



CONE HEALTH®

Healthy Communities

2019 Community Health Needs Assessment

Alamance Regional Medical Center
Burlington, NC

Annie Penn Hospital
Reidsville, NC

The Moses H. Cone Memorial Hospital
Greensboro, NC

Behavioral Health Hospital

Wesley Long Hospital
Greensboro, NC

Women's Hospital

September 2019

Cone Health is a private, not-for-profit organization which was established to serve the community by providing a full range of health care services distinguished by measurable excellence.

Our Purpose

To connect health care and well-being.

Our Vision

A tradition of health and well-being is woven through the fabric of our communities.



To Our Partners in Health and Well-Being,

Cone Health's 2019 Community Health Assessment draws on the talents of epidemiologists, community, leaders, activists, researchers, practitioners, and local residents to capture a snapshot of our region's health at this specific moment in time. Most importantly, this assessment focuses our sights on the collaborative action we must take together to continue to build thriving families, economies, and neighborhoods.

We thank so many of you who have contributed your time and expertise to enrich this work. It is a labor of love for the thousands of people in central North Carolina who care deeply about the health and well-being of our families, homes, neighborhoods, counties, and state.

Cone Health is deeply engaged in our communities, providing over \$350 million annually in uncompensated care, and over \$15 million in charitable contributions and activities in 2018. We worked alongside our neighbors in east Greensboro to clean-up after the April 2018 tornado; we opened new clinics and services throughout the region to serve people in areas that previously lacked access. We train and develop new health practitioners, conduct critical research, and help thousands of people welcome new babies, quit smoking, make healthy choices, beat cancer and find the care and support they need.

This assessment has been reviewed and was adopted by Cone Health's leadership and the Board of Trustees on September 15, 2019. We commit ourselves, personally and professionally, to continuous improvement in the priority concerns identified herein: prevention of chronic disease and addiction; providing access to high quality, affordable care throughout our community; and helping to resolve social needs that will help us all to lead long lives, rich in meaning and purpose.

FD Hornaday III
Chair, Board of Trustees

Terrence Akin, FACHE
Chief Executive Officer

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Healthy Communities Director

CONE HEALTH 2019 COMMUNITY HEALTH NEEDS ASSESSMENT

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EXECUTIVE SUMMARY of the 2019 CONE HEALTH COMMUNITY HEALTH NEEDS ASSESSMENT

Every three years, Cone Health works with community partners in Alamance, Guilford and Rockingham counties to assess the social, medical and economic health of our communities. In 2018-19, local teams analyzed available data from trusted sources; collected new data through focus groups, surveys (phone, door-to-door and electronic) and interviews; and conducted community forums to identify priority health concerns. For the first time this year, Cone Health presents this information in a regional Community Health Needs Assessment.

Information in the 2019 Cone Health Needs Assessment includes:

- *Key Frameworks for Understanding Health Outcomes:* A description of the scientific basis for a “whole person” conception of health that includes social drivers such as education, income, and housing, and how these drivers are visible in the health outcomes in our communities.
- *Demographics and Population Information:* It is important to note that median income in Alamance (\$47,900), Guilford (\$52,300) and Rockingham (\$46,200) is lower than the state of NC (\$52,800). Household income influences many issues that impact health, such as insurance coverage, housing availability, nutritional practices, childcare options and educational attainment. Rockingham has the largest aging population (20% over 65), and Guilford has the most racially and ethnically diverse (49.5%) residents.
- *Life Expectancy and Leading Causes of Death:* Cancer and heart disease together account for almost 40% of deaths in our region. We observe alarming disparities in life expectancy by race and geography, evidence of the influence of social determinants of health. Infant mortality is improving in Alamance County, but has increased in Guilford (9.8/1000) and the disparity in black (13.3/1000) and white (6.1/1000) rates has grown.

Priority Health Concerns identified in the Community Health Needs Assessment are summarized below.

Priority Health Concern	<i>Why Is This Important?</i>	<i>What do We Know About These Issues in our Region?</i>	<i>What are We Working on in our Communities?</i>
<i>Prevention of Chronic Disease, Especially Diabetes</i>	Chronic disease contributes to leading causes of death, increases healthcare costs, and shortens lives.	Our region has a high volume of chronic disease that may be preventable with lifestyle changes.	Increasing access to healthy food, walkable communities, and health education.
<i>Prevention of Addiction and Promoting Strong Mental Health</i>	Behavioral health affects physical health and a person’s fundamental sense of well-being.	The last decade has seen a dramatic rise in depression and in rates of addiction, especially opioids.	Integrating behavioral health into primary care, and using a harm reduction approach to helping people with addiction.
<i>Access to High Quality, Affordable Healthcare</i>	Regular care with trusted providers prevents illness, improves life expectancy, and reduces costs.	12% of adults under 65 are uninsured, and our region’s provider coverage is at or below state average.	Opening new clinics in areas with medical needs and strengthening our community’s safety net.
<i>Creating the Living Conditions that Nurture Health</i>	Humans flourish in safe, pollution-free and supportive environments that promote health.	Greensboro is considered the nation’s third most challenging city for people with asthma.	Linking health and human services providers to help patients; improving housing and neighborhood quality.
<i>Eliminating Bias and Discrimination in Healthcare</i>	Eliminating bias reflects our core values of caring and promotes equitable opportunity in our society.	Disease mortality rates, infant mortality, and rates of preventive care reflect racial/ethnic disparities.	Identifying the root causes of unequal health outcomes and changing protocols to improve health for all.

The Communities We Serve

Key Frameworks for Understanding Health Outcomes

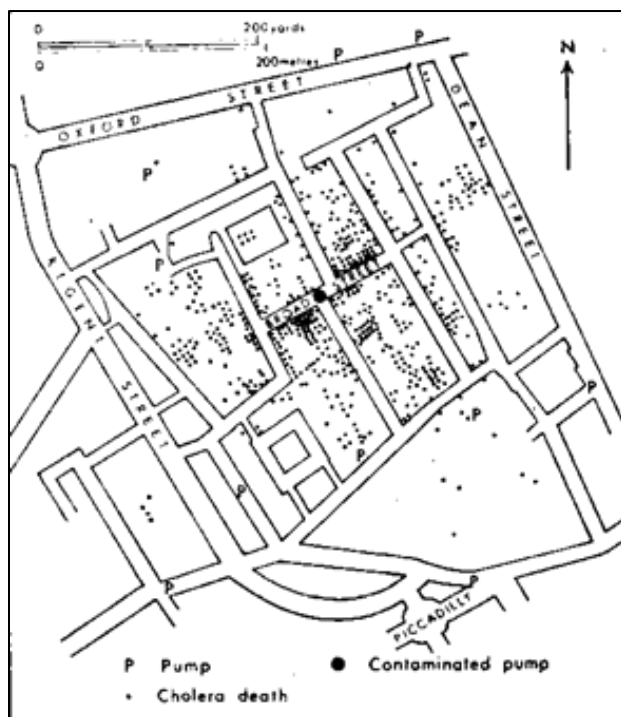


Figure 1 John Snow's 1854 Map of Cholera Deaths

Humans use paradigms, theories and frameworks to understand complex phenomena—and they shift over time, as new knowledge emerges, and older ideas are laid to rest. For example, in 1850s London, caught in the grip of a massive cholera outbreak, experts taught that the source of the trouble was the atmospheric “miasmas”, ill-smelling vapors that hung in the air, representing the stench of human decay. Prior to widespread scientific adoption of germ theory, experts believed that smells from the physical decay of human waste and moral decay (i.e. socially unacceptable behavior) were responsible for the spread of disease. Epidemiologists like John Snow, who mapped the cholera deaths and identified a contaminated well as the source, helped to usher in the scientific revolution in understanding of contagion.

As one researcher comments, “Today, most Western adults would find the prospect of disease

as punishment from an angry God, communicable by the mere wafting of malodorous vapors from the wrong side of town, as laughable or just plain wrong. The thought that tiny creatures cause all manner of disease, from influenzas to food poisoning, does not surprise us.”

Times have, for the most part, changed. While social stigma remains strong for some illnesses, such as HIV, substance abuse and mental disorders, as a society we have long ago left behind the notion that illness and disability are the result of moral failings. We find ourselves in the second decade of the 21st century in the midst of another paradigm shift in our understanding about why some people remain healthy throughout their lives and others suffer from chronic disease and even early death. When we examine life expectancy in our communities, we observe that people living just a few miles apart in Greensboro have differences in life expectancy of 18 years; the story is very similar in Burlington and other communities we serve. In our modern era of public sanitation, life-saving vaccines, and high quality medical care, what could explain such stark differences in length of life?

The answer, it appears, goes well beyond familiar explanations. Public health policies and programs have, for decades, emphasized access to healthcare and health behaviors, based on the common sense understanding that if you ate right, exercised, didn't smoke or drink too much, and went to the doctor, you'd likely enjoy a long life. Recent scientific studies, though, are suggesting that regular medical care and healthy habits explain only about half of our health outcomes. Since 2010, researchers at the University of Wisconsin Population Health Institute have ranked every county in the United States on the factors that contribute to length of life and quality of life. They also developed a conceptual and statistical model to help explain the differences in these outcomes, based on four modifiable health

factors: Health Behaviors, Clinical Care, Social and Economic Factors, and Physical Environment. (Genetics and biology are understood to have a role in length and quality of life, but are not considered modifiable, and so are not included in this model.) Figure 2 illustrates these concepts, and the measurements that contribute to each modifiable factor. Their findings on the relative contributions of these factors, and their ability to communicate these findings to a large audience through the County Health Rankings project, has been a game changer in the field.

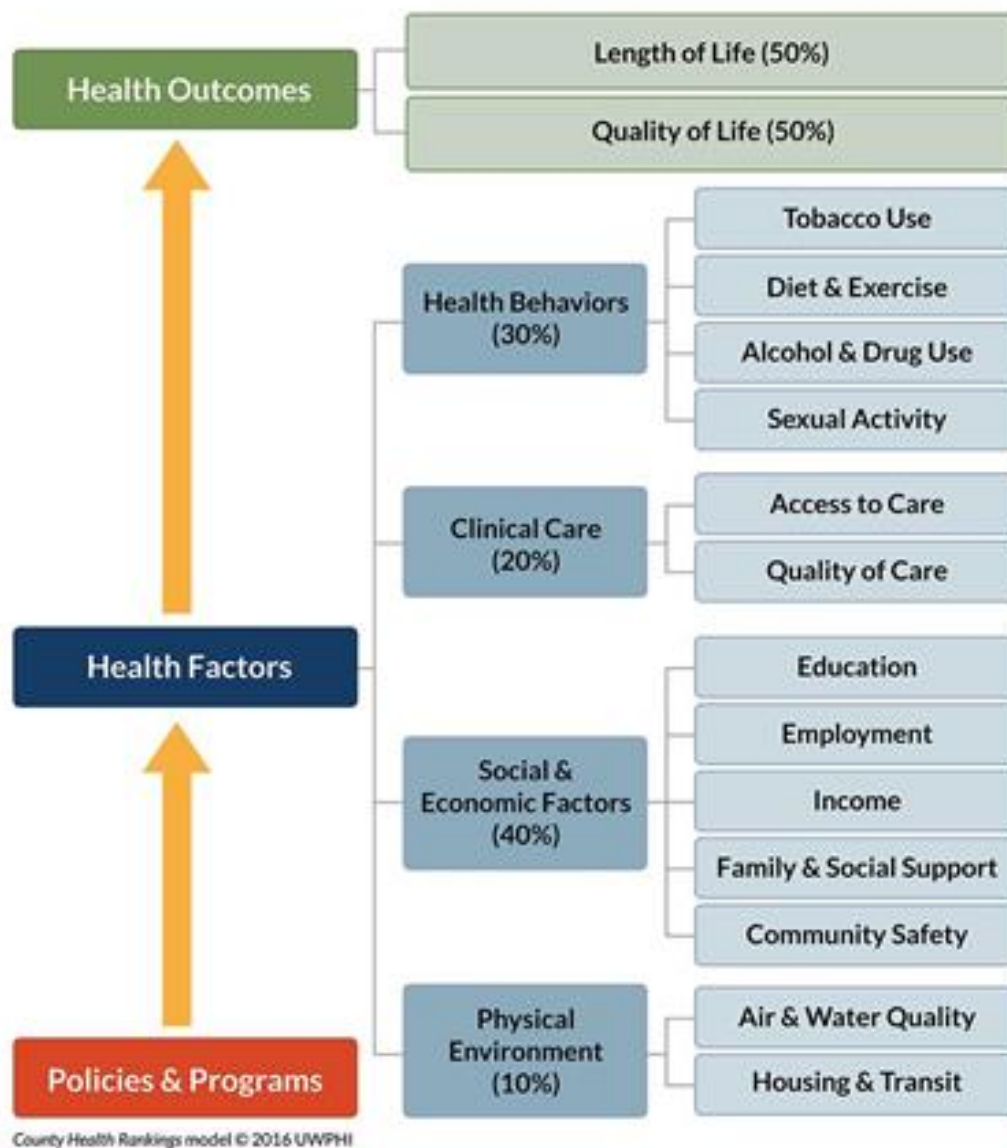


Figure 2 County Health Rankings Model

Surprising to many was the finding that social and economic factors explain more than any other factor. This research has been confirmed by others since it appeared, and has led to our paradigm shift in focus towards the social determinants of health.

The World Health Organization defines social determinants of health as “the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of

daily life.” In practice, we think of these as fundamental living conditions that affect how we act, what we do, and what is readily available to us; these are issues such as housing quality, affordable transportation, and access to affordable healthy foods. We may initially understand obesity as the result of an individual’s unhealthy eating habits and lack of physical activity; with our changing understanding of social determinants, we are also aware of the environmental and social conditions that drive those health behaviors. We better understand the problem of obesity when we consider whether an individual lives in a “food desert”, lacking access to grocery stores and affordable food choices, or a “food swamp”, where cheap processed and fast food abounds. This new perspective asks health professionals to understand the importance of a neighborhood’s sidewalks, parks, and whether people feel safe using them to engage in daily physical activity. We recognize that health choices are not simply a matter of willpower.

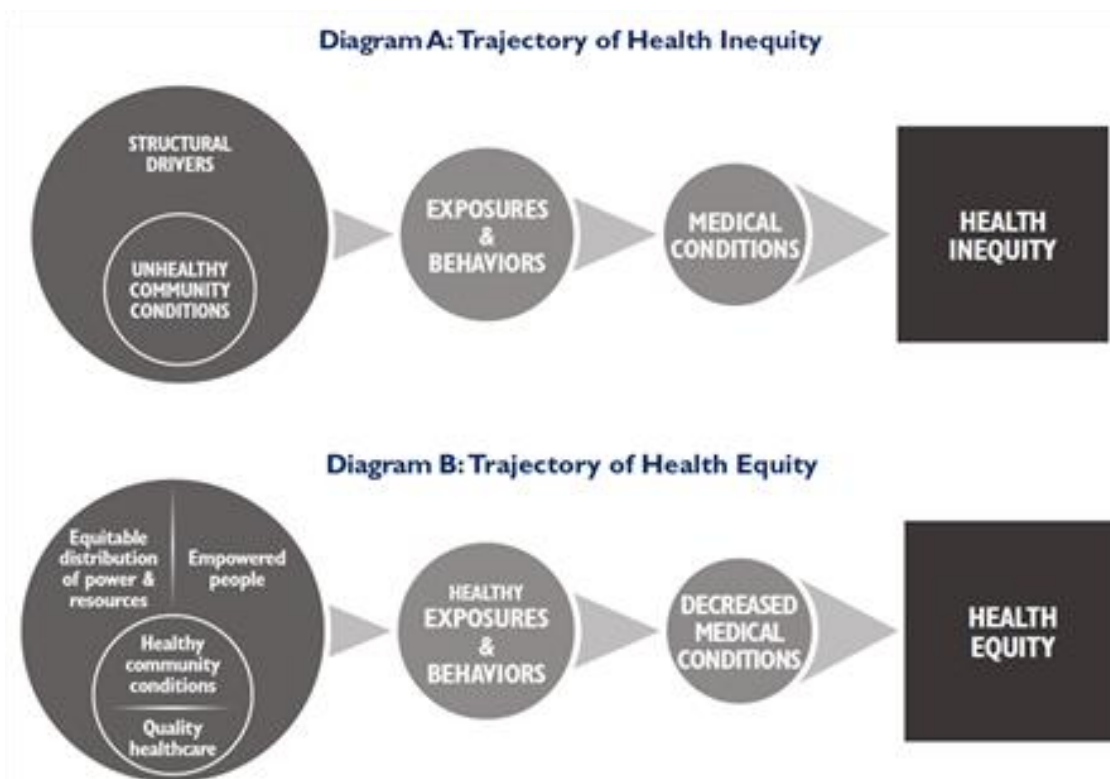


Figure 3 Prevention Institute’s Trajectory of Health Equity and Inequity

This is an approach that the Frameworks Institute calls the “wide angle lens”, where we look with a broader field of vision at health outcomes, regarding them as the consequence of not just individual behaviors, but of the social and living conditions that underlie those behaviors. This type of wide angle thinking helps practitioners to better understand the scope of health problems, and also provides additional opportunities to help people make positive change. The Prevention Institute captures this concept in its diagrams of health equity and inequity (Figure 3).

We may be used to understanding our health outcomes as a result of knowledge, discipline, and attitudes. If we take a broader view, we can both help individuals to change their own behaviors, and

work together to create positive community changes that will lead to healthier outcomes for all. For example, a cardiologist may want to work with a patient to improve her heart health through an exercise program, and finds that she just can't stick with the plan. That physician may talk with the patient and discover that the park near her home would be a convenient place to exercise, but that it feels unsafe to her, and she would have to drive there because there are no sidewalks in her neighborhood. If we focus on that individual's opportunities, we might come up with another venue for physical activity, such as a low cost gym membership. If we focus on community conditions, we can make changes to the neighborhood, such as better lighting and security measures in the park, or new sidewalk construction that will benefit a larger number of people. Both individual and community change are essential. We are more familiar with individual change in healthcare, but community change represents a critical opportunity to collaborate with partners in business and economic development, public health, human services, planning, public safety, transportation and parks and recreation agencies to have greater impact on a larger scale.

Figure 4 illustrates this issue in terms of the challenges of maintaining a healthy weight, which requires daily physical activity and attention to nutrition. These behaviors can be difficult to achieve in fast-paced lives that leave little time for food shopping and cooking, and in communities that lack access to sidewalks and affordable grocery stores.

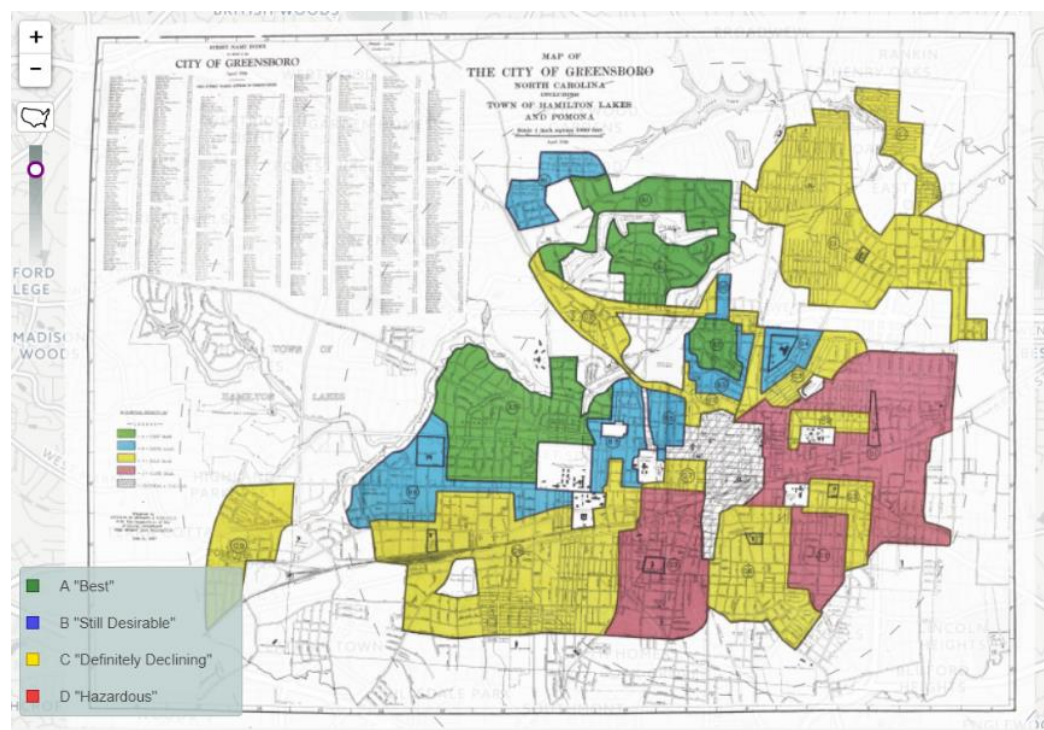


Figure 4 Impact of Environment on Achieving Health Goals

A more narrow and individualistic approach to health improvement would leave us continuing to push the boulder up the very steep hill, battling the impediments of easy, cheap fast food and the ubiquity of high calorie snacks. A dynamic approach has health, business, and community leaders working together to create walkable communities and developing outlets where healthy food is available and affordable. Changing the environment helps to facilitate our health goals, rather than work against them – but it does not completely eliminate the need for individual support to maintain a healthy weight. Individuals in healthier environments still benefit from strong social support and guidance from healthcare professionals as they seek to adopt and maintain healthy behaviors. As the right side of Figure 4 illustrates, there is still a hill to climb, but achieving the goal becomes much more possible for everyone in a healthier environment.

There are many factors that influence the health of an environment. For example, some communities in our region, such as the city of Mebane, have ordinances that require developers to build sidewalks in new neighborhoods. Many businesses, including all Cone Health facilities, no longer permit the use of tobacco on the premises. We are discovering that longstanding attitudes about race and equity also impact the health of our communities. It is a difficult but important task to acknowledge the influence of a legacy of racial segregation and discrimination on our environments. While this shameful legacy expresses itself in multiple ways, the New Deal-era policy of “redlining” is a concrete example of the influence of this history on current health outcomes.

In 1935, the Home Owners’ Loan Corporation (HOLC) created maps of 239 American cities that estimated the level of lending risk in different areas of the city. More affluent areas were outlined on these maps in green and designated as “best,” a secure investment for lenders. Neighborhoods outlined



in red on the maps were considered the least secure for mortgage support. These maps reflected the racial prejudices of the times, as redlined neighborhoods were predominantly locations where higher numbers of people of color lived and owned businesses. This is true for the Greensboro

Figure 5 HOLC Map of Greensboro

HOLC map in Figure 5. The publication of these maps led to a lack of investment in redlined communities by both public and private sources of capital. While the practice was formally banned in the late 1960s, these areas remain visibly under-resourced today. One of the results of underinvestment in redlined neighborhoods is their lower standard of overall housing quality today.

Housing quality is linked in the scientific literature to a number of health issues, such as respiratory illness and injuries. Leaky plumbing and ineffective pest control can breed mold, mildew, and roach issues that exacerbate illnesses like asthma. Rickety stairs and unsecured toilets and handrails are a risk for falls, especially in older adults. Researchers from the University of North Carolina at Greensboro's

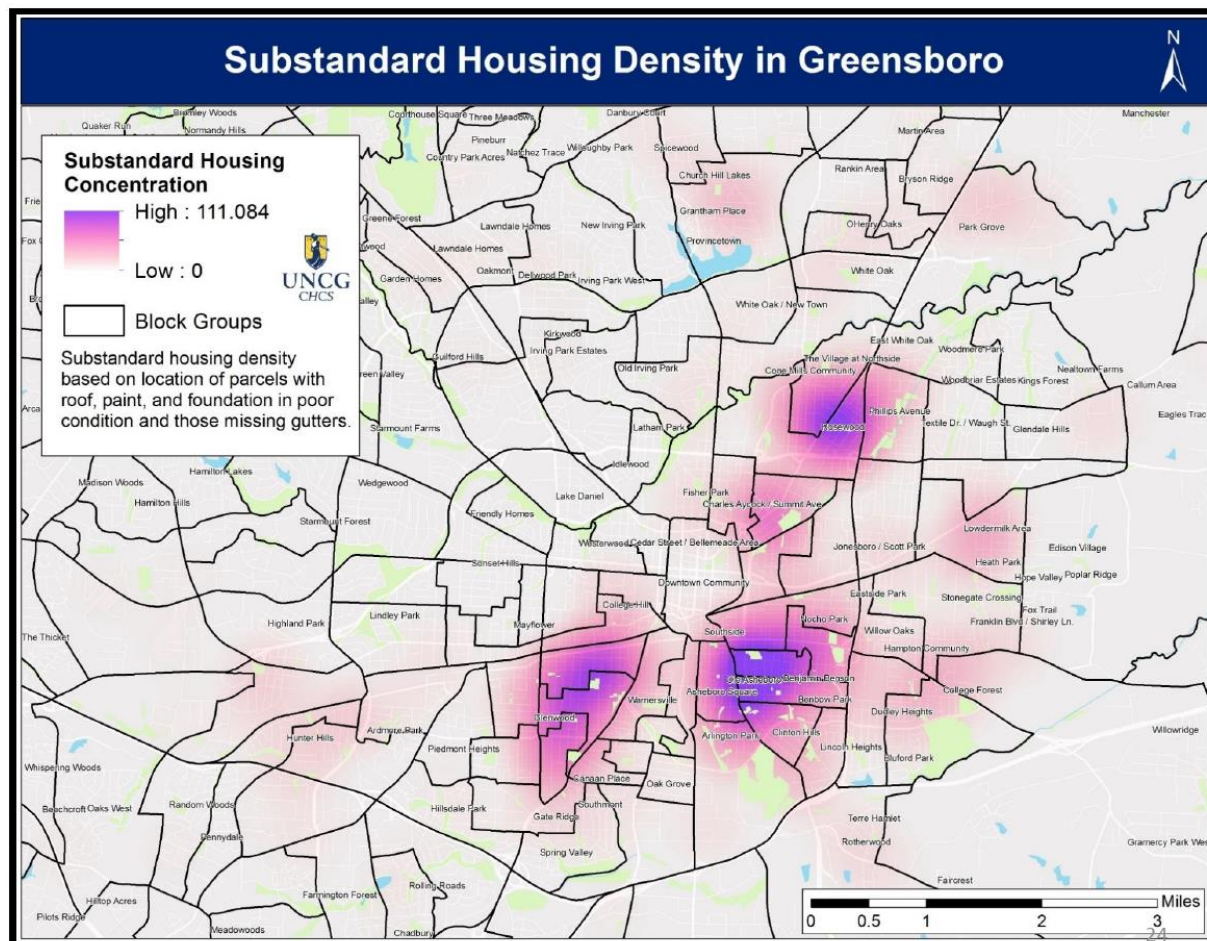


Figure 6 Substandard Housing Density in Greensboro, 2018

Center for Housing and Community Studies (UNCG CHCS) examined thousands of parcels in the City of Greensboro and mapped the density of substandard housing (Figure 6). The geographic concentration of substandard housing on the southeast side of Greensboro repeats the patterns visible on the redlining map. These patterns are also repeated on UNCG CHCS's map of Greensboro's "hot spots" and "cold spots" for respiratory-related hospital admissions for patients with asthma (Figure 7). A hot spot is defined as an area where we observe a higher than average rate of hospitalization; a cold spot is where people have a lower than average rate of hospitalization.

By acknowledging and understanding the legacy of racial discrimination in economic development in Greensboro, we can more deeply comprehend the underlying conditions that affect the health of our patients and community members. This is leading to new methods of providing care at Cone Health, as we join with healthy homes experts and food pantries to link patients to agencies that can resolve social needs that impact health. We are working actively to integrate social determinants of health into how we assess, treat and provide follow-up care with our patients.

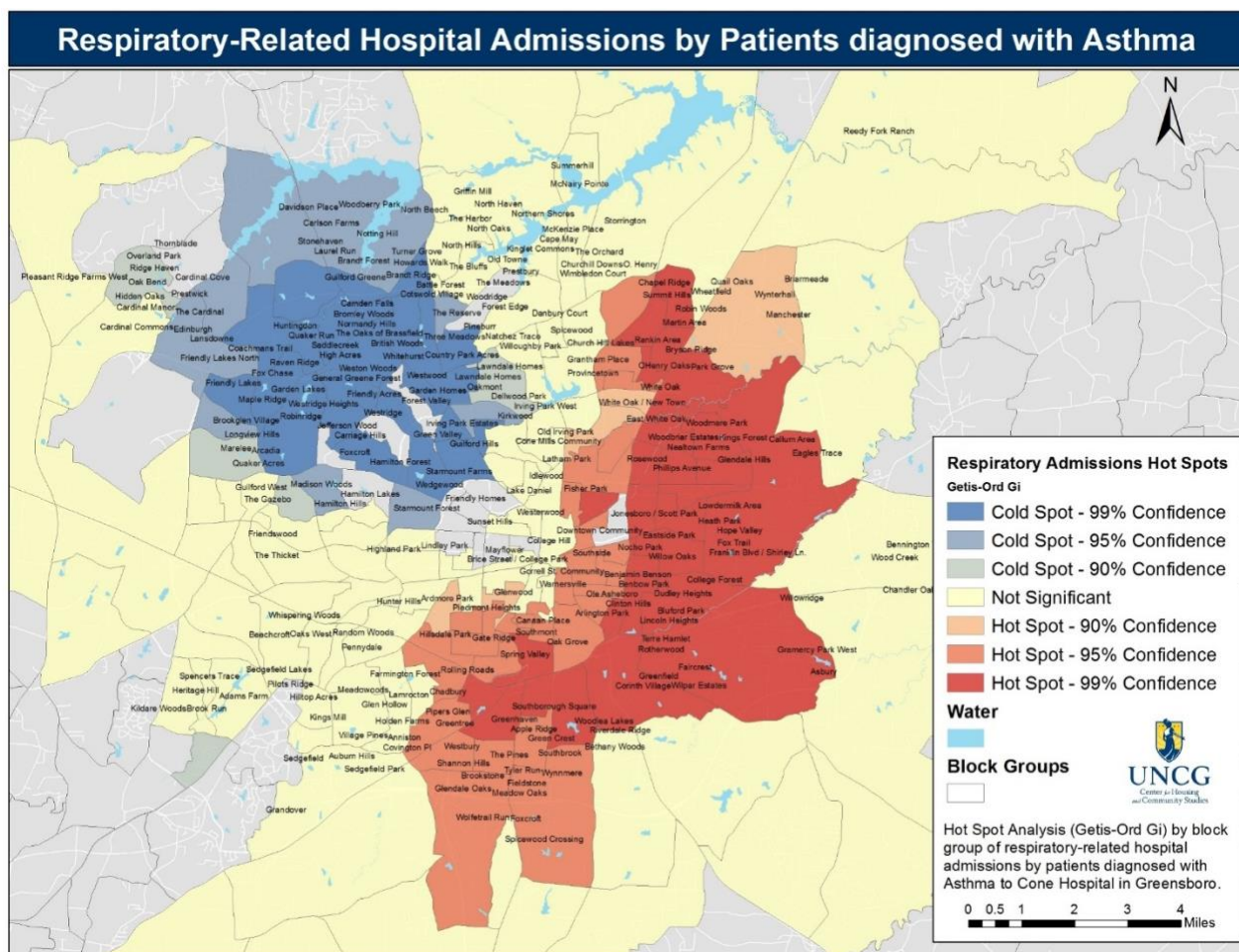


Figure 7 Greensboro's Hot Spots and Cold Spots for Respiratory-related Hospital Admissions

In late April 2019, Cone Health became the first health system in the United States to integrate an electronic referral platform, NCCARE360, into the Epic electronic medical record system. NCCARE360 allows for communication and coordination between health and human services agencies, expanding the patient's care team and transforming how we provide healthcare. Within the first several months, Cone Health employees have sent hundreds of referrals to community agencies that provide transportation, legal assistance, food, job training, and housing assistance. We have adopted a Longitudinal Plan of Care within Epic that allows providers to screen for social needs and send referrals that will help resolve them. Just as a doctor would refer a patient to a heart specialist if there is a need for cardiac services, the physician can now refer a patient to a food pantry. At the time of this writing, we are learning how to integrate these capabilities across all our facilities and services. We are both excited about the potential of NCCARE360, and humbled by the system change involved in this important shift.

We now understand health outcomes as the dynamic interplay between individual behavior, living conditions, social and economic status, and the capacity and quality of the organizations and institutions that serve them. You will find this holistic approach reflected in this assessment as we seek to prioritize and improve health in all our communities.

The Communities We Serve

Assessment Methods

This document represents a multi-stage process that begins in our local communities, in the conference rooms and at the planning tables of the many agencies that come together to create county Community Health Assessment (CHA) leadership teams. Local health departments in NC have been conducting CHAs since the 1990s.

- 1) Alongside our public health partners, Cone Health helps to convene and lead CHA teams in Alamance, Guilford and Rockingham counties. County assessments meet all CHA requirements as defined by NC local health department accreditation standards and NC Department of Health and Human Services. They each involve extensive secondary data collection and analysis, primary data collection, and community-led priority setting processes.
- 2) Internally, Cone Health leaders assess the findings from the three county assessments, and capture key insights to shape our path moving forward.
- 3) Cone Health leaders compile regional knowledge of our communities' current health status, and to describe Cone Health's community health improvement priorities. We assure that our documentation (this regional assessment and the three county assessments) satisfy all IRS requirements for Community Health Needs Assessments for tax-exempt hospitals:
 - a. We define the community we serve, being inclusive of those populations in our geographic area that are medically-underserved (experiencing health disparities or at risk of not receiving adequate medical care). We describe the criteria we use for defining our community. *See page 15 for community definition and criteria.*
 - b. We assess the health needs of our defined community, including illness and social, behavioral and environmental factors that influence health and access to care. *See county assessments at PiedmontHealthCounts.org and pages 16 - 55 of this document.*
 - c. We create a participatory process that represents the broad interests of the community, including people with public health expertise, medically underserved individuals, low-income individuals, and people of color. We describe how we solicited input from those representing the broad interests of our community. *See descriptions of community teams and methodology sections in county assessments and page 72 of this document for a listing of the agencies from our region involved in this assessment process.*
 - d. We prioritize significant health needs in our community based on the scope and severity of the health need, feasibility and effectiveness of available solutions, potential impact on resolving health disparities, and community importance. *See priority setting sections in county assessments and information on priority setting on pages 13 and 27.*
- 4) Following the adoption of this assessment by the Cone Health Board of Trustees, leaders in Population Health, Care Management, and Clinical Services at Cone Health work together with our community partners to prepare implementation plans for our shared health priorities.

Local community assessment teams design a process for data collection and analysis that is customized for the unique dynamics, capabilities, concerns and experience of each community. Each of the county assessments is distinct in its own way:

- Alamance County's Community Assessment Team adopted a Community-Based Participatory Research approach, which more explicitly shares the power of data collection and interpretation with groups who have traditionally been excluded from these processes. This enabled meaningful, inclusive focus groups with LGBTQ, Female Heads of Household, Occaneechi Band of the Saponi Nation, Parents of Children with Disabilities, and LatinX participants.

- The Guilford Assessment Team chose early on to retain the assessment priorities from the 2016 assessment: maternal and child health, behavioral health, healthy eating and active living, and social determinants of health. The Guilford Assessment Team designed the assessment as “a deeper dive” into these areas, by collecting secondary data, conducting a key informant survey, and holding four half-day community workshops with service providers and people affected by the issues. Workshop participants engaged in facilitated discussion to consider both quantitative data and data from the key informant surveys, identifying critical opportunities for further health improvements in our priority areas.
- Rockingham County’s Community Health Assessment Advisory Group conducted a 50-question door-to-door survey of a representative sample of 169 residents, and conducted focus groups with over 60 people representing African American Men and Women; High School Students; At-risk Youth and Young Adults; Business Community; Faith Community; Hispanic Men and Women; Homeless Citizens; Parks and Recreation; Mental Health/Substance Abuse Services Recipients; Unemployed Residents; Veterans; and Parents of School-Aged Children.

There are also important similarities between the three assessment teams. In each county, the teams are committed to high quality data collection and analysis. Secondary data are gathered and analyzed from sites associated with government, university and non-profit agencies that use scientific rigor and objective analysis. Our region’s teams have decades of experience with CHAs and high levels of epidemiological and social science training. The assessment teams seek out voices from diverse community members. For example, assessment teams offer opportunities to participate in languages other than English; conduct surveys by email, phone and door-to-door; seek out under-represented residents to participate in focus groups, and include agency representatives with important knowledge and perspectives as service providers for medically underserved residents.

While they may vary in emphasis, the county assessment teams utilize the following criteria to prioritize health needs:

- | | | |
|---|---|--|
| • How engaged and motivated is our community to work on this issue? | • Does working on this issue have significant downstream benefits that will help make other problems better, too? | • Would improving this issue be consistent with shared community values? |
| • How many people does this issue affect? | • Does improving this issue help to eliminate a persistent health disparity? | • Does working on this issue take advantage of unique talents and capabilities of our community? |
| • Do we know what to do about this issue, and do we have the resources to take that action? | | |

County assessment teams utilize different methods to consider these criteria, but they typically involve a community forum in which individuals representing diverse perspectives deliberate and vote democratically to determine priorities.

After the county assessment teams have completed their priority setting process, Cone Health leaders evaluate similarities and differences across the region to develop Cone Health assessment priorities that are inclusive of the community priorities. Table 1 depicts a cross-walk between the ten community priorities (left hand column) and five Cone Health priorities (top column).

Table 1. Crosswalk Between Priority Areas Identified in Alamance, Guilford and Rockingham County Assessments and Priorities Identified in Cone Health Community Health Needs Assessment					
	Prevention of Chronic Disease, especially Diabetes	Prevention of Addiction and Promoting Strong Mental Health	Access to High Quality, Affordable Healthcare	Promoting Living Conditions that Contribute to Health	Eliminating Bias and Discrimination in Healthcare
Alamance					
Access to Care	x	x	x		x
Education				x	
Economic Issues				x	
Guilford					
Maternal and Child Health	x	x	x	x	x
Behavioral Health		x	x		x
Healthy Eating and Active Living	x			x	
Social Determinants of Health			x	x	x
Rockingham					
Mental Health/ Substance Abuse: Opioids		x	x		x
Physical Activity and Nutrition: Diabetes	x		x	x	
Social Determinants of Health: Education				x	x

This assessment was presented in full and reviewed by the Strategy, Innovation, and Transformation Committee of Cone Health's Board of Trustees. After receiving committee approval, the assessment was reviewed by the full Board of Trustees before adoption.

This document provides a high-level overview of complex health issues that are discussed in detail in the Alamance, Guilford and Rockingham assessments. You will find these assessments to be enlightening in their level of detail and close observation of our communities. This document is not intended to replace them, but rather to summarize their most salient findings and present them in a regional context that engages leaders, activists and residents working throughout central NC to improve our lives. Please visit PiedmontHealthCounts.org to access our community data hub and each county's CHA documents.

	Alamance	Guilford	Rockingham	Caswell	Forsyth	Orange	Randolph	NC
Total Population	162,391	526,953	90,949	22,646	376,320	144,946	143,282	10,273,419
% Under 18	22.6%	22.4%	20.4%	18.7%	23.2%	19.8%	22.9%	22.4%
% Over 65	16.8%	14.8%	19.9%	20.9%	15.6%	13.4%	17.3%	15.9%
% African American	19.6%	33.8%	18.6%	32.4%	25.7%	11.5%	6.2%	21.4%
% Asian	1.7%	5.2%	0.6%	0.5%	2.5%	8.2%	1.5%	3.1%
% Hispanic	12.9%	8.1%	6.2%	4.0%	13.0%	8.5%	11.5%	9.5%
% White	63.8%	50.5%	72.5%	61.0%	56.8%	69.3%	79.1%	63.1%
Median Household Income	\$47,900	\$52,300	\$46,200	\$45,000	\$50,800	\$69,400	\$44,200	\$52,800
Children eligible for Free/Reduced Lunch	58%	62%	54%	78%	60%	32%	58%	57%
Children in Poverty	21%	20%	24%	29%	25%	11%	23%	21%
Unemployment	4.3%	4.8%	5.2%	4.9%	4.4%	3.8%	4.4%	4.6%
High School Graduation	81%	89%	86%	84%	84%	88%	90%	86%
Some College	61%	70%	51%	53%	67%	81%	52%	67%
Homeownership	65%	59%	68%	76%	62%	62%	72%	65%
Severe Housing Problems	17%	17%	15%	15%	17%	19%	13%	16%
Black/White Residential Segregation*	41	50	31	26	48	27	41	50
% renters cost-burdened	14%	14%	12%	15%	15%	16%	10%	14%
Children in Single Parent Households	39%	40%	41%	40%	37%	24%	35%	35%
% Rural Residents	28.6%	12.7%	61.9%	99.2%	7.3%	28.5%	56.2%	33.9%
Long Commute; Driving Alone	32%	23%	38%	50%	22%	30%	31%	32%

* The residential segregation index ranges from 0 (complete integration) to 100 (complete segregation).

We can conceive of a community's outcomes in terms of a three-legged stool, in which health, wealth and education act as the legs. They are interdependent and mutually reinforcing. With good health, people are more likely to pursue education and maintain a stable source of income. With a strong educational background, people are more likely to obtain work with benefits that include health insurance coverage. Because of this, health leaders seek to understand the implications of demographic trends in income and education as well as age, population size, housing and geography. There are several points worth noting here:

- Guilford County's population is far larger than that of any other county in this table; it and Forsyth have the lowest percentages of rural residents among counties listed here. The vast majority of Caswell and Rockingham county residents, on the other hand, live in rural areas. This difference points to the challenge and richness of providing healthcare across central NC, where our patients live in very different communities. Some communities have amenities readily at hand; others may be isolated from services and need to drive considerable distances for work, healthcare and recreational activities.
- The two least populated counties – Rockingham and Caswell – are demographically different by age. They have a lower percentage of residents under 18 years of age and a higher share of residents over 65 years old. These two counties also have the highest rates of children living in single parent households, and the highest rates of adults with long commutes to work. They also both have high rates of home ownership.
- Median household income measures the middle point of the income spectrum in a community, and is somewhat different from the average income. The median income indicates that half the households in a community earn more than the median, and the other half of households earn less. It is important to note that each of our three focus counties have median incomes lower than the state of NC as a whole. Household income influences many issues that impact health, such as insurance coverage, housing availability, nutritional practices, childcare options and educational attainment. While Randolph County has the lowest median income, they are in the middle of the group for children in poverty and unemployment, but the leader in high school graduation. Guilford County has the 2nd highest median income, but out of the seven counties listed, has one of the higher rates of children receiving free and reduced lunch.
- It is helpful to compare other county statistics to the state average. On many measures, Guilford and Forsyth hover close to the state average. Alamance tends to be near but below average (in a negative direction) compared to the state on a range of social factors, while Rockingham typically tracks further below the state average.
- Of the non-hospital counties, Orange County is distinguished in a number of ways; its high income and education influence many social factors positively. While reading through other sections of this assessment, the influence of these strong income and educational assets are also reflected in Orange County's above-average health outcomes.

There is a frequently repeated saying that "demography is destiny." Understanding population trends illuminates underlying drivers that affect health outcomes.

The Communities We Serve

Life Expectancy and Leading Causes of Death

This section gives a high level overview of one of the most complex community health indicators: life expectancy. Understanding differences in life expectancy across our region requires contemplation of every factor in the County Health Rankings model. More detailed explanations of many community conditions are available in the county assessments; we present analysis of this specific issue here for comparative purposes, and to provide readers with a sense of the strengths and concerns of our region.

Life expectancy has a simple definition – how long most people are expected to live – and a technical one: “Average number of years that a newborn is expected to live if current mortality rates continue to apply.” There can be large differences in life expectancy by geography and by group. For example, Caswell County has an average life expectancy of 76.8 years, while its neighbor, Orange County, has an average life expectancy of 81.5 years. Women in NC have an average life expectancy of 80.5 years, which is almost five years more than men in NC (75.6 years).

Table 3 displays 2014-2016 estimates for life expectancy for the counties in our region and the state. Alamance, Caswell, Davidson, Randolph and Rockingham all have estimates of life expectancy that are lower than NC as a whole. There is a wide range here, with Rockingham County at the lowest at 75.6 years and Chatham County at the highest at 82.6, a difference of seven years between two locations just about an hour’s drive from each other. Orange County has a high overall life expectancy at 81.5 years,

	Total Life Expectancy in Years	Male	Female	Female residents’ life expectancy is higher by...	African American	White	White residents’ life expectancy is higher by...
NC	78.1	75.6	80.5	6.5%	75.8	78.9	4.1%
Alamance	77.6	74.9	80	6.8%	74.5	78.7	5.6%
Guilford	78.7	76	81.2	6.8%	76.3	79.9	4.7%
Rockingham	75.6	72.8	78.4	7.7%	72.7	76.4	5.1%
Caswell	76.8	74.6	78.8	5.6%	77.8	76.4	-1.8%
Chatham	82.6	79.9	85.2	6.6%	78	83.8	7.4%
Davidson	76.4	73.8	78.9	6.9%	75	76.6	2.1%
Forsyth	78.3	76	80.4	5.8%	76	79.2	4.2%
Orange	81.5	79.5	83.3	4.8%	75.1	82.5	9.9%
Randolph	76.7	74.9	78.5	4.8%	76.1	76.8	0.9%

but also the highest inequality by race; the life expectancy for white residents of Orange County is almost 10% higher than the life expectancy of its African American residents. It is notable that Randolph County has near equality between races for life expectancy and Caswell County’s African American residents have a 1.8% higher life expectancy than their white counterparts. It is also notable that gender-based differences in life expectancy are significant. Rockingham County has the highest gender-based inequality in life expectancy, with women in Rockingham County living 5.6 years longer than men in that county.

So should we all move to Chatham County if we want to live long lives? There is certainly strong evidence that where we live has a large effect on our health, in addition to many other attributes we

may traditionally consider important, such as diet, physical activity, and genetics. Where we live often reflects the social determinants of health – factors such as education, income, housing quality, crime rates and environmental pollution– that heavily influence life opportunities and health outcomes.

So why do females live longer than males? This question has been puzzling researchers for years. In fact, the disparity in life expectancy between males and females remains consistent regardless of geography, race, and ethnicity. Possible explanations attempt to identify shared biological or social characteristics that lead to women’s lower overall rates of heart disease and cancer.

In most of the counties in Table 3, white residents live longer on average than African American residents. Why is this the case? There are multiple reasons, including lower rates of health insurance coverage and lower average incomes among African Americans, indicating a higher level of financial barriers to accessing care. Some of this difference in life expectancy may also be attributed to the social determinants of health, as in the racially-inequitable housing quality issues explained earlier in the discussion about redlining. It is also likely that implicit bias within healthcare plays a role in the life expectancy gap.

According to The Joint Commission, the healthcare accreditation organization, implicit bias is “the attitudes or stereotypes that affect our understanding, actions and decisions in an unconscious manner. These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual’s awareness or intentional control.” In 2016, The Joint Commission published a [review](#) of scientific studies of implicit bias in healthcare, with these findings:

- *Non-white patients receive fewer cardiovascular interventions and fewer renal transplants*
- *Black women are more likely to die after being diagnosed with breast cancer*
- *Non-white patients are less likely to be prescribed pain medications (non-narcotic and narcotic)*
- *Black men are less likely to receive chemotherapy and radiation therapy for prostate cancer and more likely to have testicle(s) removed*
- *Patients of color are more likely to be blamed for being too passive about their health care*

Racism and cognitive bias, The Joint Commission concludes, affect patient behaviors, making non-white patients more likely to drop out of treatment, decline to participate in screening tests, avoid seeking healthcare, and delay filling prescriptions. These differences documented in national studies are likely to explain part of the variation in life expectancy we observe in our region.

When we look more closely within counties, we find even larger – and often distressing – differences between neighborhoods located just minutes from each other. The Public Health Division of the Guilford County Department of Health and Human Services created the map of *Life Expectancy by Census Tract in Guilford County* (Figure 9). In Guilford County, there is an eighteen year disparity between the census tract with lowest life expectancy (70.07 years, in southeast High Point) and the census tract with the highest life expectancy (88.61 years, in northwest Greensboro).

A similar pattern emerges in Alamance County. The Alamance County Health Department prepared *Life Expectancy at Birth, Alamance County, NC* (Figure 10) in spring of 2018. The census tract with the lowest life expectancy, 71.6 years, is in the neighborhood around the old Western Electric factory on the east side of Burlington, and the census tract with the highest life expectancy, 83.3, is located only four miles to its west. A short distance – but an eleven year difference in life expectancy.

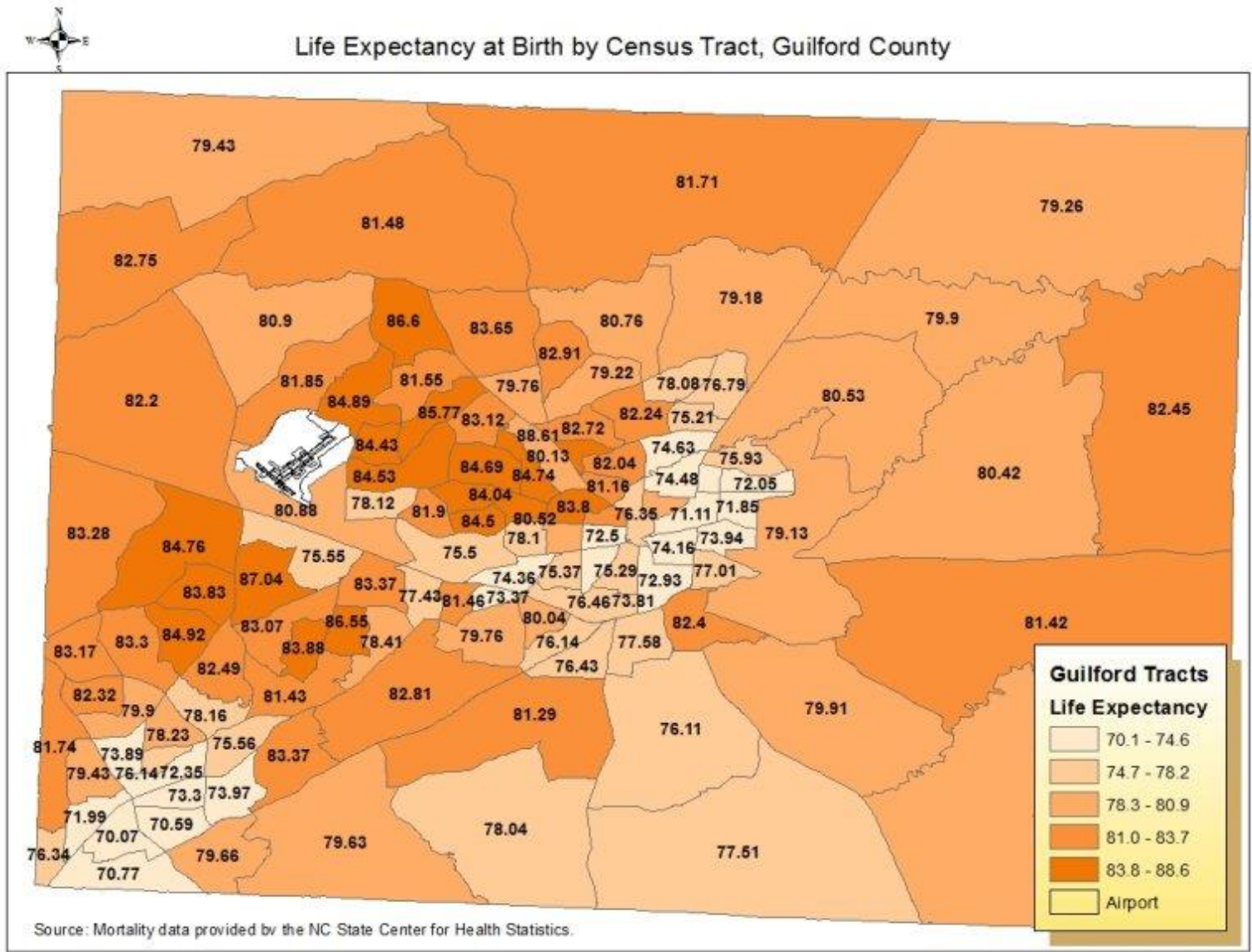


Figure 9 Life Expectancy Map, Guilford County Division of Public Health

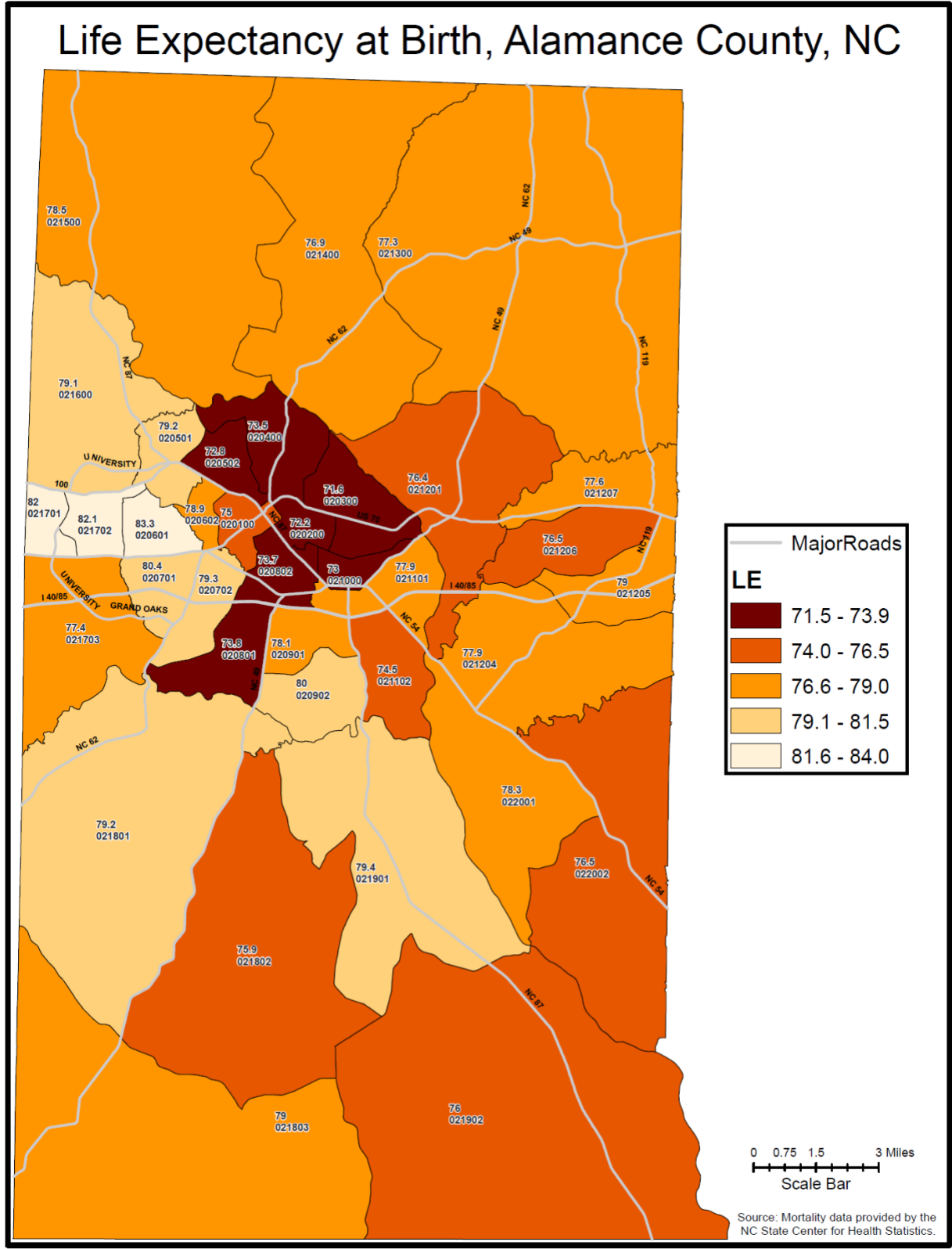
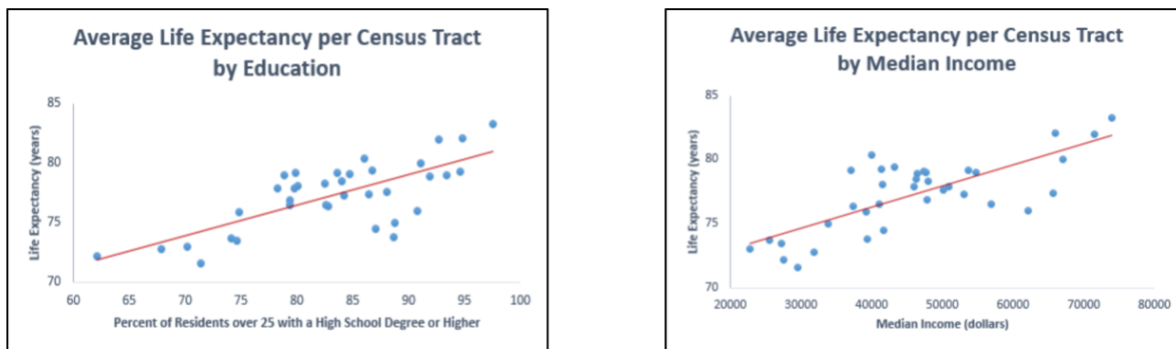


Figure 10 Life Expectancy Map, Alamance County Health Department



Sources: US Census Bureau; North Carolina State Center for Health Statistics

Figure 11 Average Life Expectancy per Census Tract in Alamance County, by Education (left) and Income (right)

Differences in education and income also help to explain the differences in average life expectancy between various neighborhoods in Guilford County and Alamance County. For example, the western portions of Burlington have higher life expectancies, educational attainment and income overall compared to the eastern neighborhoods of Burlington. Figure 11 shows graphs of average life expectancy by census tract in Alamance County based on median income and level of education. Each blue dot represents one of the census tracts from the life expectancy map. On the left, the graph shows that, as the percentage of residents in a census tract with a high school degree increases, so does life expectancy. The same is true for median income, as depicted in the graph on the right. These graphs reinforce the County Health Rankings Model (Figure 2 on p. 5) which emphasizes that social and economic factors have a large influence on length of life and quality of life.

Leading Causes of Death

Around 70% of all deaths in Alamance, Guilford and Rockingham counties are accounted for in the ten leading causes of death (Table 4). Cancer and heart disease make up close to 40% of all deaths annually in each of these counties. The category of “All Other Unintentional Injuries” includes many of the types of accidental events such as falls, drowning, choking, exposure to the elements/weather, poisonings, and overdoses (but does not include motor vehicle collisions.) “All Other Unintentional Injuries” is the category where deaths due to opioid misuse are typically recorded. In 2016, the number of deaths in this category was lower in each county. While the year-to-year difference in Guilford and Rockingham counties is very small, this represents a one-year increase of 26 deaths in this category in Alamance County.

	Alamance All Deaths = 1690			Guilford All Deaths = 4598			Rockingham All Deaths = 318		
	Cause	#	%	Cause	#	%	Cause	#	%
1	Heart Disease	337	19.9	Cancer	914	19.9	Heart Disease	233	20.8
2	Cancer	327	19.3	Heart Disease	831	18.1	Cancer	215	19.2
3	All Other Unintentional injuries	93	5.5	Alzheimer's disease	262	5.7	Chronic lower respiratory disease	92	8.2
4	Cerebrovascular disease (stroke)	88	5.2	Cerebrovascular disease (stroke)	258	5.6	All Other Unintentional injuries	55	4.9
5	Chronic lower respiratory disease	88	5.2	All Other Unintentional injuries	220	4.8	Cerebrovascular disease (stroke)	55	4.9
6	Alzheimer's disease	68	4.0	Chronic lower respiratory disease	198	4.3	Diabetes	40	3.6
7	Diabetes	55	3.3	Diabetes	152	3.3	Alzheimer's disease	38	3.4
8	Kidney Disease	39	2.3	Kidney Disease	132	2.9	Kidney Disease	28	2.5
9	Septicemia	37	2.2	Influenza and pneumonia	129	2.8	Influenza and pneumonia	25	2.2
10	Influenza and pneumonia	36	2.1	Chronic Liver Disease and Cirrhosis	78	1.7	Septicemia	22	2.0

Source: NC DHHS State Center for Health Statistics

Table 4 reveals that many of the most common causes of deaths have risk factors related to access to care, healthy lifestyle behaviors and living conditions. Heart disease, cerebrovascular disease, chronic lower respiratory disease and diabetes are chronic conditions. Individuals with risk of chronic diseases benefit from regular access to healthcare to delay onset of the condition, and to manage it over a lifetime with the help of medication, therapies, and lifestyles that include healthy eating and physical activity. Modifiable risk factors for cancer include use of alcohol, unhealthy diet, obesity, sun exposure and tobacco use. Risk factors for heart disease include high blood pressure, high cholesterol, diabetes, obesity, unhealthy diet, physical inactivity, excessive alcohol use, and tobacco use.

Years of Potential Life Lost

Calculating years of potential life lost (YPLL) allows us to quantify the social and economic impact of premature death. While many of the individuals whose causes of death are recorded in Table 4 may have succumbed to these illnesses at a later age after satisfying lives, others may have passed away at relatively young ages. The YPLL rate defines 75 as an average life expectancy; the rate represents the years of potential life lost before the age of 75 per 100,000 people in a community. Lower numbers are positive, as they indicate that a larger number of members of that community are living to age 75 and beyond.

The intent of the YPLL is to focus on deaths that could have been prevented. Statistics, such as life expectancy, are dominated by the deaths of the elderly, while YPLL quantifies the impact of the deaths of younger people. Leading causes of premature death in the United States include cancer, unintentional injury, heart disease, suicide, and perinatal deaths. It is notable that the YPLL in Rockingham County is the highest in our region, indicating a higher burden of premature death in Rockingham. Premature death has social and economic consequences for communities, such as emotional distress to loved ones, developmental issues for children losing a parent, and concerns for family financial stability when a person dies during productive working years.

	YPLL Rate (years of life lost per 100,000 people)	YPLL Rate (Black Non- Hispanic)	YPLL Rate (All Races, Hispanic)	YPLL Rate (White Non- Hispanic)
NC	7,600			
Alamance	7,800	10,900	3,400	7,600
Guilford	7,300	9,300	3,800	6,700
Rockingham	9,700	13,000		9,400
Caswell	8,800	9,000		9,200
Forsyth	7,400	10,100	4,500	7,200
Orange	4,500	10,200	2,900	4,100
Randolph	9,000	12,000	3,300	9,600

Source: 2019 County Health Rankings (data from 2015-2017). Cells are empty if numbers are too small to reliably calculate rates or are not calculated by the source.

The racial inequity we observed in life expectancy statistics is also reflected in the YPLL rates. African Americans have a considerably higher YPLL rate (except in Caswell County), and the disparity between white and African American groups is again largest in Orange County. It is also notable that the YPLL for Hispanic individuals of any race is by far the lowest among these groups, indicating there is lower burden of premature deaths among Hispanics in central NC.

Infant Mortality

The death of a child is a rare, sad, and often preventable event. The overwhelming majority of child deaths occur in the youngest children (infants and toddlers up to age 4). Leading causes of death for infants are birth defects, preterm birth, low birth weight, maternal pregnancy complications, sudden infant death syndrome (SIDS), and injuries (e.g. suffocation, often due to sleeping practices).

The infant mortality rate is considered internationally to be a “[sentinel measure](#)” of community well-being. This means that the infant mortality rate not only measures a discrete event – a death occurring before the first birthday of any infant born alive– but is an indicator of deeper issues. Infant mortality is understood to be a valid measure of the underlying well-being of mothers and families, and the capacity of their communities to provide optimal conditions, medical care and resources to nourish healthy pregnancies, safe births, and thriving infants. Throughout the world, infant mortality is understood as a barometer of the overall ability of women and their babies to flourish.

	# of Deaths	Infant Mortality Rate (per 1000 live births)	Infant Mortality Rate (Black Non-Hispanic)	Infant Mortality Rate (Hispanic)	Infant Mortality Rate (White Non-Hispanic)
NC	852	7.1	12.5	5.7	5
Alamance	10	5.2	13.7*	2.4*	2.9*
Guilford	61	9.8	13.3	11	6.1
Rockingham	4	4.7*	0*	13.5*	5*
Caswell	3*	14.7*	36.4*	0*	8.3*
Forsyth	43	9.8	8.7	19.3	4.5
Orange	1	0.8*	0*	6.2*	0*
Randolph	19	12.1	0*	16.4*	12.4

Source: State Center for Health Statistics, North Carolina (2017); *interpret with caution (rates are based on small numbers—fewer than 10 deaths)

North Carolina is among the 10 states in the US with the highest infant mortality rates. This statistic and our persistent racial disparity in infant mortality are of deep concern. It suggests that not only are more African American infants dying before their first birthdays, but also that our communities are not successfully providing the opportunities and conditions for our residents, especially African American mothers and families, to thrive. Healthcare access alone is not enough to eliminate the disparity. Researchers in infant mortality have called for programs that address the cumulative impacts of socioeconomic disadvantage, a concept known as “[the weathering hypothesis](#).” Nationally, African American women carry the highest [allostatic load](#) (biomarkers that indicate physiological responses to stress), and many researchers believe this high stress contributes to the disparity in birth outcomes.

Because infant death is a relatively rare event, it is important to examine trends over multiple years, as presented in Figure 12. While Alamance County’s overall infant mortality rate has steadily improved since 2013, as indicated in Figure 12, Guilford County has had an upward trend since 2015. Guilford County’s epidemiologist investigated this trend and identified two important insights from the data. First, African American infants and white infants born at low birthweight (under 2500 g or 5 lbs. 8 oz.) have similar survival rates. The racial disparity in infant mortality results from the fact that a much higher percentage of African American infants are born at a low birthweight or very low birthweight.

Practitioners working with pregnant women can focus on effective monitoring and support of women at risk of delivering babies at low birth weight. There are effective programs to accomplish these goals, such as the [Centering Pregnancy](#) initiative at the Alamance County and Guilford County Health Departments. Guilford County's [Get Ready Guilford Initiative](#) seeks to expand access to evidence-based programs such as Family Connect and the Nurse Family Partnership so that all families get the support they need during pregnancy and early childhood.

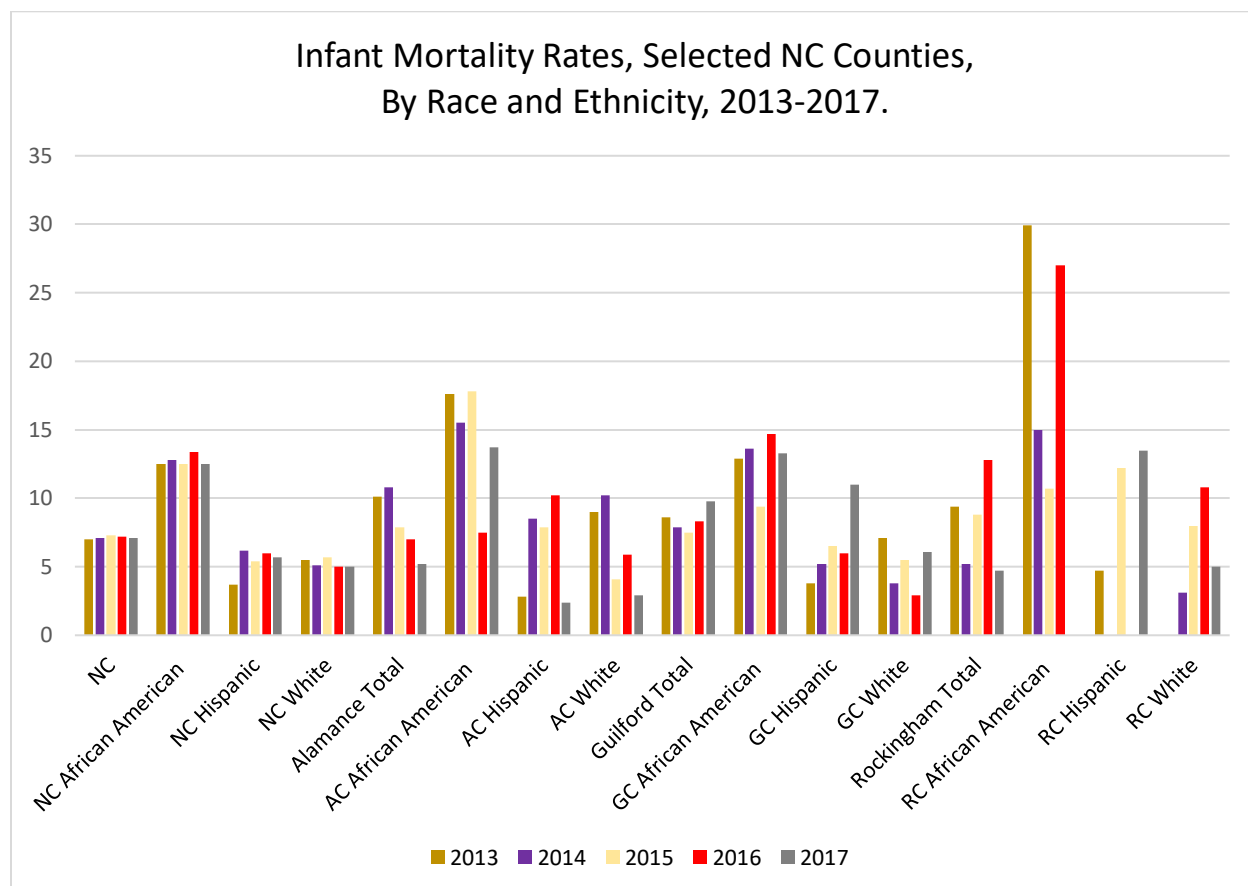


Figure 12 Infant Mortality Rates 2013-2017 Source: NC DHHS State Center for Health Statistics
Interpret Rockingham County rates with caution due to low numbers.

Insights from Life Expectancy and Mortality Analysis

Through this high level look at key statistics related to life expectancy and mortality, several important insights emerge:

- Cancer and heart disease are the region's leading causes of death, and must be a critical focus of our prevention efforts.
- Patterns of racial inequity are persistent and repeat across multiple measures.
- Changes to living conditions and health behaviors are necessary to improve health for all and eliminate disparities.

Priority Health Needs

Moving to a Healthier Future

- Prevention of Chronic Disease, especially Diabetes
- Prevention of Addiction and Promoting Strong Mental Health
- Access to High Quality, Affordable Healthcare
- Creating Living Conditions that Nurture Health
- Eliminating Bias and Discrimination in Healthcare

Our region possesses many wonderful assets, including dedicated leaders, diverse cultures, abundant natural resources, and forward-thinking business and industry. We also have considerable concerns about our region's quality of life and prosperity, and a commitment to improving opportunities and outcomes for all. In this section, we present an overview of each of Cone Health's five community health priorities, drawn from the priorities identified by communities in our region and documented in the Alamance, Guilford and Rockingham assessments.

For each priority area, we answer three key questions:

- *Why is this important?*
- *What do we know about these issues in our region?*
- *What are we working on in our communities right now?*

After completion of the assessment, Cone Health leaders work internally and with community partners to develop action plans to address these concerns over the next three years. There is already considerable work underway. This assessment provides insights into how we might expand or change that work based on the data collected in our communities.

It is important to note that community priority setting is a systematic, thoughtful process, assessing the relative severity, population impact, and feasibility, when choosing between competing priorities. The process is also *human*, and it reflects each community's character and leadership. Communities use these priorities to focus their work and align resources around their key concerns, but must remain open to emerging issues. For example, none of the three counties addressed specific concerns about opioid use in their 2016 assessments, yet since that time all of them have identified that need and built substantial community programs to respond. At the time of the writing of this document, summer 2019, we are well aware of two issues that were not identified in our region's 2019 community priority setting processes, but which are growing more widespread and acute: gun violence and climate change. These are serious issues that affect mental and physical health, and require a coordinated, committed response from our leaders and our systems. While we remain focused on our priorities, we also retain flexibility to recognize and respond to important concerns that warrant our attention.

Priority Health Needs

Prevention of Chronic Disease, Especially Diabetes

Why is this important?

Chronic disease is an important health priority. It affects a high volume of people, reducing quality of life and causing premature death. Our collective ability to combat chronic disease is indicative of our health system's capacity to transform from an episodic, "sick care" system to a comprehensive and coordinated network that provides the resources, support, education and living conditions that promote wellness.

Chronic disease refers to illnesses that persist for one year or more and require ongoing medical attention. In some cases, chronic conditions cannot be cured after they have developed, but effective medical care and lifestyle changes can manage the symptoms of the conditions and maintain a person's quality of life. The Center for Medicare and Medicaid Services deems certain issues to be [chronic conditions](#); this includes concerns that can be very different, such as heart disease, diabetes, schizophrenia, depression, cancer and asthma. However, they often share common precursors. The CDC has identified four risk factors (excessive alcohol use, poor nutrition, lack of physical activity, and tobacco use) as the major risk factors of the major chronic diseases (heart disease, cancer and diabetes).

The prominence of heart disease, cancer and diabetes among our leading causes of death rightfully deserves our concern, but this is also evidence of progress made in the last century to defeat the killers of the 1900s, especially accidents/trauma and many forms of infectious disease. A comparison of the leading causes of death in 1900, 1966 and 2014 (Table 7) reveals differences that reflect the growing ability, throughout the twentieth century, of the medical system to focus its resources on a common goal to improve specific outcomes. That century produced life-saving vaccines, infection prevention processes, and a trauma response system that reduced death rates dramatically in infectious diseases and accidents. We are working now to develop connected, responsive health systems that will provide effective medical care and education to reduce the prevalence of the four major chronic disease risk factors. This includes the capacity to identify not just those who have already developed a chronic disease, but those who are at "rising risk", such as people with prediabetes.

A health system that is optimized to reduce chronic disease is able to provide information, lifestyle coaching, medical care, and other assistance to help people take action to reduce their risk of chronic disease. This involves experts in nutrition, physical activity, behavioral psychology and cultural competence working alongside traditional medical providers to promote adoption of healthy behaviors such as those in Cone Health's "[10 Habits of Highly Healthy People](#)".

1. Visit your primary care provider regularly.
2. Take care of your mental health and make time for your family and friends.
3. Take medications as directed by your provider.
4. Maintain a healthy weight and a trim waistline.
5. Eat healthy meals and snacks, rich in fruits, vegetables, whole grains and lean proteins.
6. Get moving every day – aim for 150 minutes of moderate physical activity each week.
7. Don't smoke.
8. Avoid alcohol or drink only moderate amounts.
9. Manage stress through prayer, meditation or mindful relaxation.
10. Get seven to nine hours of quality sleep each night.

	1900			1966			2014		
RANK	CAUSE OF DEATH	DEATHS PER 100,000 POPULATION	% OF ALL DEATHS	CAUSE OF DEATH	DEATHS PER 100,000 POPULATION	% OF ALL DEATHS	CAUSE OF DEATH	DEATHS PER 100,000 POPULATION	% OF ALL DEATHS
1	Influenza and pneumonia	202.2	11.8	Diseases of the heart	375.1	39.3	Diseases of the heart	167	23.4
2	Tuberculosis (all forms)	194.4	11.3	Malignant neoplasms (cancer)	154.8	16.2	Malignant neoplasms (cancer)	161	22.5
3	Gastritis, duodenitis, enteritis, etc.	142.7	8.3	Vascular lesions affecting the central nervous system	104.6	11	Chronic lower respiratory diseases	40.5	5.7
4	Diseases of the heart	137.4	8.0	All accidents	57.3	6	Unintentional injuries	40.5	5.0
5	Vascular lesions affecting the central nervous system	106.9	6.2	Influenza and pneumonia	32.8	3.4	Cerebrovascular disease	36.5	5.0
6	Chronic nephritis	81.0	4.7	Certain diseases of early infancy	26.1	2.7	Alzheimer's Disease	25.4	3.6
7	All accidents	72.3	4.2	General arteriosclerosis	19.5	2	Diabetes	20.9	2.9
8	Malignant neoplasms (cancer)	64.0	3.7	Diabetes mellitus	18.1	1.9	Influenza and pneumonia	15.1	2.1
9	Certain diseases of early infancy	62.6	3.6	Cirrhosis of the liver	13.5	1.4	Kidney disease	13.2	1.8
10	Diphtheria	40.3	2.3	Suicide	10.3	1.1	Suicide	13	1.6
	All Causes	1719.1	100	All Causes	954.2	100	All Causes	724.6	100

Sources: 1900, 1966: *Brim, Levine & Freeman (1980) The Dying Patient, p. 14.*
2014: [Centers for Disease Control and Prevention](#)

What do we know about these issues in our region?

There is an old business adage “You can’t manage what you can’t measure,” and part of our rising incidence of chronic disease is attributable to our lack of accurate, timely, and geographically-specific measurement of key risk factors. Unfortunately, we do not know which population groups and neighborhoods in central NC have the highest incidence of obesity, smoking, and excessive alcohol consumption, which makes us unable to accurately evaluate the effectiveness of our efforts in those areas. In coordination with UNC Greensboro, Cone Health has developed the LEAP initiative to identify common goals and measures, and ways to scientifically measure them, in order to build the community data infrastructure necessary to drive continuous improvement in healthy eating and active living.

Aggregating data from the electronic medical record (EMR) is an imperfect but intermediate step towards that goal, and can illuminate the scope of the issue. We are careful not to draw too many conclusions about populations from EMR data because of their inherent sample bias; this table can only reflect information about the subsets of our communities that are Cone Health patients. Table 8 indicates the number of Cone Health patients whose lab tests indicate prediabetes (A1C = 5.7 to 6.4; or fasting glucose: 100 – 125 mg/dL; or plasma glucose: 140 – 199 mg/dL) and diabetes. We recognize immediately in this table that the scale of the issue is very large, with almost 90,000 diabetic patients in our three focus counties and an additional 60,000 with lab-confirmed prediabetes. This table reveals an enormous opportunity to reduce both human suffering and cost. Preventing “conversion” from prediabetes to diabetes for these patients will lower their risk of complications and premature death, and lower cost. According to the [NC Diabetes Advisory Council](#), medical costs for people with diabetes is 2.3 times higher than the costs for people without diabetes.

	All Adult Patients with Prediabetes	Patients Age 19-39 with Prediabetes	Patients Age 40-64 with Prediabetes	Patients Age 65+ with Prediabetes	All Adult Patients with Diabetes
Alamance	7607	635	3317	3656	17564
Guilford	42189	4599	18712	18799	56711
Rockingham	9934	742	4440	4752	15040
White	36542	2440	14522	19580	Not calculated
African American	19360	2807	9959	6594	
Other Race	3828	729	1966	1113	
Hispanic Ethnicity	1727	476	961	270	
Insured	53360	4317	22553	26490	
Uninsured	6370	1659	3914	797	

Table 9 demonstrates some of the social and behavioral risk factors that may lead to chronic disease. There is missing data in this table, intentionally displayed, to highlight the importance of generating reliable sources of behavioral data in order to effectively tailor interventions to support healthy lifestyles. Despite this lack of data, many local groups have been working collaboratively for decades to promote healthy eating, active living, moderate alcohol use and smoking cessation.

Table 9. Selected Social and Behavioral Factors for Chronic Disease, and Obesity Rates, Central NC. Various Years.									
		Alamance	Guilford	Rockingham	Caswell	Forsyth	Orange	Randolph	NC
Social Factors	% Household food insecurity	15	18	16	18	16	13	12	15
	% Poverty	18.9	15.7	18.4	21.3	18.1	14.3	16.4	16.1
	% Access to Exercise Opportunities	79	90	59	46	82	84	59	73
	% Low Access to Healthy Food (low income and distant from grocery)	10	8	12	3	14	9	8	7
Behavioral Factors	% of Adults who drink heavily or binge drink	<i>County-level estimates of excessive drinking are based on statistical modeling, because survey sample sizes are not large enough for accurate comparisons between counties or from year to year.</i>							17
	Adults consuming > 5 servings fruits, vegetables or beans daily	<i>County-level estimates of eating behaviors are based on statistical modeling, because survey sample sizes are not large enough for accurate comparisons between counties or from year to year.</i>							18
	% Adults with Physical Inactivity	24.9	22.4	30.3	32.2	23.9	16.7	33.5	23
Adult Obesity	% Adults with Obesity	32	33	35	31	33	25	34	30
	Obesity: non-hispanic white adults	<i>Survey sample sizes are not large enough for accurate county-level estimates for population sub-groups by race, ethnicity, age, income, or education level.</i>							29.3
	Obesity: non-hispanic African American adults								41.1
	Obesity: Hispanic adults, all races								28.3

What are we working on in our communities right now?

Groups working to promote healthy lifestyles in central NC take a collaborative approach. Some provide access to affordable, fresh healthy food, such as the [Greensboro Farmer's Curb Market](#), the [North Park Farmer's Market](#) in Burlington and [West Rock Farmer's Market](#) in Mayodan.

Others promote awareness of opportunities for physical activity, and make them more accessible to people of all backgrounds.

[Be Healthy Rockingham's](#) map of the county's opportunities for physical activity highlights the community's abundant natural resources, parks, and recreational facilities (Figure 13). Alamance County's [Wellness Collaborative](#) has helped to establish new walking trails, playgrounds, and greenways, and to pass a policy that opens up elementary school playgrounds to the public during non-school hours.



Figure 13 Be Healthy Rockingham Physical Activity and Nutrition Map

Greensboro has over 90 miles of greenways, supported by local government and [community groups](#).

Our communities also offer many activities focused on helping people to keep healthy habits and break bad ones. [Be Healthy Now Alamance](#) is a community-wide wellness program that



offers free nutrition activities and a calendar with daily opportunities for physical activity. Cone Health's [Nutrition and Diabetes Education Services](#) and Healthy Communities Department received a \$75,000 grant in early 2019 from Blue Cross and Blue Shield of North Carolina to support multiple cohorts of the Diabetes Prevention Program (DPP) reaching underserved and uninsured women who are at risk of developing Type 2 diabetes. Two cohorts, one in English and one in Spanish, started in June 2019. This year, the [Diabetes Task Force](#)

of [Rockingham County](#) will host its first annual Camp Oakhaven and will give children living with diabetes the opportunity to learn about their condition, grow personally, and improve their health. Cone Health offers [Quit Smart](#) smoking cessation classes, both during the day and evening, free of charge, at sites across the region. In 2019, the Wellness Collaborative assisted numerous municipalities in Alamance County ([Burlington](#), [Mebane](#) and [Elon](#)) to advocate for tobacco-free parks and public spaces.



These approaches – environmental, behavioral and policy – demonstrate the variety of promising avenues available to communities committed to preventing chronic disease.

Priority Health Needs

Prevention of Addiction and Promoting Strong Mental Health

Why is this important?

This issue is important because of the relationship of mental health to a person’s overall physical health and his/her fundamental sense of well-being and meaning. The World Health Organization (WHO) defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.” The term “behavioral health” is often used to describe the connection between our behaviors and this fundamental sense of well-being. Practitioners working in Behavioral Health offer therapies designed to help individuals cope with issues such as depression, anxiety and addiction to alcohol or drugs. Many issues contribute to Behavioral Health outcomes – everything from an individual’s genetic predisposition to family function and community support, to policies like alcohol taxation and a community’s rates of available Behavioral Health care providers.

In recent years, greater attention has been given to understanding mental health and its interaction with other health conditions. For example, maternal health advocates have elevated our awareness of issues such as post-partum depression, to improve early diagnosis and access to treatment. Specialists in many disciplines, such as cardiology and endocrinology, recognize the complex interactions between mental health and heart disease, diabetes, and obesity. Behavioral health practitioners, addiction professionals and their patients have helped to de-stigmatize mental health and substance use by framing these as medical issues, with physiological mechanisms that respond to effective treatment. This issue is also important because of the growing numbers of people who are diagnosed with behavioral health disorders. Figure 14 presents two graphs with the rates of depression among the

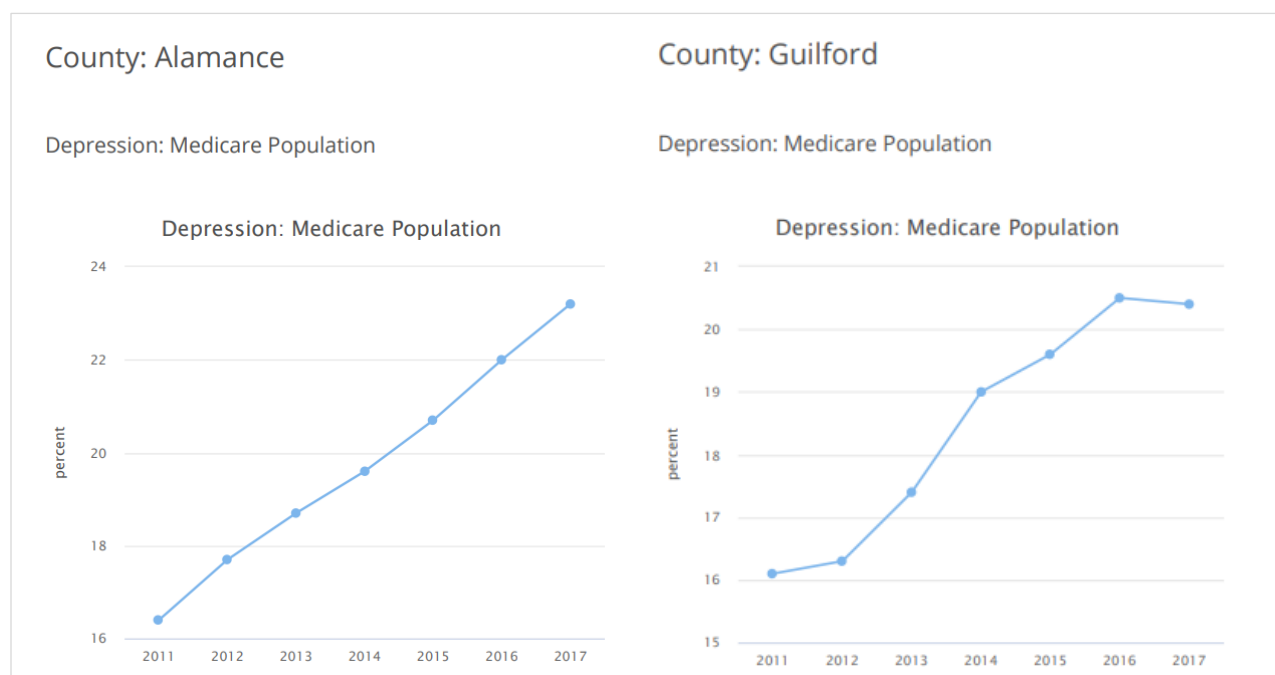
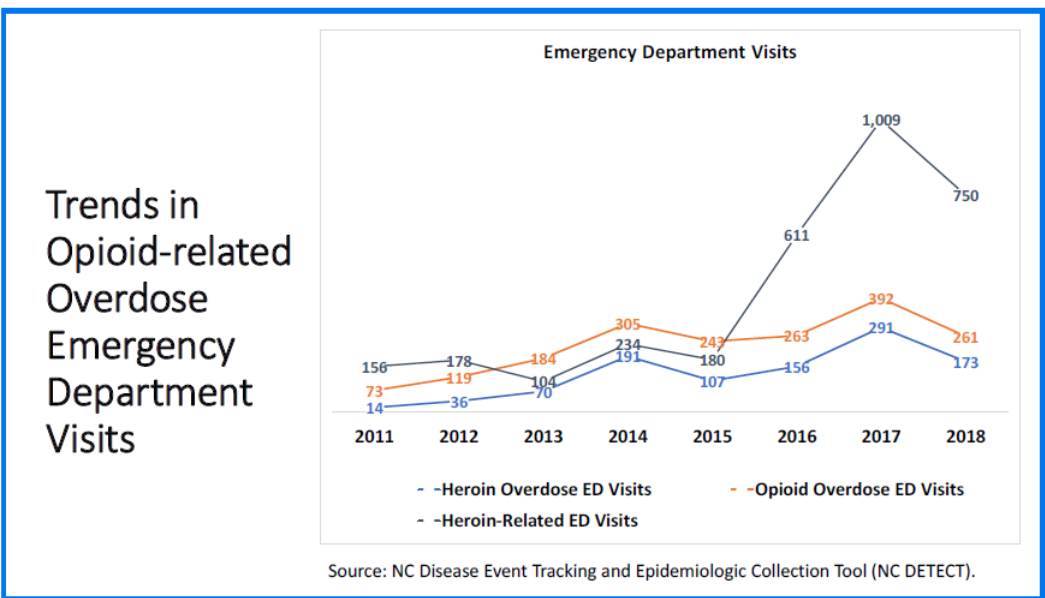


Figure 14 Increasing Rates of Depression among Medicare Beneficiaries, Alamance and Guilford Counties, 2011-2017
Source: CMS

Medicare population (older adults, typically 65+) in Alamance and Guilford counties, showing a steady increase from 2011 to 2017 in the prevalence of depression. The Center for Medicare and Medicaid Services (CMS) categorizes depression as a “chronic disease”, making depression an even more



Trends in Opioid-related Overdose Emergency Department Visits

prevalent chronic disease in our community than diabetes. We have also seen an alarming increase in addiction to opioids, a class of drugs that includes heroin, synthetic opioids such as fentanyl, and pain

Figure 15 Guilford County Emergency Department Data and Opioids
Source: 2019 Guilford County Health Assessment

relievers such as oxycodone and morphine. Addiction may lead to overdose, and figure 15 demonstrates the increase in heroin and opioid-related Emergency Department visits from 2011 to 2018.

What do we know about these issues in our region?

Addiction is widespread across our region. The two most commonly used substances are tobacco (just under 20% of adults are smokers) and alcohol. Around 16% of adults in our region report having engaged in heavy drinking or binge drinking in the previous month. Around 28% of motor vehicle collisions involve alcohol. Tobacco and alcohol use is far more common than illegal drug use or prescription drug misuse, but opioids get much attention because of their rapid increase, as Figure 16 illustrates.

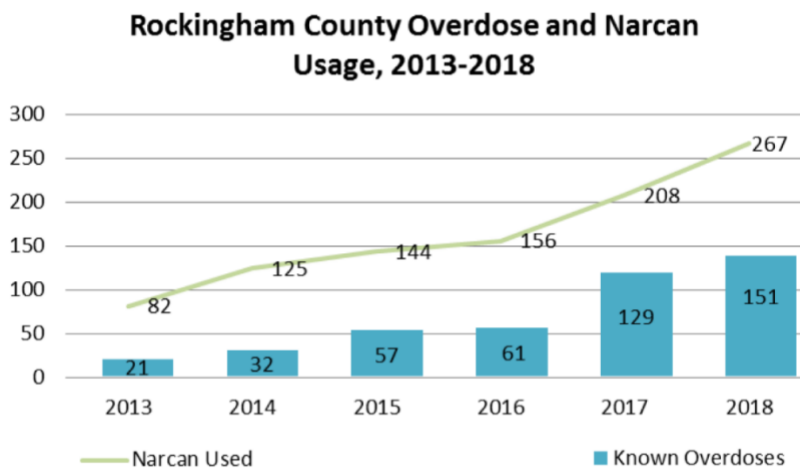


Figure 16 Rockingham County Opioid Trends in Overdose and Narcan Usage, 2013-18
Source: 2019-2020 Rockingham County Community Health Assessment

Opioids also receive attention because of their lethality. For example, of the 151 known overdoses in 2018 in Rockingham County, 24 were fatal. Mental health service providers participating in the Behavioral Health Assessment Workshop in Guilford County expressed mixed feelings about the attention to opioids. On the one hand, many agreed that the

increased prevalence and danger of opioids warrants a focused approach. On the other hand, participants voiced concerns about losing sight of other priorities. To paraphrase one participant: *“The opioid crisis sucks all the oxygen out of the room. Just focusing on opioids and neglecting other issues is a problem. Sometimes people think that if we have solved opioids, then the work is complete. That ignores the prevalence of alcohol addiction, and the re-emergence of meth, as well as other important widespread issues like depression.”*

A new approach to addressing issues of addiction is known as [“harm reduction.”](#) This non-judgmental approach emphasizes meeting substance users where they are in their change process, and focusing on the quality of life of people using substances, rather than the cessation of all drug use. Practitioners using the harm reduction approach seek to provide scientifically-proven services, such as condom distribution and clean syringes, that reduce the risks associated with substance use. The effectiveness of the harm reduction approach in preventing disease and death has led to widespread adoption. And, there are positive results from peer-support, Naloxone (opioid antidote) distribution program and syringe exchange programs targeting users of opioids. Participants in the Guilford County Behavioral Health Workshop expressed support for this approach. There was also recognition that this non-punitive approach differs from how the community has approached substance issues in the past, as expressed in a comment from a survey respondent: *“This [opioid misuse] is a problem that exists overwhelmingly amongst white people. A cynic like myself might suggest this is why we have Good Samaritan and syringe exchange laws. This is good, but it is disingenuous to ignore the fact that this is NOT how we responded when crack cocaine was devastating black communities. The answer then was building prisons as quickly as possible.”*

One area of widespread agreement among health professionals, patients and advocates is that the demand for behavioral health services far outweighs the supply. Patients and their loved ones describe extraordinary difficulties navigating the complexities of insurance coverage and eligibility guidelines to find both inpatient and outpatient treatment. This is even more difficult for patients who lack health insurance coverage or who have expensive co-pays for services. Behavioral health survey respondents in Guilford County rated access to mental health and treatment services as the most challenging barrier to improving behavioral health in Guilford County. One survey respondent’s comment speaks to the challenge of having appropriately funded resources at the scale necessary to meet community needs: *“Mental health services are completely devalued. Mental health providers are expected to hold fundraisers, run bake sales, have galas, etc. No one would feel comfortable going to a neurologist that had to sell hot dogs in the parking lot to keep their doors open.”*

Behavioral health issues can impact a number of areas. Maternal and infant health professionals in Guilford County identified toxic stress as one of the most challenging barriers to improving pregnancy outcomes. Their comments from the Key Informant Survey express the interplay between mental health, demographic factors, social disadvantage, race and health:

- *“Younger women experience higher rates of pre-term birth and low birthweight births. Teen moms often have experienced interpersonal violence and other social and emotional risk factors.”*
- *“The women I work with are often juggling a number of stressors. They typically work difficult hours for very low pay and have inflexible schedules.”*
- *“Adolescent parents, and women living at low-income have higher risk of perinatal depression and possible impact on the infant's brain development.”*

- *“Lack of understanding of the underlying factors related to social determinants of health and Adverse Childhood Experiences (ACES). This population needs to be treated differently. Integrate mental health therapy with physical health.”*
- *“Institutionalized racism contributes to toxic stress which contributes to poor health pre-conception.”*

In central NC, patients, their loved ones, and behavioral health professionals agree that existing services are unable to meet rising demand. Our data indicate an increasing need for affordable services of all types and for people of all backgrounds. Communities expressed a desire for more services designed to be accessible to and effective with low income individuals and people of color.

What are we working on in our communities right now?

There are numerous initiatives underway in our communities to help people and families confronting behavioral health concerns. These initiatives take a collaborative and integrated approach, bringing together multiple agencies to pool resources, and often integrating behavioral health into sites of medical care traditionally focused on physical health.

Two communities have announced plans for new facilities and services. In December 2018, Cone Health, the Sandhills Center and Guilford County announced plans to build a [new facility](#) designed to provide comprehensive behavioral health services 24 hours a day, seven days a week. The center will include a mental health urgent care center, two facility-based crisis centers (one for adults and the other for adolescents and children) and space for outpatient services for adults, adolescents and children. Alamance County’s Stepping Up Initiative announced plans for a [diversion and restoration center](#) to serve people who may otherwise be arrested for misdemeanors that are a result of untreated manifestations of mental illness. Stepping Up seeks to provide appropriate behavioral health services to prevent people from entering the criminal justice system and supporting them to reach their optimal state of well-being.

Community groups in Alamance, Guilford, and Rockingham counties are joining forces to prevent opioid misuse. [C.U.R.E. Triad](#) and [GCSTOP](#)’s Rapid Response Team intervention serves Guilford County residents who have overdosed, or who are at high risk of overdose, by counseling persistent users to enter treatment or adopt harm reduction practices. The Opioid Task Force of Rockingham County has established five medication drop boxes for safe disposal, and trained EMS and law enforcement on the use of naloxone to reverse overdoses. Alamance County’s AC HOPE Task Force is a coordinated structure of local leadership with goals to increase treatment access, and enhance community-wide prevention efforts. This task force received a NC Injury and Violence Prevention grant from NC DHHS, which has provided funding for overdose prevention and harm reduction strategies.

Medical practices are beginning to adopt an integrated approach to mental health services, offering behavioral health treatment alongside physical health. Eight Cone Health practices have adopted the [Collaborative Care](#) embedded behavioral health services model, with a goal to implement a virtual model in an additional 150 practices. [Cone Health Foundation](#) funds six local agencies employing an integrated model, including care for people with co-occurring mental health and substance use disorders. These sites serve a vulnerable population, including uninsured and under-insured patients.

Priority Health Needs

Access to High Quality, Affordable Healthcare

Why is this important?

Access to care is a perennial concern throughout our region. Regular contact with a trusted medical provider allows individuals to receive preventive health care, such as vaccinations, regular cancer screenings, and tests for chronic disease risk factors, such as high blood pressure. For people with chronic conditions, such as diabetes, consistent medical care is critical for them to adjust to medication or make lifestyle changes to improve their health. People who have an enduring relationship with a primary care provider are usually more satisfied with their care and have fewer hospitalizations than those without a regular provider. Primary care providers can also help people to access appropriate specialty care if more specific diagnostic tests and treatment are necessary.

Barriers that result in a lack of access to health care include a lack of health insurance or sufficient income to pay for the costs of care, or an inadequate number of specific types of medical professionals in the community. Even a person who has insurance may not have transportation to a medical clinic or may speak a language other than English and need interpreter services. Often, people work hard to overcome these barriers. Sometimes, though, a person who has minor conditions may dismiss a minor pain or other symptoms if there are extensive barriers to seeking medical care. They may not see a doctor until their conditions are serious, sometimes leading to chronic illness, permanent disability, or advanced and irreversible disease.

This type of response can lead to a circumstance where their medical needs can be very expensive. These costs, as well as their pain and suffering, are prevented in communities that have removed barriers to accessing care. Landmarks of such communities include robust public transportation services, appropriate numbers of primary care providers, specialists, and mental health professionals, and high rates of high-quality insurance coverage and “safety net” providers who work with the uninsured. Access to care is a priority with multiple goals: sufficient numbers of medical providers; adequate insurance coverage; reliable transportation; and welcoming medical environments for patients of all backgrounds.

What do we know about these issues in our region?

Table 10 presents information on two of those goals: adequate insurance coverage and an adequate number of medical providers. Lack of sufficient providers of care - whether primary care or specialists - can be a barrier to good health. Long wait times for appointments or the need to travel to other communities to find providers may result in delays in seeking care, missed appointments, and sometimes even giving up on finding the right treatment. For provider-to-population ratios, *lower* numbers are *better* because it means that there are more providers per number of people living in the county. Provider ratios may not tell the whole story of access, though, because each provider accepts different forms of insurance and payment. Guilford’s provider ratios are near or below the state average in all of these categories. Alamance and Rockingham are well above the average ratios, indicating possible concerns for having ample providers, locally, to meet community needs.

In North Carolina, people may access health insurance through employer-sponsored coverage, by individual purchase, or through public programs such as Medicaid (low income), Medicare (seniors) and

	Alamance	Guilford	Rockingham	Caswell	Forsyth	Orange	Randolph	NC
% Under 65 uninsured	14	11	14	13	12	10	15	12
Current Medicaid Enrollment	34563	114998	21618	5596	78486	15472	32356	2.1M
Medicaid Expansion Potential in 2020	7639	25781	4282	1003	18665	5314	7937	365K
Primary Care Physician Ratio	2130:1	1270:1	2540:1	7640:1	910:1	530:1	2240:1	1420:1
Other Primary Care Provider Ratio	1518:1	909:1	2115:1	1132:1	467:1	469:1	1686:1	912:1
Dentist Ratio	2080:1	1790:1	2930:1	5660:1	1700:1	460:1	3260:1	1800:1
Mental Health Provider Ratio	740:1	380:1	810:1	5660:1	380:1	160:1	1060:1	440:1

NC Health Choice (children in working families). Some people fall into a coverage gap where their incomes may be too large to qualify for Medicaid, but are not large enough to afford insurance in the private market. To address this gap, the Affordable Care Act of 2010 (known as the "ACA") provided subsidies to states to expand Medicaid eligibility to include families with income levels twice the federal poverty level, required more employers to provide coverage as a benefit of employment, and created health insurance marketplaces (sometimes called "exchanges") to help people find appropriate coverage and apply for subsidies from the federal government.

Because NC legislators did not choose to expand Medicaid under the ACA, our rates of uninsured adults remain higher than those in neighboring states that did expand Medicaid. In Kentucky, which expanded Medicaid in 2014, only 7% of adults under 65 remain uninsured. Table 10 presents the number of current Medicaid beneficiaries and an estimate of the potential increase in each county if Medicaid were to be expanded. These estimates come from a study commissioned by Cone Health Foundation, [The Economic Benefits of Expanding Medicaid in North Carolina: June 2019 Update](#).

Use of the Emergency Department (ED) for non-emergency medical needs is often an indicator of inadequate access to care in a community. The map in Figure 17 shows areas in red and yellow that are more concentrated clusters of low-acuity Emergency Department visits. In Greensboro, there are three zip codes (27405, 27406, and 27407) that generate the highest volume of low-acuity ED visits annually. Individuals may come to the Emergency Department for this type of care for many reasons. They may have medical conditions that require frequent attention. They may not know if their health problem is an urgent situation, and head to the ED "just in case." They may not have any facilities open in their area, or they may not have the insurance coverage to access local providers easily. For some people,

unpredictable work schedules and unreliable transportation can make it prohibitive to plan for an appointment at a doctor's office; they may find the Emergency Department to be the most convenient option for care.

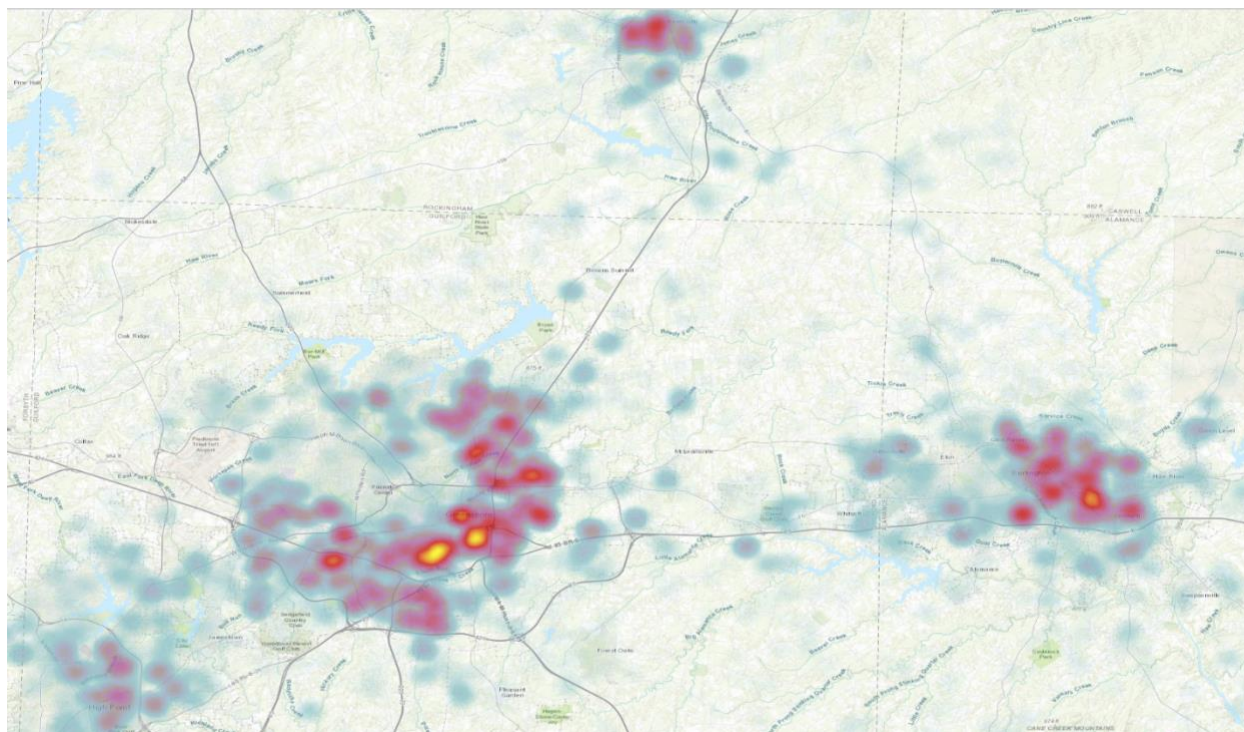


Figure 17 Low-Acuity Visits to Cone Health Emergency Departments, 2018-19

Whether the Emergency Department is a patient's first choice or last choice for medical attention, it is not an optimal site of care for non-emergency conditions. Emergency departments across the United States are well-designed to provide life-saving emergency care for people with acute needs, but there are more effective settings for less severe medical issues. Patients with conditions that could be resolved at a physician's practice, or through a virtual visit, will usually wait longer and pay more for emergency care than they would for routine medical office visits. People with chronic conditions receive more effective care in a "medical home" - a medical practice that learns their health history that follows their progress over time, and guides them in long-term management of these conditions. EDs can often be the most expensive site to receive care, for the patient and for society at large.

What are we working on in our communities right now?

Cone Health and our partners seek to minimize financial and other barriers to healthcare access in multiple ways: providing access to care to low income patients through Cone Health's Financial Assistance program; establishing high quality options for convenient, affordable care for everyone; supporting networks that allow providers to donate care to uninsured patients; providing outreach services to connect vulnerable patients to care; and convening our partners in the "safety net" medical community to share resources and coordinate services.

Cone Health funds the operations of over a dozen outpatient clinics designed to provide access to care for patients who may face a financial burden in paying for care, and we are building more. In August

2017, Cone Health opened the Clara F. Gunn Center in Reidsville, introducing an innovative model that combines congregational nursing care with virtual medical visits. In early 2018, Cone Health opened a new practice, [Renaissance Family Medicine](#), in the Phillips Avenue neighborhood in northeast Greensboro, an area that had been without convenient primary care services for years. Other clinics and services to increase access to care, including the 24-7-365 Behavioral Health Urgent Care/Crisis Center for adults and adolescents in Greensboro, and a mobile medical bus, are in development.

The [InstaCare](#) offices in Greensboro and Burlington are an innovative initiative to provide fast, affordable, convenient, high quality care. Patients can reserve a same-day spot online, and InstaCare's transparent fees eliminate uncertainty about cost.

[Cone Health Connected Care](#) is a digital platform that connects patients to board-certified doctors and advanced practice providers over the phone or through secure video on a computer or smartphone, for a cost of \$49 or less, depending on insurance coverage.



Cone Health works with philanthropy, such as Cone Health Foundation and the Duke Endowment, to support two donated care networks, the [Guilford Community Care Network](#) (GCCN) and Care Connect



Rockingham. GCCN and Care Connect Rockingham serves patients whose incomes fall under 200% of the federal poverty level, are not eligible for other forms of insurance such as Medicaid or Medicare, and are residents of Guilford and Rockingham counties, respectively. In late 2018, Cone Health assumed leadership of the Care Connect program in Rockingham County, a network of care that provides access to primary care, specialty care, dental services, case management and medication assistance for low income uninsured patients, and currently serves over 400 residents of Rockingham County. GCCN is the provider of the well-known "orange card" in Guilford County serving

3,000 patients annually. GCCN celebrated its 15th anniversary in 2019 and is one of NC and SC's most well-established networks; in 2018, they provided healthcare services valued at \$28M dollars with an estimated \$9M in hospital costs avoided.

GCCN also convenes local providers in the safety net (medical services that care for uninsured patients and Medicaid beneficiaries) to work together for a more coordinated, effective system of care. Similar efforts are also underway in Rockingham County with the Rockingham County Healthcare Alliance, which operates [James Austin Health Center](#) in Eden, and with the [Alamance Network for Inclusive Healthcare](#). The Alamance Network for Inclusive Healthcare has successfully advocated for expanded transit hours to assist patients in accessing healthcare and other needs, worked together to establish access to dental services for uninsured adults, and is among the first safety net system to implement [NCCARE360](#), an electronic referral platform linking health and human services.



Priority Health Needs

Creating Living Conditions that Nurture Health

Why is this important?

Humans flourish in environments free of pollutants, violence, and coercion, and where the resources that nourish life—clean air, clean water, healthy food, social support, and a sense of control over one’s own life exist in abundance. The “living conditions that nurture health” refers to an individual’s immediate surroundings, such as a healthy home or workplace. Healthy homes have clean and smoke-free air, are free of pests, and have minimized or eliminated possible injury risks, such as trip hazards from loose rugs or rickety stairs. Healthy homes also have adequate food to meet the nutritional needs of their occupants, and to bring them enjoyment and social connection. The people living within healthy homes have genuine concern for each other and coping strategies to effectively manage conflict.

The “living conditions that nurture health” also refers to broader community conditions, such as neighborhood safety, opportunities for activity and enjoyment, and economic and educational opportunity. The Prevention Institute’s publication “[Adverse Community Experiences and Resilience: A Framework for Addressing and Preventing Community Trauma](#)” identifies the components of a healthy community: “the social-cultural environment (the people); the physical/built environment (the place), including infrastructure and public services; and the opportunities afforded in the economic and educational environment which is made up of the local economy and educational institutions (equitable opportunity).” Figure 18 from that same publication depicts these aspects of a community and the negative symptoms that can manifest at the community level.

In central NC, we have many communities experiencing intergenerational poverty, scarce jobs, an abundance of unhealthy products such as tobacco and fast food, and a low sense of power to change things. These symptoms are present in both urban, mostly African American neighborhoods in east Greensboro with a long-term history of disinvestment and in rural, mostly white communities in Rockingham County reeling from recent factory closures and job losses.

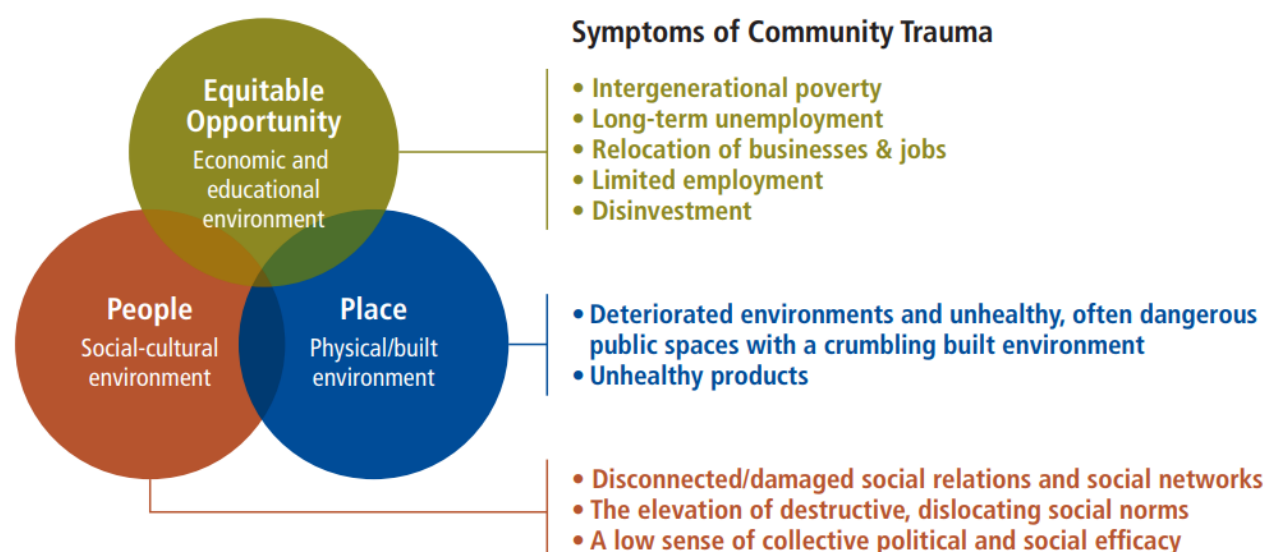


Figure 18 Prevention Institute’s Model of the Community Environment and Symptoms of Community Trauma

Figure 19 offers a more hopeful vision of elements of a resilient community. Residents of resilient communities benefit from sustainable wages, strong social norms that build community trust, and safe parks and healthy products. These elements of community resilience have clear connections to mental health and well-being, but the correlation between these beneficial community conditions and physical health are well-documented in the scientific literature, and are reflected as well in the life expectancy maps of Alamance and Guilford counties.

Making positive change in community conditions can be long, arduous processes, with complex politics and deeply entrenched traditions and interests. These efforts have a big payoff, though; policy and system change that creates a more positive community environment has lasting and widespread effects on entire neighborhoods and populations.

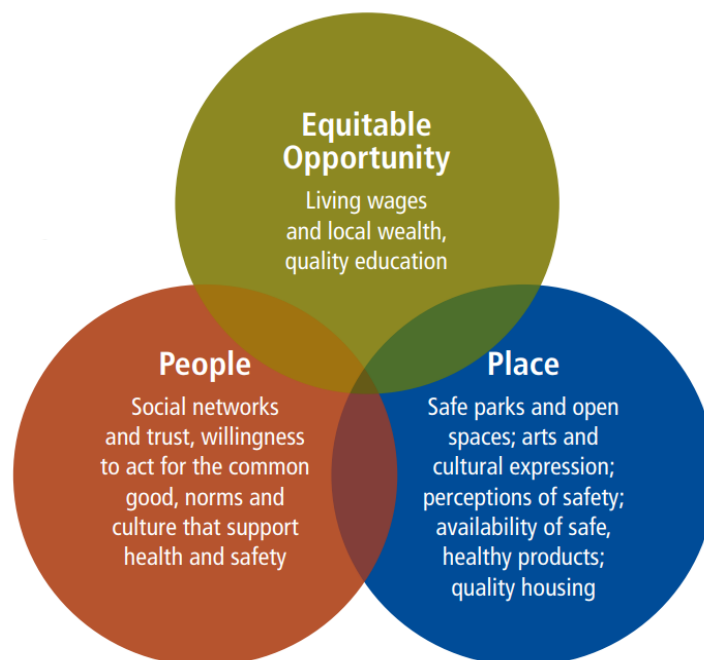


Figure 19 Prevention Institute's Elements of Community Resilience

What do we know about these issues in our region?

The Asthma and Allergy Foundation of America's 2019 report "[Asthma Capitals 2019: The Most Challenging Places to Live with Asthma](#)" rated cities across the United States on asthma outcomes and

The Top 20 Most Challenging Places to Live With Asthma

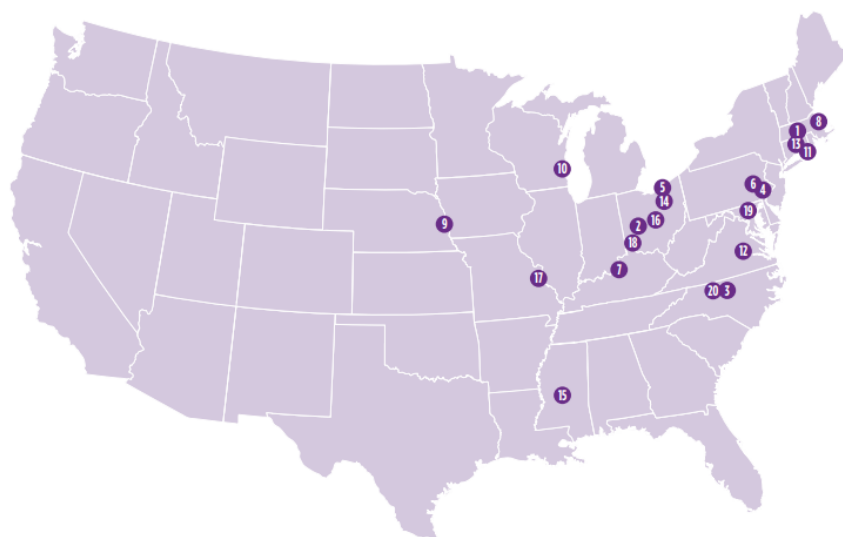


Figure 20 Graphic from AAFA's Asthma Capitals 2019 Report

eight key risk factors that can affect asthma rates: poverty, lack of health insurance, poor air quality, pollen counts, long-term control medicine use, quick-relief medicine use, smoking laws, and access to specialists. Greensboro was rated the third worst city in the country; Winston-Salem was also in the top 20.

This dubious distinction underscores the complex interplay between medical care and living conditions, as both of these dimensions are considered in the AAFA's ratings. For health systems like Cone Health that work towards

achieving health outcomes, developing relationships with communities and agencies that can change environmental conditions and public policy are an important strategy.

Improving housing stability and quality is another important tactic in our region. Legal Aid of NC reports a very high volume of referrals for poor housing conditions for low income tenants in Alamance County.

[Research](#) from Greensboro reveals that average rents have increased by 38% in the last seven years, while wages have grown only 5%. Greensboro leads the state in the number of evictions, an average of 13 per day. An affordable housing shortage means that renters often put up with poor conditions. Participants in the Social Determinants of Health Key Informant Workshop in Guilford County voiced concerns about widespread

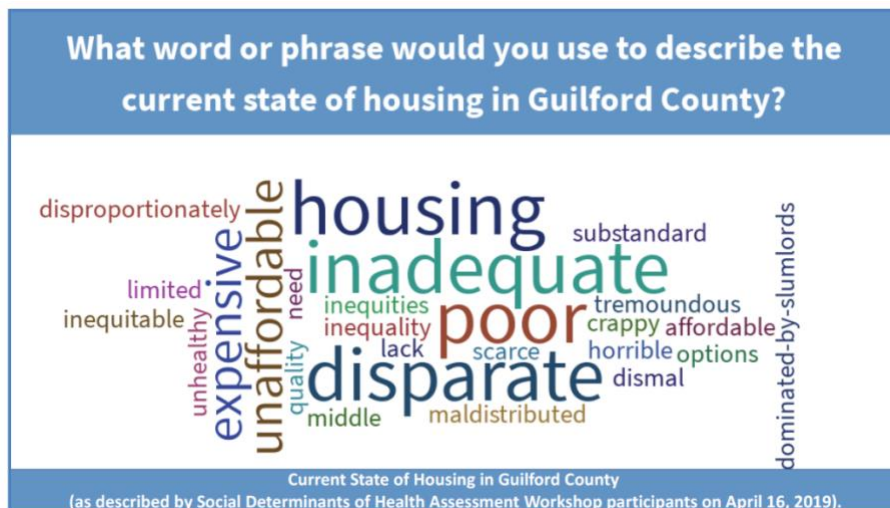


Figure 21 Guilford County Key Informant Workshop Word Cloud on Housing

poor housing quality—leaky roofs, moldy carpets, mildew and pests-- and the consequent health concerns. The “word cloud” the group created reflects this perspective (Figure 21).

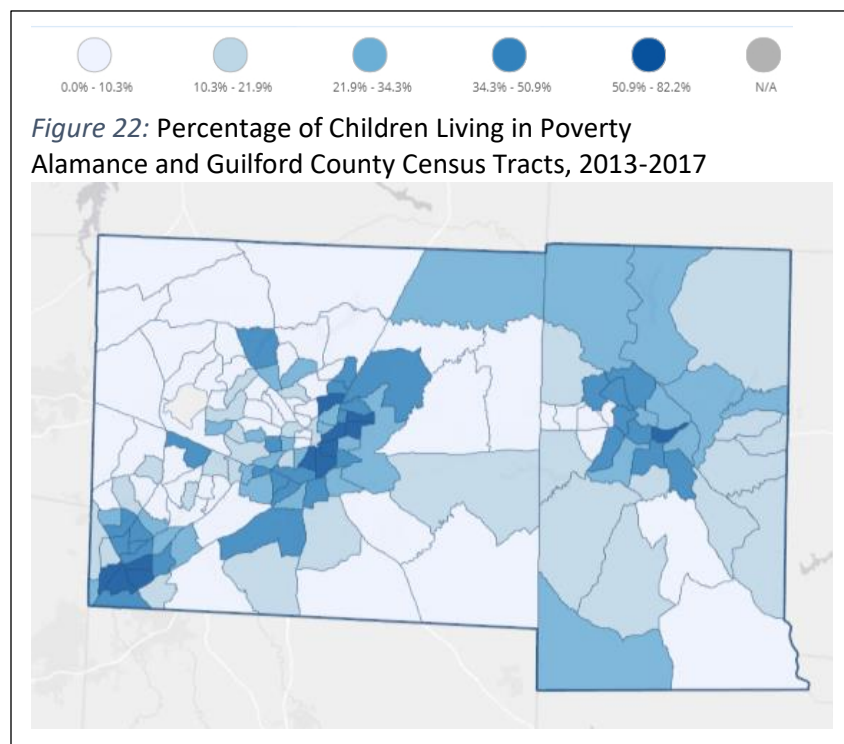


Figure 22: Percentage of Children Living in Poverty Alamance and Guilford County Census Tracts, 2013-2017

Maps of social and health concerns show similar patterns of concentrated social and economic burden, as seen in Figure 22 depicting children living in poverty in Guilford and Alamance counties. These maps resemble the geographic patterns of disparity observed in the life expectancy maps.

Some measurements of community conditions are positive or improving. For example, the food environment index, a measure of food insecurity and food availability in a community, has steadily improved in Alamance County since 2015. Guilford County’s physical environment ranking,

also a composite measure, has a positive upward slope (Figure 23).

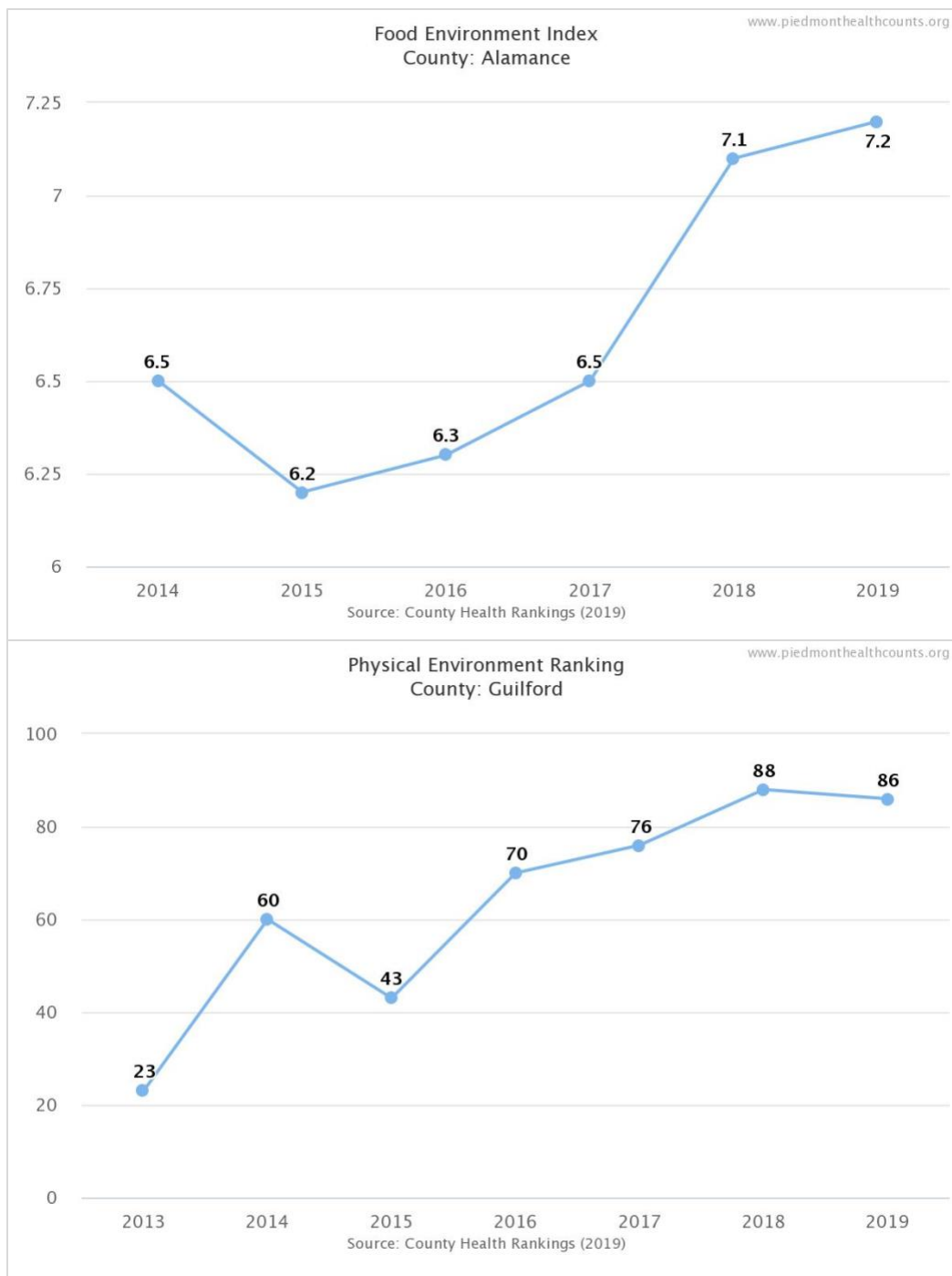


Figure 23 Piedmont Health Counts Measures of Community Conditions for Alamance and Guilford Counties

What are we working on in our communities right now?

Many of our community partners are adopting a “PSE” or “[Policy, Systems and Environments](#)” approach to community health work. This often occurs in what is known as “place-based” work that focuses on making improvements within a focused geography. The [Alamance County Wellness Collaborative](#) has worked to change 12 policies within Alamance County that affect air quality, access to physical activity, and healthy food environments. [Collaborative Cottage Grove](#) has helped to change the physical environment in that community to provide better supports for healthful living for people with diabetes. Other groups, such as Healthy Alamance, Be Healthy Rockingham and Guilford Community Care Network, have established farmer’s markets or helped people better afford to purchase fresh food at existing markets.

Collaborative Cottage Grove has also helped Cone Health to implement systems changes that more closely link medical practitioners to human services agencies that address the social determinants of health. A research [study](#) of 41 families in Greensboro found that many children with asthma benefited from changes to their housing, which was very effective in reducing their need for medical care, reducing medical costs by over 50%. Cone Health is developing a process to connect children with asthma and poor housing quality to local healthy homes initiatives at the [Greensboro Housing Coalition](#) and the [Alamance County Health Department](#). Using the [NCCARE360](#) electronic referral platform, clinical providers can send a referral for a healthy homes assessment directly from the EMR. This new capability applies for many other social determinants, and an upgrade to the EMR in August 2019 places the social determinants of health in the center of clinician’s view when consulting the patient’s longitudinal plan of care. Medical providers can discuss housing, transportation, food access and educational needs with their patients, document any concerns as part of a patient’s holistic profile, and refer them to local agencies that will work with them to resolve these concerns.



NCCARE360

Two groups in our communities have adopted a collective impact approach, in which a “backbone organization” convenes stakeholders to set common goals, and provides the technology, professional networks, data analysis and continuous improvement monitoring to drive the stakeholder community to those goals. [Alamance Achieves](#) in Burlington and Ready for School, Ready for Life in Greensboro are examples of this approach. Both have been successful in building support from

their local communities and both have deep ties to Cone Health. Alamance Achieves is a strategic priority of Impact Alamance. The Rice Center for Children at Cone Health was a pilot site for Ready for School, Ready for Life’s HealthySteps initiative. These collective approaches work to create system change by fostering a social network oriented towards equitable opportunity and effective use of resources.



Changing cultures, environments, policies and systems is complex work that requires resolve, patience, and strong relationships within high-performing stakeholder networks. Cone Health engages in this multi-sector work to influence community policies, systems and environments that produce the conditions that foster well-being and resilience in our communities.

Priority Health Needs

Eliminating Bias and Discrimination in Healthcare

Why is this important?

Good health provides a fundamental foundation for individuals to pursue their life goals, whether that be career, education, arts, family or other interests. Without good health, people may be forced to curtail or delay their progress on their important life goals, or give them up altogether. When bias and discrimination affect the health outcomes of a particular group of people, favoring one gender, race or other identity group over another, those life goals are also impacted, creating a greater injustice. Eliminating bias in healthcare makes a contribution to providing equitable opportunity in our society.

Health disparities are defined as gaps in quality of health or health care. Many factors that affect health can have disproportionate effects on vulnerable groups, such as those with low socioeconomic status, women, racial and ethnic minorities, people who are disabled, and those who are LGBTQ. There are a number of explanations for disparities. Recent studies indicate that racial and ethnic minorities experience health disparities due to the toxic stress that results from systemic racism in the culture, even after eliminating the effects of income level, education and access to care.

In this picture, it is clear that placing boxes of equal height under individuals of varied heights will not

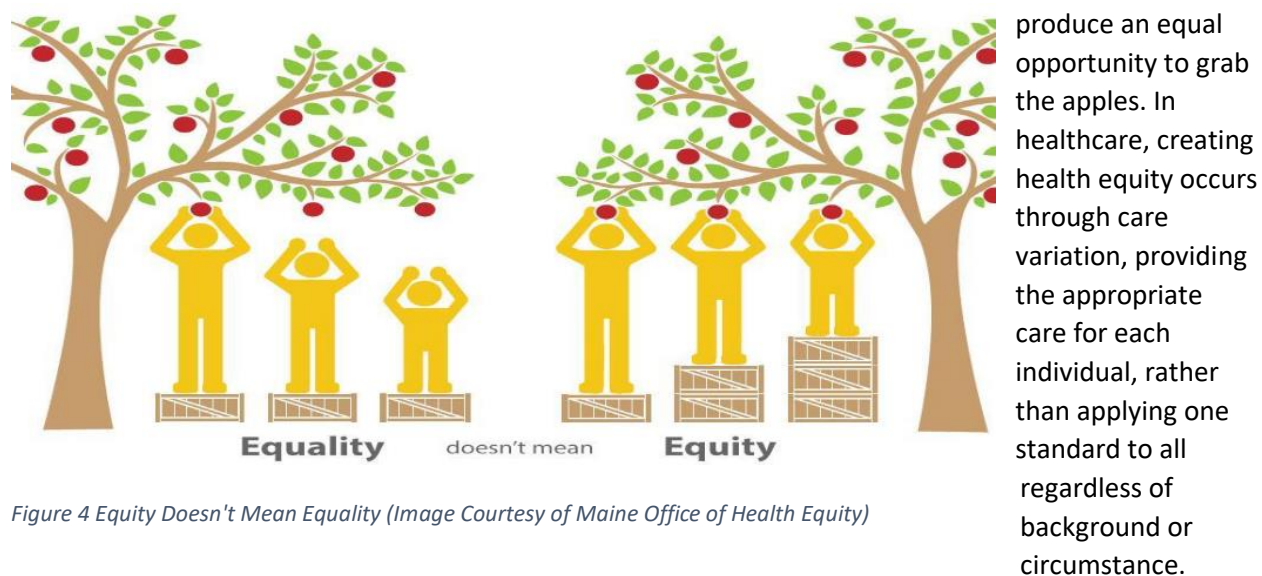


Figure 4 Equity Doesn't Mean Equality (Image Courtesy of Maine Office of Health Equity)

Approaching patients with an equity mindset rather than an equality protocol requires transformative change in healthcare. Physicians and other clinicians - including social workers and care managers - play a large role in determining which individual patients need which care variations to achieve equal health outcomes. Providers can learn to become more aware of their own bias and act to reduce it, and health systems that stratify their quality and safety data by race, ethnicity, and language preference can identify and eliminate disparities that may affect these groups.

Our history contributes to health disparities. Racial and ethnic disparities in healthcare emerge from a historic context in which healthcare has not been available to all. In 2016, Cone Health acknowledged and apologized for its historical practice of racial discrimination in segregating healthcare through the

and early 1960s, and committed to addressing the long-lasting effects of programs that perpetuated racial discrimination. In 2017, Cone Health joined health systems across the country in committing to the American Hospital Association's #123forEquity Campaign to Eliminate Health Care Disparities. Participating hospitals commit to increasing the collection and use of race, ethnicity, language preference and other socio-demographic data; increasing cultural competency training; increasing diversity in leadership and governance and improving and strengthening community partnerships.

What do we know about these issues in our region?

It is difficult to document incidence of bias itself, but our region's outcomes reveal its existence. Disparities exist throughout central NC, and are documented in each of the county health assessments. For example, in the 2019 Guilford County Community Health Assessment, Table 11, all but two of the death rates listed in the table of Age-Adjusted Mortality Rates were worse for African American than for white residents. Men's mortality rates were worse than women's in all but one category.

Age-Adjusted Mortality Rates per 100,000, by Race/Ethnicity, 2013-2017

Chronic Disease Death Rate per 100,000 Population	North Carolina	Guilford County	White, Non-Hispanic	African American, Non-Hispanic	Males	Females
Total Cancer Death Rate	164.0	156.7	150.8	179.2	194.3	130.6
Heart Disease Death Rate	159.8	138.2	130.6	167.9	179.5	107.9
Lung Cancer Death Rate	45.9	42.2	42.8	42.1	55.7	32.2
Prostate Cancer Death Rate (Males Only)	23.3	22.0	17.8	40.6	22.1	NA
Breast Cancer Death Rate (Females Only)	19.7	22.1	16.8	28.2	NA	20.2
Colorectal Cancer Death Rate	13.7	12.3	12.1	14.2	14.4	10.6
Pancreatic Cancer Death Rate	11.0	12.2	10.3	17.8	13.6	11.2
Stroke Death Rate	43.2	43.0	38.6	55.5	44.3	41.0
Chronic Lower Respiratory Disease Rate	45.5	35.4	40.8	23.0	38.8	33.6
Alzheimer's Disease Death Rate	33.7	37.9	37.7	41.7	29.1	42.6
Diabetes Death Rate	23.3	22.0	17.5	36.4	28.0	17.2

Source: County Health Databook, 2016; NC State Center for Health Statistics.

Table 11. Guilford County Disparities in Chronic Disease Mortality

An analysis of Cone Health's medical records data reveals concerning disparities among our patients:

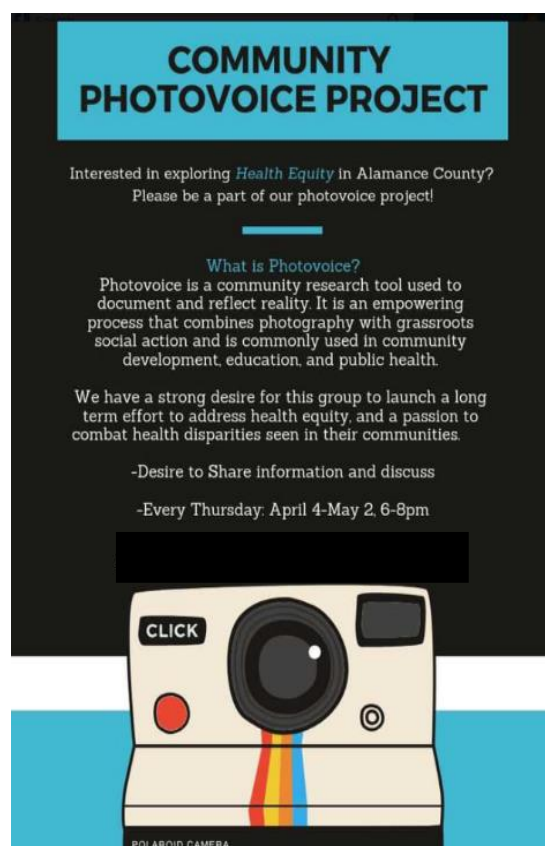
- Black/African-American patients were 10.6% less likely to complete colorectal cancer screenings
- Hispanic/Latino patients were 44.6% less likely to complete colorectal cancer screenings
- Asian patients were 95% less likely to complete colorectal cancer screenings
- Black/African-American patients were 54.8% more likely to have uncontrolled hypertension
- Black/African-American mothers are four times as likely to be readmitted for hypertension as White mothers
- Black/African-American babies with low birth weight (<5.5lbs) were born at Cone Health facilities at nearly twice the rate as White babies. The mortality rate among low birth

weight babies was approximately 2.5 times greater for Black/African-American babies compared to White babies.

What are we working on in our communities right now?

Many groups across central NC are working to eliminate racism in our society and in healthcare. The [Alamance Racial Equity Alliance](#) originally emerged from a community coalition working to eliminate the racial disparity in infant mortality, when they recognized the need for a structural understanding of racism to achieve their goals. Now the group works with all sectors, such as law enforcement, government, education and human services to offer Racial Equity Institute trainings for community members and monthly meetings for AREA members committed to ending racism. The [Greensboro Health Disparities Collaborative](#) is instrumental in developing community-based participatory research to develop new models of healthcare to eliminate bias. The GHDC's [ACCURE study](#) represents the transformative approach required to achieve health equity; they are guiding Cone Health now in [implementing this process](#) in the cancer centers.

Other initiatives are adopting new practices to identify and eliminate disparities. Often this involves



acknowledging and sharing power within social initiatives, replacing traditional ideas of “serving others” with more reciprocal, authentic and equitable relationships. For example, the Ready for School, Ready for Life initiative includes a goal to ensure that families affected by their system change initiatives have a voice in guiding the direction of these changes. Family leaders reflect the diversity of the community, and early participants engaged in a PhotoVoice project to explore their experiences as families raising young children in Guilford County. Healthy Alamance began a PhotoVoice project in spring of 2019 as a way to launch a new health equity effort led by the people closest to the issues. Collaborative Cottage Grove’s approach to resident-led community change has been lauded nationally and locally.

Cone Health’s division of Community and Corporate Well-Being is preparing a strategic plan to comprehensively address the connection of health care and well-being. This involves eliminating racial, ethnic, and other disparities in our service area by using a health equity framework that will address social determinants of health, cultural humility, and data-driven quality.

Figure 25 Healthy Alamance Community PhotoVoice 2019

Disparities are rooted in a history of discriminatory practices. Cone Health is committed to addressing these disparities by including community voices and fostering diverse leadership, sharing power in decision making, addressing root causes and social determinants of health, and establishing reliable measurements to achieve equity in health outcomes.

County Snapshots

The 2019 Alamance County Community Assessment

Full document available at PiedmontHealthCounts.org.

The Community Assessment in Alamance County is a collaborative process that is well-utilized among leaders in business, education, health, human services, philanthropic, and faith community and by



Figure 26 Residents Discuss Health Issues at the Community Assessment Forum

elected officials across our county. A team with experience in and a passion for data collection and analysis leads the Community Assessment. The team is comprised of leaders at the Alamance County Health Department, Alamance Regional Medical Center, Elon University, Healthy Alamance, Impact Alamance, and the United Way of Alamance County. The 2018 assessment process is Alamance County's most collaborative process to date, incorporating community residents into all phases of the process.

Together, these leaders realized the following accomplishments for this 2018 assessment:

- Development of a survey tool to assess community opinions on health and social issues and completion of a randomized telephone survey of 337 residents, a representative sample of Alamance County residents
- Incorporation of health equity concepts and a Community Based Participatory Research (CBPR) approach into the Community Health Assessment process, to facilitate shared power and meaningful dialogue in documenting our current health status and shaping our future
- Completion of five focus groups with 64 total participants, focused on collecting the narrative of those not typically well-represented in previous community assessments (LGBTQ, Female Heads of Household, Occaneechi Band of the Saponi Nation, Parents of Children with Disabilities, and LatinX). Analysis of these focus groups revealed five key themes: *Lack of Trust in the Healthcare System; Having to go "above and beyond" to Access Healthcare; Health and its Connection to Social Well-Being; Role of Infrastructure in Health of Communities; and Job Stability.*
- Collection of secondary data at the county-level, including sources from publicly-available state databases as well as local agency-specific data
- Creation of the written assessment documenting these processes and the data collection

A clear consensus emerged that the focus of our planning and implementation for the next three years continues to lie in three key areas:

- **Access to care**
 - Of Alamance County adults between the ages of 19-64 years, 14.8% are uninsured, with the highest disparities among non-citizens (36.8% uninsured) and those with less than a high school education (24.4 % uninsured). Men in Alamance County are more about 23% more likely to be uninsured (11.6%) than women (9.2%).
 - New programs and groups in Alamance County are working together to improve access to care. For example, 16 local providers (physicians, nurse practitioners and midwives) participated in the Health Department’s LARC access project. The Alamance Network for Inclusive Healthcare brings together over a dozen agencies that provide care to low income patients in order to coordinate care using NCCARE360 and increase access to transportation so that people can access medical care, work, school and recreation.
 - Access to care, seen holistically, includes access to supports for a healthy lifestyle. More than 57% of telephone survey respondents reported that they do not have access to fresh fruits and vegetables within a mile of their home. Residents’ access to places to be physically active is improving:
 - A new regional park and two miles of bike lanes have been added in Graham.
 - A new downtown park opened in Mebane in 2019.
 - All elementary school playgrounds are available to community members to use on evenings and weekends.
 - The Haw River Trail now has 20 miles of land trail open to the public in Alamance County.

- **Education**
 - While it continues to improve, Alamance County’s graduation rate of 82.3% remains lower than the state average of 86.5%. The graduation rate for white and African American students was slightly above average, but was lower, at 76.3%, for LatinX students.
 - In November 2018, Alamance County voters passed a [\\$150M bond](#) for Alamance-Burlington School System with 70% of the voters supporting the bond.
 - Alamance Achieves published its [baseline report](#) on education outcomes in 2018. It revealed that many of Alamance County’s entering kindergarteners were not well-prepared for school, with just 38% meeting literacy benchmarks.

- **Economic issues**
 - Although the unemployment rate is low (4.4%), Alamance County’s average median income (\$47,900) is \$5000 below the state average and \$12,000 below the US average.
 - Rates of child poverty are improving slowly, yet remain high. The 2010-2014 five-year estimate was 29.4%, and it is now 1.6% points lower and trending downward.
 - Economic development remains concentrated in Mebane, Elon, parts of Graham and the west side of Burlington. Parts of north Graham, east Burlington and Haw River are certified as [opportunity zones](#), increasing their ability to attract private investment.

It is important to note the team hopes to focus on these priorities for an entire generation, knowing measurable change will require a unified and long term commitment.

County Snapshots

The 2019 Guilford County Community Health Assessment

Full document available at PiedmontHealthCounts.org.

The Guilford County Community Assessment is a collaborative process whose findings are intended to lead the community to action. The Guilford Assessment Team designed the 2019 assessment as a deeper dive into the health priorities identified in the community in the 2016 assessment. We seek to better understand the factors that drive these priorities through:

- Collection of secondary data at the county-level, including sources from publicly-available state databases as well as local agency-specific data.
- An electronic survey of 208 key informants (agency leaders and people affected by the health issues) to identify barriers to progress, most affected groups, and program and policy suggestions for Maternal and Child Health, Healthy Eating and Active Living, Behavioral Health and Social Determinants of Health.
- Four half-day workshops, one on each priority area, were held where 89 participants engaged in a facilitated discussion to identify key issues and recommendations for improvements. Using “Poll Everywhere” software, workshop attendees were able to respond to questions electronically and worked in groups to produce promising approaches to areas of concern.
- Creation of the written assessment documenting our findings.

The 2019 assessment process offers Guilford County stakeholders a roadmap for change by identifying promising approaches to address each priority and categorizing those approaches based on whether they presented an upstream, midstream or downstream intervention.

Summary of Findings for Each Priority:

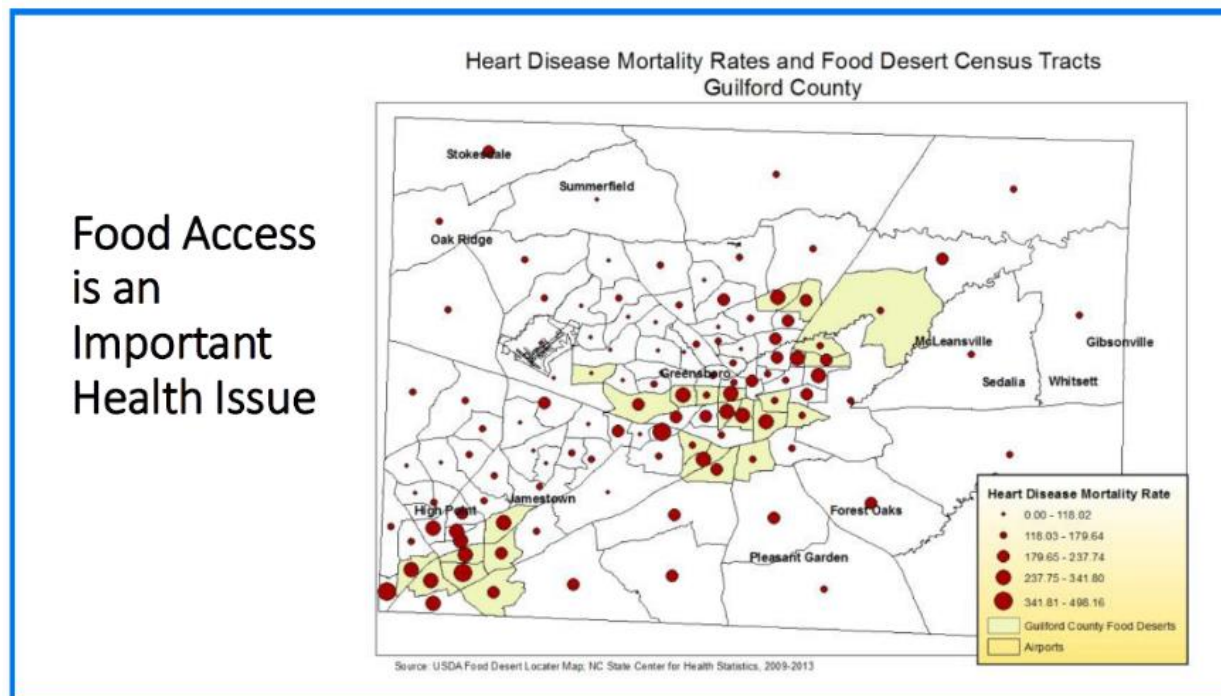
- **Maternal and Child Health**
 - At 8.4 per 1,000 live births, Guilford County has a higher five-year infant mortality rate than its peer comparison counties. Rates per 1,000 live births for African-American mothers are 11.9, versus 5.2 for whites, a significant health disparity. Analysis of birth certificates matched to death records shows that over 50% of all births resulting in infant death between 2013 and 2017 were due to extremely low birthweight (less than 750 grams).
 - According to key informant surveys, some of the programs that are effectively addressing Infant Mortality include [Nurse Family Partnership](#), OB Care Management and [Centering Pregnancy](#). Infrastructure is being enhanced by launching support systems through non-profits and other agencies to improve access to care. Maternity and Family Leave policies, as well as establishing breast-feeding friendly spaces, translates to systems changes that can alter circumstances for the community as a whole. Participants view the [Get Ready Guilford Initiative](#) as a way to connect a well-intentioned but fragmented system of care.
 - Collectively, the data point towards the necessity of developing effective interventions that:
 - Address structural issues that disproportionately affect low income women and women of color;
 - Acknowledge that all women and young families need support;
 - Advance equity in outcomes by eliminating bias in care delivery and addressing differences in power;
 - Coordinate services by linking multiple agencies to offer care to young families.

- **Behavioral Health**

- Data about mental health is sparse, and often collects the most acute manifestations of behavioral health issues, such as overdose and suicide.
 - Emergency Department data reveal some positive news. A reduction in emergency visits in 2018 indicates a decline in opioid-related overdoses, however, the number of deaths due to synthetic opioids increased.
 - Suicide rates show a slightly increasing trend in the 20 years from 1998 – 2017. Age-adjusted suicide mortality rates were almost four times higher for whites when compared with the rates for African-Americans.
- Guilford is working toward effective responses to behavioral health through integrated behavioral health and primary care services, crisis services and intensive case management. There are new efforts in the county to offer “one-stop” services to persons with behavioral health disorders. Gaps around ready access to mental health services, lack of insurance coverage, prevention funding and greater recognition of substance abuse as a disability – to name a few - continue to create barriers.
- There is a targeted Opioid Treatment Program, as well as a commitment by law enforcement and first responders to respond appropriately to opioid-related emergencies. Policies that support community interventions include the Naloxone Access Law and the Syringe Exchange Law.

- **Healthy Eating and Active Living**

- Chronic diseases, such as heart disease, diabetes and high blood pressure can often be prevented by a healthy lifestyle. Residents are more apt to adopt healthy diets and levels of activity if they have convenient access to full-service groceries as well as parks, sidewalks and other recreational facilities for exercise. According to key informant responses, the top three challenges for eating healthy are the cost of healthy food, lack of access to healthy food outlets, eating fast food and eating out frequently. Children and adolescents, minorities and older adults represent the population groups most impacted by healthy eating challenges.
- Figure 27 demonstrates the geographic distribution of Guilford County food deserts and the heart disease mortality rates, which are correlated. 26 out of 119 census tracts are food deserts, where at least one-third of residents live at least one mile away from a full-service supermarket and at least 20% of residents live below the poverty level. Guilford County ranks higher than its peer counties in food insecurity and is next to the highest in percentage of obese adults.
- Meal delivery by Meals on Wheels, mobile farmer’s markets and food banks are included among the assets that exist in Guilford. There are also several infrastructure advantages



**Food Access
is an
Important
Health Issue**

Figure 27 Guilford County Food Deserts and Heart Disease Mortality Rates

and policies which enhance citizens' ability to eat better. There is a robust public transportation system and neighborhood-based farmer's markets. Policy advances include school lunch programs that continue through the summer and local zoning changes for community gardens.

- Guilford is also effectively addressing active living through its Parks and Recreation programs and greenways and trails. New development standards require sidewalks and there are bike rental services, as well as workplace policies promoting exercise.
- **Social Determinants of Health**
 - Large disparities in life expectancy among census tracts in Guilford County reflect the social determinants of health, including income, education, and racial discrimination. Education and economic health are symptoms that drive a host of other determinants and represent the persistence of a system that has produced generations of families who are unable to generate meaningful access to economic opportunities or the ability to hold the current systems accountable.
 - Guilford County has an increasing rate of evictions, which has important health consequences. Average housing vacancy rates have steadily declined while monthly rents have steadily increased; this has led to serious problems of home affordability and housing quality. Respiratory issues and behavioral health are linked to housing quality and stability.
 - According to key informant surveys, public policies at the state or national levels and inequalities of economic and political power are two of the primary drivers of continued disparity, with minorities, children/adolescents and immigrants being the most affected.

The Guilford County Assessment Team has produced a comprehensive document that will permit the community to move forward on our priorities in a purposeful and strategic manner.

County Snapshots

The 2019-2020 Rockingham County Community Health Assessment

Full document available at [PiedmontHealthCounts.org](https://www.piedmonthealthcounts.org/).

The Rockingham County Community Health Assessment (CHA) seeks to identify factors that affect the health of the community and assist in determining the availability of resources within the community that can address those factors. The Community Health Assessment Advisory Group (CHAAG) is facilitated by Rockingham County Division of Public Health employees and includes leaders from Cone Health Annie Penn Hospital, UNC Rockingham Health Care, and the United Way of Rockingham County. The CHAAG is responsible for assisting in the overall creation of the CHA, collaboration of community partners, and ensuring that action plans are implemented and evaluated.

The CHA data collection process included 3 methods: door-to-door surveys, target population focus groups, and analyzing data collected from credible sources. The Rockingham County Health Opinion Survey consisted of 50 questions and was answered by 169 residents constituting a representative



Figure 5 Community Leaders at the 2020 CHA Priority Identification Meeting

random sample. A two-stage cluster sampling methodology was used in order for the surveys to be a valid depiction of the county's population. The CHAAG also conducted 12 focus groups with target populations who have an important and sometimes unacknowledged perspective on health needs. The secondary data from reliable local, county, and state sources were used to help further identify the needs, resources, and services needed in Rockingham County. Peer counties were determined based on similarities in population, size, and demographic factors. This allowed for the identification of comparison gaps among the state and peer counties.

On April 24, 2019, over 40 community members came together at Eden Town Hall to discuss and select the top three priorities that needed to be addressed over next three years. The top three priorities were selected based on the magnitude of the problem, the consequences of the problem, and the feasibility for change. When deciding on the priorities of the county there was a strong consensus for prioritization of opioid abuse, diabetes, and education.

Key Findings from the Rockingham County CHA:

- **Mental Health/Substance Abuse: Opioids**
 - In 2018, there were 151 overdoses and 63 deaths related to opioid misuse in Rockingham County, a 600% increase since 2013.
 - Of the total Naloxone opioid overdose prevention usage in Rockingham County, 37% was used in Eden and 27% was used in Reidsville.

- The Opioid Task Force was established in 2017 by the county manager and there are three workgroups within the taskforce including 1) prevention/education, 2) law enforcement/amnesty, and 3) rapid response. The prevention/education workgroup is collaborating with the local coalition, Suicide and Prescription Awareness Rockingham County (SPARC) and with a goal of zero incidents of suicide, prescription drug, or accidental overdoses in the county.
- **Physical Activity and Nutrition: Diabetes**
 - Diabetes affects 11% of the residents and is the 6th leading cause of death in Rockingham County. This means that about 1 in 9 people are affected by diabetes, with the majority of those affected being men.
 - Rockingham County's adult obesity rate (35%) is higher than peer counties Burke, Caldwell, Lee, Surry, and Wilkes. It is also higher than the North Carolina state rate (32%).
 - Only 7.18% of Rockingham County residents are consuming the recommended serving of 5 fruits and vegetables a day and approximately 30.7% of Rockingham County residents receive the recommended amount of physical activity a week.
 - The Diabetes Task Force of Rockingham County is now recognized by the state as a legal entity and has also applied for 501c3 status with the IRS. The task force is responsible for bringing together all providers in the county focused on decreasing long-term complications from diabetes and improving the lives of those living with the disease.
 - There are also several organizations in Rockingham County devoted to increasing resident's physical activity. This includes the Rockingham County Tennis Association, Be Healthy Rockingham, and the Dan River Basin Association.
- **Social Determinants of Health: Education**
 - The Rockingham County Schools continue to improve the high school graduation rate, with 85.7% of students graduating high school. However, the graduation rate varies between male and female students, with 90.5% of females graduating compared to 81.3% of males.
 - The highest level of educational attainment for most residents in Rockingham County is high school (34.5%) or some college or associates degree (32.0%).
 - There are numerous educational opportunities and programs offered in Rockingham County including Moss Street Partnership School, Rockingham Early College High School, Gaining Early College Awareness and Readiness for Undergraduate Programs (GEAR UP), Rockingham County Education Foundation (RCEF), Securing Tomorrow Rockingham Invests in and Values Education (STRIVE), and Parent Engagement Program (PEP).

The Rockingham Community Health Assessment will be finalized this fall and released to the public in early 2020. Community groups have already begun to develop ideas for health priority action plans.

Health Improvement Activities

Progress on 2016 Community Health Assessment Priorities

In January 2017, the Cone Health Board of Trustees adopted the Community Health Needs Assessment Implementation Plan to address priorities identified in the 2016 CHNA. We carefully chose to pursue initiation or expansion of four evidence-based programs that have shown considerable success in other communities and/or national trials. We also committed to continuing strong existing programs. The following section provides an overview of progress since 2016.

New Initiatives:

1. Intent: Implement evidence-based strategies to address chronic disease, behavioral health, and infant mortality, and target interventions to people vulnerable to health inequities.
 - Diabetes Prevention Program
 - Long-Acting Reversible Contraceptives
 - Mental Health First Aid
 - SOAR - SSI/SSDI Outreach, Access, and Recovery

2. Intent: Strengthen local and regional collaboration between health and human service partners to improve our capacity to identify critical health priorities and implement effective strategies to improve population health.
 - Piedmont Health Counts Data Hub
 - Regional Trainings and Gatherings for Shared Learning
 - Developing Community Networks to Promote Healthy Eating/Active Living, and Behavioral Health in Guilford County

Continuing Commitments:

- Access to Clinical Care at Cone Health
- Community Partnerships to improve Access to Care
- Outreach and Education
- Community Networks to Promote Health

Diabetes Prevention Program

The CDC-recognized National **Diabetes Prevention Program (DPP)** is an evidence-based lifestyle change program uniquely designed to prevent or delay Type 2 Diabetes. The millions of people in the U.S who are at high risk for Type 2 Diabetes can prevent or delay the disease by making modest lifestyle changes through a structured group program, led by a trained, lay health facilitator (“Lifestyle Coach”). Group classes can be offered at convenient locations such as churches, classrooms, wellness centers and worksites. Groups meet weekly for 16 weeks, then monthly for the remainder of the year. Cone Health’s pilot programs in 2014-2015 met DPP goals of 5-7% body weight reduction and >150 minutes of physical activity weekly. Our Lifestyle Coach, who teaches in both English and Spanish, was the first person in NC to achieve the Master Trainer *Select* certification in DPP, and served as central NC’s Regional Coordinator for the NC Division of Public Health’s Minority Diabetes Prevention Program.

Process Goals	Partners	Results
<p>Train Lifestyle Coaches for certification in DPP curriculum:</p> <ul style="list-style-type: none"> – health department staff in each county in NC Public Health Region V: Alamance, Caswell, Rockingham, Guilford, Orange, Person, Chatham, and Durham counties – Cone Health employees, in multiple physician practices and/or departments – lay leaders in local faith communities – community leaders that represent and/or serve communities of color, low income residents, immigrants or refugees <p>Support the work of the Lifestyle Coaches by</p> <ul style="list-style-type: none"> – holding at least three annual A1C screenings for the public – assisting with marketing and messaging for the DPP program, including social media and other awareness campaigns – providing ongoing support and guidance – “coaching the coaches” – assuring program fidelity to CDC guidelines to maintain status as Recognized Program 	<p>Local Health Departments, Piedmont Health Services, faith leaders, YMCA, Rockingham County Diabetes Task Force, Collaborative Cottage Grove, Cone Health Nutrition and Diabetes Education Services</p>	<p>Cone Health trained 89 Lifestyle Coaches since 2017</p> <ul style="list-style-type: none"> – 39 Cone Health employees – 50 community partner coaches <p>Offered DPP curriculum, in both English and Spanish, to 120 students.</p> <p>Achieved full recognition for the Diabetes Prevention Program from the Centers for Disease Control in 2017. We have retained full recognition status each year, meeting all program standards and participants achieving an average weight loss of 5%.</p> <p>Honored with 2018 NC Diabetes Advisory Council Healthcare Provider Award for Outstanding Work in Diabetes Prevention and Management</p>

Long-Acting Reversible Contraceptives

The most effective forms of preventing pregnancy are **Long-Acting Reversible Contraceptives (LARCS)** such as the intra-uterine device (IUD) or implant. Fewer than 1% of women using a LARC will become pregnant, making LARCs approximately 20 times more effective, over the long term, than birth control pills, the patch, or the ring. According to the Colorado Department of Public Health and the Environment, state-wide efforts to increase access to contraceptives, especially LARCs, since 2009 have lowered the teen birth rate by 40%, the number of repeat teen births by 53%, and the abortion rate for teens by 42%. In addition, significant public cost savings have been realized in that state; declining birth rates for young women have led to a 26% decrease in infant enrollment in WIC nutrition services, and savings of between \$49M and \$11M in Medicaid birth-related costs. LARCs are theorized to have further impact on women's health by improving opportunities for school completion and financial self-sustainability, and are considered an appropriate strategy for prevention of infant mortality and child poverty.

Process Goals	Partners	Results
<ul style="list-style-type: none"> – Develop process flow maps and training for clinical staff in Maternity Care at Women's Hospital and Alamance Regional to enable post-partum insertion of LARCs. – Train providers in how to counsel patients on LARCs and how to integrate them into routine care. – Implement "teen-friendly" clinic practices in at least two sites (details on teen-friendly strategies at this site: http://www.shiftnc.org/resources/for-medical-professionals). – Create adolescent health content for conehealth.com and armc.com websites, and include information on LARCs for both parents and teens. – Develop a working group to address barriers (financial, cultural, logistical) to LARC access. 	<p>Cone Health Foundation, Impact Alamance, local health departments, SHIFT NC, NC DHHS, Planned Parenthood Women's Hospital and Alamance Regional Medical Center</p> <p>Women's Health, Mother/Baby, Labor and Delivery, Family Medicine Residency, Pediatrics, Cone Center for Children, Westside OB/GYN, Encompass Women's Care</p>	<p>Cone Health Foundation partnered with Women's Health and Pediatrics service line leaders and three community clinics to promote best practices in LARC services for teens. In Greensboro, the teen pregnancy rate dropped from 27/1000 in 2015 to 22.7/1000 in 2017.</p> <p>In 2018, Impact Alamance partnered with the Alamance County Health Department, two Cone Health Medical Group practices, and Alamance Regional Medical Center to create a local learning community. 21 providers participated in trainings and process flow mapping. Five local medical offices have committed to LARC best practices, including same day insertion.</p>

Mental Health First Aid

Mental health disorders such as depression and anxiety are among the most prevalent chronic diseases in our community, affecting approximately 20% of adults. Nonetheless, because of cultural stigma and misunderstanding of the origins of mental health problems, many people are reluctant to seek help and lack knowledge of available resources. **Mental Health First Aid** is a public education program that builds understanding of risk factors and warning signs, the impact of mental health problems, common treatments, and connections to resources such as local mental health professionals, national organizations, support groups, and online tools. Mental Health First Aid is included in SAMHSA's National Registry of Evidence-Based Programs and Practices and has both an adult and youth training. The 8-hour course is taught in-person by certified instructors, and uses role play and scenarios to demystify mental illness and build capacity to obtain, process and understand health information necessary to make appropriate decisions. In 2015, Cone Health leadership began offering Mental Health First Aid training to all leaders in our organization.

Process Goals	Partners	Results
<ul style="list-style-type: none"> – Train local instructors to certification level in Mental Health First Aid, to include representation from public school, faith, and health and human services communities. – Provide meeting space and/or logistics for community trainings – Conduct periodic training “refreshers” for community instructors to further learning and address barriers/issues 	Sandhills Center, Cardinal Innovations, Alamance-Burlington School System, Behavioral Health Hospital, Congregational Nursing, Social Work, Marketing	Cone Health has trained 992 employees in Mental Health First Aid since 2016: <ul style="list-style-type: none"> – 433 in 2016 – 185 in 2017 – 303 in 2018 – 71 YTD 2019 Working with Cardinal Innovations, Cone Health sponsored Youth Mental Health First Aid trainings in Alamance and Caswell counties. 150 Alamance-Burlington School System employees completed training, and 33 community members in human services organizations in Caswell County participated.

SOAR - SSI/SSDI Outreach, Access, and Recovery

SOAR is a fast-track system for chronically homeless people to gain access to federal disability payments and Medicaid. Because of their infrequent and episodic use of healthcare, homeless people typically lack the required documentation and expertise to complete successful disability applications. SOAR workers use an enhanced methodology for these tough cases; the development of one application averages 40 hours of staff time, versus 10 or fewer for a typical disability application. HUD and the Social Security Administration give precedence to SOAR applications, which have around an 80% success rate on the first application (versus a typical ~30% success rate.) In Greensboro, through a partnership with The Servant Center and Partners Ending Homelessness, we introduced a SOAR program to benefit our most vulnerable patients who are high utilizers of Emergency Department care. These patients, as well as inpatients, are referred to both The Servant Center for disability assistance and Partners Ending Homelessness for their Housing First program, which provides safe, permanent supportive housing, including case management and mobile crisis response.

Process Goals	Partners	Results
<ul style="list-style-type: none"> – Establish contract for SOAR disability services with The Servant Center and referral process flow from Emergency Departments and in-patient services – Assure appropriate collaboration on referrals and medical record information to maximize success rate of applications – Evaluate program on basis of ED utilization, Medicaid reimbursements, and utilization of other services (shelter, law enforcement, EMS) to determine whether to expand 	<p>The Servant Center, Partners Ending Homelessness, Interactive Resource Center, Weaver House, Greensboro Urban Ministry, Greensboro Police Department Moses Cone Hospital and Wesley Long Hospital</p> <p>Patient Access and Revenue Cycle, Social Work, Emergency Department, Behavioral Health</p>	<p>Since October 2016, The Servant Center has</p> <ul style="list-style-type: none"> – Processed 177 referrals for disability for very low income, chronically homeless individuals receiving care at Cone Health – Submitted applications to federal programs (SSDI) for 92 individuals – Helped 33 individuals successfully complete the process and receive disability and Medicaid benefits

Goal 2: Strengthen local and regional collaboration between health and human service partners to improve our capacity to identify critical health priorities and implement effective strategies to improve population health.

Health systems have a critical role to play in bringing together regional health and human service partners for collaborative brainstorming, resource sharing, and problem-solving. It is our belief that building stronger regional networks is a key strategy for quality improvement. We have also identified an immediate need for better local health data, and none of our counties can accomplish its work without making improvements in this area. Because of changes in 2014 to the NC DHHS survey methodology, we lack local health data on key metrics, such as obesity, physical activity, smoking rates, and other prevalence rates. By working together, we can pool resources to develop these local information systems, and have begun a project called Piedmont Health Counts to collect local data and track progress on collective action plans. We also recognize the need to train together on new methods of accomplishing population health goals, to move us towards improved methods of developing strategies that will truly move the collective needle. Together with our partners, we seek to create structures to align Behavioral Health and Healthy Eating/Active Living initiatives in Guilford County.

Process Goals	Partners	Results
<ul style="list-style-type: none"> – Launch the Piedmont Health Counts data hub, to provide county-level health data and guide data-driven accountability and decision-making. – Conduct at least one annual day-long “all partners” seminar on community health improvement practices, such as health communications, qualitative research for “community voice”, Results-Based Accountability. – Identify appropriate partners and develop community networks to promote Healthy Eating/Active Living, and Behavioral Health in Guilford County 	<p>Alamance County Health Improvement Plan, Community Health Assessment Action Group (Rockingham), Guilford Community Assessment Team, Quality Intelligence Analytics, Cardiovascular Services, Behavioral Health</p>	<p>Created Piedmont Health Counts in 2017.</p> <p>Collaborating currently on data hub for Forward Guilford Community Indicators Project.</p> <p>Core research partner for LEAP (Lifetime Eating and Physical Activity Practices) to identify common goals and measures that existing program providers and residents can use to drive improvement in healthy eating and active living. Published progress report in 2019.</p> <p>Collaborated with Greensboro AHEC for conference on Social Determinants of Health in 2018 and three-month Connection Academy in 2019.</p>

Continuing Programs

Inspired by the vibrancy of our community, and by the generosity of Bertha Cone’s founding gift to our health system on the basis that “No patient should be refused admittance because of inability to pay”, we affirm our ongoing commitment to the programs and partnerships detailed below.

Access to Clinical Care at Cone Health

- [Behavioral Health Hospital](#)
- [Behavioral Health Inpatient Unit at Alamance Regional](#)
- Care Connect Rockingham
- [Clara F. Gunn Center](#)
- [Tim and Carolynn Rice Center for Child and Adolescent Health](#)
- [Cone Health Financial Assistance Program](#)
- [Community Health and Wellness Center](#)
- [Family Medicine Faculty Practice and Residency Program](#)
- [Internal Medicine Center and Residency Teaching Service](#)
- [Medication Management Clinic](#)
- [Patient Care Center](#)
- [Regional Center for Infectious Disease](#)
- [Renaissance Family Medicine](#)
- [Women’s Hospital Faculty Practice](#)

Progress Since 2016:

- *In August 2017, Cone Health opened the Clara F. Gunn Center in Reidsville, introducing an innovative model that combines congregational nursing care with virtual medical visits.*
- *In early 2018, Cone Health opened a new practice, Renaissance Family Medicine, in the Phillips Avenue neighborhood in northeast Greensboro, an area that had been without local primary care services for years.*
- *In late 2018, Cone Health assumed leadership of the Care Connect program in Rockingham County, a network of care that provides access to primary care, specialty care, dental services, case management and medication assistance for low income uninsured patients, and currently serves over 400 residents of Rockingham County.*
- *Other clinics and services to increase access to care, including a 24-7-365 Behavioral Health Urgent Care/Crisis Center for adults and adolescents, and a mobile medical bus, are in development.*

Community Partnerships to Improve Access to Care

<u>Alamance Cares</u>	Alamance Cares is focused on stopping the spread of HIV/AIDS and other sexually transmitted diseases through awareness, education, and testing in Alamance and surrounding North Carolina counties. Alamance Cares offers education and free HIV, hepatitis C and syphilis testing.
<i>Progress Since 2016</i>	<i>Alamance Cares has expanded its programming and now offers testing, counseling, and education in Caswell and Rockingham counties, also.</i>
<u>Alamance Eldercare</u>	Eldercare envisions a community in which older adults and their caregivers have access to the resources and support needed to live full and independent lives. There is no charge for their services, which include care management, family caregiver support services, connections to resources, and options planning.
<i>Progress Since 2016</i>	<i>Alamance Eldercare has expanded its programming to include new evidence-based programs in falls prevention and caregiver support. They have increased the number of Community Alternatives Program (CAP) clients and are currently designing new programs to help grandparents who are parenting school-age children.</i>
<u>Congregational Nursing and Congregational Social Work Education Initiative (CSWEI)</u>	Our Congregational Nursing program is a unique, specialized nursing practice established 15 years ago as a collaborative relationship between Cone Health and our area's faith communities. Our 48 Congregational Nurses promote harmony of body, mind and spirit in achieving and maintaining individual health with a focus on disease prevention and reducing health risk behaviors. The CSWEI partners social work students with Congregational Nurses to serve immigrants and refugees, older adults, and individuals and families who lack permanent housing.
<i>Progress Since 2016</i>	<i>Congregational Nurses and Social Workers continue to connect people to primary care providers, dispense free flu vaccinations (over 800 annually) and provide transportation and referrals for food and other services. They work with NC MedAssist to provide screenings and physical examinations at the spring and fall Over-The-Counter Medication Giveaway events, serving hundreds of community members.</i>
<u>Free Clinic of Rockingham County</u>	The mission of the Free Clinic of Rockingham County is to provide access to health care that compassionately meets the essential medical, dental and pharmacy needs of low income, uninsured citizens of Rockingham County.
<i>Progress Since 2016</i>	<i>Annie Penn Hospital assisted The Free Clinic of Rockingham County in its transition to the Cone Health Link electronic medical record system. The Free Clinic has begun behavioral health integration and is a strong partner to the PENN Program and the Care Connect program.</i>
<u>Guilford Community Care Network</u>	Guilford Community Care Network provides access to specialty care for the uninsured through their signature "Orange Card" program and works to promote utilization of primary care to avoid preventable ED utilization.
<i>Progress Since 2016</i>	<i>GCCN has expanded its dental access program, and has additional specialty care programs in endocrinology and dermatology. Orange Card holders also have access to fresh produce weekly through a partnership with the Greensboro Farmer's Curb Market. GCCN celebrated 15 years in</i>

2018, and is consistently rated among the most successful access-to-care networks in North and South Carolina.

<u>Open Door Clinic of Alamance County</u>	Open Door Clinic offers free primary care health services to uninsured residents of Alamance County. This helps to reduce the cost of healthcare by treating the uninsured for chronic and acute disease, preventing non-acute utilization of the Emergency Department.
<i>Progress Since 2016</i>	<i>Open Door Clinic will move to a new facility in 2020, doubling its capacity to care for low income, uninsured patients. New services: adult dental access, on-site behavioral health counseling, endocrinology, ophthalmology, the Diabetes Prevention Program and collaboration with Medication Management Clinic to provide medication access.</i>
<u>PENN (People Engaged in Neighborhood Nursing)</u>	PENN Program nurses engage the faith communities in Reidsville, NC and Rockingham County to provide outreach, education, and screenings to immigrants and refugees, older adults, and individuals and families who lack permanent housing.
<i>Progress Since 2016</i>	<i>PENN nurses have been instrumental in connecting people across Rockingham to services, through their outreach at agencies such as the <u>Salvation Army</u> and <u>Lot 2540</u>. PENN supports the Clara F. Gunn Center at the New Reidsville Housing Authority.</i>
<u>Rockingham County Healthcare Alliance</u>	RCHA is committed to improving the overall health, education, and economic standing of community residents.
<i>Progress Since 2016</i>	<i>In 2016, RCHA opened the James Austin Health Center in Eden to increase access to care for uninsured and underinsured patients. RCHA's Care Connect program became integrated within Cone Health in late 2018.</i>

Outreach and Education

<u>A Message and a Meal</u>	In partnership with St. James Presbyterian Church in Greensboro, Cone Health offers a free hot meal, and health education every Sunday afternoon. Since its inception in October 2015, we have provided over 7000 meals and hundreds of screenings (blood glucose, blood pressure, HIV) as well as on-site links to primary care appointments.
<i>Progress Since 2016</i>	<i>Partnerships with the Kellin Foundation, Out of the Garden Project, Renaissance Family Medicine and other local care providers bring weekly health education, services and fellowship to our neighbors.</i>
<u>Be Healthy Now</u>	Be Healthy Now (BHN) has grown over the years from a 9-week wellness program to a year-round wellness community. In 2016 and 2017, people participated in the 9-week wellness programs as teams or individuals. Registered participants attended lectures, fitness classes, and events to keep up with a point system that was rewarded with prizes for achieving their goals. In 2018, BHN became a year-long program that provides more options to promote healthy eating, active living, and stress reduction.
<i>Progress Since 2016</i>	<i>BHN now provides free fitness activities almost every day of the week. Since 2018, BHN has increased its outreach to the LatinX community by creating bilingual materials and hosting events in places where this community feels comfortable. BHN coordinates two weekly exercise classes, Zumba and Soul Line Dancing, in local community centers, with an average attendance of 30, and monthly nutrition and cooking classes.</i>
<u>Educational Events</u>	Cone Health offers educational opportunities to the broader community on a variety of health topics. Opportunities include physician/provider lectures, mental health education series, Wellness-on-Demand videos, etc.
<u>Elon-Alamance Health Partners</u>	The Elon-Alamance Health Partners (EAHP) program, a partnership between Elon University and Alamance Regional, offers four recent Elon graduates the opportunity to engage in one year of meaningful service work to improve the health of residents in Alamance County. EAHPs receive strong mentorship and take on leadership roles at Alamance Regional, the Alamance County Health Department, Healthy Alamance, and Impact Alamance.
<i>Progress Since 2016</i>	<i>The Elon Service Year Fellowship has 20 alumni, 13 of whom are living in NC, and all of whom have continued in health and human services careers. The fellowship has grown to include two Kenan Community Impact Fellows.</i>
<u>Free and Low Cost Health Screenings</u>	Provides free or low cost screenings (breast, cervical, prostate, and skin cancers; vascular disease; diabetes; obesity; cholesterol; blood pressure; low dose CT for lung cancer) for those in the community that do not have health insurance coverage, a medical home, and/or access to medical providers.
<u>Project Search at Alamance Regional</u>	The Project Search High School Transition Program supports students with significant intellectual disabilities to gain competitive, marketable and transferable skills to enable them to apply for employment in our community after graduation from high school. Project Search interns are

	supported by a special education teacher, job coaches and Alamance Regional employees as they complete rotations in hospital departments.
<i>Progress Since 2016</i>	<i>Project Search interns continue to contribute their skills and talents at Alamance Regional and Moses Cone Hospital, learning valuable work skills and enriching the lives of our patients, visitors, and employees.</i>
<u>QuitSmart Smoking Cessation</u>	A free <u>four-session class</u> that utilizes the QuitSmart methodology and materials, plus personalized coaching offered to the community in both lunch and evening sessions.
<u>Safe Kids</u>	Safe Kids has the primary goal of keeping children safe. Safe Kids works to reduce preventable injuries from motor vehicles, sports, drownings, falls, burns, and poisonings with the right education, awareness and planning.
<i>Progress Since 2016</i>	<i>Safe Kids Alamance County and Safe Kids Guilford aim to educate children and their families on preventable childhood injuries. They coordinate the community to provide car seat checks, bike rodeos and pedestrian safety, medication safety through Operation Medicine Drops, fire safety with our local fire departments, and hyperthermia awareness through hot car displays and outreach education. They provide home safety resources for families that may need baby gates, a safe sleep place for their newborn, outlet covers, and TV and furniture tip-over wall brackets.</i>
<u>Support Groups</u>	<p>Cone Health offers support to members of our community experiencing the following:</p> <ul style="list-style-type: none"> – Alzheimer's and Related Disorders – Amputee Support – Arthritis – Bariatric Surgery – Birth of a Baby – Brain Injury – Cancer: Breast Cancer, Cancer Transitions, Community Cancer Survivorship Series, KidsCan, Prostate Cancer – Heart Disease – Ostomy – Parkinson's Disease – Stroke

Community Networks to Promote Health

Collaboration with community partners, government and nonprofit agencies, activists and volunteers are essential to accomplishing our goals and fulfilling our commitment to promote health and well-being. Our implementation plan includes continued, active service on the following coalitions. Each of these coalitions features inclusive and diverse membership representing engaged local and regional service providers, and each coalition has either a strategic plan or action plan, in which Cone Health is an active participant.

<u>Alamance Achieves</u>	Alamance Achieves began convening community leaders in 2015 to improve our community’s “power grid” of successful programs focused on children’s health and educational outcomes. This cradle-to-career network establishes shared metrics, accountability systems, and continuous improvement processes to identify what works in Alamance County and expand this to reach all children.
<i>Progress Since 2016</i>	<i>Alamance Achieves has moved from concept to implementation, establishing a steering committee, a Community Transformation Council, hiring its team, and publishing a baseline report in 2018 on the community’s common goals from cradle to career. Alamance Achieves has launched the kindergarten readiness network to focus on early childhood developments. In spring 2019, community partners launched Ready Freddy – an eight-week program that aims to support families as they prepare for their child’s successful transition into school.</i>
<u>Alamance Network for Inclusive Healthcare</u>	The Network brings together agencies within Alamance County who provide medical care to low-income, uninsured, and vulnerable populations. Through a collaborative effort, the group works to minimize barriers that inhibit access to comprehensive, quality health care services in order to improve the health of uninsured and underinsured residents of the community.
<i>Progress Since 2016</i>	<i>The Network developed a strategic plan in 2017 based on two goals: increasing residents’ access to affordable transportation, and better coordinating care between our agencies. Advocacy brought extended bus hours, a new bus shelter, and a sidewalk linking the shelter to local safety net practices. Members pooled resources to establish adult dental access.</i>
<u>Alamance Racial Equity Alliance</u>	The Alamance Racial Equity Alliance is a community of anti-racist people that encourages the transformation of thought through collective learning, meaningful relationships, and community events. The goal is to end racism.
<i>Progress Since 2016</i>	<i>AREA offers four sessions of the Racial Equity Institute Phase 1 training annually, and the Groundwater presentation at least once a year. Hundreds of Alamance County leaders have participated in this important experience. Members gather monthly to explore ways to work together to end racism.</i>
<u>Alamance Wellness Collaborative</u>	The Wellness Collaborative is a multidisciplinary coalition that works to implement built environment strategies and policy changes, such as developing more sidewalks, bike paths, trails, and greenways, to increase physical activity and provide better access to healthy foods.

<i>Progress Since 2016</i>	<i>The Alamance Wellness Collaborative has had numerous accomplishments since 2016. Some of the most notable include the implementation of the community use policy for all elementary playgrounds; creation of tobacco free policies in Graham, Green Level, Elon and Burlington; adoption of Health in all Policies Resolutions by the cities of Burlington and Elon; an increase in the number of bike lanes, trails and new greenways in Mebane, Burlington and Elon.</i>
<u>Be Healthy Rockingham</u>	Be Healthy Rockingham brings together health agencies, community organizations, businesses, and concerned citizens who work together to improve access to high quality nutrition, opportunities for physical activity, and smoke-free environments.
<i>Progress Since 2016</i>	<i>Be Healthy Rockingham assisted in establishing the West Rock Farmers' Market, and supported the acceptance of SNAP/EBT payment. They have collaborated with 15 organizations to develop the Be Healthy Rockingham community- wide campaign for healthy eating and active living. In collaboration with the Dan River Basin Association, Be Healthy Rockingham has offered an "Adventure Series" with activities like trails, tubing, and bicycling for all ages and experience levels.</i>
<u>Central Carolina Health Network</u>	Central Carolina Health Network is a leader in reducing the spread of HIV through education and prevention, expanding access to quality care for those persons living with HIV/AIDS.
<i>Progress Since 2016</i>	<i>CCHN has expanded services into Alamance County, with improved access to specialty care. There are additional testing and counseling options available in Rockingham, and stronger housing programs in Guilford.</i>
<u>Community Action for Healthy Babies (Guilford County)</u>	CAHB is a consortium of local agencies working to ensure that all women in Guilford County have access to and utilize healthcare before, during, and after pregnancy; and their babies are born at a healthy birth weight.
<i>Progress Since 2016</i>	<i>CAHB has grown in participation, and was asked to advise national leaders working to develop the Get Ready Guilford Initiative. The CAHB worked with Greensboro AHEC to offer a day-long continuing education program on perinatal mood disorders, and is currently developing a new strategic plan.</i>
<u>Greensboro Health Disparities Collaborative</u>	The mission of the Greensboro Health Disparities Collaborative is to establish structures and processes that respond to, empower and facilitate communities in defining and resolving issues related to disparities in health.
<i>Progress Since 2016</i>	<i>GHDC implemented the <u>ACCURE Study</u> at the Cone Health Cancer Center and in Pittsburgh, PA, to address implicit bias in healthcare that results in inequitable treatment outcomes for black and white cancer patients. ACCURE processes eliminated the racial disparity in lung cancer outcomes and improved rates of treatment completion for black and white patients. These protocols are now being solidified and expanded at Cone Health. GHDC also provides community education and conducts research designed to empower community members to eliminate health disparities.</i>
<u>Healthy Alamance</u>	Healthy Alamance is a partnership between Alamance County Health Department and Alamance Regional, whose mission is to mobilize resources to develop and support a healthy, nurturing community. Healthy Alamance envisions an Alamance County in which everyone has the opportunity to be their healthiest and happiest.

<i>Progress Since 2016</i>	<i>Healthy Alamance has fostered two successful coalitions, one focused on improvements to the built environment to foster health eating and active living, and the other to build a just local food system. Healthy Alamance has promoted the Authentically Alamance brand to promote the local economy, managed and grown the North Park Farmer’s Market, sponsored a Black Entrepreneur’s Collective, and a health equity coalition.</i>
<u>Healthy Cottage Grove Community</u>	Healthy Cottage Grove Community brings together primary care providers, community health workers, housing advocates, university researchers, and community activists and residents to improve management of chronic disease, neighborhood housing and economic conditions in the Cottage Grove community in Greensboro, NC.
<i>Progress Since 2016</i>	<i>The Cottage Grove Collaborative received funding from BCBSNC Foundation’s Community-Centered Health program and the BUILD Health Challenge to address structural issues that created a heavy burden of asthma and diabetes in the Cottage Grove neighborhood. Partners successfully advocated for improvements in <u>housing quality</u>, playgrounds, bike lanes, and a healthy homes program for children with asthma. HUD Secretary <u>Ben Carson</u>, MD visited the community in 2018 to kick off Healthy Homes month, and the group’s work was featured on <u>PBS NewsHour</u>.</i>
<u>Ready for School, Ready for Life</u>	This collaborative effort brings together the whole community to create an innovative early childhood system that’s responsive to the needs of families today and in the future. Goals include connecting parents with resources, driving continuous improvement across the system, expanding early literacy resources, and ensuring that service providers are responsive to family voice.
<i>Progress Since 2016</i>	<i>In 2018, Guilford County was selected for a \$32.5 million multi-year investment from <u>Blue Meridian Partners</u> to pilot and grow an initiative to improve outcomes for children. This will expand three existing and proven programs that serve families prenatally through age 3 (Guilford Family Connects, HealthySteps and Nurse-Family Partnership); develop a navigation system to connect families with effective services prenatally through age 3; and work with local programs in a Continuous Quality Improvement (CQI) effort to build capacity for using data in service delivery and decision-making.</i>
<u>Rockingham County Diabetes Task Force</u>	The Task Force consists of area healthcare providers, educators, and advocates dedicated to identifying pre-diabetics and individuals diagnosed with Type 2 Diabetes, as well as improving resources, access to health care, and overall quality of life.
<i>Progress Since 2016</i>	<i>The Diabetes Task Force of Rockingham County is responsible for bringing together all the providers in the county focused on decreasing long-term complications from diabetes and improving the lives of those living with the disease. The task force continues to hold the yearly Rock Your Health wellness fair with well over 200 participants. In the coming year, the task force will have its first annual Camp Oakhaven and will give children living with diabetes the opportunity to learn about their condition, grow personally, and improve their health.</i>

Health Improvement Activities

The Work of Cone Health-affiliated Foundations

Cone Health is fortunate to have deep and respected expertise in health philanthropy. The [Alamance Regional Charitable Foundation](#), [Annie Penn Charitable Foundation](#), and [Office of Institutional Advancement](#) (at Moses Cone Hospital) provides the opportunity for community members to give to initiatives at Cone Health that support our patients' basic needs while they are receiving treatment, fund innovative new therapies, and sustain community outreach and education. Together, these programs invested \$2.3 million in our health system last year.

[Cone Health Foundation](#) and [Impact Alamance](#) were both formed through hospital and health system mergers. Cone Health Foundation and Impact Alamance invested over \$5 million last year to address critical health needs in Greensboro and Alamance County. Both foundations contribute resources and assistance to county-level community health assessment groups, participate in health-related coalitions, and help to spur innovation and collaboration in our communities.

[Cone Health Foundation's](#) goals include the promotion of the integration of primary care, behavioral health and oral care; prevention of primary and repeat teen pregnancies; increasing the proportion of people in Greensboro who know their HIV status, and are virally suppressed; and promoting access to evidence-based treatment for individuals with co-occurring substance use and mental health disorders. Cone Health Foundation's Access to Care Initiative has been instrumental in improving the provision of integrated physical and behavioral health services in the Greensboro community, creating change within the systems of care that it funds, as well as change within the larger community. Cone Health Foundation's [Healthy Tomorrow Alliance](#) has spurred a dramatic reduction in Greensboro's teen pregnancy rate, from 27/1000 in 2015 to 22.7/1000. About 34% of teens seen through partners in the Alliance are using LARC, versus a national average of 11%. Organizations funded by Cone Health Foundation to work with people with HIV have achieved a viral suppression rate of 85% to 92%, far better than the state average of 59%. Cone Health Foundation has been a leader in policy advocacy work to promote Medicaid expansion, and commissioned a [study](#) to estimate its economic impact in NC.

Impact Alamance has two [strategic priorities](#): Healthy Kids and Healthy Communities. Healthy Kids focuses on investments in early childhood literacy and health, and in building healthy environments with sidewalks, trails, and opportunities for children and families to be active. The Alamance County Wellness Collaborative has promoted adoption of 12 health policy changes in Alamance County, including a joint-use policy to open up school playgrounds to community use, and tobacco-free environments in public places. Healthy Communities focuses on bringing together multi-disciplinary teams to align resources and goals to strengthen educational outcomes. As of late 2019, 250 Alamance-Burlington School System teachers have participated in the Teacher Leadership Academy, a program that develops strong networks of educational leaders to bring innovative instructional strategies to each school in our district. In 2016, Impact Alamance launched [Alamance Achieves](#), a cradle-to-career collective impact network. Alamance Achieves is a multi-sector partnership created to drive continuous improvement towards common goals to improve outcomes for all children, from cradle to career. Impact Alamance was instrumental in promoting the passage of the \$150 million education bond with 70% of Alamance County voters supporting the bond.

Cone Health affiliated-foundations foster innovation, community connections, and philanthropy.

Health Improvement Activities

Health System Transformation



2014

Our Purpose

Together, we create unsurpassed health care experiences.

Our Intent

We are the leader in delivering integrated, innovative health care.

2018

Our Purpose

To connect health care and well-being.

Our Vision

A tradition of health and well-being is woven through the fabric of our communities.

Figure 29 Comparison of Cone Health Purpose, Intent and Values, 2014 and 2018

Cone Health's founding principles of community service and superior patient care are the cornerstones of our organization. Our nation's health system is in constant transformation due to major policy initiatives, demographic changes, and cultural shifts. Our values keep us true to these founding principles as we navigate uncertainty and break new ground in our journey from volume-to-value, from a "sick care" institution to a system that helps our community achieve wellness. Figure 29 reflects the change in statements of purpose, intent and vision adopted by Cone Health in 2014 and 2018. The emphasis on holistic well-being in 2018 indicates that we are moving away from a focus on episodes of care towards connections, bonds, and new relationships with our patients and our communities.

This document serves as a snapshot of our current state on a wide range of health issues in central NC. It is fitting to document here the macro changes in our midst that influence, for better and for worse, our ability to achieve the health improvements we desire for our communities. At the time of this writing in summer 2019, policy questions regarding the appropriate way to pay for healthcare dominate our state budget process. Generational changes are coming to NC's Medicaid program within months, transforming that system from a single-payer program to a managed care system. Triad Healthcare Network heads into its fourth year as a Next Generation Accountable Care Organization, even as there remains some uncertainty at this time as to whether the 2010 Affordable Care Act legislation authorizing ACOs and many other healthcare reforms could be declared unconstitutional.

In the midst of this change, we stand on firm ground in our conviction that keeping people healthy is Cone Health's business. We seek to strengthen our organization and our communities towards that goal.

We are right here with you.

Acknowledgments

The following agencies served on the assessment teams in Alamance, Guilford or Rockingham Counties; contributed data to the assessment; or participated in focus groups or community forums.

- Alamance Achieves
- Alamance County Health Department
- Alcohol & Drug Services of Guilford, Inc. (ADS)
- Barry L. Joyce Local Cancer Support Fund, Madison, NC
- Cardinal Innovations Health Care
- Cone Health: Administrative Fellowship, Behavioral Health, Care Connect, Congregational Nurse Program, Community and Corporate Well-being, Emergency Services, Enterprise Analytics, Healthy Communities, Health Equity, Staff Education, Wellness, and each of the hospitals.
- Cone Health Foundation
- Fellowship Hall Drug and Alcohol Recovery Center, Greensboro, NC
- Free Clinic of Rockingham County
- Guilford Community Care Network
- Guilford County Department of Health and Human Services, Public Health Division
- Help, Inc.: Center Against Violence, Reidsville, NC
- Impact Alamance
- James Austin Health Center, Eden, NC
- L.E.A.F. Adult Day Center, Reidsville, NC
- NC Works
- Open Door Clinic
- Reidsville Area Foundation
- Rockingham Community College
- Rockingham County Aging Disability and Transit Services
- Rockingham County Department of Health and Human Services
- Rockingham County Department of Juvenile Justice
- Rockingham County Diabetes Task Force
- Rockingham County Schools
- Rockingham County Student Health Centers
- Sandhills Center
- Senior Centers of Rockingham County
- The Servant Center
- SPARC Suicide and Prescription Awareness of Rockingham County
- The University of North Carolina at Greensboro
- UNC Rockingham Health Care
- United Way of Alamance County
- United Way of Greater Greensboro
- United Way of Greater High Point
- United Way of Rockingham County
- Wake Forest Baptist Health - High Point Medical Center

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 - Data in Table 8 *Cone Health Patients with Lab-confirmed Prediabetes or Diabetes* was extracted from Cone Health Link (Cone Health’s electronic medical record system) in 2018.
 - Data in Table 9 is from multiple sources and multiple years, illustrating the data gaps and difficulties in comparing these important social and behavioral factors over time. Information about sources can be found at the County Health Rankings at this link: <https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/2019-measures>
 - The World Health Organization’s definition of mental health is available at this link: https://www.who.int/features/factfiles/mental_health/en/
 - The information from Figure 14 on depression among Medicare Beneficiaries can be accessed at Piedmont Health Counts at this link: <http://www.piedmonthhealthcounts.org/indicators/index/view?indicatorId=2058&localeTypeId=2>
 - Figure 15 *Guilford County Emergency Department Data and Opioids* and Figure 16 *Rockingham County Opioid Trends in Overdose and Narcan Usage, 2013-2018* are provided courtesy of the Guilford County Division of Public Health and the Rockingham County Health Department, respectively.
 - The NC Harm Reduction Coalition provides an explanation of the concept of harm reduction at this link: <http://www.nchrc.org/harm-reduction/what-is-harm-reduction/>
 - The information in Table 10 *Uninsured Adults, Medicaid Enrollment and Provider-to-Population Ratios for Selected Counties in Central NC* is drawn from multiple sources:
 - Small Area Health Insurance Estimates 2016
 - NC DHHS Medicaid Enrollment Reports at this link: <https://medicaid.ncdhhs.gov/documents/reports/enrollment-reports/medicaid-and-health-choice-enrollment-reports>
 - *The Economic and Employment Benefits of Expanding Medicaid in North Carolina: June 2019 Update* at this link: <https://www.conehealthfoundation.com/app/files/public/11568/expanding-medicaid-in-north-carolina---2019.pdf>
 - Area Health Resource File 2016
 - National Provider Identification File 2017

CHAPTER	REFERENCES
Priority Health Needs	<ul style="list-style-type: none"> • Figure 17 <i>Low-Acuity Visits to Cone Health Emergency Departments, 2018-2019</i> is drawn from a data extract from Cone Health Link. • Figures 18 and 19 on symptoms of community trauma and elements of community resilience from the Prevention Institute are available in the report <i>Adverse Community Experiences and Resilience: A Framework for Addressing and Preventing Community Trauma</i> at this link: https://www.preventioninstitute.org/publications/adverse-community-experiences-and-resilience-framework-addressing-and-preventing • The Asthma and Allergy Foundation’s 2019 report <i>Asthma Capitals 2019: The Most Challenging Places to Live with Asthma</i> is available at this link: https://www.aafa.org/asthma-capitals/ • The information in Figure 22 <i>Percentage of Children Living in Poverty, Alamance and Guilford County Census Tracts, 2013 to 2017</i> is from the American Community Survey 2013-2017 and is available at Piedmont Health Counts at this link: http://www.piedmonthhealthcounts.org/indicators/index/view?indicatorId=189&localeTypeId=4 • Information in Figure 23 <i>Piedmont Health Counts Measures of Community Conditions for Alamance and Guilford Counties</i> is available at these links: <ul style="list-style-type: none"> ○ Food Environment Index: http://www.piedmonthhealthcounts.org/indicators/index/view?indicatorId=2362&comparisonId=927&localeId=1942 ○ Physical Environment Ranking: http://www.piedmonthhealthcounts.org/indicators/index/view?indicatorId=366&localeId=1982 • Table 11 <i>Guilford County Disparities in Chronic Disease Mortality</i> is provided courtesy of the Guilford County Division of Public Health. • Data on health disparities on page 47 are from data extracts from Cone Health Link from 2017-19.