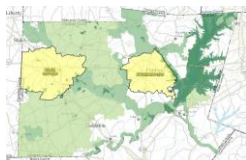
Development/Rural Preservation

"Pittsboro expanding is concerning. The idea of it maintaining its small town feel, like you know your neighbors, I wonder if that's going to be preserved."
— CCCS Community Key Informant

Population and Housing Density
per square mile
Source: NC Access, 2017



Parks & Protected Areas, Conservation Easements, and Agriculture
Source: ChathamGIS, 2018



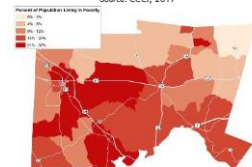
Poverty

6.8%

of residents
do not have
enough financial
resources to meet
their basic needs
Source: CCCS, 2018

Low income/poverty was the **top** issue residents thought the county should focus on to improve quality of life and residents rated Poverty as the **#5** issue affecting health in the county

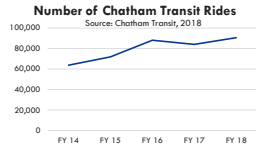
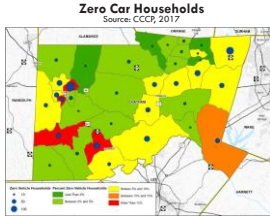
Population Living Below Poverty Level
Source: CCCS, 2017



"A lot of times seniors are buying their medicine and they're not buying their food; they eat very little." – Child Care Providers Focus Group

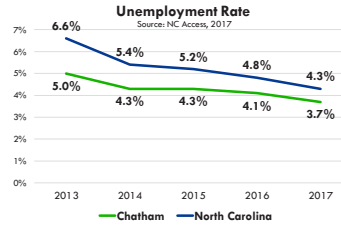
Transportation

Transportation was the fifth highest issue residents wanted Chatham to address to improve quality of life



"Once people cannot drive their car anymore, it is hard to get around. Whether it is for medical visits or grocery shopping. Isolation and loneliness is the result." – Chatham County Aging Plan

Unemployment

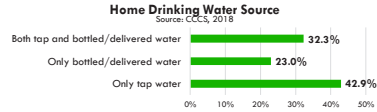


27 min
average travel time to work
Source: CCCS, 2018

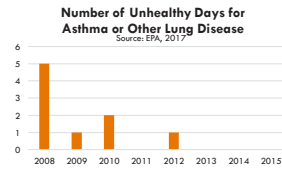
"Chatham County is becoming a bedroom community for people who work outside the county." – Library Focus Group

Environment

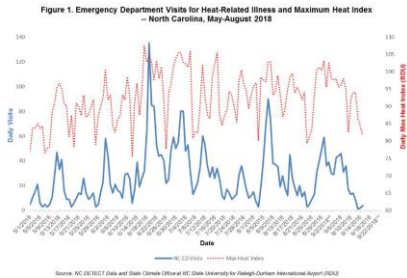
Air Quality & Water Quality



Residents rated Water Quality as the #4 issue affecting health in the county



Extreme Heat



Pollution

Coal ash stored in Chatham County needs closer monitoring, says new report
News and Observer Headline, July 9, 2018

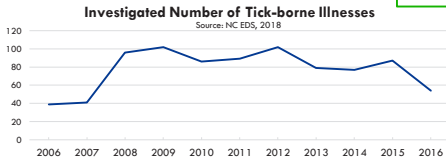


Pollution was the third biggest issues residents wanted the county to focus on to improve quality of life

Tick-borne Illness

8.3% were diagnosed with a tick-borne illness while living in Chatham
Source: CCCS, 2018

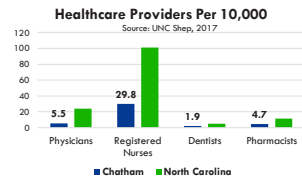
57.8% found a tick on their body in the past year
Source: CCCS, 2018



Healthcare

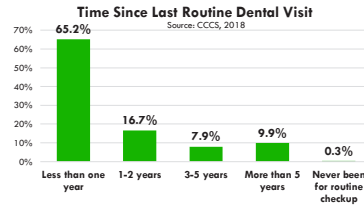
Access to Healthcare

10.2% of survey respondents had a problem getting the health care they needed in the past year
Source: CCCS, 2018



Residents rated Access to Healthcare as the #1 issue affecting health in the county

Dental Care



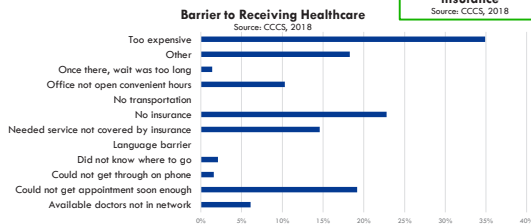
52.1% of survey respondents have dental insurance
Source: CCCS, 2018

10% of kindergarten aged children who participated in the NC Kindergarten Oral Health Assessment had one or more dental caries
Source: NC DHHS, 2017

Uninsured/Underinsured Population

"You have to sacrifice the time you'd be working for school, at which point I'm not insured. I'm no longer working full-time, and I don't qualify for Medicaid." – CCCS Community Key Informant

89.3% of residents have health insurance
Source: CCCS, 2018



Healthy Living

Hunger/Food Insecurity

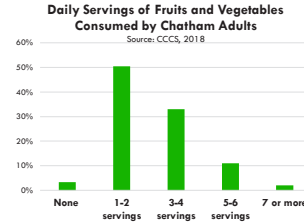
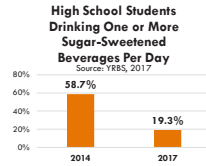
10.9%
of Chatham residents are **food insecure**
Source: Feeding America, 2015

18.7%
of Chatham children are **food insecure**
Source: Feeding America, 2015

"I took care of some children who always asked for more food. They told me they never got seconds at home because Mom always had to have enough for Dad's lunch the next day." – Child Care Providers Focus Group

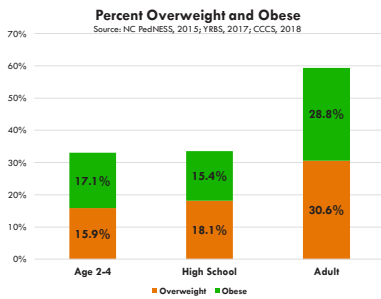
Nutrition/Healthy Eating

"It's a struggle to maintain your health. Time and convenience... the thing that's most convenient is fast food." – CCCC Community Key Informant



Residents rated **Healthy Eating** as the **#3** issue affecting health in the county

Obesity



27.2
average BMI
Source: CCCS, 2018

Physical Inactivity

115 min
time engaged in **moderate physical activity** in a typical week
Source: CCCS, 2018

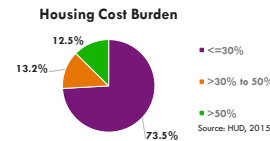
60 min
time engaged in **vigorous physical activity** in a typical week
Source: CCCS, 2018

Residents rated **Physical Activity** as the **#2** issue affecting health in the county

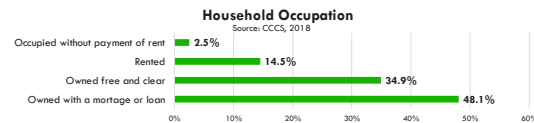
Housing

Affordable Housing & Fair Housing

"There's not a lot of affordable places to live." – Child Care Providers Focus Group



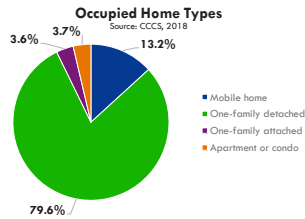
4.6%
of residents are **concerned about housing stability** in the next two months
Source: CCCS, 2018



Homelessness & Housing Quality

"I went to housing and said, 'look, my kids and I are sleeping in my car.' They said we don't offer emergency assistance, so we can't do nothing to help you."
 — Daycare Parents Focus Group

111
 number of households that do not have complete plumbing facilities
 Source: ACS, 2016



BREAK



Access to Mental Health Services & IDD Services

58 Chatham residents are on the Registry of Unmet Needs for IDD services Source: Cardinal Innovations, 2018



1.34
 psychologists per 10,000 residents compared to North Carolina average of 10
 Source: UNC, Shep, 2017

39.5%
 of residents know where to access mental health services
 Source: CCCS, 2018

Mental Health

ACEs & Depression/Anxiety

Prevalence of ACE Score among North Carolina Adults - 2012
 Source: UoR, 2018



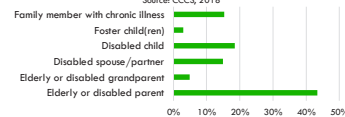
15%
 of residents had a stressful childhood
 Source: CCCS, 2018

33.6%
 of high school students felt sad or hopeless
 Source: YRBS, 2017



Caregiver Services

Type of Caregiver Services Currently Provided in Chatham Households
 Source: CCCS, 2018

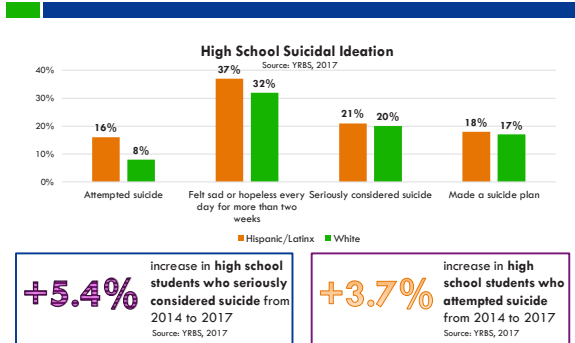


"I am a family caregiver, but I have a lot of help and adequate income. My life would be very hard otherwise." - Chatham County Aging Plan

Reason Support Needed for Daily Activities
 Source: CCCS, 2018



Suicide



Personal Development & Growth

Childcare & Parenting Services

83% of residents think Chatham childcare is high quality
Source: CCCS, 2018

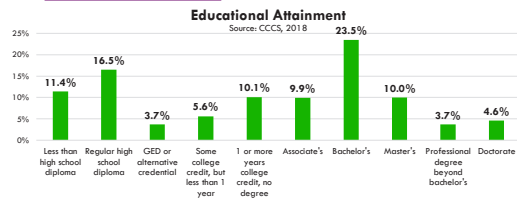
54.6% of residents think Chatham childcare is affordable
Source: CCCS, 2018

"If you don't have a support system, you can get worn down."
— Child Care Providers Focus Group

Education & Literacy

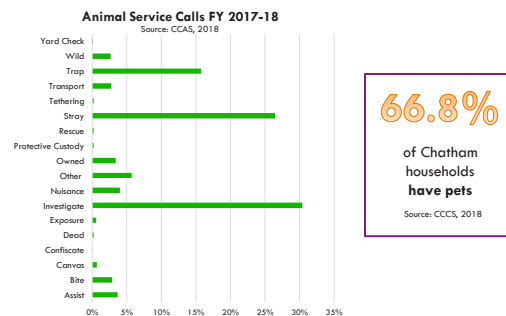
72.3% of Spanish speaking households have access to reading materials at home
Source: CCCS, 2018

97.8% of English speaking households have access to reading materials at home
Source: CCCS, 2018

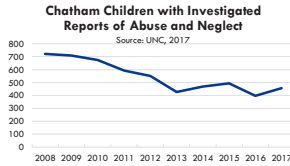


Safety

Animal Abuse



Child Welfare



7%

Percentage of high school students who have ever slept away from their parents or guardians because they were kicked out, ran away, or abandoned (10.9% of LatinX)
Source: YRBS, 2017

Performance on Child and Family Services Review Measures

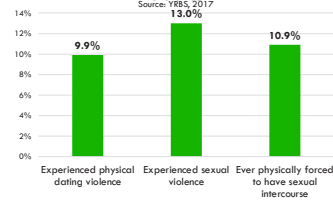
Source: UNC, 2017

Type	Chatham	Small Counties	North Carolina
Recurrence of Maltreatment	0.0%	8.3%	7.5%
Maltreatment in Foster Care	0.0%	0.0%	0.1%
Reunited within 12 Months	50.0%	56.1%	52.9%
Reentry into Foster Care within 12 Months	4.8%	3.8%	4.8%
Adoption within 24 Months	12.5%	39.3%	31.9%
Placement Stability (2 or fewer placements)	97.6%	88.8%	87.2%
Children Age 12 and Under Placed in Group Homes/Institutional Settings	5.2%	8.9%	7.1%

Domestic and Sexual Violence

High School Student Domestic and Sexual Violence

Source: YRBS, 2017



317

number of days the women's shelter was full in 2015
Source: NCDA, 2015

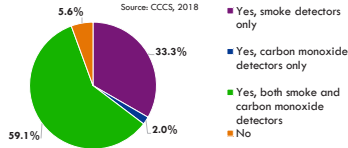
Client Type	Number of Clients	Percent Female
Domestic Violence	427	94.1%
Sexual Assault	45	97.8%

Source: NCDA, 2015

Emergency Preparedness

Have Smoke or Carbon Monoxide Detectors in Home

Source: CCCS, 2018



50.1%

of households have an emergency supply kit
Source: CCCS, 2018

Hurricane Florence Shelters

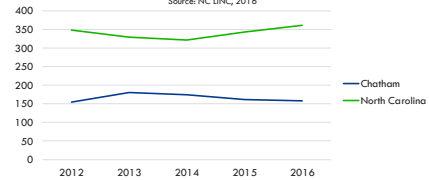
Source: CDEM, 2018

Location	Number of Evacuees
Chatham Middle School	65
Northwood High School	56

Firearm Safety & Violent Crime

Violent Crime Rate Per 100,000

Source: NC LINC, 2016



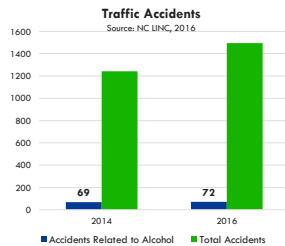
7.6%

of high schoolers carried a gun
Source: YRBS, 2017

18.1%

of high schoolers carried a weapon
Source: YRBS, 2017

Reckless/Drunk Driving & Traffic Accidents



20.4%

of high school students have ridden with a driver who had been drinking alcohol
Source: YRBS, 2017

41.7%

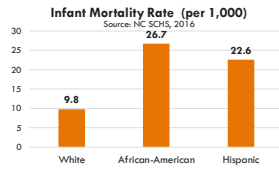
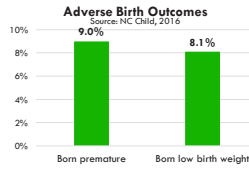
of high school students have texted or emailed while driving
Source: YRBS, 2017

Sexual Health

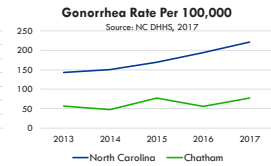
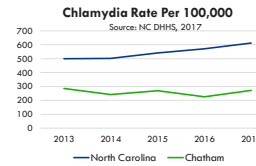
Prenatal Care/Birthing

71.6%
of births receive early prenatal care
Source: NC Child, 2016

4.1%
of births receive very late or no prenatal care
Source: NC Child, 2016



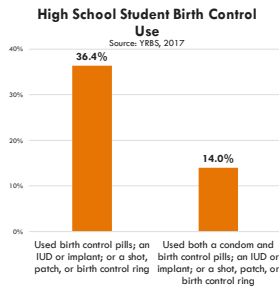
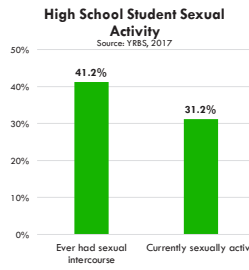
STIs



10.3%
of high school students had sexual intercourse with **four or more persons** during their life
Source: YRBS, 2017

57.6%
of high school students **used a condom** during their last sexual intercourse
Source: YRBS, 2017

Unintended Pregnancy

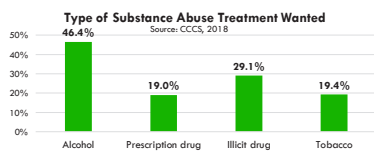


Substance Use

Access to Substance Use Treatment

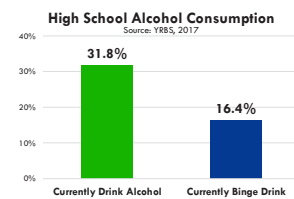
14.2%
of residents **wanted substance abuse treatment** in the past five years
Source: CCCS, 2018

85.3%
of residents wanting treatment **got the treatment** they sought
Source: CCCS, 2018



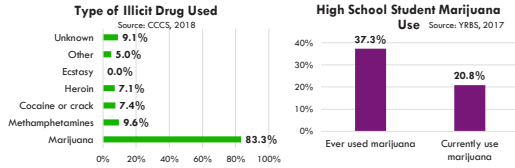
Alcohol Abuse

8
median number of days per month respondents had **at least one alcoholic beverage**
Source: CCCS, 2018



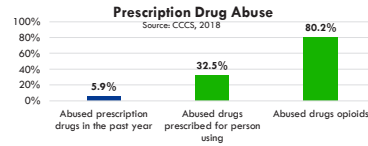
Illicit Drug Use

Illicit drug use was the fourth highest issue residents wanted Chatham to address to improve quality of life

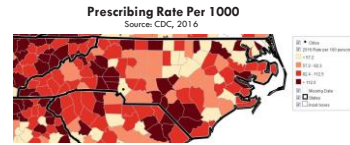


25.2% of residents report a friend or family member has used illicit drugs in the past year Source: CCCS, 2018

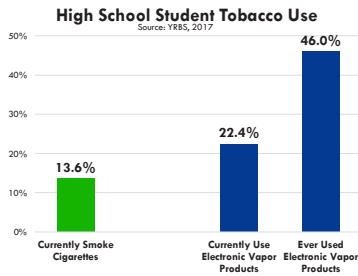
Prescription Drug/Opioid Abuse



17% of high school students ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it Source: YRBS, 2017



Tobacco Use



18.2% of adults use tobacco Source: CCCS, 2018

EXPLORE THE DATA

VOTING – ROUND ONE

- How many people are affected by this issue, and how severely are they affected?
- Will this issue impact existing disparities within the community?

<https://tinyurl.com/Chatham18>

- Access to Healthcare
- Access to Mental Health Services
- Access to Substance Use Treatment
- ACEs
- Affordable Housing
- Air Quality
- Alcohol Abuse
- Animal Abuse
- Asthma
- Built Environment
- Cancer
- Caregiver Services
- Cerebrovascular Disease
- Childcare
- Child Welfare
- Civic Participation/Volunteerism
- Communication/Internet
- Dental Care
- Depression/Anxiety
- Diabetes
- Discrimination/Racism
- Domestic & Sexual Violence
- Education
- Elder Welfare
- Emergency Preparedness
- Extreme Heat
- Fair Housing
- Firearm Safety
- Geographic Divide
- Heart Disease
- Homelessness
- Housing Quality
- Hunger/Food Insecurity
- IDD Services
- Illicit Drug Use
- Knowledge of Services
- Literacy
- Nutrition/Healthy Eating
- Obesity
- Parenting Services
- Physical Inactivity
- Pollution
- Poverty
- Prenatal Care/Birthing
- Prescription Drug/Opioid Abuse
- Reckless/Drunk Driving
- Recreation/Entertainment Opportunities
- Rural Preservation
- Social Isolation
- STIs
- Suicide
- Tick-borne Illness
- Tobacco Use
- Traffic Accidents
- Transportation
- Unemployment
- Uninsured/Underinsured Population
- Unintended Pregnancy
- Violent Crime
- Water Quality

LUNCH

Top 10 Issues

Rank	Issue	1 st Place Votes	2 nd Place Votes	3 rd Place Votes	Total Score
1	Access to Healthcare	15	13	5	760
2	Poverty	15	7	0	590
3	Access to Mental Health Services	6	9	4	400
4	Affordable Housing	5	5	11	360
5	Hunger/Food Insecurity	3	6	3	240
6	Obesity	4	6	0	240
7	Domestic and Sexual Violence	3	3	4	190
8	Depression/Anxiety	3	3	2	170
9	Physical Inactivity (incl. access to parks, trails, sidewalks)	5	1	0	170
10	Transportation	2	3	3	150

DISCUSSION AND VOTING

- ❑ Is this something the Alliance can change through work at the local level?
- ❑ Does the Alliance have the resources and capacity to adequately address this issue?
 - Funding, time constraints, expertise
- ❑ Is the community aware of this issue, and will they support the Alliance's work around it?

<https://tinyurl.com/Chatham1>

2018 Priorities

Rank	Issue	1 st Place Votes	2 nd Place Votes	3 rd Place Votes	Total Score
1	Access to Comprehensive Health Services	37	14	9	1480
2	Poverty	17	13	11	880
3	Obesity and Physical Inactivity	9	16	9	680

Next Steps

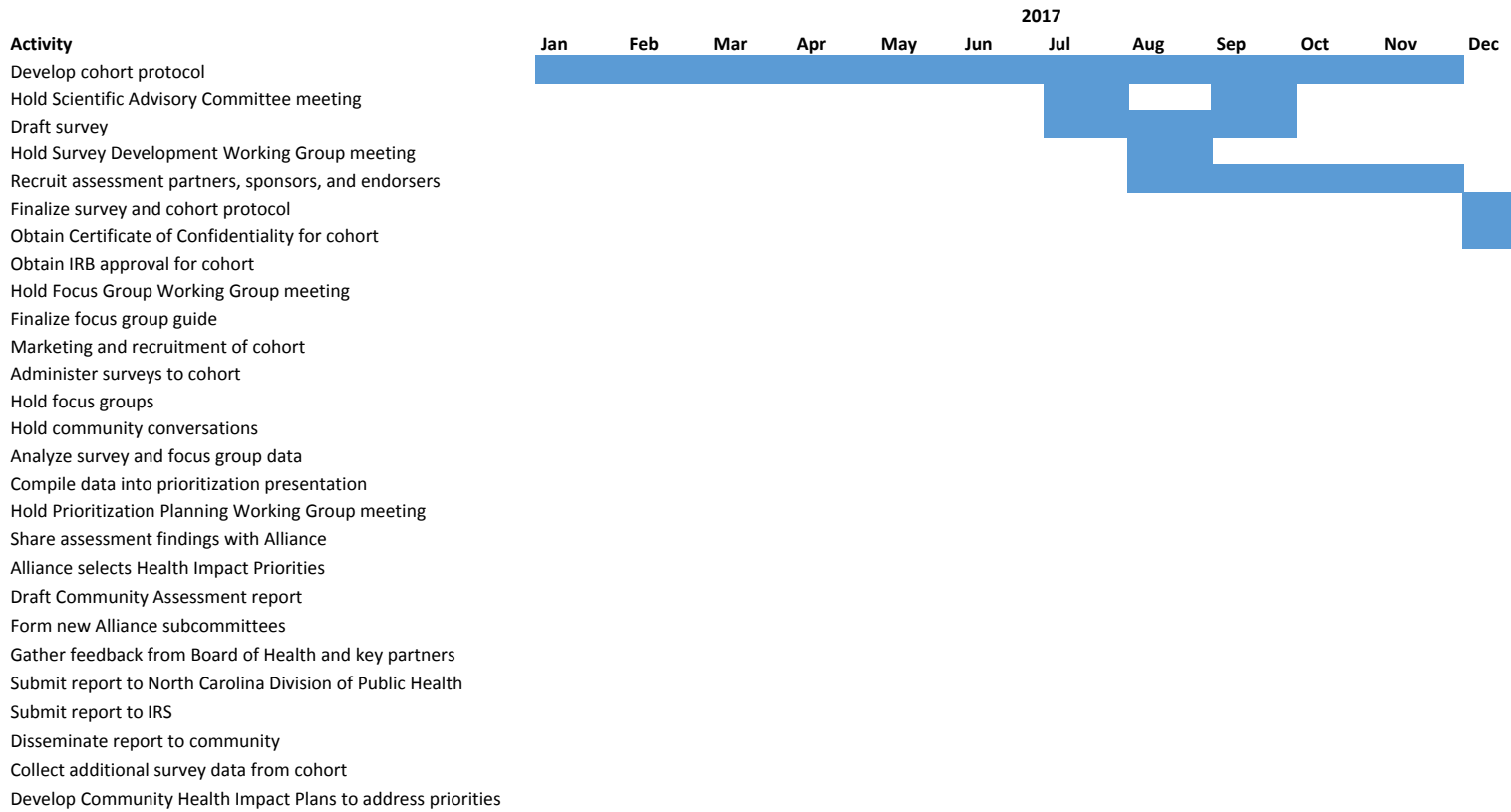
- ❑ Compile findings into report
- ❑ Share results with public and government officials
- ❑ Submit report to state
- ❑ Create Action Plans to address issues
- ❑ Continue to meet as an Alliance
- ❑ Work together to create an active, thriving Chatham for all

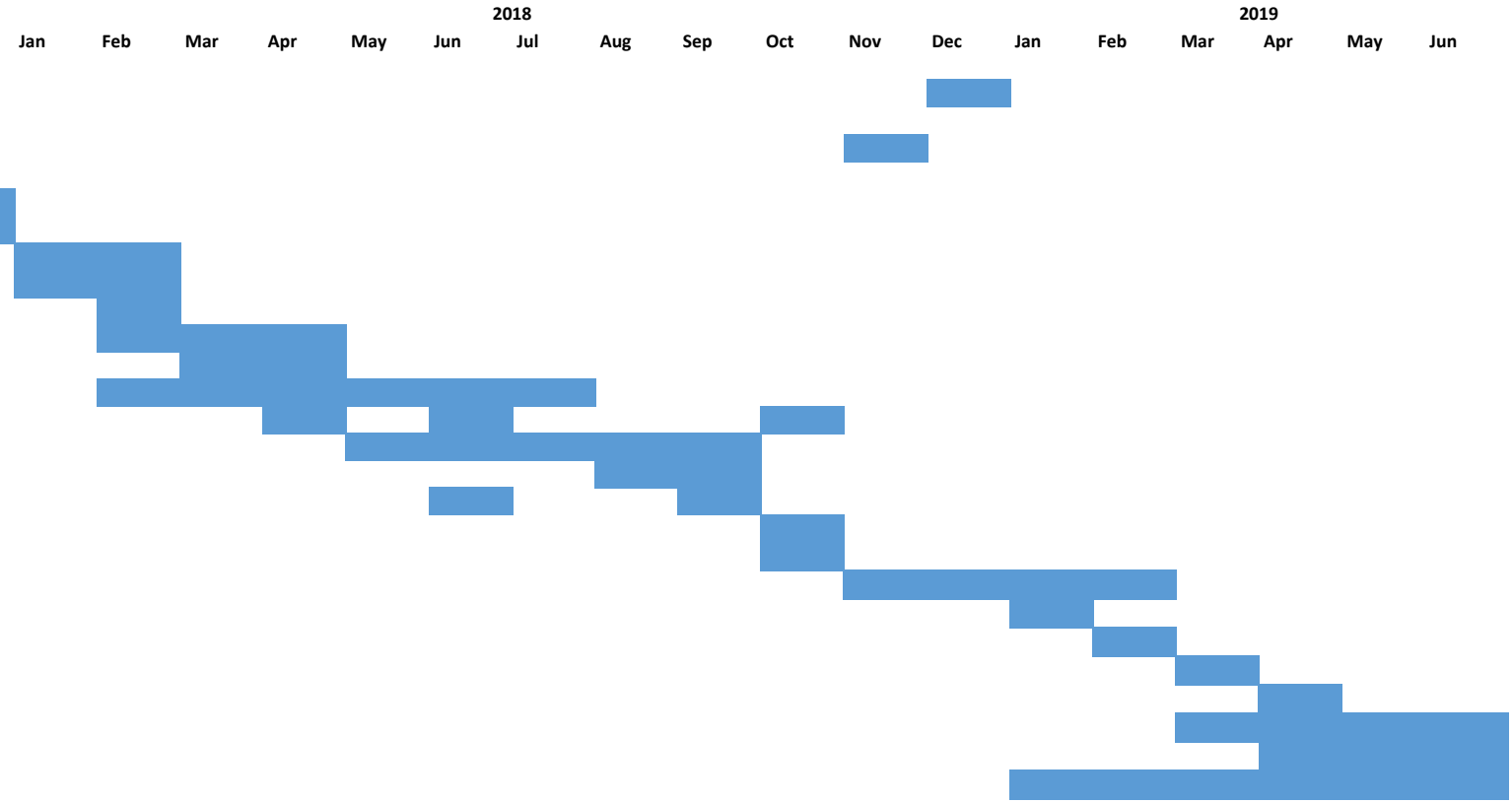


THANK YOU

www.ChathamHealthAllianceNC.org

Appendix J: Community Assessment Timeline





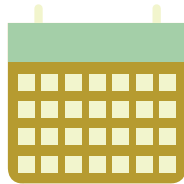


ACCESS TO HEALTHCARE · ACCESS TO MENTAL HEALTH SERVICES

Mental health and physical health are fundamentally linked. Poor mental health is a risk factor for chronic physical conditions, and people with serious mental health conditions are at high risk of experiencing chronic physical conditions. Conversely, people with chronic physical conditions are at risk of developing poor mental health.

Access to Healthcare

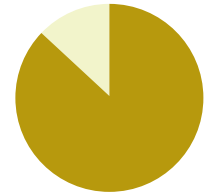
Access to quality and affordable healthcare is important to both physical and mental health. Major barriers to accessing healthcare include lack of available services or providers, cost, transportation, and communication.



79% of Chatham residents have been to the doctor in the last year¹

1111:1

Ratio of population to primary care physicians³



89.3% of Chatham residents have health insurance²

90.2%

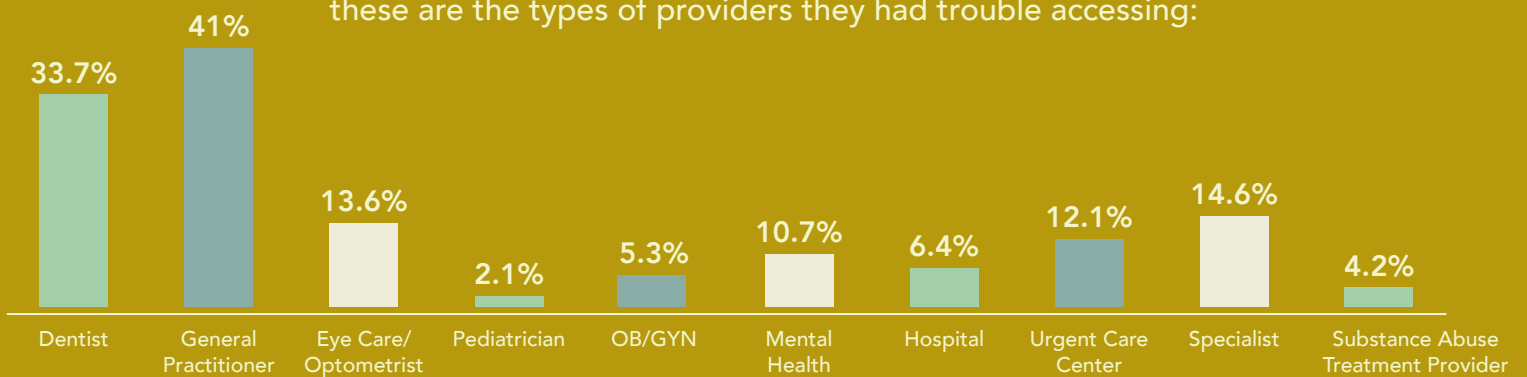
of Chatham residents have a regular health care provider, but only 53.6% of residents' regular health providers are in Chatham County¹



19 Minutes

Average travel time to regular health provider¹

10.2% of Chatham residents have had problems accessing healthcare in the last 12 months; these are the types of providers they had trouble accessing:



Many barriers exist to accessing mental health services, including services not covered by insurance, lack of insurance, prohibitive costs, transportation, as well as concerns about stigma.

Access to Mental Health

1.34

Psychologists per 10,000 residents³
(Lower than the NC average of 10)

39.5%

Awareness of Mental Health Services¹



NUTRITION/HEALTHY EATING · OBESITY · PHYSICAL INACTIVITY

Good nutrition and exercise are important parts of leading a healthy lifestyle. A balanced diet, complete with fruits, vegetables, whole grains, lean protein, and healthy fats, and physical activity support achieving and maintaining a healthy weight, reduce risk of chronic diseases (like heart disease and cancer), and promote overall health.¹

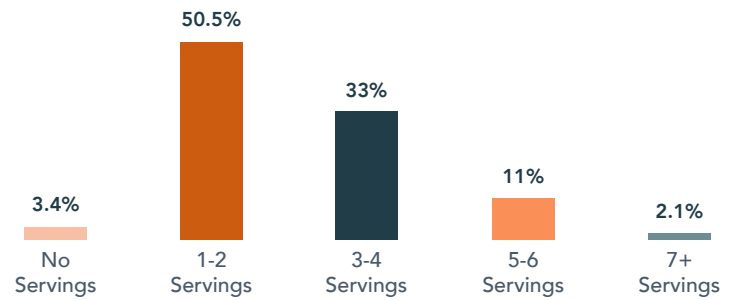
Nutrition/ Healthy Eating

For a healthy diet, the CDC recommends moderate amounts of fruits and vegetables, total grains, dairy, protein, and oils. People should limit their intake of added sugars, sodium, and saturated fats.

19.3% of high school students drink a sugar-sweetened beverage every day⁴

Sugar-sweetened beverages (SSBs) are leading sources of added sugars in the American diet. Frequently drinking SSBs is associated with weight gain/obesity, type 2 diabetes, heart disease, kidney diseases, non-alcoholic liver disease, tooth decay and cavities, and gout, a type of arthritis. Limiting the intake of SSBs can help individuals maintain a healthy weight and have a healthy diet.

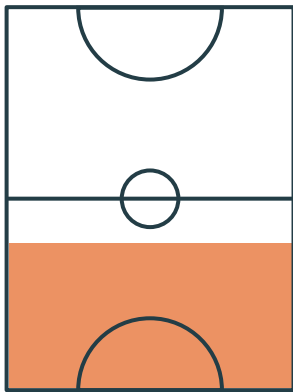
Daily Servings of Fruits/Veggies³



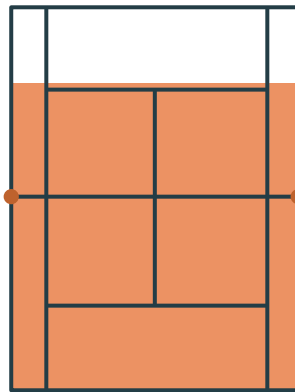
The CDC recommends 150 minutes of moderate physical activity or 75 minutes of vigorous physical activity per week, or a combination of moderate and vigorous exercise.

Physical Inactivity

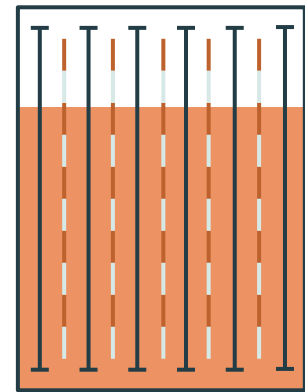
Chatham County Residents' Physical Activity Habits



36.7% engaged in vigorous physical activity in a typical week³



81.5% engaged in moderate physical activity in a typical week³



74.6% engaged in leisure physical activity in the past month³

Obesity

Obesity rates in Chatham and across the country have increased over time in all age groups, from young children to adults.

Overweight and obesity are determined by an individual's BMI, which is a measure of body fat based on height and weight.

27.2
Average BMI³



18.1% of Chatham County high school students are overweight and an additional **15.4%** are obese⁴



30.6% of Chatham County adults are overweight and an additional **28.8%** are obese³



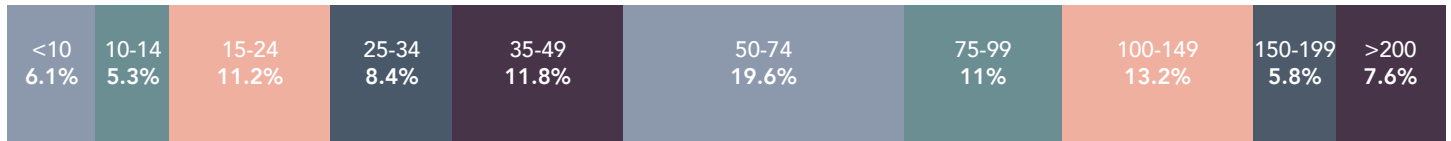
Chatham Health Alliance

Priority Topic: POVERTY

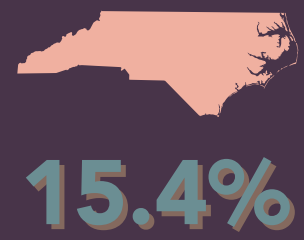
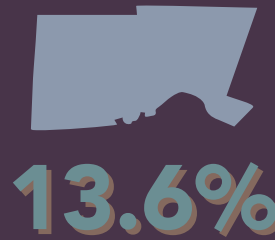
Poverty

Poverty is often linked to poor health outcomes. Other factors such as young or old age or disability status can worsen these outcomes.

Household Income in Chatham County (In Thousands)¹



Percentage of Chatham County and North Carolina residents living below the poverty level



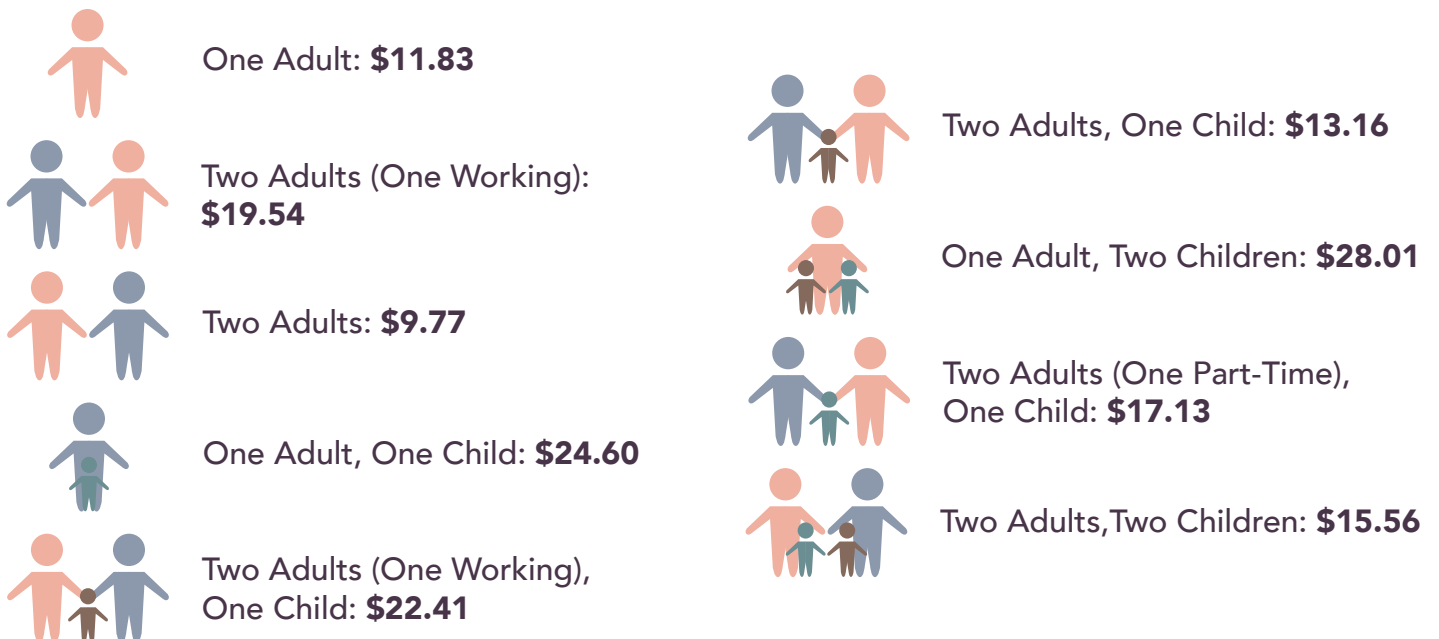
The concept of a living wage refers to the amount of money an individual needs to make to support themselves and/or their family in their specific community.

Affordability

When businesses pay their workers a living wage, it can ensure the population will have the financial resources to not live paycheck to paycheck and afford basic necessities such as food, housing, and clothing. Chatham County living wages for various household compositions are listed below.

\$7.25

Current NC Minimum Wage³



1. US Census Data, 2016, 2. Chatham County Community Survey, 2018, 3. MIT Living Wage, 2018



AFFORDABLE HOUSING · HOMELESSNESS · HOUSING QUALITY · HUNGER

Basic necessities are essential to health and well-being. Access to affordable housing allows income to be spent on other household expenses, including healthy food.



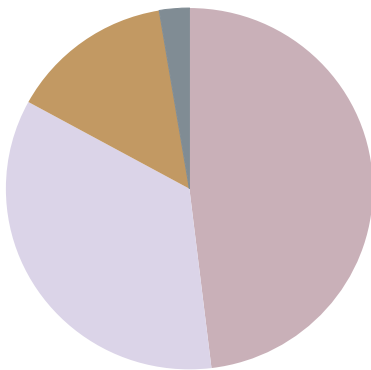
Affordable Housing

One quarter of households in Chatham County spend more than 30% of their income on housing, and nearly half of those households spend more than 50% of their income on housing.

83%

Chatham Homeownership Rate¹

Types of Home Occupation¹



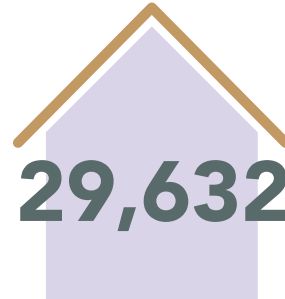
- 48.1% Own home with mortgage or loan
- 34.9% Own home free and clear
- 14.5% Rent
- 2.5% Occupy without payment of rent

\$808

Median Gross Monthly Rent⁵

\$243,900

Median Property Value⁵

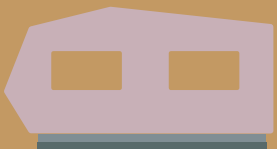


The number of housing units in Chatham County²

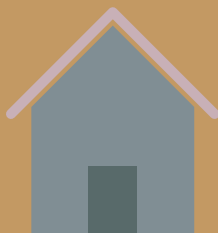
1 in 4

The number of households that spend more than 30% of income on housing¹

Types of Chatham County Homes¹



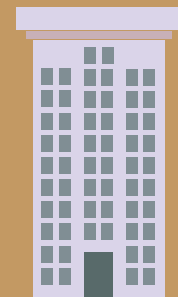
13.2% - Mobile Home



79.6% - One-family Detached



3.6% - One-family Attached



3.7% - Apartment or Condo



Chatham Health Alliance

Topic: BASIC NECESSITIES

Housing Quality

15% of households in Chatham County had at least one of the four following severe housing problems: incomplete kitchen facilities, incomplete plumbing facilities, more than 1.5 persons per room, or cost burden greater than 50%.



The number of households in Chatham County that do not have complete plumbing facilities⁴

Low-income families are more likely to live in poor-quality housing, and poor-quality housing is associated with negative health outcomes, including chronic disease, injury, and poor mental health. Aspects of housing quality include air quality, home safety, overcrowding, underinsulation, lack of air conditioning, and the presence of mold, asbestos, or lead. Housing quality is affected by factors like a home's design and age.

Homeless numbers in Chatham County are very low, though homelessness takes many forms that are difficult to capture, including staying with family or friends, couch surfing, or living in a motel.

Homelessness

Homelessness is generally characterized by extreme poverty and vulnerability and can take many forms such as living on the street, in a vehicle, in a shelter, staying with family or friends, or living in a motel. Homelessness can be temporary or chronic, and the reasons for an individual to become homeless may vary. Homeless individuals tend to have higher rates of health issues including substance abuse, mental health, HIV, diabetes, and tuberculosis. Access to care is a significant problem for the homeless population and homelessness can compound pre-existing health problems, leading to a significant decline in the ability to seek care.



of Chatham County adults worry they may not have stable housing in the next two months¹

Hunger

11.8% of Chatham County adults are food insecure, meaning they are not able to afford enough nutritious food.



18.7% of Chatham County children aged 18 and younger are food insecure⁸

Food insecurity does not exist in isolation, as low-income families are affected by multiple, overlapping issues like affordable housing, social isolation, health problems, medical costs, and low wages. Many do not have what they need to meet basic needs, and these challenges increase a family's risk of food insecurity.

1. Chatham County Community Survey, 2018, 2. Log Into North Carolina, 2015, 3. Data USA, 2016, 4. American Community Survey, 2016
5. North Carolina Department of Commerce, 2018



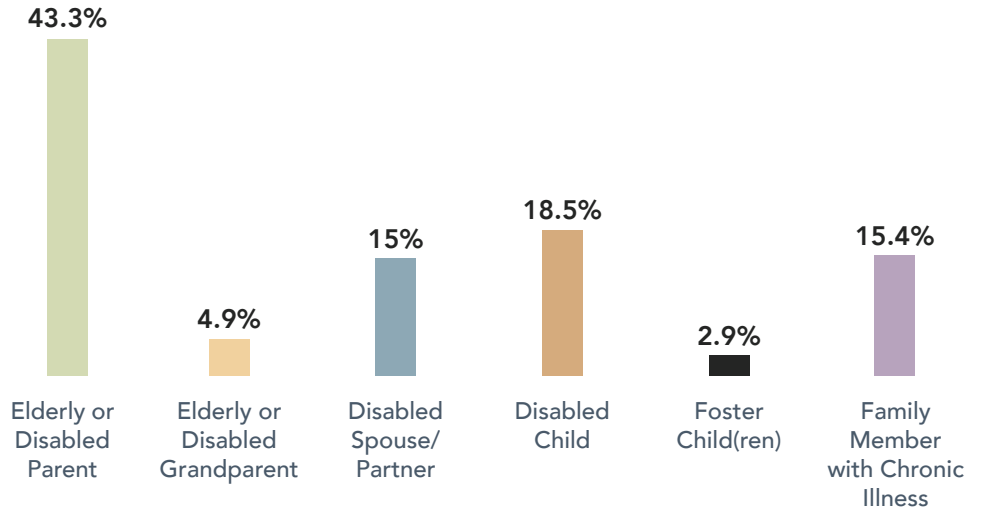
**ACES · CAREGIVER SERVICES · DEPRESSION/ANXIETY ·
IDD SERVICES · SUICIDE**

Caregiver Services

Nine percent of Chatham County adults are currently serving as caregivers for a family member.

Chatham County's aging population is growing, and caregiver services are becoming increasingly important. Caregiver services are not only for aging adults, but include family members with chronic illnesses, disabilities, and foster children. Caregivers are subject to high levels of emotional, physical, and financial stress due to their caregiving role.

Type of Caregiver Services Provided in Chatham County Households:¹



Suicide is a leading cause of death in the U.S. and is among the top ten causes of death in Chatham County.

Suicide

The effects of suicide go beyond the person who acts to take his or her life: it can have a lasting effect on family, friends, and communities. Youth self-reported suicide statistics have increased in Chatham County in recent years with a 5.4 percentage point increase in high school students who seriously considered suicide and a 3.7 percentage point increase in high school students who attempted suicide from 2014 to 2017.

19.8% of high school students have seriously considered attempting suicide

16.7% of high school students have made a plan about how they would attempt suicide

11.3% of high school students have attempted suicide

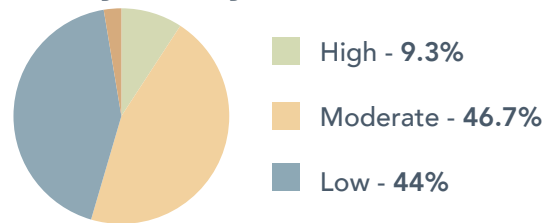
4.7% of high school students had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a health professional

Depression and Anxiety

Depression is one of the most common mental health issues in the U.S.

Depression can happen at any age, but often begins in adulthood and is caused by a combination of genetic, biological, environmental, and psychological factors. Many chronic mood and anxiety disorders in adults begin as high levels of anxiety in children.

Day-to-Day Stress Level¹



33.6% of Chatham County high school students have felt sad or hopeless for at least two weeks in the past year²





ACES

Fifteen percent of Chatham County adults reported having high levels of childhood stress.

58%

of North Carolina adults reported an ACE score of one or more in 2012

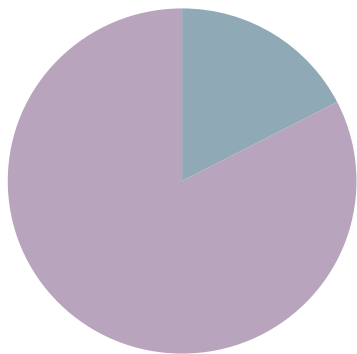
ACES are stressful or traumatic events that occur in childhood, including abuse and neglect. They may also include household dysfunction such as witnessing domestic violence or growing up with family members who have substance use disorders. ACEs are strongly related to the development and prevalence of a wide range of health problems throughout a person's lifespan, including those associated with substance misuse.

An ACE score can be calculated using a ten question survey; the higher the score, the more at risk the respondent is of health issues.

Over 150,000 North Carolinians are estimated to live with intellectual and developmental disabilities.

IDD Services

Intellectual and developmental disabilities cover a broad range of disorders and syndromes. An intellectual disability is characterized by limitations in intellectual functioning and difficulties in a variety of everyday social and practical skills. A developmental disability is attributed to a cognitive or physical impairment that results in limitations in areas such as self-care, language, and mobility. These conditions begin during the developmental period, may impact day-to-day functioning, and usually last throughout a person's lifetime. Limited IDD services are available in Chatham County, particularly as students age out of the school system, and many services require participants to travel to other counties.



17.4% of Chatham County high school students have trouble learning, remembering, or concentrating because of a disability or health problem²

58

Number of Chatham residents on the Registry of Unmet Needs for IDD services³



ASTHMA · CANCER · CARDIOVASCULAR DISEASE · CEREBROVASCULAR DISEASE · DIABETES

Chronic diseases, including cancer, diabetes, and heart disease, are the leading causes of death and disability in the United States, and contribute to high health care costs. Many of these conditions can be prevented or managed through healthy lifestyle choices, such as eating healthy, being active, and avoiding harmful exposures.

Cancer

Cancer is the leading cause of death in Chatham County and caused one quarter of all deaths in the county in 2016.

Making healthy choices can reduce risk of getting cancer such as keeping a health weight, avoiding tobacco, limiting alcohol consumption, and protecting skin.

12.4%

of Chatham County adults have ever been told by a medical professional they have cancer¹

Cancer Rates in Chatham County

Rate of colon/rectum cancer incidence per 100,000 — 32.4³ (NC rate: 36.1)

Rate of lung/bronchus cancer incidence per 100,000 — 47.3³ (NC rate: 66.3)

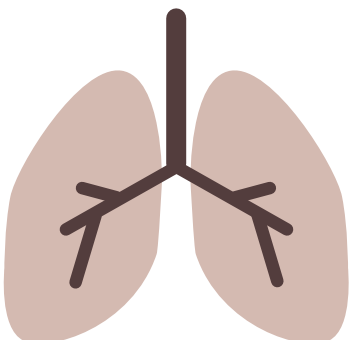
Rate of female breast cancer incidence per 100,000 — 169.4³ (NC rate: 157.5)

Rate of prostate cancer incidence per 100,000 — 96.9³ (NC rate: 109.4)

Asthma is one of the most common long-term diseases of children, but adults can have asthma, too. 24.6% of Chatham County high school students have ever been told by a doctor or nurse they have asthma.

Asthma

An asthma attack can happen when a person is exposed to “asthma triggers”. Triggers can vary widely from person to person, but some of the most common triggers are tobacco smoke, dust mites, outdoor air pollution, cockroach allergen, pets, mold, and smoke from burning wood or grass.



11.9% of Chatham County adults have ever been told by a medical professional they have ashtma¹

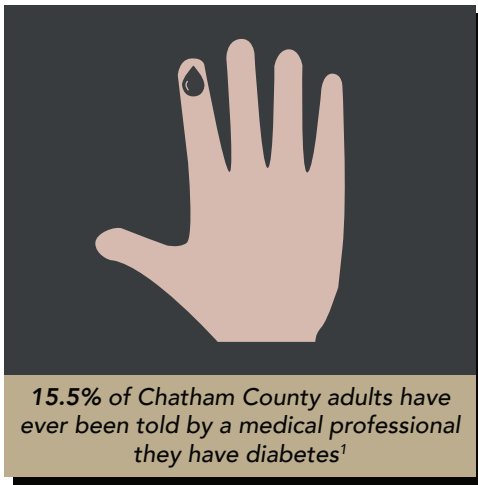
103

The number of deaths caused by asthma across North Carolina in 2016⁵



Diabetes

In the last 20 years, the number of adults diagnosed with diabetes has more than tripled as the American population has aged and become more overweight or obese.



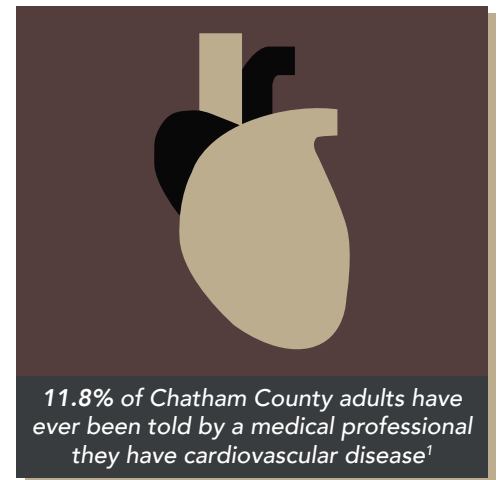
North Carolina lies in the 'diabetes belt' of the United States. People who live in the diabetes belt are more likely to have type 2 diabetes than people who live in other parts of US. While Chatham County lies just outside the boundary of the diabetes belt, 15.5% of Chatham County adults have ever been told by a medical professional they have diabetes. Diabetes can lead to other chronic health conditions or complicate existing conditions, including hypertension, kidney disease, and heart disease.

People who do not already have diabetes can reduce risk by being physically active and, if they are overweight, losing weight. Obesity and inactivity account for nearly a third of the increased risk for type 2 diabetes in people living in the diabetes belt. A healthy diet complete with fruits, vegetables, whole grains, and healthy fats can also reduce risk of diabetes.

Cardiovascular disease, more commonly known as heart disease, is the second leading cause of death in Chatham County in 2016 and the leading cause of death for both men and women in the United States.

Cardiovascular Disease

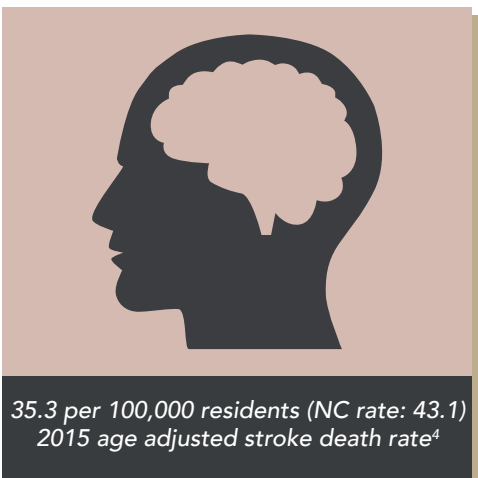
Heart disease describes a range of conditions that affect the heart, including blood vessel diseases, arrhythmias, and congenital heart defects. High blood pressure, high cholesterol, and smoking are key risk factors for heart disease. Half of Americans have at least one of these three risk factors. Several other medical conditions and lifestyle choices can also put people at a higher risk for heart disease, including diabetes, overweight and obesity, poor diet, physical inactivity, and excessive alcohol use.



11.8% of Chatham County adults have ever been told by a medical professional they have cardiovascular disease¹

Cerebrovascular Disease

Stroke is the fifth leading cause of death in the United States, killing about 140,000 Americans each year—that's 1 of every 20 deaths. In Chatham County, cerebrovascular disease was the third leading cause of death in 2016.



35.3 per 100,000 residents (NC rate: 43.1) 2015 age adjusted stroke death rate⁴

Cerebrovascular disease includes all disorders in which an area of the brain is temporarily or permanently affected by inadequate blood flow or bleeding, such as stroke, aneurysms, and vascular malformations. High cholesterol and high blood pressure increase chances of having a stroke. Choosing healthy meal and snack options can help prevent stroke. Eating foods low in saturated fats, trans fat, and cholesterol and high in fiber can help prevent high cholesterol. Limiting salt can also lower blood pressure.

Being overweight increases risk for stroke. Physical activity can help maintain a healthy weight and lower your cholesterol and blood pressure levels.

Cigarette smoking greatly increases chances of having a stroke. Quitting smoking will lower risk for stroke. In addition, drinking too much alcohol can raise blood pressure.

1. Chatham County Community Survey, 2018, 2. Youth Risk Behavior Survey, 2017, 3. NC Department of Health and Human Services, 2012-2016, 4. North Carolina State Center for Health Statistics, 2015, 5. CDC, 2016



**CIVIC PARTICIPATION · COMMUNICATION · DISCRIMINATION
GEOGRAPHIC DIVIDE · SOCIAL ISOLATION**

A cohesive community is one where there is common vision and a sense of belonging for all communities, the diversity of people's different backgrounds and circumstances are appreciated and positively valued, those from different backgrounds have similar life opportunities, and strong and positive relationships are being developed between people from different backgrounds in the workplace, in schools, and within neighborhoods. Community cohesion is a determinant of health, as social factors have direct impact on people's health.

Communication

Internet access is increasingly important, as it provides access to information and an opportunity for social connection.



97.6% of Chatham County adults have access to a cellphone¹

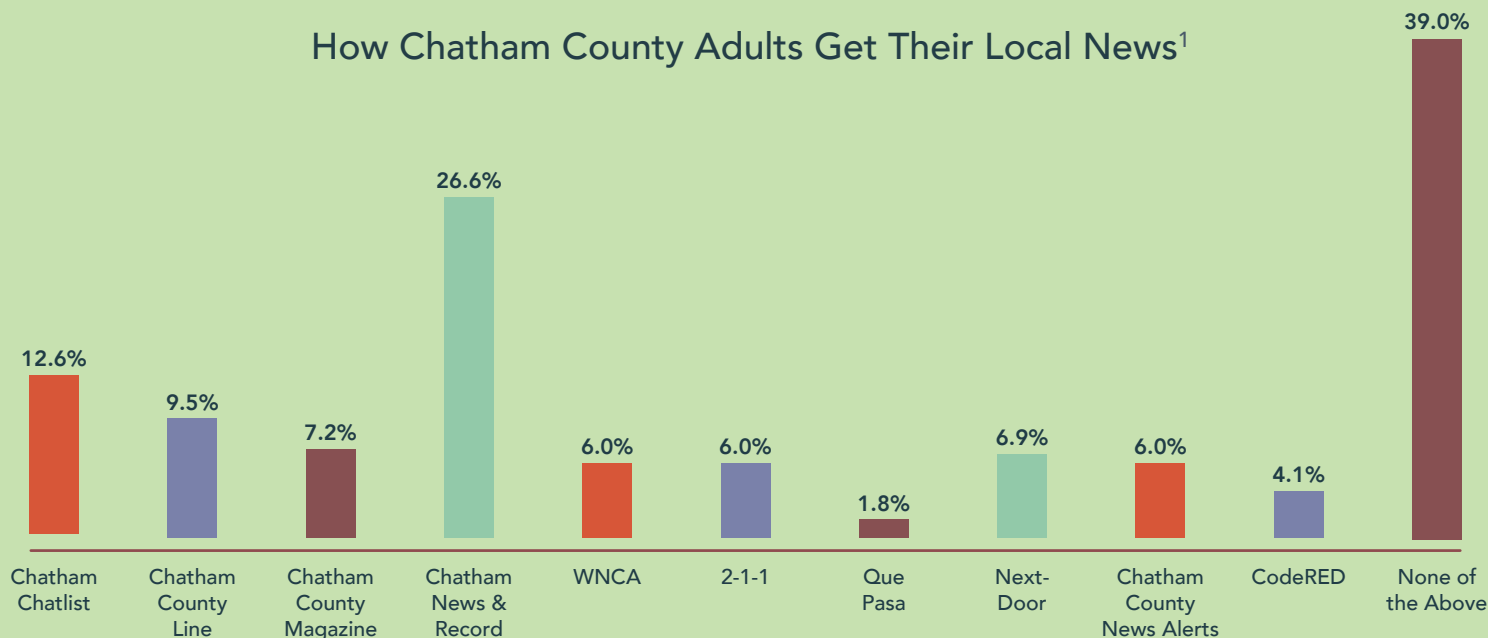


82.2% of Chatham County adults with a cellphone have a smartphone¹



32.8% of Chatham County adults with home internet access say the quality is not good.¹

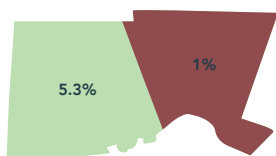
How Chatham County Adults Get Their Local News¹



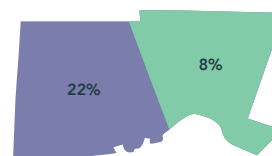
Where people live is linked to health and well-being. Looking at geographic patterns allows identification of disparities in the county and will guide future efforts to improve health outcomes and quality of life.

Geographic Divide

Geographic disparities in Chatham are most apparent when comparing the Eastern and Western halves of the county.



Percentage of Chatham County households who have at least one member needing support to be independent in daily activities¹



Percentage of Chatham County households who rent their home¹



Civic Participation

Interpersonal and community connections, as well as personal self-fulfillment, impact the health, well-being, and overall quality of life of people of all ages.

79%

Of Chatham County adults vote, far above the national average of 59%²

Civic participation includes voting, volunteering, and attending community meetings done with the intention of improving life in the community.

Active participation in the community allows people to have more control over their own health and well-being as well as that of the community.

Individuals who lack social connections or report frequent feelings of loneliness tend to suffer higher rates of morbidity and mortality, as well as infection, depression, and cognitive decline.

Social Isolation

Older adults, especially those living in rural communities like Chatham County, are especially vulnerable to social isolation.

Civic participation, volunteerism, recreation, and entertainment opportunities can reduce social isolation.

59.7%

Of Chatham County adults are members of a community organization¹

Discrimination/Racism

Both overt discrimination and racism and microaggressions have profound effects on physical and mental health.

51.4%

Of Chatham County adults agree or strongly agree that all people in their community are treated fairly¹

Microaggressions are brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative prejudicial slights and insults toward a marginalized group.

There are stark differences between racial and ethnic groups in common health indicators in Chatham County.

Race/Ethnicity	% in Poverty	Infant Mortality Rate	Life Expectancy
White	11.6%	9.8	83.8
African American	22.6%	26.7	78
Hispanic	32.2%	22.6	---

1. Chatham County Community Survey, 2018, 2. US News Healthiest Counties

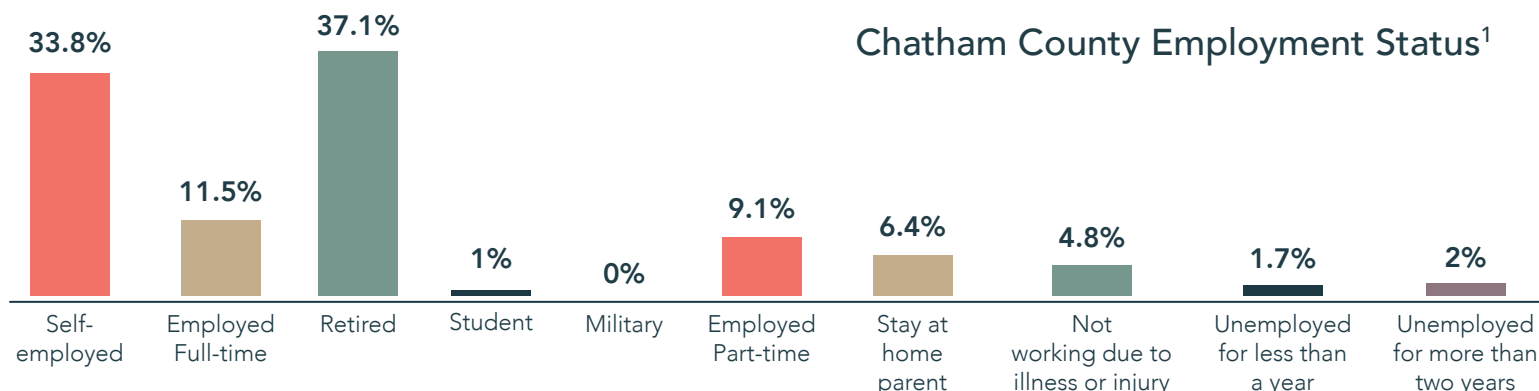


DEVELOPMENT · TRANSPORTATION · UNEMPLOYMENT

Chatham County is rapidly growing, both economically and through the construction of new homes and businesses. Economic growth can reduce poverty and unemployment, though rapid growth can also increase existing disparities within the community.

Unemployment

Chatham County's unemployment rate has been steadily decreasing in recent years among the lowest in the state, though many residents travel outside the county for work.

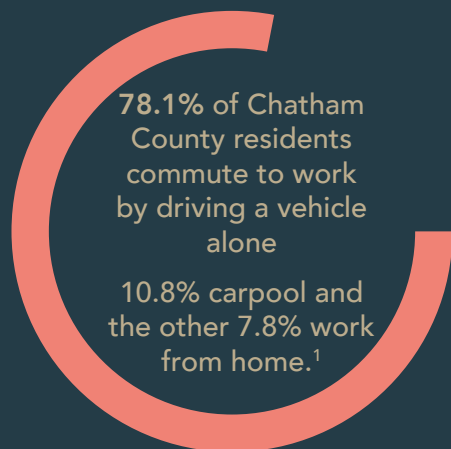


In rural areas, the population depends on transportation to access their friends, family, jobs, groceries, and other basic necessities.

Transportation

The average Chatham County household has two vehicles at home, but nearly 3% of adults report not having access to a car. Certain groups are more likely to not have access to personal transportation, including the aging population and undocumented residents.

Lack of transportations is linked to a multitude of issues, including accessing care, healthy foods, employment, and social isolation.

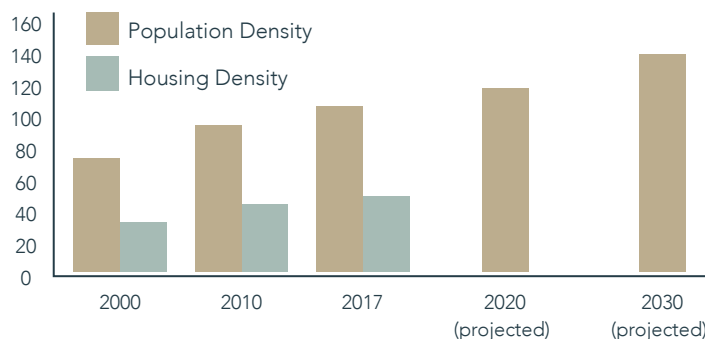


Development

Chatham County is rapidly developing, and the county is projected to double in population over the next few decades.

The built environment, or physical resources like parks, sidewalks, and health food stores, can greatly impact health. Environmental level improvements can help people to be more physically active and eat better, which can reduce obesity and chronic disease rates.

On a national level and within Chatham County, there has been a push to incorporate health into planning projects, as community plans can include strategies to advance health through the built environment. The Chatham County Comprehensive Plan, is an example of this.





AIR QUALITY · EXTREME HEAT · TICK-BORNE ILLNESS · WATER QUALITY

Maintaining a healthy environment is central to increasing quality of life and years of healthy life. Poor air quality, water quality, and exposure to hazardous substances all have a range of negative health effects. Poor environmental quality has its greatest impact on people whose health status is already at risk.

Air Quality

In recent years, Chatham County has had zero days classified as unhealthy by the Environmental Protection Agency, though there are no air quality monitoring stations in the county.

Poor air quality has a range of health effects, ranging from acute respiratory diseases to heart disease and stroke. Children and the aging population are most impacted by poor air quality.

Water Quality

Water that is safe to drink can come from a variety of sources, including both tap and bottled water sources. Water from the tap may be distributed via public or private company or well sources.

Concern over water quality has been high in recent years due to factors including coal ash, fracking, development, agricultural runoff, and lead in community water systems around the country.

Chatham County Home Drinking Water Source¹



The water system in the US is one of the safest in the world. Due to regulations, modern technology, and testing, community water systems in Chatham County are all currently in compliance with federal water quality standards.

Chatham County Home Tap Water Source¹

43.7%

Public or private
water company

56.3%

Public or private well

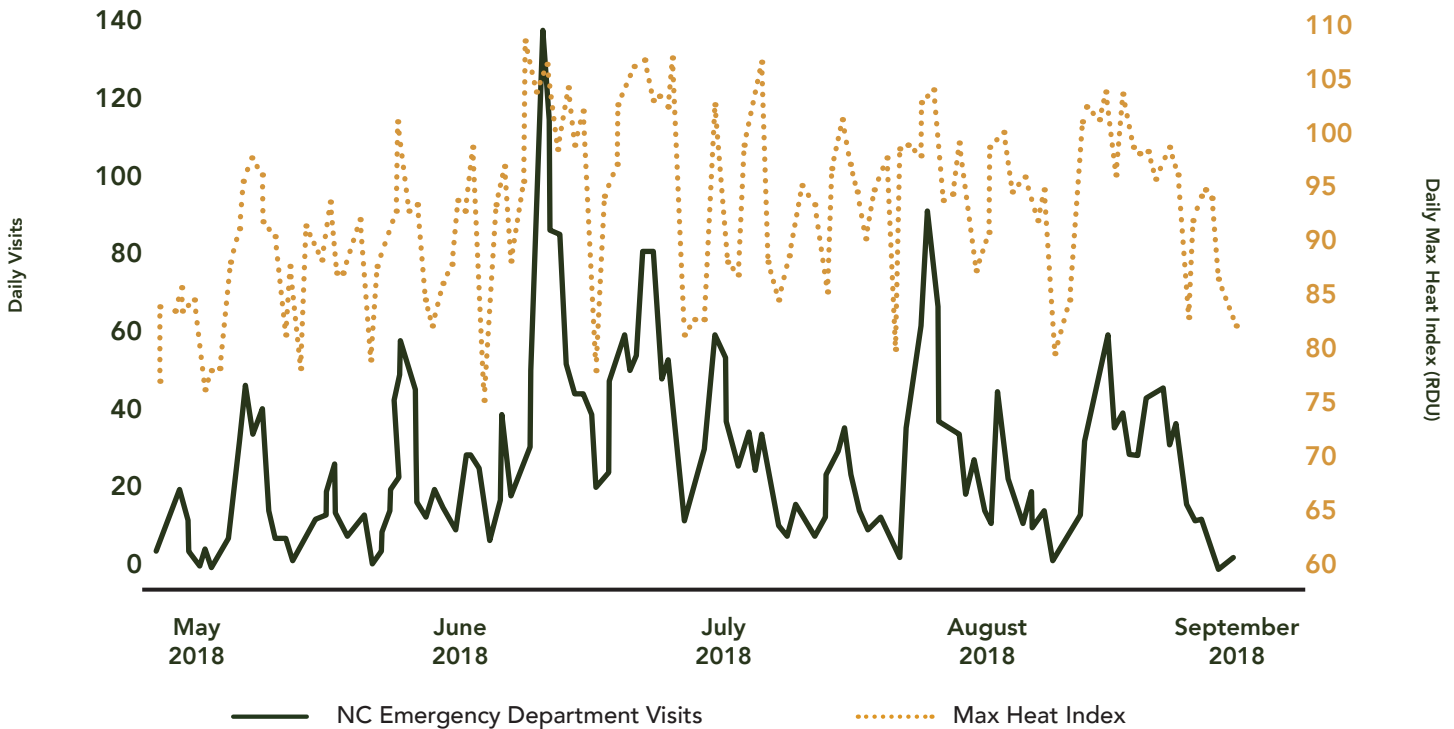


Extreme Heat

The number of extreme heat days is increasing. Exposure to extreme heat can lead to heat related illness or injury including hyperthermia, heat exhaustion, and heat stroke.

Heat stroke can cause death or permanent disability. Small children, the elderly, and groups including people with chronic diseases, low income populations, and outdoor workers, have higher risk for heat related illness. Respiratory problems are also linked because higher temperatures contribute to the build-up of harmful air pollutants. Staying hydrated, avoiding strenuous activity, and seeking air conditioning can reduce risk of heat-related illness during extreme heat.

Emergency Department Visits for Heat-Related Illness and Maximum Heat Index²



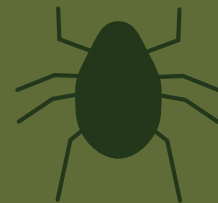
Chatham County has one of the highest rates of tick-borne illnesses in North Carolina.

Tick-Borne Illness

Tick-borne illnesses found in Chatham County include Rocky Mountain Spotted Fever, Lyme Disease, Ehrlichiosis, Anaplasmosis, and Southern Tick-Associated Rash Illness (STARI). Tick bites can also cause a potentially life-threatening allergy known as alpha-gal. Ticks are active in Chatham throughout the year. Tick-borne illnesses can cause a variety of health problems in both the short and long-term. As temperatures continue to rise due to climate change, tick ranges and populations are projected to increase.

8.3%

of Chatham County adults were diagnosed with a tick-borne illness while living in Chatham¹



57.8%

of Chatham households reported someone found a tick on their body in the past 12 months¹

1. Chatham County Community Survey, 2018, 2. NC DETECT Data and State Climate Office, 2018



DENTAL HEALTH · UNINSURED/UNDERINSURED

Dental Health

Dental care can be overlooked when thinking about healthcare, but it is essential to overall health. Poor dental health may increase risk of health issues, such as heart disease, stroke, and preterm labor.

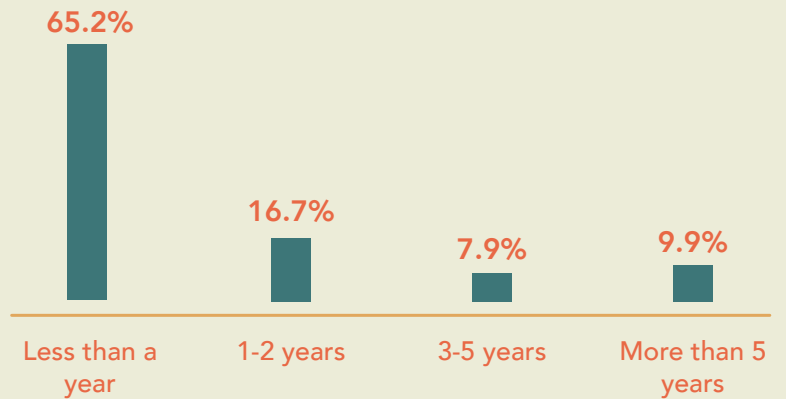
52.1%

of Chatham residents have dental insurance¹

2120:1

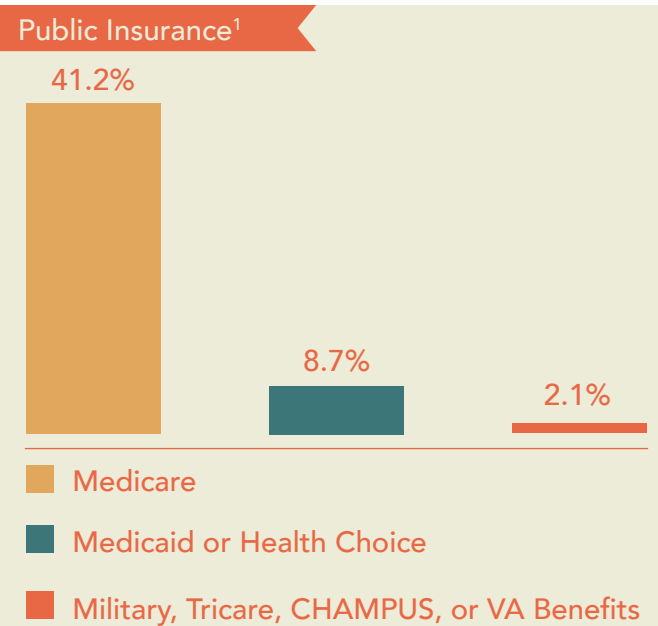
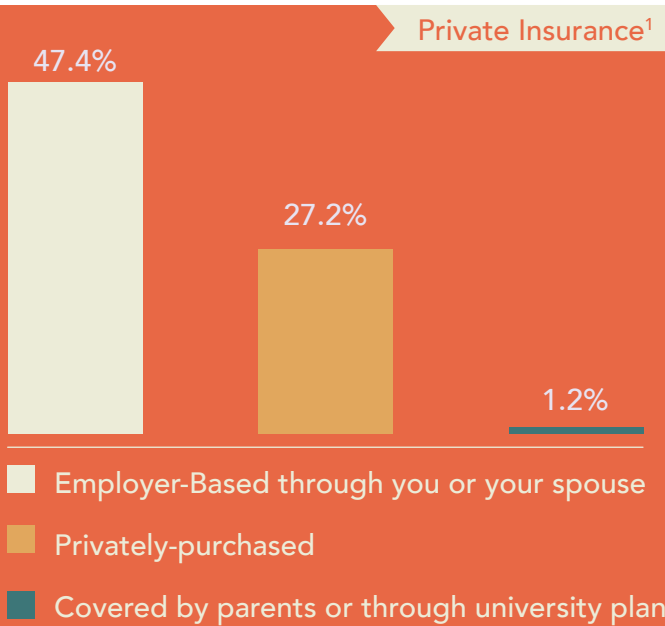
Ratio of population to dentists³

Time Since Last Routine Dental Visit¹



Health insurance is crucial to accessing adequate healthcare. The Affordable Care Act sought to make health insurance more affordable for those who need it; however, certain groups, like undocumented residents and low-income residents who do not qualify for Medicaid or subsidies, still may struggle to find affordable coverage.

Uninsured/
Underinsured





CHILD CARE · EDUCATION · LITERACY

Early childhood is the most rapid period of development in a life and is critical to healthy cognitive, emotional, and physical development of children. Good nutrition, communication, and healthy relationships all contribute to this development and can provide a foundation for health and well-being later in life.

Education

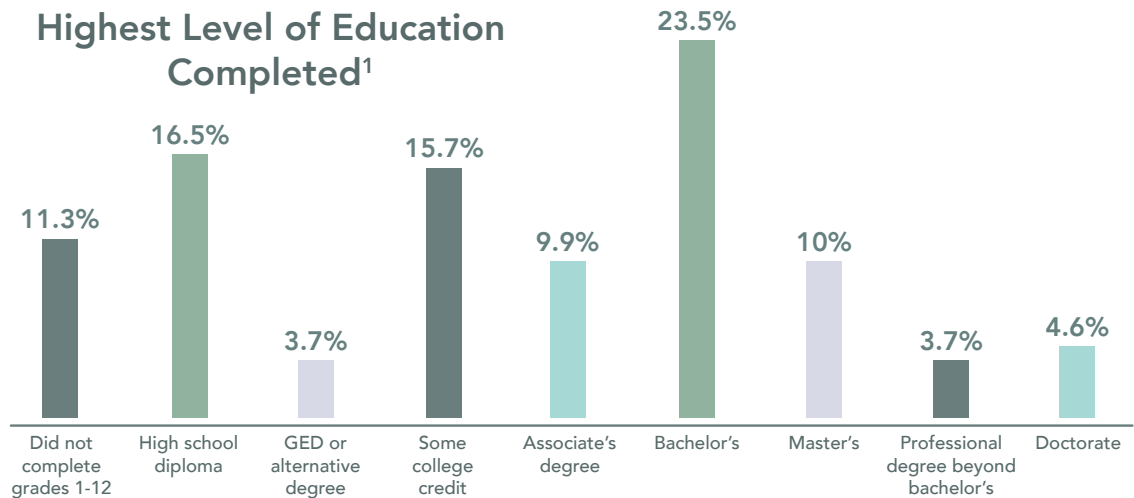
Chatham County is highly educated; 40.1% of residents 25 years and over have obtained a bachelors degree or higher. This is significantly above the national average of 30.9%.

3 in 4

Chatham County adults think there are quality K-12 schools in the county¹

Education is closely related to life expectancy and health outcomes. Higher levels of education can lead to more employment opportunities and higher incomes. Additionally, people with higher education tend to have healthier behaviors, such as lower levels of smoking.

Highest Level of Education Completed¹



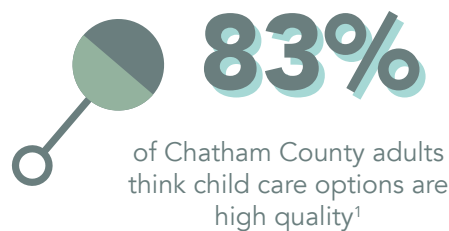
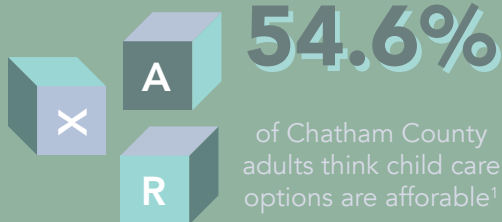
86.7%

of high school students graduate on time (NC: 85.9%)³

There are currently 44 licensed child care facilities in Chatham County, and these facilities are 100% in compliance with state immunization requirements.

Child Care

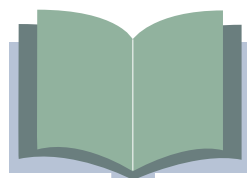
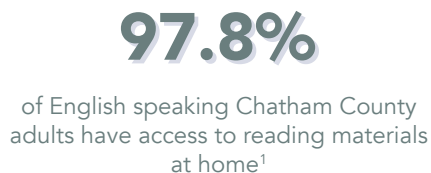
Child care can be a significant expense, particularly for families with multiple children in child care. Having access to affordable, quality child care can allow parents some peace of mind while they are at work.



Literacy

Literacy is critical to economic development as well as individual and community well-being.

Literacy is the ability to read, write, speak and listen, and use numeracy and technology, at a level that enables people to express and understand ideas and opinions, to make decisions and solve problems, to achieve their goals, and to participate fully in their community and in wider society.





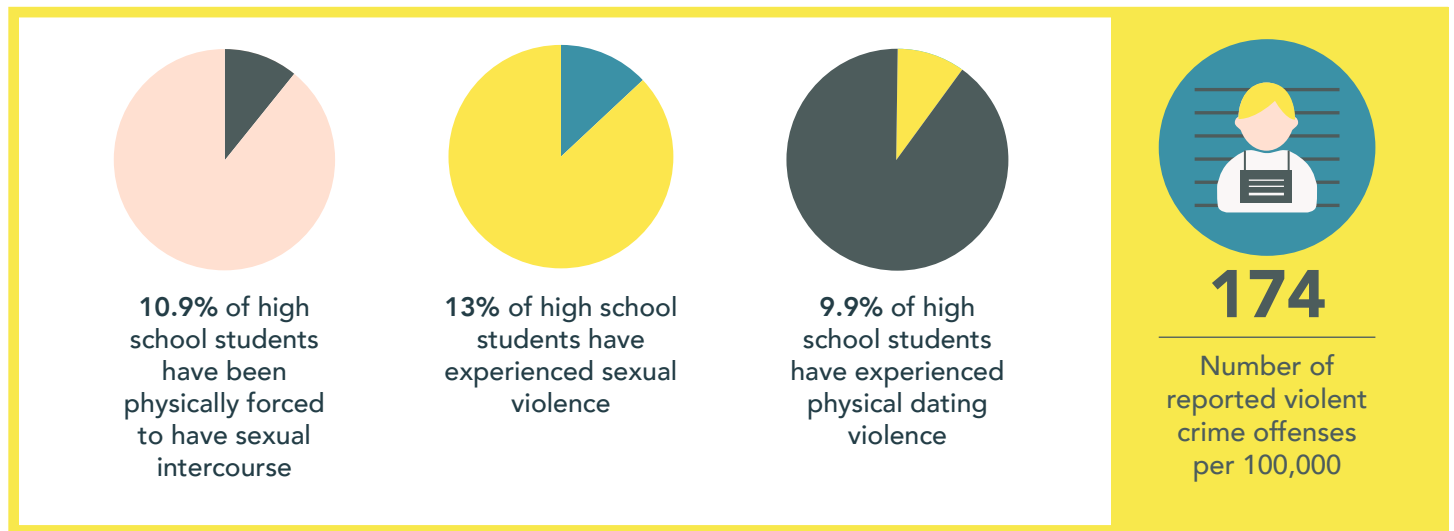
DRIVING SAFETY · EMERGENCY PREPAREDNESS · FIREARM SAFETY · VIOLENCE · WELFARE

The different forms of violence—child abuse and neglect, intimate partner violence, sexual violence, elder abuse are interconnected and often share the same root causes. Understanding the overlapping causes of violence and ways to prevent these root causes can reduce violence in all forms.

Violent Crime/Domestic & Sexual Violence

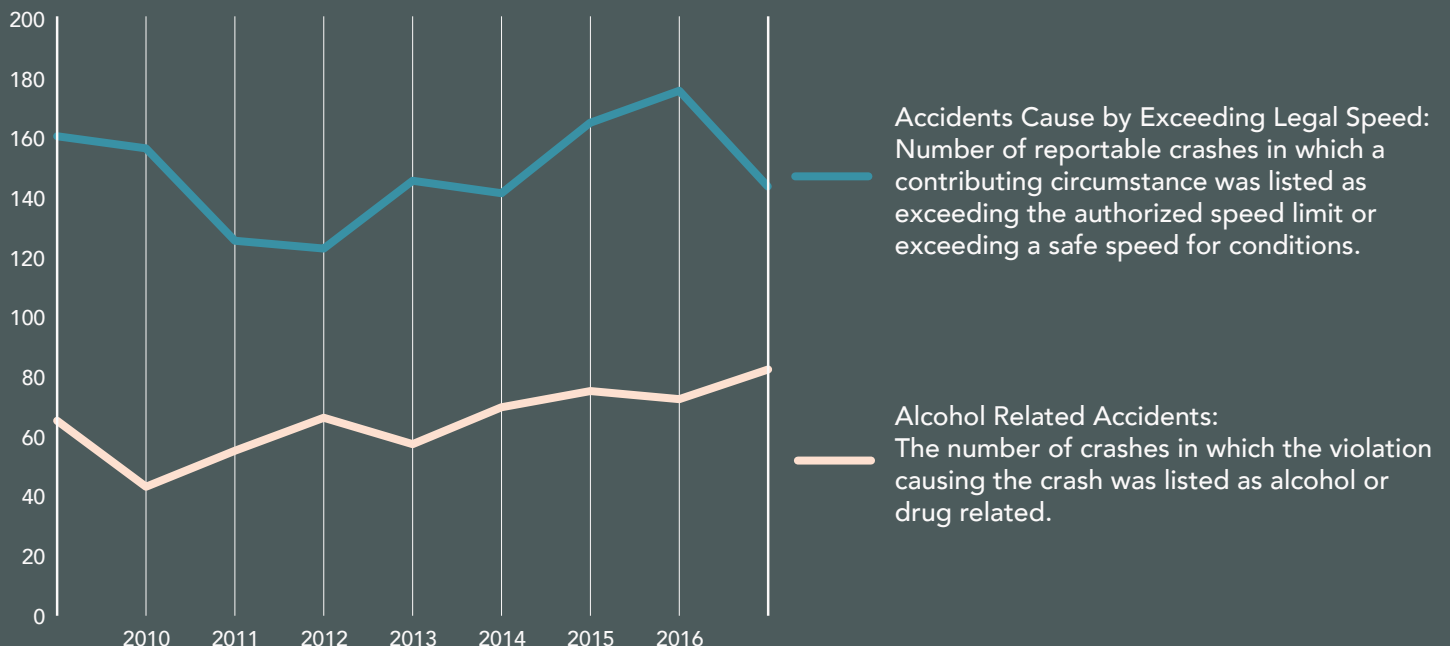
Violent crime is a term spanning crimes that can lead to serious injury (including mental and physical abuse) and even death.

Survivors of violent crime - including domestic and sexual violence can have psychological, emotional, and physical effects. This can lead to missing work, distancing from relationships, and an overall lower quality of life. The following charts depict a snapshot of violent crime in Chatham County.



Motor vehicle crashes are a leading cause of death in the U.S., with over 100 people dying everyday.

Driving Safety





Emergency Preparedness

It is important to be prepared for disasters that may strike. Creating a plan with loved ones will help to mitigate any challenges that might affect daily life.



50.1% of Chatham County residents have a basic emergency supply kit in the household⁴

Emergencies can happen anywhere - at home or at work - and everyone must take action to prepare for emergencies in case something unexpected happens.

While it is next to impossible to prepare completely for any potential disaster, there are steps people can take to ensure minimal damage to property, businesses, and families.



59.1% of Chatham County residents have both smoke and carbon monoxide detectors in the home, while 33.3% have smoke detectors only⁴

Multiple factors contribute to the perpetration of child and elder abuse. Regardless of the reasons behind the abuse, the survivors are more susceptible to bodily injury and harm.

Child and Elder Welfare

Child abuse and neglect affect children's health now and throughout their lifespan. Child abuse and neglect can lead to poor physical and mental health well into adulthood.

In the U.S. it is estimated that for every one case of elder abuse that is detected or reported, approximately 23 cases remain hidden. One in ten U.S. elders report emotional, physical, or sexual abuse or potential neglect in the past year. Frequently, this abuse is committed by a family member or other trusted person.

7%

Percentage of high school students who have ever slept away from their parents or guardians because they were kicked out, ran away, or abandoned¹

Firearm Safety

Gun violence is a leading cause of premature death in the U.S.



7.6% of high school students carried a gun not for sport, on at least one day in the past year.

Guns kill more than 38,000 people and cause nearly 85,000 injuries each year. Many families keep a gun in the home, so it is important to practice safe usage and storage. Ensuring proper firearm safety can prevent injury and death from accidents.



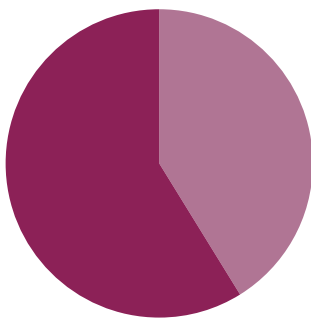
PRENATAL CARE/BIRTHING · STIs · UNINTENDED PREGNANCY

The World Health Organization defines sexual health as a state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence.

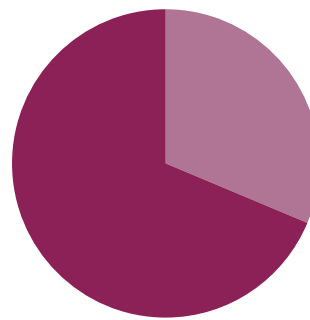


Sexual Health

Essential elements of sexual health include having access to sexual health information, education, and care, and being able to communicate about sexual health with others, particularly sexual partners and healthcare providers.



41.2% of Chatham County high school students have ever had sex¹



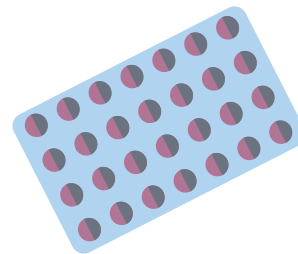
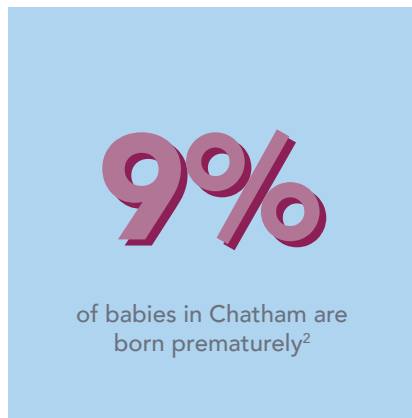
31.2% of Chatham County high school students are currently sexually active¹



An unintended pregnancy is a pregnancy that is reported to have been either unwanted or mistimed. If a pregnancy is unintended, a woman may not be in optimal health for childbearing.

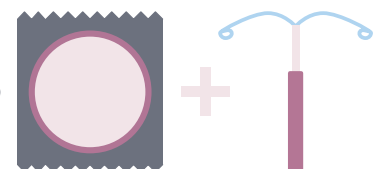
Unintended Pregnancy

Unintended pregnancy is a core concept that is used to better understand the fertility of populations and the unmet need for contraception (birth control) and family planning. Unintended pregnancy mainly results from not using contraception or inconsistent or incorrect use of effective contraceptive methods. Unintended pregnancy is associated with an increased risk of problems for the mom and baby.



36.4% of Chatham high school students use birth control pills; an IUD or implant; or a shot, patch, or birth control ring¹

14% of Chatham high school students use both a condom and birth control pills; an IUD or implant; or a shot, patch, or birth control ring¹





Prenatal Care/Birthing

Important growth and development occur throughout pregnancy. Babies born before three weeks of their due date have greater risk of serious disability or even death.

71.6%

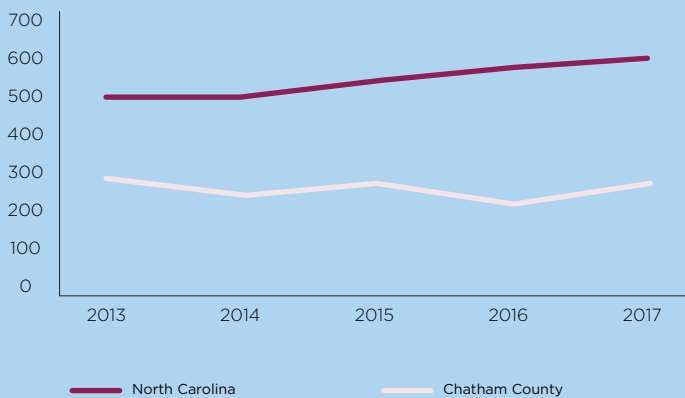
of pregnant Chatham women received early prenatal care⁶

In order to have the best possible outcome for mother and child, early prenatal care is essential. Even before a woman conceives, she can be given folic acid, checked for immunity to rubella and blood type, as well as advised about smoking, drinking alcohol, and eating a healthy diet. Once a woman is pregnant, prenatal visits to a healthcare provider include examinations to determine the health of the mother and developing fetus.

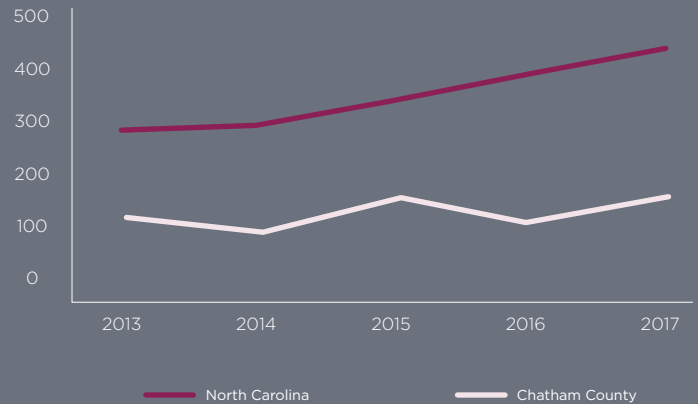
STIs are passed from one person to another through intimate physical contact and from sexual activity including vaginal, oral, and anal sex.

Sexually Transmitted Infections

STIs can best be prevented by not having sex. If having sex, individuals can lower risk by using condoms and being in a sexual relationship with a partner who does not have an STI. STIs do not always cause symptoms, so its possible to have an infection and not know. Testing is important to check for STIs. STIs can be treated with medicine, and some can be cured entirely.



Chlamydia Rate per 100,000 2013-17



Gonorrhea Rate per 100,000 2013-17



ACCESS TO SUBSTANCE ABUSE TREATMENT · ALCOHOL ABUSE · ILLICIT DRUG USE · PRESCRIPTION DRUG/OPIOID ABUSE · TOBACCO USE

Substance use encompasses both legal and illicit substances, from alcohol and tobacco to methamphetamines and heroin. Addiction to substances is a mental health issue. Access to substance use treatment is essential in breaking the cycle of addiction.



18.2% of Chatham County adults use tobacco; this is comparable to state and regional rates.

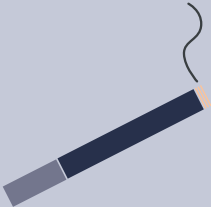
Tobacco Use

Tobacco use includes cigarettes, electronic vapor products, and smokeless tobacco like dip and chew.

13.6% of Chatham County high school students reported currently smoking cigarettes; however, an emerging issue in recent years is the use of electronic vapor products. Electronic vapor products have been touted as a safer tobacco alternative to smoking; however the products are unregulated and recent research shows harmful effects on par with cigarettes. 22.4% of Chatham County high school students currently use electronic vapor products.

Cigarette smoking is the leading preventable cause of death in the U.S. Both combustible and smokeless tobacco use are linked to cancers and cause other health issues like heart disease and stroke. Secondhand smoke exposure can also have harmful health effects, especially for children.

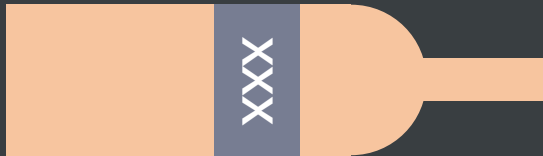
46%
of Chatham high school students have ever used electronic vapor products²



53% of Chatham County adults reported consuming at least one drink of alcohol in the past 30 days.

Alcohol Abuse

Alcohol abuse can have serious health effects, ranging from liver and heart disease to cancer and injury. Of Chatham County adults who did consume alcohol, the average number of days they had at least one alcoholic beverage was eight days; however 14.8% reported having at least one drink every day.



31.8% of Chatham County high school students currently drink alcohol²



Chatham County's rates of prescription drug abuse and overdose have increased in the last year, both among adults and children. 80% of the prescription drugs abused by adults were opioids.

Prescription Drug/Opioid Abuse


Opioid drugs include prescription medications, such as oxycodone, hydrocodone, codeine, and morphine, as well as heroin and fentanyl. Chatham County's rates of prescription drug abuse and overdose remain lower than many counties in the state, though much of the abuse goes undocumented. Prescription drug abuse can be prevalent in both low-income and affluent households. Programs exist to monitor and discard prescription drugs, including mobile drop-off locations throughout the county.

17%

of Chatham County high school students have ever taken prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it²

5.7%

of Chatham County adults have a friend or family member who has misused prescription drugs in the last 12 months¹





Chatham Health Alliance

Topic: SUBSTANCE ABUSE

Illicit Drug Use

Marijuana is the most widely used illicit drug in Chatham County.

The usage of illicit drugs, including cocaine, ecstasy, and heroin, are risky health behaviors that can be risk factors for poor health outcomes, including heart disease and overdose.

24.1%

of Chatham County adults have a friend or family member who has used illicit drugs in the past 12 months¹



37.3% of Chatham County high school students have ever used marijuana, and 20.8% currently use marijuana²

Substance abuse disorders can be classified as mental illnesses, and those suffering from these disorders need access to treatment services.

Access to Substance Abuse Treatment

29% of Chatham County adults know where to go to get substance abuse treatment.

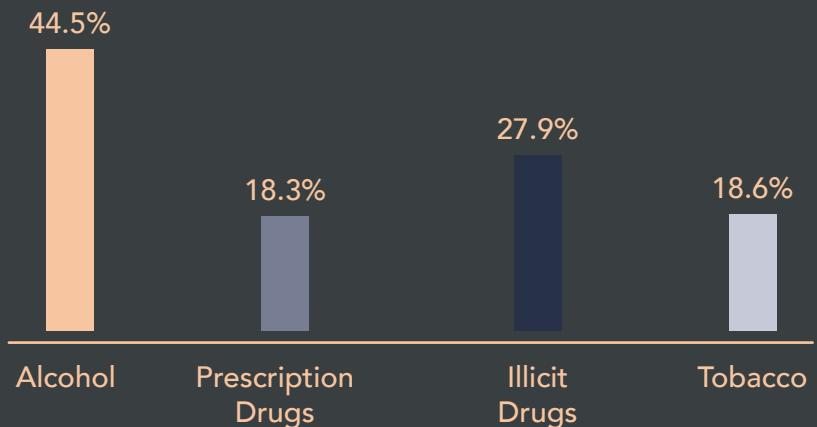
74.9%

of Chatham residents are aware of tobacco cessation services¹

14.1%

of Chatham County adults have a friend or family member who wanted treatment for alcohol, drug, or tobacco use in the past 5 years¹

Type of Substance Use Treatment Wanted¹



1. Chatham County Community Survey, 2018. 2. Youth Risk Behavior Survey, 2017