



2018

Clay County Community Health Assessment



PUBLIC HEALTH DEPARTMENT

ACKNOWLEDGEMENTS

This document was developed by Clay County Health Department in partnership with Clay County Healthy Carolinians Partnership, Erlanger-Murphy Medical Center, and Union General Hospital as part of a local community health (needs) assessment process. We would like to thank and acknowledge several agencies and individuals for their contributions and support in conducting this health assessment:

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Our community health assessment process and products were supported collaboratively by **WNC Healthy Impact**, a partnership between hospitals and health departments to improve community health in western North Carolina. This innovative regional effort is coordinated, housed and financially supported by **WNC Health Network**, the alliance of western NC hospitals working together to improve health and healthcare. Learn more at www.WNCHN.org.



TABLE OF CONTENTS

Clay County 2018 CHA Executive Summary	6
Community Results Statement	6
Leadership	6
Partnership/collaborations	6
Regional/Contracted Services	8
Theoretical framework/model	8
Collaborative Process Summary	8
Key Findings	9
Health Priorities	9
Chronic Disease Control and Prevention	9
Mental Health Access to Care	9
Substance Abuse/Misuse	9
Next Steps	9
Chapter 1 – Community Health Assessment Process	10
Purpose	10
Definition of Community	10
WNC Healthy Impact	11
Data Collection	11
Core Dataset Collection	11
Additional Community-Level Data	12
Health Resources Inventory	12
Community Input & Engagement	12
At-Risk & Vulnerable Populations	13
Chapter 2 – Clay County	14
Location, Geography, and History	14
Population	15
Chapter 3 – A Healthy Clay County	17
Elements of a Healthy Community	17
Community Assets	17
Chapter 4 – Social & Economic Factors	18
Income	18
Education	19
Housing	19
Family & Social Support	20
Chapter 5 – Health Data Findings Summary	21
Mortality	21
Health Status & Behaviors	22
Clinical Care & Access	24
At Risk Populations	25
Chapter 6 – Physical Environment	26
Air Quality	26
Water	27

Access to Healthy Food & Places	27
Chapter 7- Health Resources	29
Health Resources	29
Process	29
Findings	29
Resource Gaps	29
Chapter 8 – Identification of Health Priorities	30
Health Issue Identification	31
Priority Health Issue Identification	31
Priority Issue #1 Chronic Disease Control and Prevention	33
Priority Issue #2 Mental Health	38
Priority Issue # Substance abuse/misuse	42
Chapter 9 - Next Steps	46
Sharing Findings	46
Collaborative Action Planning	46
Works Cited	47
Appendices	50
Appendix A - Data Collection Methods & Limitations	51
Secondary Data from Regional Core	51
Secondary Data Methodology	51
Data limitations	51
Gaps in Available Information	51
Appendix B- WNC Healthy Impact Survey (Primary Data)	53
Survey Methodology	53
About the Clay County Sample	54
Benchmark Data	53
Information Gaps	55
Appendix C- Local Data	58
Local Data Presentation	59
Appendix D- Online Key Informant Survey (Primary Data)	72
Online Survey Methodology	72
Key Informant Survey Results	74
Data Definitions	108



CLAY COUNTY 2018 COMMUNITY HEALTH ASSESSMENT EXECUTIVE SUMMARY

Community Results Statement

Creating an environment with evidence-based tactics in an effort to foster positive health outcomes for our community for generations to come.

Leadership for the Community Health Assessment Process

Leadership for the CHA process included the Clay County Health Department community health educator and the health director.

Name	Agency	Role/ Contribution	Duration of Participant	Agency Website
Alex Gilpin	Clay County Health Department	Chair of Healthy Carolinians/ Health Educator	Full Process	www.clayhdnc.us
Stephanie Johnson	Clay County Health Department	Health Directors	Full Process	www.clayhdnc.us

Partnerships

Partnerships during the CHA process were extremely important. The main partnership came from Healthy Carolinians, which is comprised of multiple entities from around the county. Healthy Carolinians was formed to better the health of Clay County while still being able to network to determine how we can help each other within our county.

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Regional/Contracted Services

Our county received support from **WNC Healthy Impact**, a partnership and coordinated process between hospitals, public health agencies, and key regional partners in western North Carolina working towards a vision of improved community health. We work together locally and regionally to assess health needs, develop collaborative plans, take action, and evaluate progress and impact. This innovative regional effort is coordinated and supported by **WNC Health Network**. WNC Health Network is the alliance of hospitals working together to improve health and healthcare in western North Carolina. Learn more at www.WNCHN.org.

Theoretical Framework/Model

WNC Health Network provides local hospitals and public health agencies with tools and support to collect, visualize, and respond to complex community health data through Results-Based Accountability™ (RBA). RBA is a disciplined, common-sense approach to thinking and acting with a focus on how people, agencies, and communities are better off for our efforts.

Through WNC Healthy Impact, all hospitals and their public health partners can access tailored Results-Based Accountability training and coaching; scorecard licenses and development (including the electronic Hospital Implementation Strategy); and scorecard training and technical assistance.

Collaborative Process Summary

Clay County's collaborative process is supported by WNC Healthy Impact, which works at the regional level.

Locally, our process is to work with county entities and partners to develop specific questions concerning Clay County to be distributed in survey form during the fall/winter of 2018 through weblinks, social media platforms, and paper. Questions were split into three different surveys: community, parents concerning children, and professional/mentors concerning children. All surveys were created, compiled, and analyzed using Survey Monkey. Once the surveys were

compiled Healthy Carolinians and Clay County Health Department staff compared Clay County surveys to that of WNCHN to determine what areas of health are priorities for Clay County.

Clay County examined the data that was distributed by WNC Healthy Impact and brought the key issues to our Healthy Carolinians Partnership to glean their input. Access to care was mentioned because Clay County has a lack of healthcare resources but upon further discussion it was determined that because the two area hospitals, Erlanger and Union General, are bringing in two all-inclusive clinics in 2019 that this was no longer going to be a need for the community. However, in a consensus it was decided that Chronic Disease Prevention and Control and Mental Health are two areas of need that are still troubling our county.

Phase 1 of the collaborative process began in January, 2018 with the collection of community health data.

For more details on this process see Chapter 1 – Community Health Assessment Process.

Key Findings

The data collected for the 2018 Community Health Assessment showed an increased need for mental health services for not only the adults of Clay County but for the children. The data also demonstrated the need to really find a way to make a difference in helping people control and prevent chronic illness/disease. According to the data the leading causes of death include diseases of the heart, chronic lung illnesses, and cancer.

Health Priorities

The following health issues were identified as priorities:

Chronic Disease Control and Prevention

Mental Health

Substance Abuse

Next Steps

The next steps for developing the community health improvement plans include:

- Working with partners and community members to understand the root cause of the problem and determine how to implement changes to improve the overall health of the county.
- Using evidence-based strategies when working on health issues within the county.
- Selecting priority strategies and creating performance measures to help us evaluate how people are better-off because of the strategies.
- Publish the Community Health Improvement Plan (CHIP) on an electronic Scorecard that anyone can access in order to monitor progress
- To access the full data set that was used for the CHA please email Alex Gilpin at alexgilpin@clayhdnc.us



Purpose

Community health assessment (CHA) is an important part of improving and promoting the health of county residents. A community health assessment (CHA) – which is a process that results in a public report – describes the current health indicators and status of the community, what has changed, and what still needs to change to reach a community’s desired health-related results.

What are the key phases of the Community Health Improvement Process?

In the **first phase** of the cycle, process leaders for the CHA collect and analyze community data – deciding what data they need and making sense of it. They then decide what is most important to act on by clarifying the desired conditions of wellbeing for their population and by then determining local health priorities.

The **second phase** of the cycle is community health strategic planning. In this phase, process leaders work with partners to understand the root causes of the identified health priorities, both what’s helping and what’s hurting the issues. Together, they make a plan about what works to do better, form workgroups around each strategic area, clarify customers, and determine how they will know people are better-off because of their efforts.

In the **third phase** of the cycle, process leaders for the CHA take action and evaluate health improvement efforts. They do this by planning how to achieve customer results and putting the plan into action. Workgroups continue to meet, and monitor customer results and make changes to the plan as needed. This phase is vital to helping work groups understand the contribution their efforts are making toward their desired community results.



Definition of Community

Community is defined as "county" for the purposes of the North Carolina Community Health Assessment Process. Clay county is included in Erlanger-Murphy Medical Center and Union General Hospital for the purposes of community health improvement, and as such they were key partner in this local level assessment.

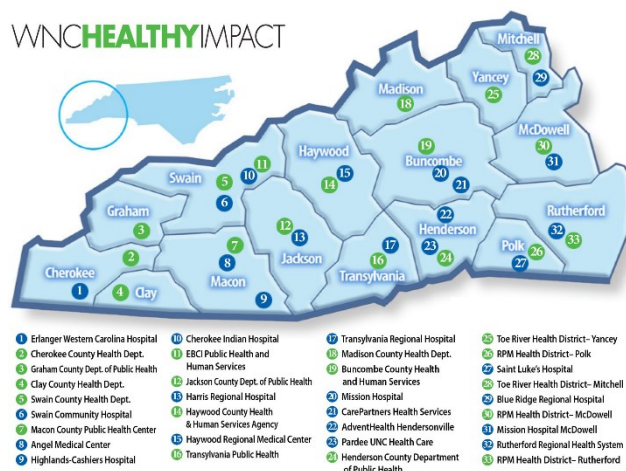
WNC Healthy Impact

WNC Healthy Impact is a partnership and coordinated process between hospitals, public health agencies, and key regional partners in western North Carolina working towards a vision of improved community health. We work together locally and regionally to assess health needs, develop collaborative plans, take action, and evaluate progress and impact.

This regional initiative is designed to support and enhance local efforts by:

- Standardizing and conducting data collection,
- Creating communication and report templates and tools,
- Encouraging collaboration,
- Providing training and technical assistance,
- Addressing regional priorities, and
- Sharing evidence-based and promising practices.

This innovative regional effort is supported by financial and in-kind contributions from hospitals, public health agencies, and partners, and is coordinated by **WNC Health Network**. WNC Health Network, Inc. is an alliance of hospitals working together, and with partners, to improve health and healthcare. Learn more at www.WNCHN.org.



Data Collection

The set of data reviewed for our community health assessment process is comprehensive, though not all of it is presented in this document. Within this community health assessment, we share a general overview of health and influencing factors, then focus more on priority health issues identified through a collaborative process. Our assessment also highlights some of our community strengths and resources available to help address our most pressing issues.

Core Dataset Collection

The data reviewed as part of our community's health assessment came from the WNC Healthy Impact regional core set of data and additional local data compiled and reviewed by our local CHA team. WNC Healthy Impact's core regional dataset includes secondary (existing) and primary (newly collected) data compiled to reflect a comprehensive look at health. The

following data set elements and collection are supported by WNC Healthy Impact data consulting team, a survey vendor, and partner data needs and input:

- A comprehensive set of publicly available secondary data metrics with our county compared to the sixteen county WNC region
- Set of maps accessed from Community Commons and NC Center for Health Statistics
- WNC Healthy Impact Community Health Survey (cell phone, landline and internet-based survey) of a random sample of adults in the county
- Online key informant survey

See **Appendix A** for details on the regional data collection methodology.

Additional Community-Level Data

The Clay County Health Department in Partnership with Healthy Carolinians created three different surveys: a community survey, a parent's survey concerning children, and a professional/mentor survey concerning children. These surveys were distributed through different formats that included email links, Facebook links, and paper format. The paper formats were distributed at the local family practices, health department, DSS, senior center, schools, extension office, and library. Two listening sessions were conducted at the Clay County Health Department and the community was encouraged to come and share their concerns and probable solutions.

Health Resources Inventory

We conducted an inventory of available resources of our community by reviewing a subset of existing resources currently listed in the 2-1-1 database for our county as well as working with partners to include additional information. Where gaps were identified, we partnered with 2-1-1 to fill in or update this information when applicable. See **Chapter 7** for more details related to this process.

Community Input & Engagement

Including input from the community is a critical element of the community health assessment process. Clay County included community input and engagement in a number of ways:

- Partnership on conducting the health assessment process
- Through primary data collection efforts (survey, key informant interviews, listening sessions)
- Participation in coalitions and advisory boards to determine their highest priorities
- In the identification and prioritization of health issues



2018 Clay County Children's Fair

In addition, community engagement is an ongoing focus for our community and partners as we move forward to the collaborative planning phase of the community health improvement

process. Partners and stakeholders with current efforts or interest related to priority health issues will continue to be engaged. We also plan to work together with our partners to help ensure that programs and strategies in our community are developed and implemented with community members and partners.

At-Risk & Vulnerable Populations

Throughout our community health assessment process, our team was focused on understanding general health status and related factors for the entire population of our county as well as the groups particularly at risk for health disparities or adverse health outcomes. For the purposes of the overall community health assessment, we aimed to understand differences in health outcomes, correlated variables, and access, particularly among medically underserved, low-income, and/or minority populations, and others experiencing health disparities. A large portion of the population within Clay County are considered to be living in poverty.

The at-risk and vulnerable populations of focus for our process and product include:

- The Elderly
- Young Children
- Non-Native English Speakers
- Residents Living in Poverty
- Uninsured Adults
- Those Experiencing Health Disparities

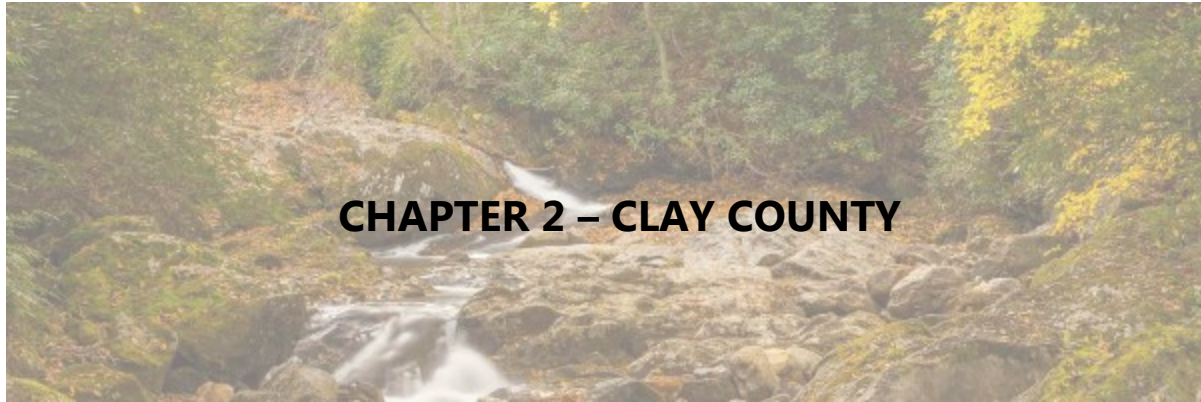
Though there are not universally accepted definitions of the three groups, here are some basic definitions from the Health Department Accreditation Self-Assessment Instrument (in some cases definitions have been slightly altered to better represent our region):

Underserved populations relate to those who do not access health care either because there is a lack of services or providers available or because of limitations such as income, literacy/language barriers or understanding on how to access services, cultural competency of clinicians, trust, transportation, etc.

At-risk populations are the members of a particular group who are likely to, or have the potential to, get a specified health condition. This could be from engaging in behavior (such as pregnant women who smoke) that could cause a specified health condition, having an indicator or precursor (high blood pressure) that could lead to a specified health condition or having a high ACE score (traumatic experiences), which is correlated with increased risk of specified health conditions.

A vulnerable population is one that may be more susceptible than the general population to risk factors that lead to poor health outcomes. Vulnerable populations, a type of at-risk population, can be classified by such factors as race/ethnicity, socio-economic status, cultural factors and age groups.

[Health Department Self-Assessment Instrument Interpretation Documents 1.1.18](#)



CHAPTER 2 – CLAY COUNTY

Location, Geography, and History of Clay

According to the U.S. Census Bureau, the Clay County has a total area of 221 square miles (572.4 km²), the smallest county in North Carolina, of which 215 square miles (556.8 km²) is land and 6 square miles (15.5 km²) (2.67%) is water.

Clay County is bordered to the south by the state of Georgia and the Chattahoochee National Forest. The Nantahala River forms part of its northeastern border. The county is drained by the Hiwassee River. In the southern part of Clay County is Chatuge Lake, on the North Carolina–Georgia border. Much of Clay County exists within the Nantahala National Forest. Fires Creek Bear Reserve is north of the township of Tusquittee (Wikipedia, 2018).

The eastern portion of the county is preserved as part of the Nantahala National Forest. There are five counties adjacent to Clay County; Macon County to the northeast; Rabun County to the southeast; Towns County, Georgia, to the south; Union County, Georgia to the southwest; Cherokee County, to the north (Wikipedia, 2018).

Hayesville, with a 2000 population of 297, is the only incorporated town in the county, the county seat, and center of economic activity for Clay County. Warne, Brasstown, Elf and Tusquittee are all unincorporated communities of Clay County (Wikipedia, 2018).

The county is divided into six townships: Brasstown comprises the westernmost township, Hayesville is centrally located and home to the county seat, Hiawassee is the smallest and surrounds Lake Chatuge, Shooting Creek is the easternmost township, Sweetwater is a small township northwest of Hayesville Township, and Tusquittee, one of the larger townships and most northern (Wikipedia, 2018).

Before settlement, Clay County was home to the Cherokee Indians, who were a tribe of Native Americans that made their home in Southeastern United States (principally Georgia, the Carolinas and Eastern Tennessee). They were one of the "Five Civilized Tribes" because of their assimilation of European-American cultural and technological practices. During the late 1700s,

the first European-American settler, John Covington Moore, settled here in what was then part of Macon County. The first emigrants moved to this area in the early 1830s (Wikipedia, 2018).

In 1837, General Winfield Scott was hired to gather all the Native Americans in the region and detain them in improvised stockades before transporting them into Oklahoma Territory. Captain Hembree was sent to an area about a mile southwest of Hayesville to construct a stockade to hold the Native Americans until they had all been gathered up. This marks the beginning of the Trail of Tears. The stockade was named after Captain Hembree as Fort Hembree and served as a center of business (Wikipedia, 2018).

In the fall of 1860, George Hayes, who was running for Representative from Cherokee County, promised his southeastern constituents to introduce legislation to form a new county. In February 1861 the legislation was introduced and passed by the North Carolina General Assembly (Wikipedia, 2018).

Clay County was formed primarily from Cherokee County, North Carolina, however a small area was taken from Macon County, North Carolina. In honor of Mr. Hayes, the then new county's seat was appointed Hayesville and the newly formed county was named in honor Henry Clay, famous American statesman, member of the United States Senate from Kentucky.

Despite having been created in 1861, Clay County lacked an organized, formal government until 1868. Later that year, the first post office opened in Hayesville and the first county courthouse was built in 1888, currently it is listed on the National Register of Historic Places.

Throughout the rest of the nineteenth and early twentieth centuries, Clay County has remained largely agricultural (Wikipedia, 2018).

Population

According to the Census Bureau, Clay County had a population of 10,587 in 2010 with an estimate of a 1.4% population increase by 2016. Clay County has a median age range of 50.8, which is higher than the WNC region (45.9) and the state of NC (38.3) (US Census Bureau, 2018). Clay County has a large percentage of the population that is considered seasonal and only spend half the year within the county.

County Total	Total Population (2016)	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Clay	10,730	10,587	47.1	52.9	50.8	4.0	16.4	51.5	28.1
WNC (Regional)	775,745	759,727	48.5	51.5	45.9	4.9	16.8	57.0	21.3
State	9,940,828	9,535,483	48.6	51.4	38.3	6.1	19.7	59.6	14.7

U.S. Census Bureau ACS. (2018)

Clay County is made up of largely a White/Caucasian population that is higher than both the region and the state. However, between 2010 and 2016 there has been an increase of 0.8% of

Hispanic or Latinos that reside in Clay County (US Census Bureau, 2018). The main language for the county is English but of 4540 household 181 are non-English speaking. This includes 135 homes that are Spanish-speaking and 46 homes that are some other non-English speaking household.

County Total	Total Population (2016)	White %	Black or African American%	American Indian, Alaskan Native %	Asian %	Native Hawaiian, Other Pacific Islander %	Some Other Race %	Two or More Races %	Hispanic or Latino (of any race) %
Clay	10,730	99.2	0.4	0.0	0.1	0.0	0.1	0.2	3.2
WNC (Regional)	775,745	89.9	4.4	1.4	0.8	0.1	1.5	1.8	5.8
State	9,940,828	69.2	21.5	1.2	2.6	0.1	3.0	2.4	8.9

U.S. Census Bureau ACS. (2018)

CHAPTER 3 – A HEALTHY CLAY COUNTY

Elements of a Healthy Community

In the online survey, key informants were asked to list characteristics of a healthy community. They were also asked to select the health issues or behaviors that they feel are the most critical to address collaboratively in their own community over the next three years or more. Follow-up questions asked them to describe which contributors to progress and impediments of progress exist for these issues, as well as the likelihood that collaborative effort could make a positive change for these issues.



When key informants were asked to describe what elements they felt contributed to a health community in our county, they reported:

- Access to Care/Services
- Healthy Lifestyles
- Healthy Citizens
- Resources for Healthy Activities

During our collaborative planning efforts and next steps, we will further explore these concepts and the results our community has in mind.



CHAPTER 4 – SOCIAL & ECONOMIC FACTORS

As described by [Healthy People 2020](#), economic stability, education, health and healthcare, neighborhood and built environment, and social community and context are five important domains of social determinants of health. These factors are strongly correlated with individual health. People with higher incomes, more years of education, and a healthy and safe environment to live in have better health outcomes and generally have longer life expectancies. Although these factors affect health independently, they also have interactive effects on each other and thus on health. For example, people in poverty are more likely to engage in risky health behaviors, and they are also less likely to have affordable housing. In turn, families with difficulties in paying rent and utilities are more likely to report barriers to accessing health care, higher use of the emergency department, and more hospitalizations.

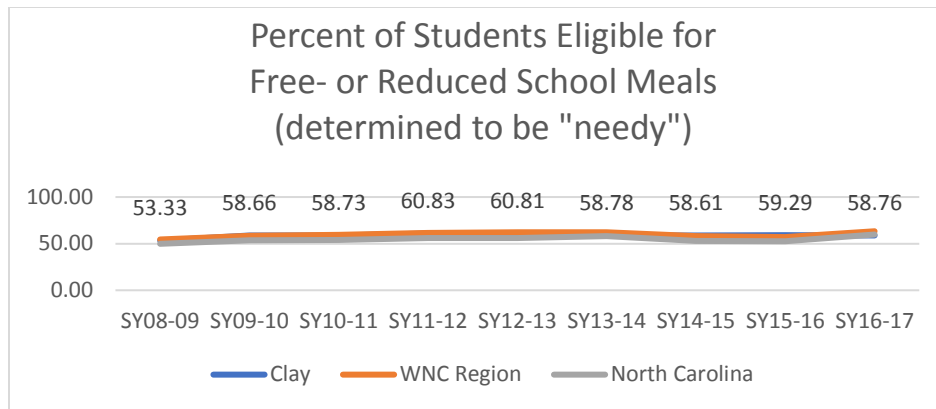
Income & Poverty

"Income provides economic resources that shape choices about housing, education, child care, food, medical care, and more. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress. As income and wealth increase or decrease, so does health" (County Health Rankings, 2018). Clay County has an average income level of \$36,296, which is less than the region by \$3,708 and the state by \$11,960. Clay County has 67.7% of the county that is considered 300% below the federal poverty level and over 50% of all students are eligible for free or reduced lunches.

A household is described as all people in a housing unit sharing living arrangements; may or may not be related. A family is considered a householder and people living a single dwelling that are related by birth, marriage, or adoption.

(U.S. Census Bureau Poverty. (2018)

County	Population Estimate	Below 100% Poverty Level	Below 50% Poverty Level	Below 125% Poverty Level	Below 150% Poverty Level	Below 185% Poverty Level	Below 200% Poverty Level	Below 300% Poverty Level
		%	%	%	%	%	%	%
Clay	10,677	16.2	4.8	26.5	31.2	39.0	43.9	67.7
WNC (Regional) Total	757,509	16.5	6.8	22.8	28.1	36.2	39.5	59.4
WNC (Regional) Arithmetic Mean	47,344	18.1	7.4	24.7	30.1	38.3	41.9	62.5
State Total	9,685,511	16.8	7.3	22.3	27.6	34.8	37.7	55.2



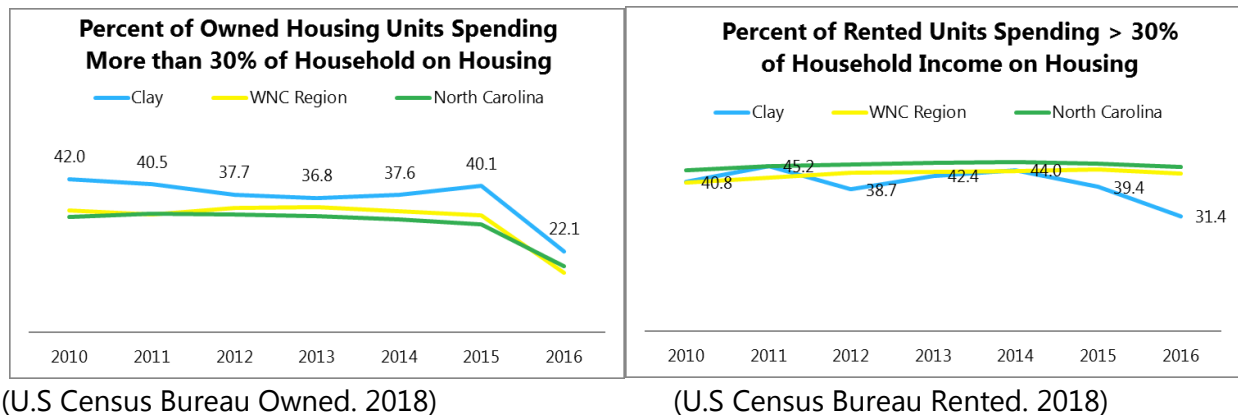
(NC Department of Public Instruction. 2018)

Education

"Better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. This is true even when factors like income are taken into account" (County Health Rankings, 2018). According to NC Department of Public Instruction (2018) between 2010 through 2017, Clay County schools had an average of 1,402 students with a rate of dropout of 1.72 compared to the region's rate of 2.63 and the state rate of 2.59. In a four-year cohort conducted for those starting high school at the start of the 2013 school year and graduating in 2017 or earlier it was found that more than 95% of females will graduate and 86.5% of males will graduate. Of the high school students for this cohort 86.2% of them were considered economically disadvantaged. Clay County has a graduation rate of 89.3% compared to 88.4% for the region and 86.5% for the state.

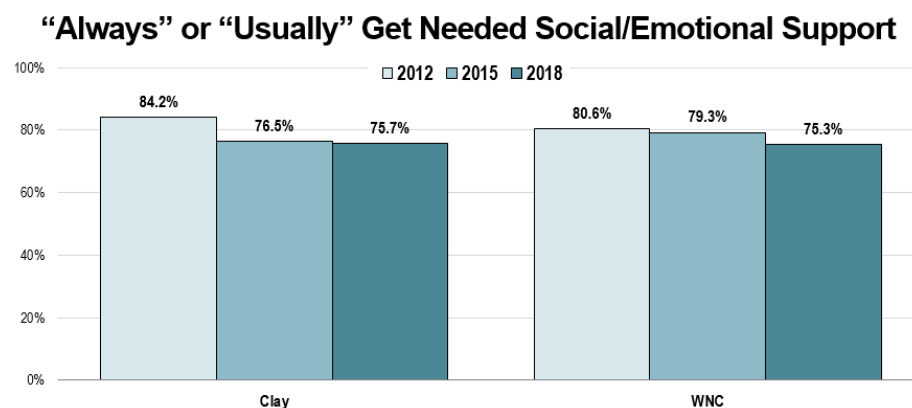
Housing

"The housing options and transit systems that shape our communities'-built environments affect where we live and how we get from place to place. The choices we make about housing and transportation, and the opportunities underlying these choices, also affect our health" (County Health Rankings, 2018). One measure of economic burden in a community is the percent of housing units spending more than 30% of household income on housing. In Clay County and WNC, a smaller proportion of the community are renters but a quarter (25.2%) of them are more likely to pay for housing that is 50% more than their household income compared to homeowners who are more likely to pay more than 30% of their household income (22.1%) (U.S. Census Bureau. 2018). The average renter will spend \$673 per month whereas a homeowner will spend \$1012 per month.



Family & Social Support

"People with greater social support, less isolation, and greater interpersonal trust live longer and healthier lives than those who are socially isolated. Neighborhoods richer in social capital provide residents with greater access to support and resources than those with less social capital" (County Health Rankings, 2018). Clay County has 75.7% of citizens that always or usually receive social and emotional support when needed although that still means that 24.3% of citizens do not receive support. (WNCHN-Online Key Informant Survey, 2018). Social and emotional support have steadily decreased over the last 6 years for the county and the region as a whole. Clay County has a rate of 86.2% of grandparents that are responsible for their grandchildren who are under the age of 18. The rate of grandparents of Clay County raising their grandchildren is higher than both the region and the state. According to the Clay County Department of Social Services, 23 children are in the foster care system within the county at the end of 2018.



Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 336]
 Notes: • Includes "always" and "usually" responses.

(WNC Health Impact Community Health, 2018)



CHAPTER 5 – HEALTH DATA FINDINGS SUMMARY

Mortality

Cause of Death	Clay		Comparison to NC Rate	
	# Deaths	Death Rate	Rate	% Difference
Acquired Immune Deficiency Syndrome	0	0.0	2.2	-100.0%
All Other Unintentional Injuries	29	43.6	31.9	36.7%
Alzheimer's disease	26	26.0	31.9	-18.5%
Cancer	151	145.5	166.5	-12.6%
Cerebrovascular Disease	43	41.8	43.1	-3.0%
Chronic Liver Disease and Cirrhosis	11	15.7	10.3	52.4%
Chronic Lower Respiratory Diseases	50	47.5	45.6	4.2%
Diabetes Mellitus	14	14.0	23.0	-39.1%
Diseases of Heart	136	147.2	161.3	-8.7%
Homicide	2	3.7	6.2	-40.3%
Nephritis, Nephrotic Syndrome, and Nephrosis	11	10.3	16.4	-37.2%
Pneumonia and Influenza	17	17.2	17.8	-3.4%
Septicemia	4	7.7	13.1	-41.2%
Suicide	4	7.0	12.9	-45.7%
Unintentional Motor Vehicle Injuries	16	25.2	14.1	78.7%
All Causes (some not listed)	714	770.5	781.8	-1.4%

(North Carolina State Center for Health Statistics (NC SCHS). 2018).

Per 100,000 during 2012-2016, the leading causes of death in Clay County continue to be diseases of the heart, cancer, and chronic lower respiratory diseases. Although Clay County has higher rates compared to NC (indicated above in yellow) of chronic lower respiratory diseases, other unintentional injuries, unintentional motor vehicle injuries, and chronic liver disease and

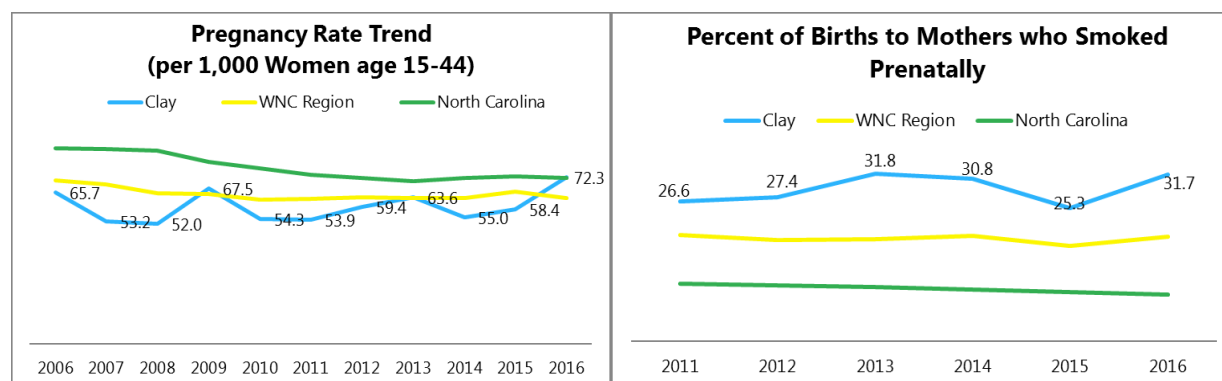
cirrhosis. Clay County has an overall life expectancy at birth from 2014-2016 that surpasses both the region and the state with an overall rate of 78.7 (NC SCHS. 2018). There are higher rates of female births at 82.3% compared to male births of 75.5%, and 78.9% of all births are white (NC SCHS. 2018).

Health Status & Behaviors

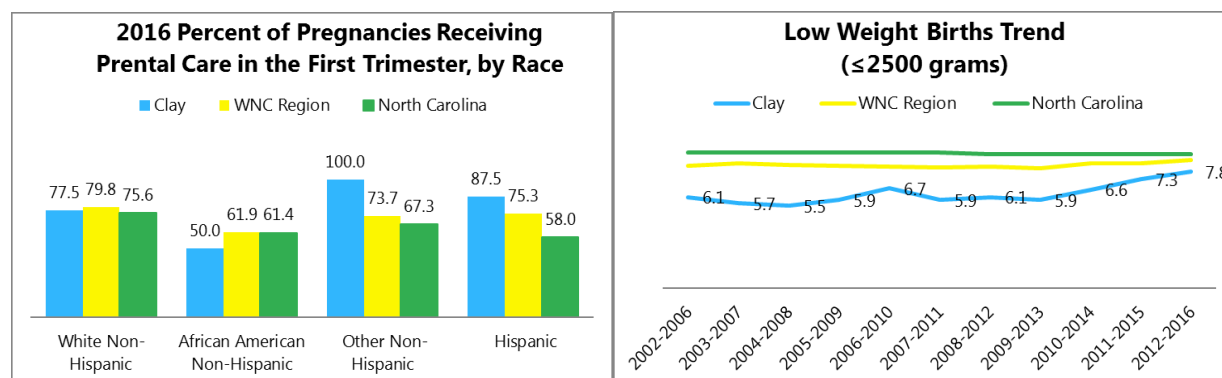
According to the county health rankings, Clay County is ranked 28th out of 100 where 1 is the best. This is an improvement to the 2015 ranking of 48th. The county health ranking is based off of two health outcomes that include length of life and quality of life.

The **pregnancy rate** trend in Clay County in women ages 15-44 has been on the rise since 2014, and now has surpassed the WNC region and NC. Unfortunately, the percent of mothers who smoked prenatally has continued to increase to 31.7% (NC SCHS. 2018). Low birth weight continues to be a concern for Clay County since it has continued to rise throughout the years.

Prenatal care during the first trimester is extremely important and Clay county passes both the region and the state for Hispanics and other non-Hispanic races who receive care compared to African American and White, which both fall below the region and the state. Between 2012 and 2016 there were 714 births and of those 45 were delivered before 37 weeks and are considered preterm (NC SCHS. 2018).



(NC SCHS. 2018)



(NC SCHS. 2018)

Prevalence of **heart disease** has increased from 7.0% in 2015 to 12.2% in 2018, which has led to an increase in stroke from 4.7% to 5.8%. Healthy People 2020 has a target of 26.9% or lower for high blood pressure. Clay County has slowly seen a decrease in the number of people who are suffering from high blood pressure (38.9%) but still has 11.9% to go to reach the Healthy People target.

Though **diabetes** is not in the top three leading causes of death this illness is still something that we see quite often in Clay County because the lack of physical activity and healthy nutritional habits leading to an increase in obesity trends. The obesity trend for Clay County has been on a steady upward incline and has passed the region as a whole at 29.2% (WNC Health Impact. 2018).

Cancer is the second leading cause of death for Clay County and affects more people who are 40 years of age or older. Clay County has a higher mortality rate of lung/bronchus cancer (33.9) followed by prostate cancer (20.3) (NC SCHS. 2018). Breast, lung, and prostate cancer rates have decreased steadily. Colon/rectum cancer rates have slowly been increasing and have even surpassed the regional and state rate.

County	Colon/Rectum	Lung/Bronchus	Female Breast	Prostate	All Cancers
	Rate	Rate	Rate	Rate	Rate
Clay	14.4	33.9	13.4	20.3	144.4
WNC (Regional) Arithmetic Mean	14.3	46.4	20.4	17.8	162.3
State Total	13.8	47.6	20.8	20.3	166.6

Age-adjusted rates per 100,000 population, single 5-year aggregate, 2012-2016 (NC SCHS. 20018)

In terms of **dental care**, Clay County has one dental office that allows for Medicaid patients: The Clay County Health Department Dental Clinic (CCHD). CCHD has been taking strides to ensure that the youth of Clay County get every chance to receive dental cleanings by having a mobile unit that will go into the Clay County Schools and day care centers. In the past year only 57.8% of adults ages 18 and older had a dental visit (WNC Health Impact. 2018), whereas in 2018 the mobile dental unit started and did 295 cleanings in the schools and day care centers.

Substance use is a national issue that also affects Clay County and is a priority for this CHA cycle. Opioid prescription refill claims have increased from 2015 to 2016 by almost 1,000, extended release opioid claims have increased by approximately 60, and the prescribing rate of the extended release opioids has increased by 0.08 (NC Opioid Action Plan Dashboard. 2018). The opioid prescribing rate is greater than the region and national levels but the state has a higher extended release prescribing rate. In primary and secondary survey data it was asked where the citizens of Clay County keep their medication and it was found that medication is not kept in a locked cabinet or box, thus allowing access to those who were not prescribed the

medication and potentially leading to unintentional overdose. One concern that Clay County has with the increased use of opioids is the potential for sharing needles. According to the Center for Disease Control and Prevention, Clay County is listed as one of the top 220 vulnerable counties in 26 states for rapid dissemination of HIV/HCV among those who inject drugs (2018).

County	2016							Change in Opioid Prescribing Rates 2013 to 2016	
	Part D Prescribers	Part D Opioid Prescribers	Opioid Claims	Extended Release Opioid Claims	Overall Claims	Opioid Prescribing Rate	Extended Release Opioid Prescribing Rate	Change in Opioid Prescribing Rate	Change in Extended Release Opioid Prescribing Rate
Clay	22	14	4,501	322	60,365	7.46	7.15	-0.35	-1.81
WNC (Regional) Arithmetic Mean	189	109	20,384	1,208	344,983	6.02	5.43	-0.59	0.01
State Total	34,594	18,000	3,192,021	231,591	53,717,099	5.94	7.26	-0.39	0.84
National	1,120,441	496,350	77,716,608	5,381,275	1,452,978,228	5.35	6.92	-0.47	0.80

(Centers for Medicare and Medicaid Services, 2018)

Clinical Care & Access

Clay County in 2017, per a 10,000-population ratio, had less physicians, primary care physicians, registered nurses and physicians' assistants than both the region and the state (Cecil G. Sheps Center for Health Services Research, 2018). Clay county has seen an influx of nurse practitioners within the county to surpass both the region and the state, whereas dentists surpass the region but not the state. It was found depending on the health care profession that 15-30% of the professionals are over the age of 65 and still actively practicing. Clay County and the regional average are equal in regards of eligible population for Medicaid.

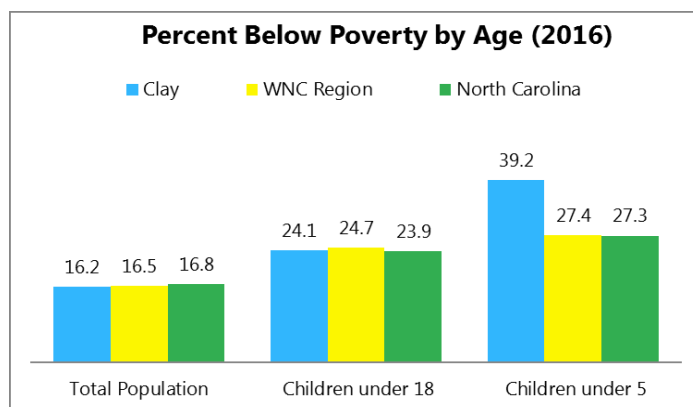
According to Professional Research Consultants, Inc, Clay County's rate of uninsured population is higher than the region, state, and nation with 24.4% of the population having a lack of insurance (WNCHN-Online Key Informant Survey, 2018). Healthy People 2020 has a target of 0% of people lacking insurance. Due to the lack of access to medical care 14.3% of citizens said at some point in the past year they were unable to get necessary care. Access to care has been a CHA priority in the past in large part due to the lack of health care professionals that are located within the county. This is not a priority for this CHA cycle due in large part to two hospitals opening urgent like clinics within the county.

Mental health services with an emphasis of access to care is a priority for this CHA cycle. It was found in 2018 that 8.6% of people were unable to obtain needed mental health services within the past year, which has increased from the 2015 percentage of 3.4%. Clay County has three licensed adult care facilities that range in maximum capacity of 6, 60, and 90 beds. Adverse Childhood Experiences (ACEs) are traumatic experiences that a child has had prior to the age of 18 that can impact future health and wellbeing. Clay County had two experiences that surpassed the region: household substance abuse and household mental illness. In the key informant survey that was conducted the top three health issues were substance use, general mental

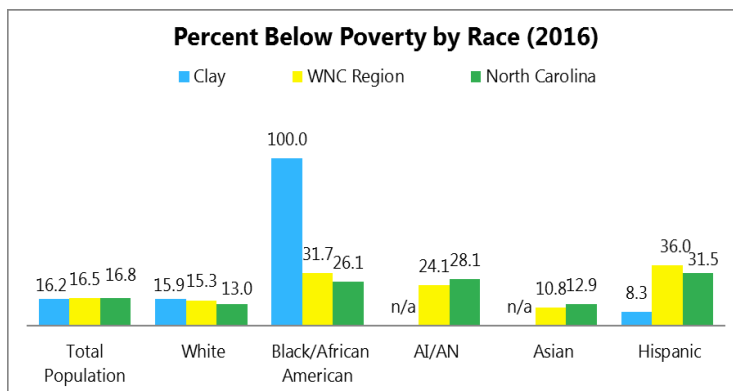
health, and depression/anxiety/stress. Because of the increase in mental health awareness this will be discussed later in more in-depth in the CHA priority section.

At Risk Populations

Clay County has high rates of adults and children who are considered low-income who are uninsured or underinsured within the county. In 2016, children under the age of 5 surpassed the region and the state rates by 12%. A quarter (24.5%) of Clay County citizens are eligible for Medicaid, which limits which providers they are able to see within the county. Clay County Health Department Dental Clinic is the only dental provider that accepts Medicaid within the county. We have seen an influx of non-English speakers which can leave citizens frustrated when trying to receive services due to language and other cultural barriers.



(U.S Census Bureau. 2018)



(U.S Census Bureau. 2018)



CHAPTER 6 – PHYSICAL ENVIRONMENT

According to the World Health Organization (WHO) physical environment, which is a social determinant of health (SDOH), includes safe water and clean air, healthy workplaces, safe houses, community and roads all contribute to good health. When comparing the 2015 Community Health Assessment (CHA) to now the County Health Rankings and Roadmaps, a Robert Wood Johnson Foundation program, Clay County has made improvements in regards to physical environment where it was ranked 98th out of 100 is now 52nd out of 100.

Air Quality

"Clean air and safe water are prerequisites for health. Poor air or water quality can be particularly detrimental to vulnerable populations such as the very young, the elderly, and those with chronic health conditions. Clean air and water support healthy brain and body function, growth, and development. Air pollutants such as fine particulate matter, ground-level ozone, sulfur oxides, nitrogen oxides, carbon monoxide, and greenhouse gases can harm our health and the environment. Excess nitrogen and phosphorus run-off, medicines, chemicals, lead, and pesticides in water also pose threats to well-being and quality of life" (County Health Rankings, 2018).

Particulate matter or particle pollution is the term used to describe liquid and solid particles that are found in the air. Clay County is considered as having more fine particulate matter (8.3) than that of top U.S performers (6.7). Fine particulate matter is matter that is 2.5 micrometers in diameter (PM_{2.5}) in size or less. This is considered the more dangerous size because of the ability to be lodged deep within the lungs. Fine particulate matter sources include wood smoke, motor vehicle emission, manufacturing plant emissions and any other combustion process. Clay County does not have an air quality monitoring station to determine unhealthy days, but Graham and Macon county reported no unhealthy days for the general population (US EPA).

Radon is an underrated health issue that Clay County and the rest of the WNC region need to be concerned about. Radon is an odorless, colorless, tasteless gas that occurs naturally with the breakdown of Uranium in granite rock. It is a known carcinogen, cancer causing agent, and is the second-leading cause of lung cancer after active smoking, with an estimated lung cancer death of 21,000 people in the United States. Clay County has been zoned in zone 2 by the EPA for a

county that is predicted to average indoor radon screening levels from 2 to 4 pCi/L compared to zone 1 that has levels greater than 4 pCi/L and are in need of radon mitigation.

Water

Water quality has an impact on health whether for drinking, domestic purposes, food production, or recreational purposes. Poor water quality has been linked to disease outbreaks and poor overall health. The Community Water Systems (CWS) in Clay County serve an estimated 18% of the population. The fraction of the Clay County population served by a community water system is 67% lower than the average for the WNC region and NC as a whole (U.S Census Bureau. 2018).

County	2016 Population	Population Served by CWSs (April 26, 2017)		
		Total Population Served by CWSs	% Population Served by CWSs	% Variance from Regional % Population Served
Clay	10,730	1,935	18.0	-67.2
WNC (Regional) Total	775,745	427,012	55.0	-
State Total	9,940,828	n/a	n/a	n/a

(U.S Census Bureau. 2018)

Access to Healthy Food & Places

"Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Food and Agriculture Organization, 2006). The environments where we live, learn, work, and play affect our access to healthy food and opportunities for physical activity which, along with genetic factors and personal choices, shape our health and our risk of being overweight and obese. As of 2013, 29 million Americans lived in a food desert, without access to affordable, healthy food. Those with lower education levels, already at-risk for poor health outcomes, frequently live in food deserts" (County Health Rankings, 2018).



Clay County is a very food-conscious county that is concerned about the community going hungry. Matt's Ministry and the Clay County Food Pantry serve the community to ensure there is ample food for those in need. Matt's Ministry provides food to in-need citizens of Clay County with special emphasis on at-risk children and seniors through food boxes distributed within the schools and the Saturday food pantry. Even though Clay County has access to different food pantries we still struggle with the community attaining 5+ servings of fruits and vegetables per day. In 2018 2.2% of Clay County residents achieved the daily recommended servings of fruit and vegetables which decreased from 5.3% in 2015 (WNC Health Impact, 2018).

Clay County has worked hard to improve this, including making this a priority for previous Community Health Assessments. There is still work to be done but the community agrees there has been improvement. Below are three quotes taken from the key informant surveys that were conducted (Online Key Informant Survey, 2018).

Nutrition education classes through health department and improved school nutrition program meals (healthier). – Public Health Representative (Clay County)

Affordable recreation center, new fitness focused businesses, programs through the health department. – Community Leader (Clay County)

For the youth, the many sporting activities available. Soccer, baseball, football, basketball, track, golf, tennis and swimming, all available for both genders. For adults, the county rec gym, plus pickleball. – Community Leader (Clay County)

Sources of Physical Activity:

- Affordable Gym access at the Recreation Department
- Jack Rabbit Walking and Mountain Bike Trails
- Multiple hiking trails: Appalachian, Chunky Gail Trail Head and Rim Trail at Fires Creek
- Multi-Use walking paths and ball fields at Park and Recreation
- The Quanassee Path in downtown Hayesville
- Walking paths between Chatuge Dam and the Recreation Park
- 9 Hole Disk Golf at Hinton Center

Sources of Healthy Foods, Access to Healthier Food Options:

- Brasstown Farmers Market
- Community Garden
- Evening Harvest
- Ingles Super Market
- Misty's Produce
- Mountain Valley Farmers Market
- SMM Farms Produce Stand
- Warne Kwik Stop- Healthy Corner Store

Sources of Food for Those in Need:

- Clay County Food Pantry, INC
- Hayesville First Freewill Baptist Church
- Matt's Ministry/ Ledford's Chapel UMC
- Hayesville First UMC- Free Wednesday night meal



CHAPTER 7- HEALTH RESOURCES

Health Resources

Process

Clay County now has an interactive resource asset map that was compiled through the Hinton Center and North Carolina University. The link below has information from 2-1-1 and other area providers within the county. This resource has been shared with Healthy Carolinians to ensure that we can maintain the needed updates within the county. This tool is accessible via web 24/7.

<https://ncsu.maps.arcgis.com/apps/webappviewer/index.html?id=d2e8c4151acb4f7098a300674a9eea3d>

Findings

Clay County has basic services available to the public, some of which are underutilized. Through the health department several programs are available on a sliding fee if needed. Clay County has several primary care providers through the Clay County Health Department, Union General/Chatuge, and Erlanger hospital. Parks and Recreation within Clay County offers a state of the art work out facility at a very cost-effective price that all residents may enjoy. Through this department there are also plenty of walking paths, mountain biking, and camp grounds that are accessible to the public. Clay County Food Pantry and Matt's Ministry offer needed food resources to those within the county that are considered food scarce due to income restraints.

Resource Gaps

Based on local review of available resources and collaborative discussions around general availability of services (or those specifically related to prioritized needs), it was determined that Clay County is lacking in mental health resources that are attainable for the community. This lack of mental health resources affects two priorities within this CHA cycle: substance abuse/misuse and mental health. Findings showed that there is a lack of available places for students to go when they are not in school or participating in sports. This allows students to have extra time on their hands where they may begin making destructive decisions. Pediatric care is unavailable within the county and the community must travel outside of the county to receive these services. There is a lack of transitional housing for those who are working on their recovery goals. This means they are more likely to continue using substances because they have nowhere else to go.



CHAPTER 8 – IDENTIFICATION OF HEALTH PRIORITIES

Health Priority Identification

Process

Every three years we pause our work to improve community health so that we may step back and take a fresh look at all of the current data from our county that reflects the health of our community. We then use this information to help us assess how well we're doing, and what actions we need to take moving forward.

Beginning in November, 2018, our team spent time understanding the data and uncovering what issues were affecting the most people in our community. We also interviewed community leaders to find out what they're most concerned about. To identify the significant health issues in our community, our key partners (see a full list in the Executive Summary) reviewed data and discussed the facts and circumstances of our community.

We used the following criteria to identify significant health issues:

- Data reflects a concerning trend related to size or severity
- Significant disparities exist
- Issue surfaced as a high community concern
- County data deviates notably from the region, state or benchmark

Once our team made sense of the data, we presented key health issues to a wide range of partners and community members. The participants used the information we presented to score each issue, and then vote for their top areas of concern. Some of the factors they considered were how much the issue impacts our community, how relevant the issue is to multiple health concerns, and how feasible it is for our community to make progress on this issue.

This process, often called health issue prioritization, is an opportunity for various community stakeholders, such as hospitals, health department, and partners to agree on which health issues and results we can all contribute to, which increases the likelihood that we'll make a difference in the lives of people in our community.

Identified Issues

During the above process, the Clay County Healthy Carolinians identified the following health issues:

- **Chronic Disease Prevention and Control:** Illnesses that can be controlled or prevented through lifestyle changes.
- **Radon:** The community survey concluded that a large portion of the county has not had their homes tested for radon.
- **Mental Health Access to Care:** Resources for adults and children to prevent and provide mental health and wellbeing.
- **Substance use/abuse/misuse:** The misuse of substances either prescribed or obtained illegally.
- **Physical Activity and Nutrition:** There are high rates of obesity within the county due to the lack of physical activity and a healthy nutritional diet.
- **Cancer (All Forms):** Clay County has high rates of cancer.
- **Access to Health Care:** Lack of urgent care within the county.

Priority Health Issue Identification

Process

During our group process, the following criteria were applied to the issues listed above to select priority health issues of focus for our community over the next three years:

- Criteria 1 – Relevant – How important is this issue? (*Urgency to solve problem; community concern; Focus on equity; Linked to other important issues*)
- Criteria 2 – Impactful – What will we get out of addressing this issue? (*Availability of solutions/proven strategies; Builds on or enhances current work; Significant consequences of not addressing issue now*)
- Criteria 3 – Feasible – Can we adequately address this issue? (*Availability of resources (staff, community partners, time, money, equipment) to address the issue; Political capacity/will; Community/social acceptability; Appropriate socio-culturally; Can identify easy, short-term wins*)

Clay County Health Department and Healthy Carolinians compared multiple community health assessment priorities to the recent data to determine what was making a difference, what was working, and what we should concentrate more on during the coming years. Through a group

decision three priority health issues were declared that we believe will have the most impact on the community.

Identified Priorities

The following priority health issues are the final community-wide priorities for our county that were selected through the process described above:

- Chronic Disease Prevention and Control –The leading causes of death in Clay County are considered chronic illnesses.
- Mental Health Access to Care – Abundantly clear that the needed resources are not available to adequately serve our community.
- Substance Abuse and Misuse- Substance misuse has increased over the years to the point that it now affects everyone in the county in some way.

PRIORITY ISSUE #1 – CHRONIC DISEASE PREVENTION AND CONTROL



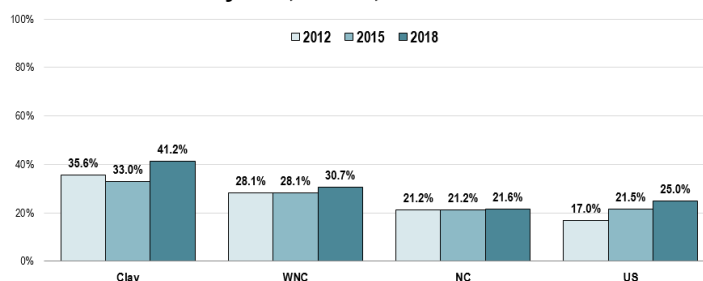
Chronic Disease Prevention and Control has been a priority for the past three CHA cycles and we are slowly making strides to better the health of our community. Chronic illness is defined as an illness or disease that is not communicable and develops slowly over and persists over a period of time. This priority was chosen because we know how important it is to limit the burden that chronic illness has on not only the individual but the community as a whole. In Clay County the top three leading causes of death (heart disease, cancer, and lower respiratory issues) are considered chronic illnesses, and all three of these issues

are ranked in the top five leading causes of death in the nation.

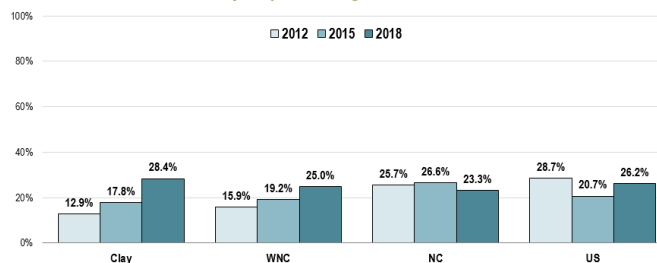
What Do the Numbers Say?

According to the CDC (2019), the majority of chronic illnesses are caused by risky behaviors such as: tobacco use, poor nutrition, lack of physical activity, and excessive alcohol use. As seen in the graphs below you can see that 41.2% of respondents answered that they are limited in activity due to a physical, mental, or emotional problem (WNCHN-Online Key Informant Survey, 2018). This percentage has increased over the past six years and is higher than the region, state, and the nation. Clay County citizens have been steadily increasing in not having time for physical activity within the last month that was on their own time. Although this number is currently below the Healthy People 2020 Target, if the behavioral pattern is not changed Clay County will surpass the target of 32.6% or lower. Diseases of the heart are the leading cause of death in Clay County in terms of rate of death (147.2) followed closely by cancer (145.5) (WNCHN-Online Key Informant Survey, 2018).

Limited in Activities in Some Way Due to a Physical, Mental, or Emotional Problem



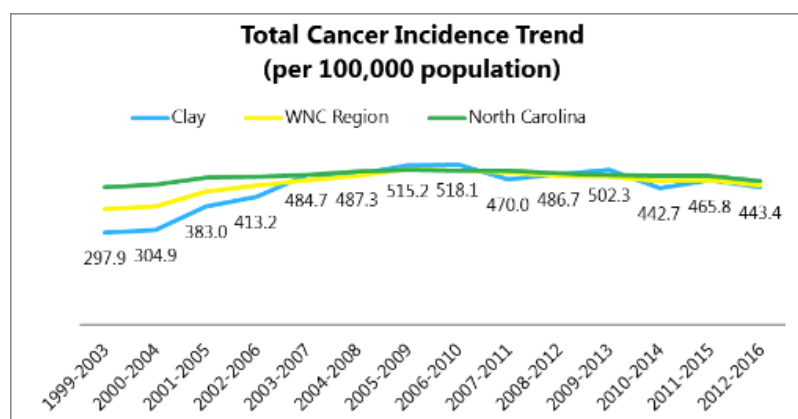
No Leisure-Time Physical Activity in the Past Month
Healthy People 2020 Target = 32.6% or Lower



According to WNC Healthy Impact, there has been a 5% increase since 2015 in the prevalence of heart disease in the county and this can be attributed to lack of physical activity and lack of a

healthy weight (2018). High blood pressure is a major factor in heart disease and 38.8% of citizens who answered the PRC survey indicated that they have been diagnosed with blood pressure issues. Heart disease, high cholesterol, and diabetes are usually seen together for Clay County residents. Though diabetes is not in the top three leading causes of death it still affects a large amount of the population because of the high rates of obesity that are seen within the county. Body Mass Index (BMI) is a correlation of height and weight to determine our risk for chronic illness and disease. A healthy BMI is considered to be between 18.5-24.9, moderate risk 25.0 or higher, and high risk 30.0 or higher (WNC Healthy Impact, 2018). Between 2015 to 2018 Clay County has seen a decrease in healthy weight from 33.2% to 23.6%, which is less than the region, state, and nation. Clay County has a 39.4% prevalence of high cholesterol which increases a person's risk of having a heart attack due to arteries being clogged (WNC Healthy Impact, 2018). The number one way of decreasing a person's risk for heart disease and diabetes is to have a healthy diet and be physically active for at least 150 minutes per week.

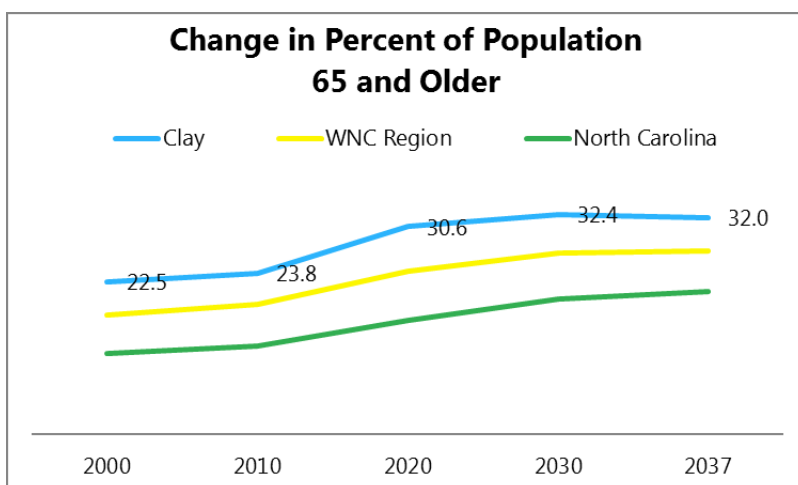
Chronic lower respiratory diseases such as Chronic Obstructive Pulmonary Disease (COPD) and emphysema are the third leading causes of death for Clay County. 23.1% of Clay County citizens have been diagnosed with COPD, which is also the third leading cause of death in the United States (WNC Healthy Impact, 2018). Tobacco use is the primary cause of COPD. Although smoking rates in Clay County have decreased over the years, those who participated in this risky behavior have irreversible damage.



Cancer is the second leading cause of death within the county with lung cancer being the most prevalent. As you can see from the graph, cancer rates within the county, region, and state are about equal and are beginning to plateau. We believe that there are high rates of lung cancer in large part due to the high rates of radon within the county. Clay County is a category 2 of 4, with

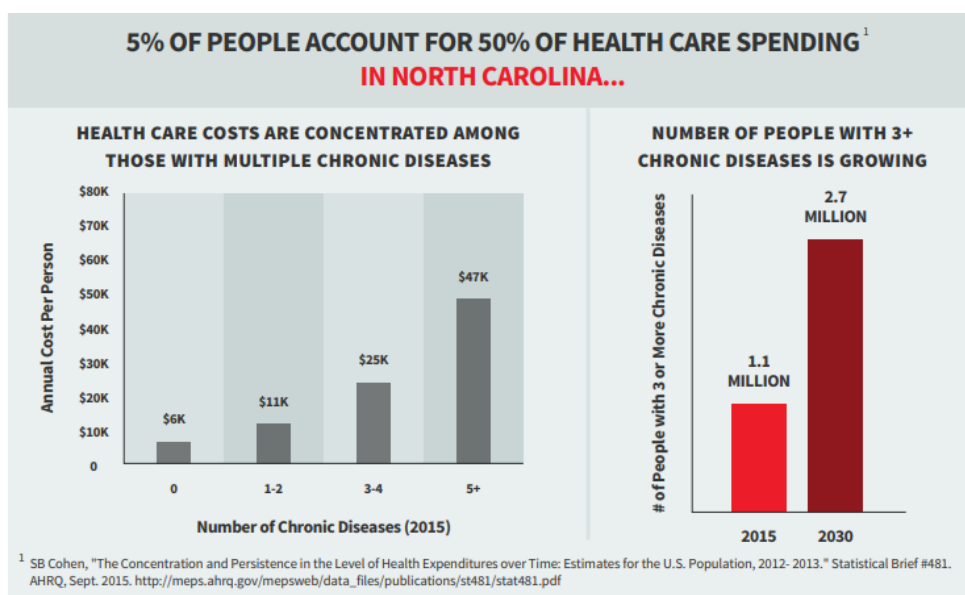
1 being the highest, where radon levels have the potential to be above 4.0 pCi/L. Radon is the leading cause of lung cancer, and when mixed with secondhand smoke the risk of lung cancer increases.

Health Indicators



(U.S Census Bureau, 2018)

Clay County has a high percentage of a population that is 65 and older which exceeds both the region and the state. Because of this the county is prone to higher rates of having or developing chronic illness, thus creating a higher cost burden for medical expenses for the county. In the age group 65 or older the leading cause of death mirrors the leading causes of death for the county of diseases of the heart, cancer, and chronic lower respiratory disease. According to the Partnership to Fight Chronic Disease (2018), it is projected to cost the state of North Carolina between 2016-2030 an average of \$65.5 billion in medical costs and an extra \$26.6 billion annually in lost employee productivity. As seen in the graph above chronic illness attributes to the majority of health care spending.



(Partnership to Fight Chronic Disease, 2018)

What Did the Community Say?

Rank	Health Issue	Identified as Critical to Address
1	Obesity/Nutrition/Physical Activity	11
2	Diabetes	9
3	Cancer	9
4	Heart Disease/Stroke	8
5	Chronic Pain	3
6	Chronic Obstructive Pulmonary Disease (COPD)	1
7	Upper Respiratory Diseases (such as Asthma)	1
8	Chronic Kidney Disease	1
9	Arthritis/Osteoporosis	1

Within the Key Informant Survey the top ranked health issues are all considered chronic illness. The Key Informant Survey indicated that Clay County citizens believe there is a lack of education within the schools concerning obesity

and nutritional knowledge. This has led to adults not attempting to change long-term habits until it is too late. The majority of the key informants in the community feel there are ample opportunities for the community to lead a healthy life so long as they put in the effort. There are still those who believe there has been no progress towards achieving the goal of decreasing chronic illness in Clay County. One hinderance in the county is the affordability of healthy food due to lack of diversity of affordable grocery stores within the county.

- *Affordable recreation center, new fitness focused businesses, programs through the health department. – Community Leader (Clay County)*

What is Already Happening?

- Clay County has multiple primary care providers throughout the county that are accepting patients on a rotating basis.
- The Clay County Health Department offers Diabetes Self-Management Education, Project 24 lifestyle classes to prevent CDC Diabetes Prevention Program, and other lifestyle education to prevent or control chronic illness/disease. Project 24 has had huge success and we are seeing the trend of diabetes slowly decrease in the county.
- Clay County Park and Recreation have a state-of-the-art facility for all ages to be able to incorporate physical activity into daily living at an affordable price. Clay County Transportation provide public transit within and outside of the county to ensure citizens are able to make needed appointments.
- A previous gap in care was the lack of ability to reach a hospital in a timely manner due to lack of air medical transport. Air medical transport is now made possible by Union General Hospital that any resident who is in need of air transport is now able to use this resource without the medical cost that is usually associated with it.

What Change Do We Want to See?

Clay County is working towards becoming a healthier county but it is going to be done through slow and steady progress. The Clay County Health Department is determined to work with the community and community partners to lower the cost burden that is caused by chronic illness

by continuing to supply services that are designed to work on lifestyle choices for adults. CCHD will specifically begin to monitor pre-diabetes clients that are coming into our clinic along with those who are showing signs of elevated blood pressure and cholesterol. CCHD and other partners are working with the schools to provide the necessary health education to prevent our youth from having to deal with chronic illness in the future. CCHD, with the help of Healthy Carolinians, is pursuing a full county wide wellness program to lower the rates of chronic illness within the community. To overcome the high rates of lung cancer within the community partners want to see more homes tested for radon and, if needed, mitigation completed to get levels down to what is considered safe.

PRIORITY ISSUE #2- MENTAL HEALTH



Mental health is an important part of overall health and well-being to include emotional, psychological, and social well-being. Mental health access to care is a new CHA priority for Clay County. This community has been dealing with vast changes in family dynamics. There are many children who are either being raised by other family members or they are living in foster care. We have more children in the

community who are living or have lived in adverse situations. Our children are going to school and attempting to learn when they come from homes that are indescribably horrific.

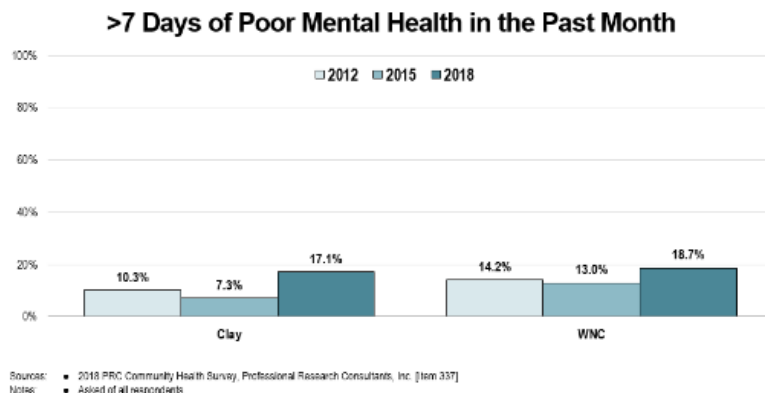
Because of the increase in substance use/abuse in our community, we cannot simply overlook mental health. Mental health issues coincide with substance use/abuse. There are individuals and families within our community who are using substances as a way to cope with mental health, whether they are attempting to cope with an area of their life in which a traumatic event happened, or they are trying to cope with day to day stressors. It is abundantly clear that our community lacks resources to assist its members with adequate and affordable mental health services that would assist with helping our community learn more healthy ways to cope and to work on these traumatic events.

Our community has been working together for years to attempt to assist those in our community suffering from mental health. DSS and the Health Department excel in making appropriate mental health referrals, whether referring a person to counseling or calling a mobile crisis unit. There are community partners who work together to develop plans and outreach for the community members in order to assist those struggling with mental health issues.

What Do the Numbers Say?

In Clay County citizens that were unable to obtain needed mental health services in the past year has gone from 10.2% in 2012, to 3.4% in 2015, to 8.6% in 2018 (WNC Healthy Impact, 2018). The percentage of citizens that "always/usually" get needed social/emotional support has decreased from 84.2% to 76.5% to the present 75.7%. Between 2006 to 2017 there were a total of 4766 people with an annual average of 397 people served from Clay County who were in a mental health program (WNC Healthy Impact, 2018). Through 2006-2016, 70 people were served in North Carolina's State Alcohol and Drug Treatment Centers (NC ADATC's) with an average of 6 participants per year. There are three licensed mental health facilities in the community to include a Methadone clinic and two supervised living establishments for disabled adults.

Health Indicators



(WNC Health Impact, 2018).

Condition	P/G	T/M
Heart Condition	3%	5.7%
Headache/Migraine	6%	18.5%
Anxiety Problems	12%	68.5%
Depression	7%	46%
Diabetes	0.3%	19%
Substance Abuse	0%	16%
Developmental Delay	3%	48%
Speech or Language Issues	10%	45%
Learning Disability	7%	67%
Other	9%	12%

ADHD (24)
 Behavioral Issues (38)
 Obesity (7)

(CCHD, 2018)

The graph shows that 17.1% of respondents had 7 or more days of poor mental health within the past month, which is almost a 10% increase from 2015. Primary survey data collected by Clay County Department, as shown in the table above, received the opinions of parents/guardians (P/G) versus teachers/mentors and it was found 68.5% of teachers/mentors (T/M) feel that students are dealing with anxiety compared to the 12% of parents who answered the same question (Clay County Health Department, 2018). It is concerning that teachers/mentors are seeing different behavior than parents and guardians.

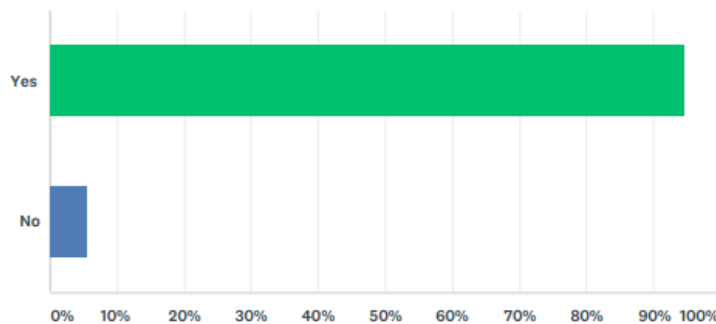
What Did the Community Say?

The community, through the key informant survey, identified key mental health issues where overall general mental health and depression/anxiety/stress were identified equally. It is a general consensus that Clay County is lacking the resources to provide access to mental health care not only within the general community but also within the school. Many of the community, whether through the key informant survey or listening sessions, expressed a need for more in-depth training for caregivers, staff, and family members. The graph below shows that the majority of the Clay County teachers believe that students are in need of mental health or/and behavioral health services (Clay County Health Department, 2018).

Lack of good mental health care. Difficulty in identifying people that need care with these issues. Lack of opportunities that encourage such people to seek assistance. – Community Leader (Clay County)

Q7 Do you believe there are students that are in need of mental health services or/and behavioral health services?

Answered: 110 Skipped: 2



(CCHD, 2018)

What is Already Happening?

- Appalachian Community Services who provides the majority of mental health services in our community. ACS services include: crisis services, child and adolescent services, adult services, group services, and substance use services. Meridian Behavioral Health also provides services to our community.
- For Children: Day Treatment, Intensive-In-Home, Outpatient Therapy, In School Counseling, and Family Centered Psychiatry.
- For Adults: Domestic Violence Intervention Programs, Social Services Assessments, Medication Management, Psycho-Social Rehab, Recovery Education Centers, Sexual Abuse Intervention, Suboxone Clinics, Intensive Substance Abuse Programs, Supported Employment, Community Treatment and Recovering Support Teams, Jail Program and DSS Assessments.
- IONA Integrative Health provides licensed professional counselors who assist with Trauma and PTSD, Depression, Chronic Illness.
- Hayesville Hands of Hope is an organization with will assist with children and families in the community. For example, if a person needs a bed, they will assist. If a person is in need of gas, they will assist.

Of course, the Health Department and Department of Social Services work with these agencies in order to provide whole person care for individuals seeking help and referrals. However, our community needs more.

The majority of the problems or barriers to current treatment include: cost, transportation, education, and no step-down treatment facilities. Our county is remote. The nearest city is two hours away, Asheville. Asheville has treatment and mental health facilities, including inpatient, but this is an expense for families. It is costly and inconvenient.

What Change Do We Want to See?

It is imperative that mental health services are provided in the school system. Our children in this community are the silent victims. They are living day to day with stressors and adverse

experiences. At this time, there is only one social worker for the entire school system, Pre-K through 12th grade. This position is not guaranteed past this school year. Our children are struggling in school because they are not able to have appropriate mental health in our community. Studies show that growing up in toxic environments create difficulties in learning and education as well as mental health and physical health issues.

Our community needs more education regarding the connection between substance use/abuse and mental health. There are times when individuals are trying to overcome adversity and they feel that there is no other option. Our community needs to learn that there is no shame in entering treatment or receiving help. There is a stigma that goes along with people who are seeking mental health treatment.

Affordable mental health treatment is one barrier that is often discussed over and over. We are finding in our community that individuals, couples, and families who need mental health treatment are not seeking treatment because of the cost.

Discussion of Adverse Childhood Experiences (ACES) has been a popular topic among the community. This past year, community members, key agencies including The Health Department and Social Services, and faculty at the school system have been educated about ACES. According to the CDC, Childhood experiences, both positive and negative, have a tremendous impact on future violence victimization and perpetration, and lifelong health and opportunity. As such, early experiences are an important public health issue. Much of the foundational research in this area has been referred to as Adverse Childhood Experiences (ACEs). It is becoming more prevalent and known that our children are involved in adverse experiences throughout childhood. This is a huge public health issue because there is an increase in negative behaviors as well as an increase in chronic diseases which develop from these adverse childhood experiences.

PRIORITY ISSUE #3 – SUBSTANCE ABUSE



Substance abuse is the final priority chosen for the 2018 CHA cycle. This priority was specifically chosen by the community as whole during multiple community listening sessions to work alongside the priority issue mental health. Substance abuse is an issue that is touching everyone in the county in one way or another and is not limited to those who are considered low income. This is especially true for those who are involved in the foster care system. Clay County Community Child Protection team has identified the three most common areas leading to child maltreatment within the county, and substance abuse by the parents is considered the number one cause. Substance abuse in regards to this priority entails prescription opioids,

heroin, synthetic opioids, and other drugs.

What Do the Numbers Say?

Health Indicators

In 2017 opioids killed more than 47,000 people due to overdose and 36% of those deaths were caused by prescription opioids (CDC, 2018). During that same year 961,000 opioid pills were dispensed with an average of 240,250 dispensed per 2017 quarter in Clay County (NC Opioid Action Plan Dashboard 2018). Nearly all unintentional poisonings in the United States are caused by drug poisoning, be it legal prescriptions or illegal drugs (CDC). Clay County had a rate of 43.6 other unintentional injuries (NC Opioid Action Plan Dashboard 2018). We have seen unintentional overdoses on other opioids, methadone, synthetic narcotics, methamphetamine and alcohol. In the table below, between 2009-2013 (per 100,000 population) Clay County's rate of medication overdose is higher than the region and the state (NC Opioid Action Plan Dashboard 2018).

County	Locations and Percent that are Medication/Drug Overdoses (2009-2013)*			Medication/Drug Overdose Deaths (2009-	
	#	Rate per 100,000 NC Residents	% that are med/drug overdoses	#	Rate per 100,000 NC Residents
Clay	11	20.9	100	11.0	21
WNC (Regional) Total	560	14.8	90	506	13
Non-WNC (Regional) Total	4,749	10.7	91	4,320	10
State Total	5,309	11.0	91	4826.0	10

(NC Opioid Action Plan Dashboard 2018)

What Did the Community Say?

A Community member during the substance abuse panel commented that “drugs are everywhere and if we don’t fight it its going to keep continuing.” The panel as a whole discussed what would solve the issue and the consensus was, we need to add more prevention education within the schools to stop the issue before it happens and we need to stop stigmatizing the issue so that people are more likely to reach out to the different services to receive the necessary help/support. Utilizing not only the key informant survey but also that of the listening sessions the main theme was that mental health and substance abuse are two topics that – though separate – still run parallel to each other because of the underlying cause that is forcing people to turn to substances to self-medicate.

Rank	Health Issue	Identified as Critical to Address
1	Substance Use	13
2	General Mental Health	10
3	Depression/Anxiety/Stress	10
4	Dementia/Alzheimer’s Disease	3
5	Suicide	1

(Online Key Informant Survey, 2018)

What Else Do We Know?

Although the number of opioid overdoses is small the greatest threat in Clay County continues to be methamphetamine (Meth), or in some cases dual use of the two substances. Meth is a stimulant drug that can be found in pills, powder, or in crystal form. In primary survey data conducted within the community that compared parents/guardians (P/G) and teacher/mentors (T/M) concerning children it was found that 0% of P/G believe that substance abuse is an issue with their child but 16% of T/M believe this is not the case. A Peer Support Specialist (PSS) is a person who has been successful in their recovery and is certified, through North Carolina, to provide others who are working towards recovery. The eight most WNC counties have 89 PSS but both Graham and Clay Counties have the least with one PSS.



(WNC Healthy Impact, 2018)

Economic factors play a huge role when discussing substance abuse because of the additional stress of worry about financial obligations. In 2016, over 16% of the total Clay County population fell below the federal poverty level and approximately 4683 people in the county are 200% below the federal poverty level (U.S Census Bureau, 2018). The map above highlights that over 21% of households are cost burdened due to housing cost being over 30% of their income (U.S Census Bureau, 2018). This is one of the largest factors that pushes people to self-medicating or to actually dealing drugs. People are looking for a way to feed their families, or to escape the real-world problems that they are dealing with.

What is Already Happening?

Services within the county for those who are suffering from a substance use disorder are limited to Rock Bottom Recovery and support, which is also where the one peer support specialist is located, services offered within the jail that Rock Bottom Recovery offers, along with Appalachian Community Services. Outside services include Appalachian Community Services, Meridian, and VAYA Health. In 2018 Clay County, through regional partners, received two federal HRSA grants. The first HRSA grant is in partnership with Appalachian Community Services to look at treatment options for Cherokee, Clay, and Graham Counties. The second HRSA grant is in partnership with WNC Aids Project (WNCAP) looking at harm reduction services within the seven WNC counties. Both of these grants are looking at resource gaps within each county to determine how to best alleviate the problem. Clay County is lacking in transitional housing for those who are trying to work on their recovery journey where they are held accountable and away from the toxic environment that pushes them to use their drug of choice.

The community has seen a huge increase in the number of needles that are thrown on the ground. The Clay County Sheriff stated "we get reports weekly of somebody finding needles in a driveway, parking lot, or playground. It seems like this problem is continuously growing."

A community member stated: "this is where harm reduction services come into play and I know WNCAP provides these services to educate on the proper way to dispose of used needles." (KIS,

2018). There has been a lot of conversation around a Clay County Needle exchange program and as of now this is not occurring but WNCAP is doing this program regionally.

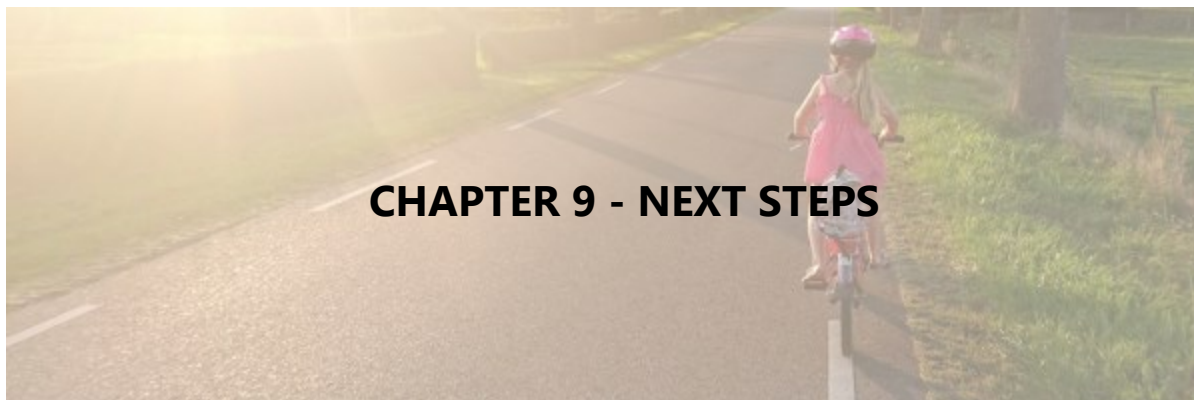
Medication lock boxes ensure that medication is kept in a locked place where children do not have access to prescription medication. To ensure that parents, grandparents, and guardians are not unintentional drug dealers the Clay County Health Department has actively distributed medication lock boxes to the community during youth-focused events. The sheriff department has a medication drop off point at the Clay County Sheriff Department Office.

What Change Do We Want to See?

Through this priority and following what the key informants and community members have said we want to see more prevention education within the schools and the community. We want to prevent this problem from affecting more of our county. We want to see foster children reunited with their parents because their parents are able to get the needed help and support to ensure they are safe for their children to be around. Clay County is dedicated to reducing the number of used needles that are found on the ground where people can unintentionally be stuck.

"We see the greatest success when we are able to connect families with support. When they feel supported and they feel they have someone that believes in them and is going to be there to help them even if they are going to make mistakes."

Quote from Listening Session



CHAPTER 9 - NEXT STEPS

Collaborative Planning

Collaborative planning with hospitals and other community partners will result in the creation of a community-wide plan that outlines what will be aligned, supported and/or implemented to address the priority health issues identified through this assessment process.

Sharing Findings

Clay County Health Department will disseminate the results of this CHA cycle to all stakeholders, community partners, and the general population. Sharing the results will occur through paper copies and online access.

Change starts with education, communication, and collaboration with the whole community and community agencies.

Quote from Listening session.

Where to Access this Report

Clay County's Community Health Assessment will be disseminated using in-person and online methods.

- WNC Health Network website
- Clay County Health Department Lobby
- Clay County Health Department Website www.clayhdnc.us
- Moss Memorial Library
- Email dissemination to partners and stakeholders

For More Information and to Get Involved

The community stakeholders and partners were instrumental in the process of collecting and analyzing the community survey data. If you would like to become more involved in the process of bettering the health of our community please contact the health department or visit our website at www.clayhdnc.us or join the Healthy Carolinians coalition.

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PHOTOGRAPHY CREDITS

Photos used on the cover and in headers from www.pexels.com; accessed October, 2018.

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APPENDICES

Appendix A – Data Collection Methods & Limitations

Appendix B – Survey Findings

- WNC Healthy Impact Survey Instrument
- Community Health Survey Results

Appendix C- Local Data

Appendix D- Online Key Informant Survey Findings

APPENDIX A - DATA COLLECTION METHODS & LIMITATIONS

Secondary Data from Regional Core

Secondary Data Methodology

In order to learn about the specific factors affecting the health and quality of life of residents of WNC, the WNC Healthy Impact data workgroup and data consulting team identified and tapped numerous secondary data sources accessible in the public domain. For data on the demographic, economic and social characteristics of the region sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Department of Health and Human Services; NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; UNC-CH Jordan Institute for Families; NC Department of Public Instruction; NC Department of Justice; NC Division of Medical Assistance; NC Department of Transportation; and the Cecil B. Sheps Center for Health Services Research. The WNC Healthy Impact data consultant team made every effort to obtain the most current data available at the time the report was prepared. It was not possible to continually update the data past a certain date; in most cases that end-point was August 2018.

The principal source of secondary health data for this report was the NC State Center for Health Statistics (NC SCHS), including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics unit, and Cancer Registry. Other health data sources included: NC Division of Public Health (DPH) Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; the Centers for Disease Control and Prevention; National Center for Health Statistics; NC DPH Nutrition Services Branch; and NC DETECT.

Environmental data was gathered from sources including: US Environmental Protection Agency; US Department of Agriculture; and NC Department of Environment and Natural Resources.

Because in any CHA it is instructive to relate local data to similar data in other jurisdictions, throughout this report representative county data is compared to like data describing the 16-county region and the state of NC as a whole. The WNC regional comparison is used as “peer” for the purposes of this assessment. Where appropriate and available, trend data has been used to show changes in indicators over time.

It is important to note that this report contains data retrieved directly from sources in the public domain. In some cases, the data is very current; in other cases, while it may be the most current available, it may be several years old. Note also that the names of organizations, facilities, geographic places, etc. presented in the tables and graphs in this report are quoted exactly as they appear in the source data. In some cases, these names may not be those in current or local usage; nevertheless, they are used so readers may track a particular piece of information directly back to the source.

Gaps in Available Information

Some of the data that is used in this report may have inherent limitations, due to the sample size, geographic focus, or the information is older than we would like to use but it is the most up-to-date information available.

APPENDIX B – Survey Findings

WNC Healthy Impact Survey (Primary Data)

Survey Methodology

The 2018 WNC Healthy Impact Community Health Survey was conducted from March to June. The purpose of the survey was to collect primary data to supplement the secondary core dataset, allow individual counties in the region to collect data on specific issues of concern, and hear from community members about their concerns and priorities. The survey was conducted throughout the entire WNC Healthy Impact region, which includes the following 16 counties: Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey.

Professional Research Consultants, Inc. (PRC) designed and implemented the survey methodology, which included a combination of telephone (both landline and cell phone) interviews, as well as an online survey. The survey methodology was designed to achieve a representative sample of the regional population that would allow for stratification by certain demographic characteristics, while also maximizing data collection timeliness and efficiency. Survey sampling and implementation methodology is described in greater detail below.

Survey Instrument

The survey instrument was developed by WNC Healthy Impact's data workgroup, consulting team, and local partners, with assistance from PRC. Many of the questions were derived from the CDC Behavioral Risk Factor Surveillance System (BRFSS) and other validated public health surveys. Other questions were developed specifically by WNC Healthy Impact, with input from regional and local partners, to address particular issues of interest to communities in western North Carolina. Each county was given the opportunity to include three additional questions of particular interest to their county, which were asked only of their county's residents.

The three additional county questions included in the 2018 survey were:

- 1) Medicine is kept in a locked place so that no one else can access it?
- 2) Went without electricity, water, or heat in the home at some point in the past year?
- 3) All pet dogs, cats and ferrets at home are up-to-date on rabies vaccinations?

Sampling Approach & Design

PRC designed the survey methodology to minimize sample bias and maximize representativeness by using best practice random-selection sampling techniques. They also used specific data analysis techniques, including poststratification, to further decrease sample bias and account for underrepresented groups or nonresponses in the population. Poststratification involves selecting demographic variables of interest within the population (here, gender, age, race, ethnicity, and poverty status) and then applying "weights" to the data to produce a sample which more closely matches the actual regional population for these characteristics. This technique preserves the integrity of each individual's responses while improving overall representativeness. In order to determine WNC regional estimates, county responses were

weighted in proportion to the actual population distribution to appropriately represent Western North Carolina as a whole. Since the sample design and quality control procedures used in the data collection ensure that the sample is representative, the findings may be generalized to the region with a high degree of confidence.

Survey Administration

PRC piloted the survey through 30 interviews across the region and consulted with WNC Health Network staff to resolve substantive issues before full implementation. PRC used trained, live interviewers and an automated computer-aided telephone interviewing system to administer the survey region-wide. Survey interviews were conducted primarily during evening and weekend hours, with some daytime weekday attempts. Interviewers made up to five call attempts per telephone number. Interviews were conducted in either English or Spanish, as preferred by respondents. The final sample included 29 percent cell phone-based survey respondents and 71 percent landline-based survey respondents. Including cell phone numbers in the sampling algorithm allowed better representation of demographic segments that might otherwise be under sampled in a landline-only model.

PRC also worked with a third-party provider to identify and invite potential respondents for an online survey for a small proportion (20%) of the sample population. The online survey was identical to the telephone survey instrument and allowed better sampling of younger and more urban demographic segments.

About the Clay County Sample

Size: The total regional sample size was 3,265 individuals age 18 and older, with 200 from our county. PRC conducted all analysis of the final, raw dataset.

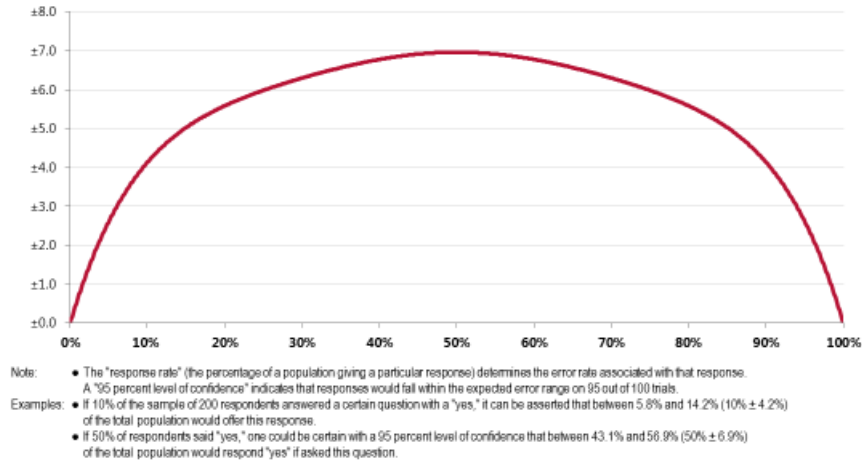
Sampling Error: For our county-level findings, the maximum error rate at the 95% confidence level is +6.9%.

Expected Error Ranges for a Sample of 200.
Respondents at the 95 Percent Level of Confidence

Examples:

- If 10% of a sample of 200 respondents answered a certain question with a "yes," it can be asserted that between 5.8% and 14.2% ($10\% \pm 4.2\%$) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 43.1% and 56.9% ($50\% \pm 6.9\%$) of the total population would respond "yes" if asked this question.

Expected Error Ranges for a Sample of 200 Respondents at the 95 Percent Level of Confidence

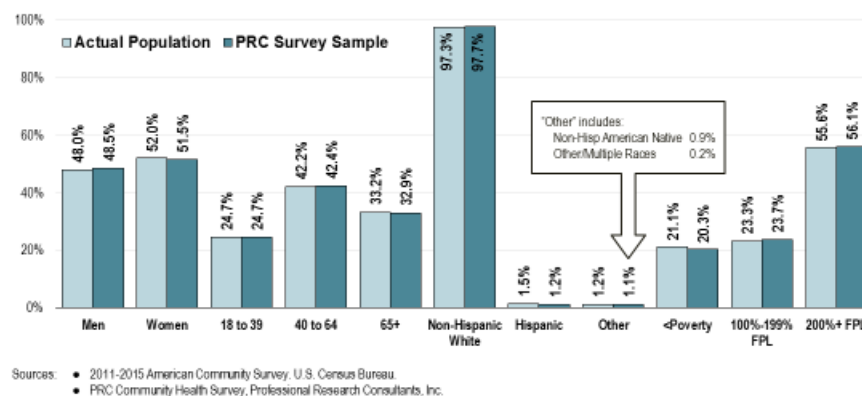


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Characteristics: The following chart outlines the characteristics of the survey sample for our county by key demographic variables, compared to actual population characteristics from census data. Note that the sample consists solely of area residents age 18 and older.

Population & Survey Sample Characteristics (Age 18 and Older; Clay County, 2018)



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Benchmark Data

North Carolina Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data are reported in the most recent BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trend Data published by the Centers for Disease Control and Prevention and the US Department of Health & Human Services.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts where available, are taken from the 2017 PRC National Health Survey; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence.

Healthy People 2020

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. The Healthy People initiative is grounded in the principle that setting national objectives and monitoring progress can motivate action. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Encourage collaborations across sectors.
- Guide individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People 2020 is the product of an extensive stakeholder feedback process that is unparalleled in government and health. It integrates input from public health and prevention experts, a wide range of federal, state and local government officials, a consortium of more than 2,000 organizations, and perhaps most importantly, the public. More than 8,000 comments were considered in drafting a comprehensive set of Healthy People 2020 objectives.

Information Gaps

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups (such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish) are not represented in the survey data. Other population groups (for example, pregnant women, lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups) might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly a great number of medical conditions that are not specifically addressed.

APPENDIX C – Local Data

Local Survey Data or Listening Sessions

Three primary surveys were conducted within Clay County. The first a community survey, thru Healthy Carolinians, based off of the survey conducted by WNCHN to dig deeper into the community issues. The second and third surveys conducted were specifically concerning the youth in Clay County. These surveys were split into two groups parents/ guardians concerning youth and teachers/ mentors concerning youth. These All surveys were distributed through weblinks, social media platforms, and paper copies that were then entered into survey monkey to be analyzed. Clay County Health Department conducted two listening sessions: one a community forum concerning the data and the second a panel concerning substance abuse. The substance abuse panel was voice recorded and later transcribed.



PUBLIC HEALTH DEPARTMENT

2018 PRC Community Health Needs Assessment

Clay County

Custom Research
for Achieving Excellence

WNC**HEALTHY**IMPACT

Objective



PUBLIC HEALTH DEPARTMENT

Data Review

- Overall Health Statistics
- Chronic Disease Statistics
- Mental Health/Well-being Statistics
 - Special Focus on our Children

CCHD Focus Areas for the Next 3 Years

- Chronic Disease Prevention & Management
- Mental Health Access
- YOUR CHOICE – Let's Talk ... What is Important to YOUR Family?

Methodology



PUBLIC HEALTH DEPARTMENT

Survey Methodology – Primary

551 Surveys Covering Whole Community Survey

Weblinks, Social Media & Paper Copies

Distribution in Partnership with Healthy Carolinians

408 Surveys Covering Parent/Guardian Perspective on Children's Health

Schools – paper & Social Media

111 Surveys Covering Professional/Mentor Perspective on Children's Health

Weblinks & Schools - paper

Methodology



PUBLIC HEALTH DEPARTMENT

Survey methodology - Secondary

- 2,602 surveys were completed via telephone (landline [71%] and cell phone [29%]); while 663 were completed online
- Allows for high participation and random selection
 - These are critical to achieving a sample representative of county and regional populations by gender, age, race/ethnicity, income
- English and Spanish **3,265 surveys throughout WNC**
- Adults age 18+
- Gathered data for each of 16 counties
- Weights were added to enhance representativeness of data at county and regional levels

Survey Instruments



PUBLIC HEALTH DEPARTMENT

Primary – Survey Monkey

- Used health department staff and Healthy Carolinian's group asked questions based off secondary data collection

Secondary - Based largely on national survey models

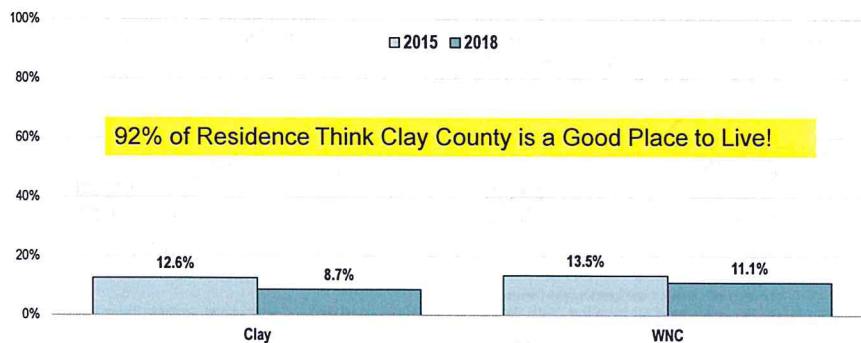
- When possible, question wording from public surveys (e.g., CDC BRFSS)

Secondary - 75 questions asked of all counties

- Each county added three county-specific questions
- Approximately 15-minute interviews
- Questions determined by WNC stakeholder input

Quality of Life

County Is a “Fair/Poor” Place to Live

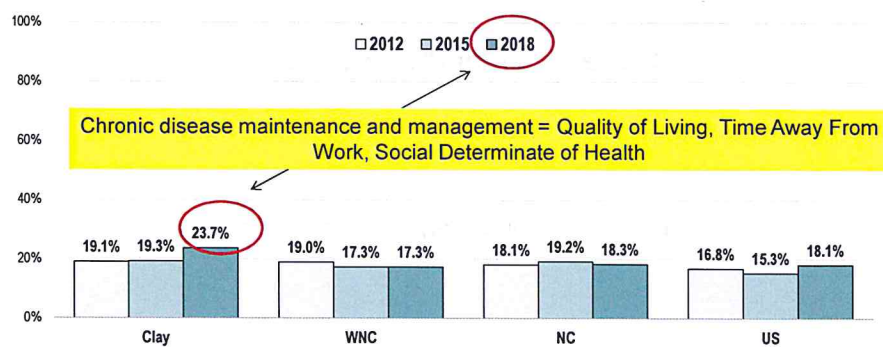


Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 301]
Notes: • Asked of all respondents.



Overall Health

Experience “Fair” or “Poor” Overall Health



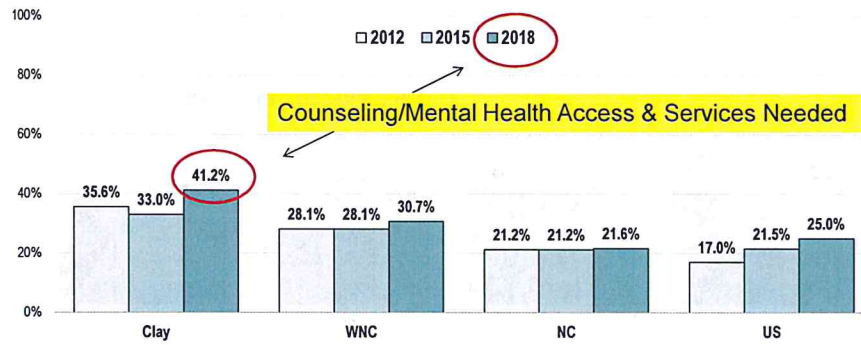
Sources:

- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]
- Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia, United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2016 North Carolina data.
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:

- Asked of all respondents.

Limited in Activities in Some Way Due to a Physical, Mental, or Emotional Problem



Sources:

- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 109]
- Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia, United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2015 North Carolina data.
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:

- Asked of all respondents.



PUBLIC HEALTH DEPARTMENT

Chronic Health Conditions

Cardiovascular Health

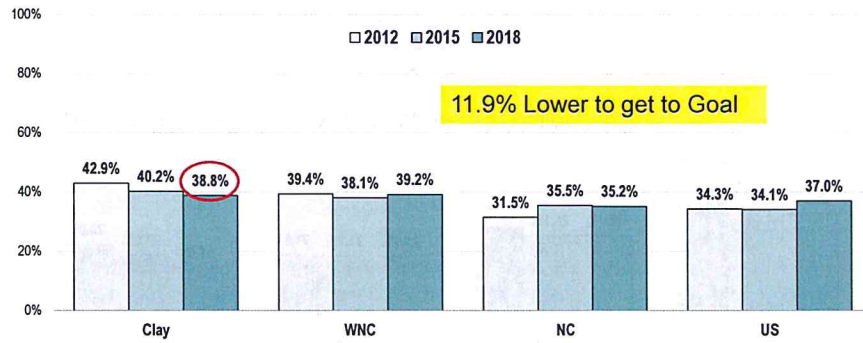
- Blood Pressure
- Cholesterol
- Heart Disease & Stroke

Diabetes

Body Weight and Physical Fitness

Prevalence of High Blood Pressure

Healthy People 2020 Target = 26.9% or Lower

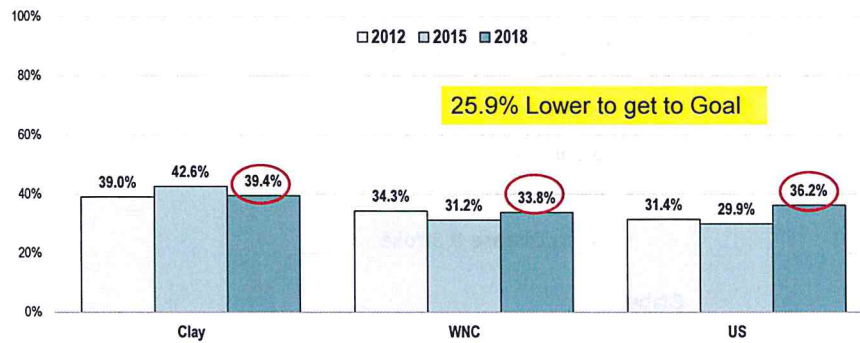


Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 39]
 • Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2015 North Carolina data.
 • 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

Prevalence of High Blood Cholesterol

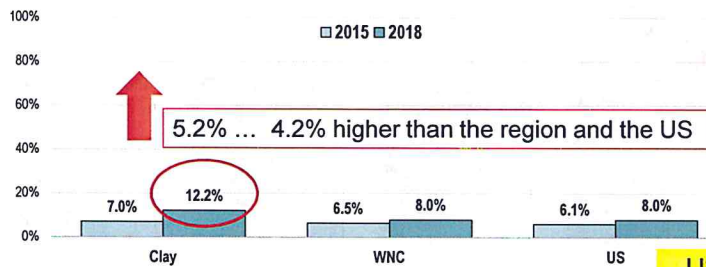
Healthy People 2020 Target = 13.5% or Lower



Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 43]
 • 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

Prevalence of Heart Disease

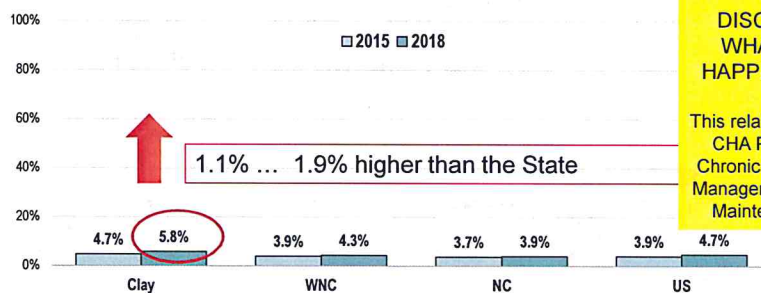


LISTENING SESSION # 1

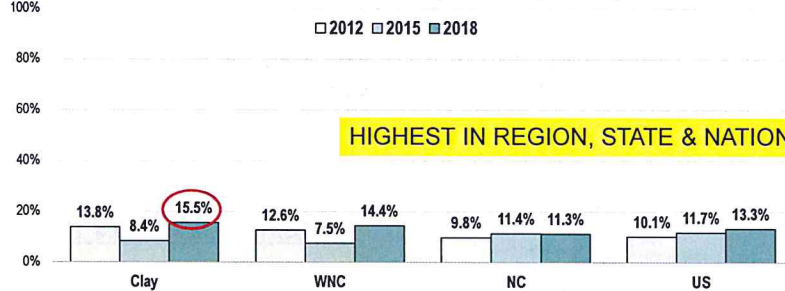
DISCUSS WHAT IS HAPPENING

This related to our CHA Priority: Chronic Disease Management and Maintenance

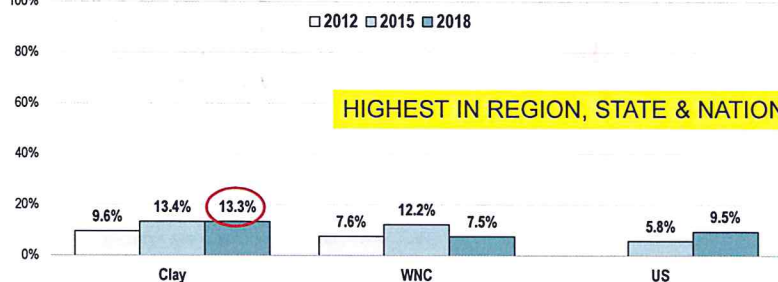
Prevalence of Stroke

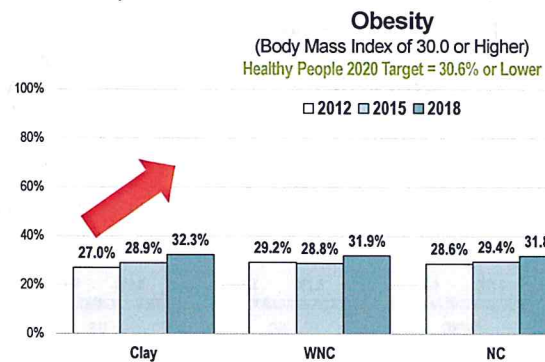
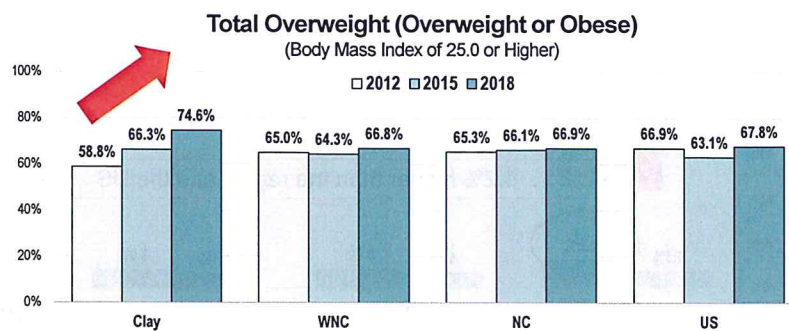


Prevalence of Diabetes (Ever Diagnosed)



Prevalence of Borderline or Pre-Diabetes



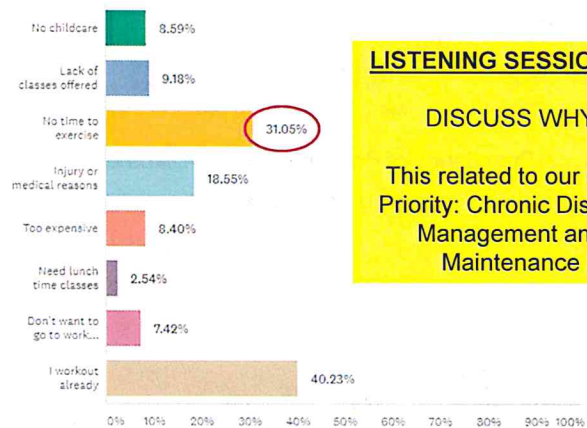


LISTENING SESSION # 1

DISCUSS WHAT IS
NEEDED FOR CHANGE

This related to our CHA Priority:
Chronic Disease Management
and Maintenance

What Stops You From Exercising?
(Not Physical Limitations)



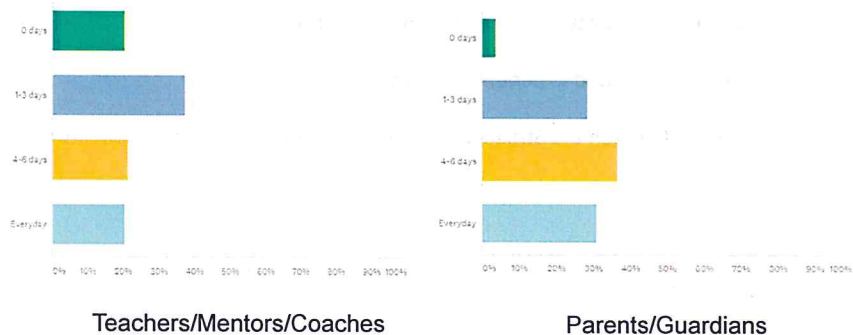
LISTENING SESSION # 1

DISCUSS WHY

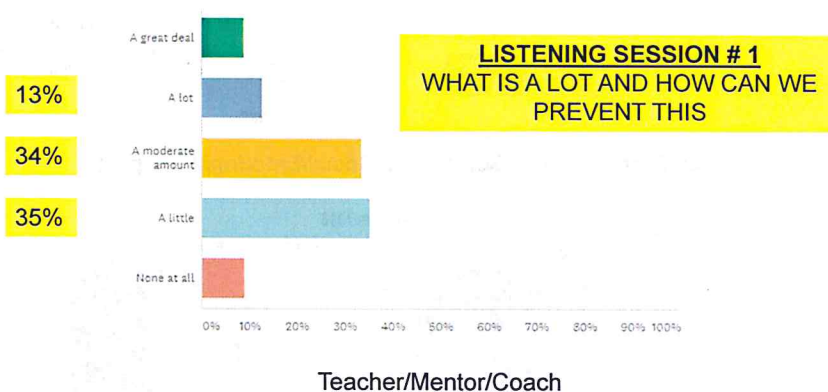
This related to our CHA
Priority: Chronic Disease
Management and
Maintenance



During the past week, how many days did you observe children exercising, playing a sport, or participating in a physical for at least 60 minutes?



Of The Children You Mentor, Would You Say There is a High Rate of Absenteeism because of an Illness?





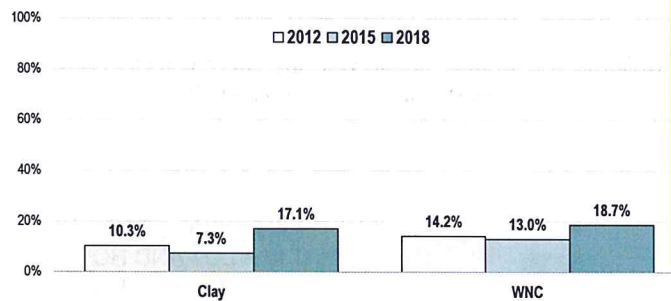
Mental Health and Mental Disorders

Loss of Productivity due to Mental Health & Support

Adverse Childhood Experiences (ACEs)

How are Children are Struggling – Parents/Guardians & Teachers/Mentors

>7 Days of Poor Mental Health in the Past Month

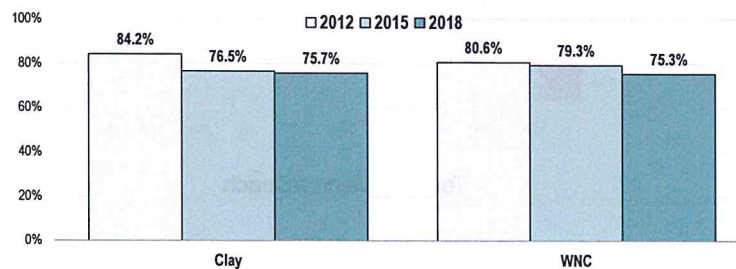


LISTENING SESSION # 1

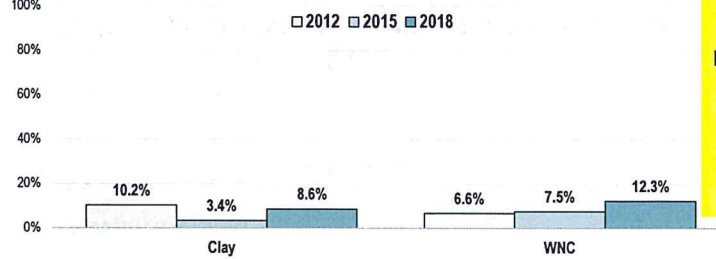
DISCUSS
WHAT IS
HAPPENING

This related to
our CHA Priority:
Addressing
Mental Health

"Always" or "Usually" Get Needed Social/Emotional Support



Did Not Get Mental Health Care or Counseling that was Needed in the Past Year

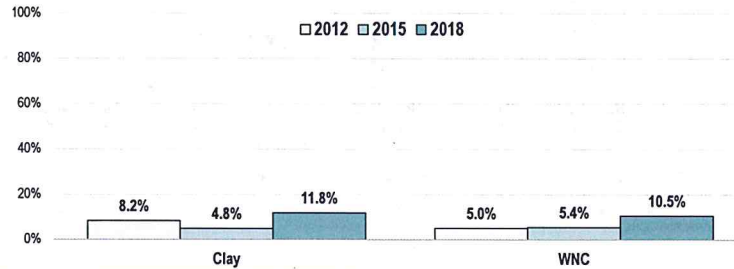


LISTENING SESSION # 1

DISCUSS WHAT IS HAPPENING

This related to
our CHA
Priority:
Addressing
Mental Health

Dissatisfied with Life ("Dissatisfied" and "Very Dissatisfied" Responses)

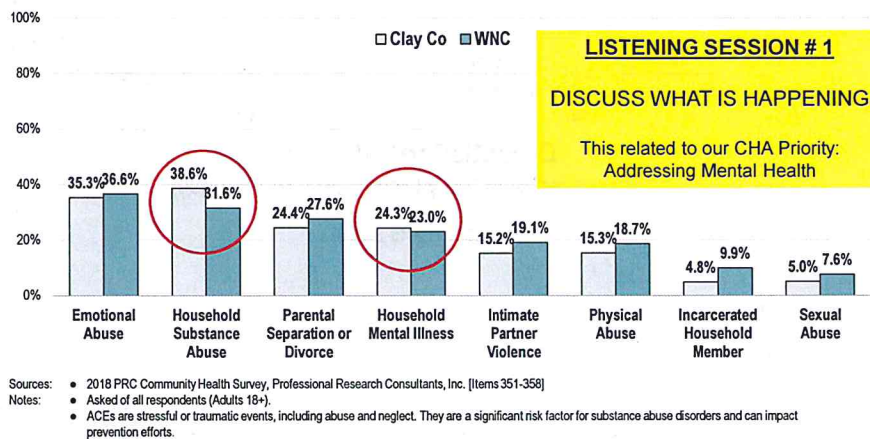


Adverse Childhood Experiences (ACEs)

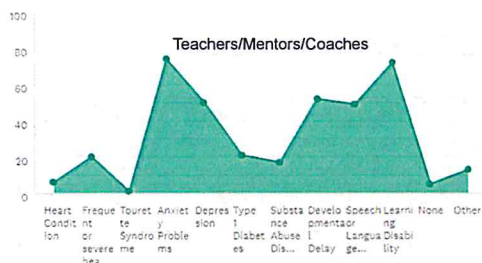
Category	Question
Household Mental Illness	Before you were 18 years of age, did you live with anyone who was depressed, mentally ill, or suicidal?
Household Substance Abuse	Before you were 18 years of age, did you live with anyone who was a problem drinker or alcoholic?
	Before you were 18 years of age, did you live with anyone who used illegal street drugs or who abused prescription medications?
Incarcerated Household Member	Before you were 18 years of age, did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?
Parental Separation or Divorce	Before you were 18 years of age, were your parents separated or divorced?
Intimate Partner Violence	Before age 18, how often did your parents or adults in your home slap, hit, kick, punch or beat each other up?
Physical Abuse	Before age 18, how often did a parent or adult in your home hit, beat, kick, or physically hurt you in any way? Do not include spanking.
Emotional Abuse	Before age 18, how often did a parent or adult in your home swear at you, insult you, or put you down?
Sexual Abuse	Before you were 18 years of age, how often did an adult or anyone at least 5 years older than you touch you sexually?
	Before you were 18 years of age, how often did an adult or anyone at least 5 years older than you try to make you touch them sexually?
	Before you were 18 years of age, how often did an adult or anyone at least 5 years older than you force you to have sex?

Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 339-349, 351-360]
Notes: • Reflects the total sample of respondents.

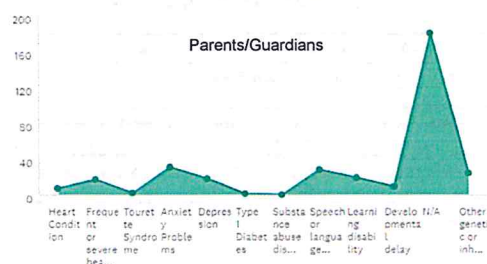
Experienced Adverse Childhood Experiences (ACEs) Prior to Age 18 (2018)



What mental or physical issues are you seeing children dealing with?



Has a Dr. /Professional diagnosed your child with any of these..?



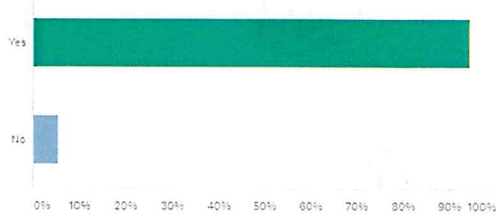
Condition	P/G	T/M
Heart Condition	3%	5.7%
Headache/Migraine	6%	18.5%
Anxiety Problems	12%	68.5%
Depression	7%	46%
Diabetes	0.3%	19%
Substance Abuse	0%	16%
Developmental Delay	3%	48%
Speech or Language Issues	10%	45%
Learning Disability	7%	67%
Other	9%	12%

ADHD (24)
 Behavioral Issues (38)
 Obesity (7)

LISTENING SESSION # 1
DISCUSS WHY THE DISCONNECT

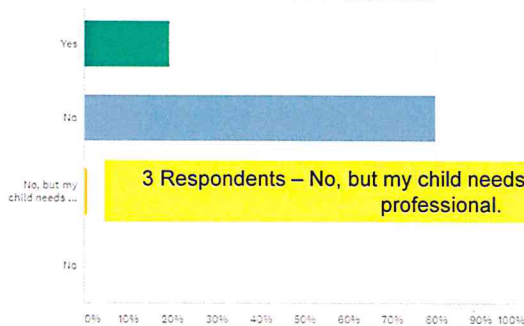
Do You Believe There Are Students That Are in Need of Mental Health Services or/and Behavioral Health Services?

Teacher/Mentor/Coach



LISTENING SESSION # 1
DISCUSS WHAT TYPE OF SERVICES AND FOR WHAT ISSUES SPECIFICALLY

Have You Taken a Child to get Treatment or Counseling from a Mental Health Professional?



3 Respondents – No, but my child needs to see a mental health professional.

LISTENING SESSION # 1

WHAT IS THE OTHER GROUP SEEING THAT PARENTS ARE NOT



PUBLIC HEALTH DEPARTMENT

What is Important to Your Family?

APPENDIX D – Key Informant Survey Findings

Online Key Informant Survey (Primary Data)

Online Survey Methodology

Purpose and Survey Administration

WNC Healthy Impact, with support from PRC, implemented an Online Key Informant Survey to solicit input from local leaders and stakeholders who have a broad interest in the health of the community. WNC Healthy Impact shared with PRC a list of recommended participants, including those from our county. This list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted through an email that introduced the purpose of the survey and provided a link to take the survey online. Reminder emails were sent as needed to increase participation.

Online Survey instrument

The survey provided respondents the opportunity to identify critical health issues in their community, the feasibility of collaborative efforts around health issues, and what is helping/hurting their community's ability to make progress on health issues.

Participation

In all, 6 community stakeholders took part in the Online Key Informant Survey for our county, as outlined below:

Local Online Key Informant Survey Participation		
Key Informant Type	Number Invited	Number Participating
Community Leader	16	6
Other Health Provider	14	5
Physician	1	0
Public Health Representative	3	1
Social Services Provider	1	1

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Online Survey Limitations

The Online Key Informant Survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

To collect this data, purposive sampling (a type of non-probability sampling which targets a specific group of people) was used. Unlike the random sampling technique employed in the telephone survey, the purpose is not to make generalizations or statistical inferences from the sample to the entire population, but to gather in-depth insights into health issues from a group of individuals with a specific perspective.

2018 Community Health Needs Assessment

Online Key Informant Survey Results

Clay County, North Carolina

Prepared for:
WNC Healthy Impact

By:
Professional Research Consultants, Inc.
11326 P Street Omaha, NE 68137-2316
www.PRCCustomResearch.com

2017-0792-02
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Table of Contents

Introduction	4
Approach	4
Participation	4
Characteristics of a Healthy Community	5
Chronic Disease	6
Ranking of Chronic Disease Issues as Critical to Address	6
Obesity, Nutrition, and Physical Activity	6
Diabetes	8
Cancer	9
Heart Disease and Stroke	10
Chronic Pain	11
Chronic Obstructive Pulmonary Disease (COPD)	11
Upper Respiratory Diseases (Such as Asthma)	12
Chronic Kidney Disease	12
Arthritis/Osteoporosis	12
Mental Health and Substance Use	14
Ranking of Mental Health Conditions as Critical to Address	14
Substance Use	14
General Mental Health	16
Depression, Anxiety, and Stress	17
Dementia and Alzheimer's Disease	18
Suicide	18
Social Determinants of Health	20
Ranking of Social Determinants of Health as Critical to Address	20
Adverse Childhood Experiences (ACEs)	20
Access to Health Care Services	21
Employment Opportunities	22
Housing	23
Food Insecurity	24
Early Childhood Education	25
Interpersonal Violence (IPV)	25
Transportation	26
Other Issues	27
Ranking of Other Issues as Critical to Address	27
Infant and Child Health	27
Injury and Violence	28

Dental Care and Oral Health	29
Family Planning	30
Immunizations and Infectious Diseases	31
Sexually Transmitted Infections	32
Hearing and Vision Conditions	32
HIV/AIDS	32
Additional Comments	34

Introduction

Approach

To solicit input from key informants, those individuals who have a broad interest in the health of the community, an Online Key Informant Survey was implemented as part of the broader Community Health Needs Assessment process. A list of recommended participants was provided by local sponsors; this list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders.

Participation

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the survey online; reminder emails were sent as needed to increase participation. In all, 13 community stakeholders took part in the Online Key Informant Survey.

Participating Organizations

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Participating organizations included the following:

- Appalachian Mental Health
- Clay County Community for Students
- Clay County Health Department
- Clay County Schools
- Community Leader
- Dentist
- Department of Social Services
- Hinton Center
- Mental Health
- Murphy Medical Center
- Town of Hayesville
- VAYA Health

In the online survey, key informants were asked to list characteristics of a healthy community. They were also asked to select the health issues or behaviors that they feel are the most critical to address collaboratively in their own community over the next three years or more. Follow-up questions asked them to describe which contributors to progress and impediments of progress exist for these issues. Results of their ratings, as well as their verbatim comments, are included throughout this report.

NOTE: These findings represent qualitative rather than quantitative data. The Online Key Informant Survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

Characteristics of a Healthy Community

“In your opinion, what are the most important characteristics of a healthy community?”

Key informants could list up to 3 responses.

Key informants characterized a healthy community as containing the following (percentages represent the proportion of respondents identifying each characteristic as one of their top 3 responses):

Characteristic	Mentioned By (%)
Access to Care/Services	50.8%
Healthy Lifestyles	35.6%
Healthy Citizens	25.8%
Resources for Healthy Activities	25.8%
Access to Mental Health Care	18.2%
Good Health Care	18.2%
Physical Activity	18.2%
Good Economy	17.4%
Access to Healthy Foods	9.1%
Active	9.1%
Affordable Care/Services	9.1%
Awareness/Education	9.1%
Collaboration	9.1%
Good Schools	9.1%
Healthy Seniors	9.1%
Low Mortality Rate	9.1%
Strong Faith Based Community	9.1%
Healthy Children	8.3%

Chronic Disease

Ranking of Chronic Disease Issues as Critical to Address

Key informants in the online survey were given a list of chronic diseases and known factors that contribute to them, then asked to select up to three health issues or behaviors that are the most critical to address collaboratively in their community over the next three years or more.

The following chart outlines the rank order of chronic disease conditions identified by key informants as critical to address.

Rank	Health Issue	Identified as Critical to Address
1	Obesity/Nutrition/Physical Activity	11
2	Diabetes	9
3	Cancer	9
4	Heart Disease/Stroke	8
5	Chronic Pain	3
6	Chronic Obstructive Pulmonary Disease (COPD)	1
7	Upper Respiratory Diseases (such as Asthma)	1
8	Chronic Kidney Disease	1
9	Arthritis/Osteoporosis	1

Obesity, Nutrition, and Physical Activity

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Recreational/Outdoor Activities

Communities working together to provide recreational facilities. – Other Health Provider (Clay County)

Affordable recreation center, new fitness focused businesses, programs through the health department. – Community Leader (Clay County)

Park, rec and opportunities for low/no cost exercise. – Other Health Provider (Clay County)

Good recreation department for workouts and qualified staff. – Other Health Provider (Clay County)

Awareness/Education

Nutrition education classes through health department and improved school nutrition program meals (healthier). – Public Health Representative (Clay County)

Educational material being given out and published. – Community Leader (Clay County)
Education marketing/PR. – Community Leader (Clay County)

Collaborative Efforts

Agency collaboration and county gym. – Social Services Provider (Clay County)

Physical Activity

Opportunity to exercise and education on nutrition. – Community Leader (Clay County)

Nothing/No Progress

Lack of programs. – Community Leader (Clay County)

Youth Sport Programs

For the youth, the many sporting activities available. Soccer, baseball, football, basketball, track, golf, tennis and swimming, all available for both genders. For adults, the county rec gym, plus pickleball. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Lifestyle

Behavioral changes required. – Community Leader (Clay County)
Personal priorities. – Community Leader (Clay County)

Awareness/Education

Lack of education on obesity. – Social Services Provider (Clay County)
Lack of education about obesity in the schools. – Other Health Provider (Clay County)

Denial

Unwillingness of the population to change eating habits until too late. – Community Leader (Clay County)
Unwillingness to change long-term habits related to nutrition/exercise, with some members of community. – Public Health Representative (Clay County)

Funding

Economics- lack of funding. – Other Health Provider (Clay County)

Family History

Generational obesity, poor nutrition/lack of knowledge of healthy cooking, high cost of healthy food options, overuse of fast food/prepared foods. – Other Health Provider (Clay County)

Access to Care/Services

Some lack of facilities to allow everyone an opportunity. Lack of support and encouragement for adults to participate in activities. – Community Leader (Clay County)

Communication

Communication. – Community Leader (Clay County)

Diabetes

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

- Diabetes education program at the health department. – Public Health Representative (Clay County)
- Good diabetes education resources. – Other Health Provider (Clay County)
- Education, marketing/PR. – Community Leader (Clay County)
- Education, marketing/PR. – Community Leader (Clay County)
- Education. – Community Leader (Clay County)

Specific Agencies/Programs

- Hiring people to manage and supervise a diabetes program. – Other Health Provider (Clay County)
- Active programs at the health department. – Community Leader (Clay County)

Nothing/No Progress

- Lack of programs. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Healthy Food

- Food scarcity; food distributed is often unhealthy. – Community Leader (Clay County)

Lifestyle

- Behavioral changes required. – Community Leader (Clay County)

Awareness/Education

- Education not covered by insurance. – Other Health Provider (Clay County)

Funding

- Lack of funding for additional resources; lack of knowledge/apathy from certain members/sectors of community. – Public Health Representative (Clay County)

Access to Care/Services

- Access to care and earlier detection. – Other Health Provider (Clay County)

Prevention/Diagnosis

- Denial. – Community Leader (Clay County)

Community Focus

- Participation and awareness. – Social Services Provider (Clay County)

Communication

- Communication. – Community Leader (Clay County)

Cancer

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

- Early education of the connection between tobacco and various cancers, plus dietary connections. – Community Leader (Clay County)
- Education and awareness of prevention health screenings. – Social Services Provider (Clay County)
- Community education on lifestyle choices and radon. – Community Leader (Clay County)
- General awareness of prevention and early detection. – Community Leader (Clay County)
- Education and marketing/PR. – Community Leader (Clay County)

Collaborative Efforts

- Quality of life study and collaboration among critical agencies. – Community Leader (Clay County)

Focus on Tobacco Use

- Measures to decrease causative factors like smoking. Access to screening for colon cancer. – Other Health Provider (Clay County)
- Tobacco cessation programs. – Other Health Provider (Clay County)

Nothing/No Progress

- Not many existing programs. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Awareness/Education

- Lack of effective communication. – Community Leader (Clay County)
- Communication. – Community Leader (Clay County)

Funding

- Money to fund programs. – Other Health Provider (Clay County)

Cultural Norms

- Culture. This is the way my parents lived, and their parents before them. – Community Leader (Clay County)

Leadership

- Multiple changes in leadership. Waiting for election and hoping for improvement, but not confident. – Community Leader (Clay County)

Lack of Providers

- Lack of specialists in the area. – Social Services Provider (Clay County)

Lifestyle

- Getting people active/moving. Social/generational trend of being less active, with increase in obesity. – Other Health Provider (Clay County)
- People do not change behaviors easily. – Community Leader (Clay County)

Heart Disease and Stroke

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Education related to diet and exercise, plus the effects of tobacco as a cause of heart disease. Programs that support and encourage physical activities for families and communities. – Community Leader (Clay County)

Informed providers and good health department. – Other Health Provider (Clay County)

Involving schools/community to teach/influence youth to prevent youth from taking up tobacco use. – Other Health Provider (Clay County)

Information readily available about heart health, early identification of factors contributing to heart disease and stroke. – Other Health Provider (Clay County)

Education marketing/PR. – Community Leader (Clay County)

Communication. – Community Leader (Clay County)

Community Focus

Community health fairs and local health education seminars/programs. – Public Health Representative (Clay County)

Prevention/Diagnosis

Screening programs initiated in our community. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Lifestyle

Poor eating and exercise habits. – Other Health Provider (Clay County)

Access to Care/Services

Lack of programs. – Community Leader (Clay County)

Funding

Funding of programs and staff. – Other Health Provider (Clay County)

Lack of funding and decreased awareness in community of heart/stroke risk factors, etc. – Public Health Representative (Clay County)

Insufficient Physical Activity

Sedentary lifestyle with no encouragement to do otherwise. – Community Leader (Clay County)

Transportation

Significant transportation issues, lack of education and lack of stress on issues; indifference to hypertension and risk factors; limited access to care. – Other Health Provider (Clay County)

Family Issues

We need adults to be role models- children learn what they live. If adults/parents are active and don't smoke, the children also learn these good behaviors. – Other Health Provider (Clay County)

Chronic Pain

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Information on alternative pain relief methods...addictive nature of opioids proscribed for chronic pain.
– Other Health Provider (Clay County)

Opioid Awareness

Substance abuse. – Community Leader (Clay County)

Access to Providers

Good physicians and good hospital. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Care/Services

Lack of qualified pain management facilities. – Other Health Provider (Clay County)

Lack of programs. – Community Leader (Clay County)

Insurance Issues

Prescriber actions, and many alternative pain methods not covered by insurance. – Other Health Provider (Clay County)

Chronic Obstructive Pulmonary Disease (COPD)

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Nothing/No Progress

Communications. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Care/Services

Lack of programs. – Community Leader (Clay County)

Upper Respiratory Diseases (Such as Asthma)

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

No comments

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

No comments

Chronic Kidney Disease

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Nothing/No Progress

Lack of programs. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Communication

Communication between departments. – Community Leader (Clay County)

Arthritis/Osteoporosis

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”


Retirement Community

This is a retirement community for the most part. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Employment

 *Lack of county employment and lack of program creation. – Community Leader (Clay County)*

Mental Health and Substance Use

Ranking of Mental Health Conditions as Critical to Address

Key informants in the online survey were given a list of mental health conditions and known factors that contribute to them, then asked to select up to three health issues or behaviors that are the most critical to address collaboratively in their community over the next three years or more.

The following chart outlines the rank order of mental health conditions identified by key informants as critical to address.

Rank	Health Issue	Identified as Critical to Address
1	Substance Use	13
2	General Mental Health	10
3	Depression/Anxiety/Stress	10
4	Dementia/Alzheimer's Disease	3
5	Suicide	1

Substance Use

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Youth education. A strong commitment from law enforcement to try and shut down the distribution of drugs. – Community Leader (Clay County)

Leadership meeting about drug awareness and issues. Best practices workshops. Resources and education. – Community Leader (Clay County)

Educational and recovery groups are being formed and supported. – Community Leader (Clay County)

More public awareness about substance use disorders as a chronic health issue, community is interested in developing supports. – Other Health Provider (Clay County)

More awareness and support groups. – Public Health Representative (Clay County)

Educating people earlier- school age. – Community Leader (Clay County)

Education at an early age. – Other Health Provider (Clay County)

Collaborative Efforts

The local, state, and national attention focusing on and identifying this as a national problem. There has been a council developed to look into this problem, but unsure of the status of this. – Other Health Provider (Clay County)

Community collaboration, forums. – Social Services Provider (Clay County)

Partnerships working together. – Community Leader (Clay County)

Specific Agencies/Programs

Actively substance abuse provider in this area - ACS and parties interested to providing treatment. – Other Health Provider (Clay County)

Recognition Of The Problem

Beginning to form a drug coalition. Public sentiment is high for dealing with substance abuse issues. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Care/Services

Enforcement of the Lawson place. – Other Health Provider (Clay County)

Funding

Significant lack of funds. Everyone wants treatment but extremely limited funds or no funds available. No residential treatment or detox facilities in local area - Nearest in 2 hours away. Habitual offenders/reoffenders with no drug court which leads to no accountability. – Other Health Provider (Clay County)

Denial/Stigma

The stigma associated with being treated and the lack of support for individuals involved in recovery. – Community Leader (Clay County)

Awareness/Education

Very complex issue, education and support is needed for whole family, lack of resources for treatment, lack of transitional housing. – Social Services Provider (Clay County)
Limited education resources in the school. Substance abuse. – Other Health Provider (Clay County)
Lack of knowledge of general public; funding. – Public Health Representative (Clay County)

Prevalence/Incidence

Very widespread problem that is going to take an entire community and large focus to improve- not a quick fix. – Other Health Provider (Clay County)

Affordable Care/Services

Substance use disorders are a challenging issue and needs long term treatment and support...many folks do not have insurance and state continues to reduce funding. Need for jobs/housing for people that have substance use disorders/records because of substance use disorders. – Other Health Provider (Clay County)

Unemployment

Low wages and unemployment makes escapism through drugs a strong temptation compared to the struggles of reality. Doctors overprescribing pain medication which causes addiction. A constant flow of drugs into the county makes access way to easy. – Community Leader (Clay County)

Cultural/Personal Beliefs

Culture. – Community Leader (Clay County)

Government/Policies

Views from leadership that addicts just need to be taken to church. Lack of real understanding of the issue. Lack of economic development. Change in leadership not until 2019. – Community Leader (Clay County)

Lack of Providers

Not enough providers or services available. – Community Leader (Clay County)

General Mental Health

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Rotary Club printed and distributed updated mental health resources. Hinton Center has trainers and provides mental health first aid training. First drug treatment center opened in county recently. All emergency responders now have an “overdose” reversal drug with them. Trying to restart a drug coalition. – Community Leader (Clay County)

Education marketing/PR. – Community Leader (Clay County)

Specific Agencies/Programs

VAYA screening available. – Other Health Provider (Clay County)

Qualified providers for mental health services available in the community. – Other Health Provider (Clay County)

Nothing/No Progress

Not aware of any progress on this area, which is a major issue in this area (lack of sufficient mental health programs and providers). – Public Health Representative (Clay County)

Very little. – Community Leader (Clay County)

Access to Care/Services

There is some effort being expended to encourage the seeking of help when needed. – Community Leader (Clay County)

School Programs

Local school health advisory councils working with community members to identify the need for more school counselors. – Other Health Provider (Clay County)

Communication

Frequent communication with agencies and mental health providers. – Social Services Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Care/Services

Inadequate facilities and treatment personnel. – Community Leader (Clay County)

Lack of adequate mental health programs and resources. – Public Health Representative (Clay County)

No resources or treatment. – Community Leader (Clay County)

Not enough services available. – Community Leader (Clay County)

Funding

Funding, transportation. – Social Services Provider (Clay County)

Economics, funding the fragmented mental health system-. – Other Health Provider (Clay County)

Denial/Stigma

The stigma of mental illness being seen as a weakness, rather than a disease process. – Other Health Provider (Clay County)

Policies

Multiple changes in key leadership positions and election. – Community Leader (Clay County)

Lack of Prevention in Schools

Limited counselors in the school system. – Other Health Provider (Clay County)

Depression, Anxiety, and Stress

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

More awareness on depression and anxiety. – Social Services Provider (Clay County)

Sharing of resources available. Mental health first aid to help with awareness. – Community Leader (Clay County)

Awareness of the sign and symptoms and availability of help available in our community. – Other Health Provider (Clay County)

Little progress has been made in the mental health arena, but the community is aware of this and recognizes the need. – Other Health Provider (Clay County)

Education marketing/PR. – Community Leader (Clay County)

Education. – Community Leader (Clay County)

Nothing/No Progress

Not aware of anything. – Public Health Representative (Clay County)

Community Focus

Many types of group activities, ranging from sports to festivals to other social activities like dances and concerts. – Community Leader (Clay County)

Decreasing Denial/Stigma

Diminishing stigma, growing understanding of depression/anxiety as chronic health issue, more effective diagnosis and treatment/medication. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Care/Services

Lack of good mental health care. Difficulty in identifying people that need care with these issues. Lack of opportunities that encourage such people to seek assistance. – Community Leader (Clay County)

Denial/Stigma

Still stigma in recognizing mental health issues as chronic health issue. – Other Health Provider (Clay County)

Stigma regarding mental health treatment. – Social Services Provider (Clay County)

Funding

Funding; lack of counselors and mental health resources that provide quality care. – Public Health Representative (Clay County)

Funding. – Other Health Provider (Clay County)

Multi-Faceted Issue

Life. – Community Leader (Clay County)

Policies

Multiple changes in key leadership and upcoming election. – Community Leader (Clay County)

Local, state, and national regulations to repair the fragmented mental health system. Attempt to remove the stigmas associated with mental health issues. – Other Health Provider (Clay County)

Dementia and Alzheimer's Disease

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Strong local intergenerational connectivity, earlier identification of Alzheimer's/dementia, support for caregivers. – Other Health Provider (Clay County)

Educational efforts and earlier diagnosis. – Community Leader (Clay County)

Support Systems for Patients/Caregivers

In one direction, more activities for adults that stimulate the use of one's mental faculties may help delay the progress of this issue. In another direction, structured environments that are accepting of those with dementia and support social interaction for those people may improve the quality of their life. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Family/Caregiver Support

Need more consistent and in-depth training/support for caregiver staff/family, stigma in acknowledging issue; no known cure. – Other Health Provider (Clay County)

Funding/Research

Funds for treatment and adequate facilities. – Community Leader (Clay County)

Possibly a lack of funds for the leadership to structure programs for adults that might assist in memory retention. A cultural problem that causes a lack of help or motivation to help a family member seek medical assistance when their mind begins to fail. – Community Leader (Clay County)

Suicide

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress

on this issue in your community?”

Access to Care/Services

Qualified mental health professionals in the community. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Early Diagnosis/Prevention

Lack of early identification of depression in the schools and community. – Other Health Provider (Clay County)

Social Determinants of Health

Ranking of Social Determinants of Health as Critical to Address

Key informants in the online survey were given a list of conditions in which people are born, grow, live, work, and age, as well as known factors that contribute to a person's health. They were then asked to select up to three health issues or behaviors that are the most critical to address collaboratively in their community over the next three years or more.

The following chart outlines the rank order of social determinants of health identified by key informants as critical to address.

Rank	Health Issue	Identified as Critical to Address
1	Adverse Childhood Experiences (ACEs)	9
2	Access to Health Care	9
3	Employment Opportunities	9
4	Housing	6
5	Food Insecurity	2
6	Early Childhood Education	2
7	Interpersonal Violence (IPV)	2
8	Transportation	0

Adverse Childhood Experiences (ACEs)

Contributors to Progress

Those identifying this as a critical issue were asked: "What is contributing to progress on this issue in your community?"

Awareness/Education

Education within DSS, the school system, public health to teach how ACEs impact the health of youth, and how to identify these individuals in order to refer. – Other Health Provider (Clay County)

Much more knowledge of the impact of trauma and health/ behavioral health issues.

Agencies/providers have had training to identify and treat trauma related health issues. – Other Health Provider (Clay County)

DSS has recently hosted a training for our Child Protection Team and county officials on Resiliency and ACEs. – Social Services Provider (Clay County)

Specific Agencies/Programs

HAVEN, Children's advocacy, education for teachers, Communities for Students. – Community Leader

(Clay County)

An active Social Services Department. – Other Health Provider (Clay County)

Good DSS staff. – Other Health Provider (Clay County)

Collaborative Efforts

Partnerships working together for our children and families. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Awareness/Education

Reluctance to report symptoms of ACEs to DSS. Need for better and more frequent education for childcare providers and educators. – Other Health Provider (Clay County)

Funding

Funding, actual staff time to implement ACEs education and testing for individuals. – Social Services Provider (Clay County)

Access to Care/Services

Having the resources to refer them- goes back to the need for more counselors and mental health professionals, breaking the cycle within the families so the youth don't grow up thinking the trauma they experienced is the norm. – Other Health Provider (Clay County)

Breaking The Cycle of Trauma

Breaking the cycle of trauma is challenging. Many adults who suffered trauma, are now having children, who may experience the negative impact. – Other Health Provider (Clay County)

Alcohol/Drug Abuse

Severe problem with drug abuse among parents of children. – Public Health Representative (Clay County)

Lack of Collaboration

Organizing the newly combined Health and Social Service Departments. – Other Health Provider (Clay County)

School Resources

Our middle school does not have a counselor; I don't think elementary does, either. Changing of leaders in key positions. Families are spread out and private, so help is often not sought out. – Community Leader (Clay County)

Access to Health Care Services

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Many Resources

Excellent health department in this community that provides physical and dental care. – WIC. Available to indigent and Medicaid and private insurance. – Other Health Provider (Clay County)

Working to create more services through our local health department as we do not have a hospital in our county. Also, the county is working with other medical organizations to encourage more services

here. – Social Services Provider (Clay County)
More providers available. – Community Leader (Clay County)

Access to Care/Services

Access to some health services through the local Health department including dental care. – Community Leader (Clay County)
Providing services that were not available in the past (e.g. dental). Improved county transportation. – Other Health Provider (Clay County)
A fully equipped modern dental clinic. – Other Health Provider (Clay County)

Collaborative Efforts

Working together to identify needs and filling them. – Community Leader (Clay County)

Transportation

Public transportation, more services being offer in the local health department, and increases in local services. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Insurance/Medicaid Issues

Lack of insurance and education. – Community Leader (Clay County)
Noninsured. – Community Leader (Clay County)

Funding

Funding. – Social Services Provider (Clay County)

Transportation

Lack of transportation, limited providers, long wait lists for new patients. – Other Health Provider (Clay County)

Lack of Providers

Providers of healthcare. Money. – Community Leader (Clay County)
Luring specialists into a small rural town is difficult. – Other Health Provider (Clay County)

Awareness/Education

Lack of knowledge by the community regarding what is available and at what cost (if any). Lack of some types of health services that are affordable for the low-income residents. – Community Leader (Clay County)
Getting eligible patients to use the facilities properly. – Other Health Provider (Clay County)

Employment Opportunities

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Economic Development

More service industries opportunities. – Community Leader (Clay County)
Economic Development Council established to promote businesses. – Other Health Provider (Clay County)

County)

Clay County is a desirable place to live...recognition of need for diverse economy. – Other Health Provider (Clay County)

Economic development. Education. – Community Leader (Clay County)

New businesses in area. – Public Health Representative (Clay County)

Nothing/No Progress

Located two hours from anywhere, lack of infrastructure, poor leadership, lack of vision, limited broadband, cell service not consistent. – Community Leader (Clay County)

Awareness/Education

Community awareness of need. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Low Wages

Jobs not available at a good pay scale. – Community Leader (Clay County)

Employment

Not enough new business; apathy among prospective work force - Many people unwilling to work certain jobs and would rather remain unemployed. – Public Health Representative (Clay County)

No growth in well-paying industrial or commercial employment opportunities. – Community Leader (Clay County)

Economy

Need for more economic development. – Community Leader (Clay County)

Not enough finances allocated by local government toward bringing businesses into the community. – Other Health Provider (Clay County)

Government/Policies

Leadership, lack thereof, lack of out of the box thinking. – Community Leader (Clay County)

Limited Infrastructure

Adequate infrastructure, especially high-speed internet, water and sewer. – Other Health Provider (Clay County)

Rural

Remote location, infrastructure doesn't support high tech/professional recruitment. – Other Health Provider (Clay County)

Housing

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Nothing/No Progress

Not a lot is contributing at the moment other than some general agreement that there is a need for affordable housing. – Community Leader (Clay County)

Nothing at this time. – Community Leader (Clay County)

Awareness/Education

The community is aware that there are housing needs in the county. – Social Services Provider (Clay County)

Affordable/Low Income Housing

Recognition of need for affordable housing, especially for people who have low paying jobs or have chronic health/behavioral health issues. – Other Health Provider (Clay County)

Increased Housing

Interest in looking at multi-family housing and/or tiny house options. Home repair assistance available to make homes safer and healthier. Habitat to rehab one house in the community. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Affordable Housing

Some fears about affordable housing equating HUD housing which, if not managed properly, becomes an eyesore and possible breeding ground for drug deals and other issues that negatively affect the community. Also lack of funding for the creation of affordable housing (partly due to a lack of tax incentives to invest in such ventures). Lastly a lack of anyone in charge locally of seeking funding sources and pushing this agenda forward. – Community Leader (Clay County)

No transitional housing, closest homeless shelter for adults is in a neighboring county, most shelters refuse individuals with substance abuse issues or criminal histories. – Social Services Provider (Clay County)

Landlords who provide affordable rentals. Inadequate building of low income housing. – Other Health Provider (Clay County)

Quality housing not available. – Community Leader (Clay County)

Poverty

Generational poverty, leadership. – Community Leader (Clay County)

Food Insecurity

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Church Programs

Several faith-based organizations have joined local government units to locate needy individuals and connect them with food supplies. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Transportation

Transportation of food/individuals in the cases of elders needing food and resource allocation by some parents of small children. – Community Leader (Clay County)

Early Childhood Education

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Specific Agencies/Programs

"Smart Start", pre-K education is a very critical part of early childhood development. "Parents as Teachers" program. Parent education could be an important step in properly addressing the need for early childhood education. – Community Leader (Clay County)

Good preschool and Head Start program. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Impact on Families/Caregivers

Many are still utilizing day care centers or relatives to care for kids while parents work. This usually results in kids having TV or a video as a babysitter. – Community Leader (Clay County)

Poverty

Poverty preventing access to quality care. – Other Health Provider (Clay County)

Interpersonal Violence (IPV)

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Specific Agencies/Programs

Work of women's shelter and support group. – Public Health Representative (Clay County)

Recognition Of The Problem

Identifying the problem is the first step. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Culture

This is frequently a learned behavior- mental health access. – Other Health Provider (Clay County)

Law Enforcement

Court systems clogged up-many cases involving domestic violence perpetually "continued." – Public Health Representative (Clay County)

Transportation

Contributors to Progress

Those identifying this as a critical issue were asked: "What is contributing to progress on this issue in your community?"

No comments

Impediments of Progress

Those identifying this as a critical issue were asked: "What is getting in the way of progress on this issue in your community?"

No comments

Other Issues

Ranking of Other Issues as Critical to Address

Key informants in the online survey were given a list of other health conditions not previously addressed in the survey, then asked to select up to three health issues or behaviors that are the most critical to address collaboratively in their community over the next three years or more.

The following chart outlines the rank order of other health conditions identified by key informants as critical to address.

Rank	Health Issue	Identified as Critical to Address
1	Infant and Child Health	9
2	Injury and Violence	9
3	Dental Care/Oral Health	6
4	Family Planning	6
5	Immunizations and Infectious Diseases	5
6	Sexually Transmitted Infections	2
7	Hearing/Vision Conditions	1
8	HIV/AIDS	0

Infant and Child Health

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Specific Agencies/Programs

Erlanger just bought the closest hospital. Hopefully this will increase access to quality care. Mom's Connection program. – Community Leader (Clay County)

Programs already in place to identify those at risks and early detection of health issues. – Other Health Provider (Clay County)

Work of WIC program and well-check health department programs. – Public Health Representative (Clay County)

Health Department

Public health departments and other state and local programs emphasize this need and supply some funding to make it happen. – Community Leader (Clay County)

Collaborative Efforts

Partnerships working together and providers available. – Community Leader (Clay County)

Access to Care for Medicaid/Medicare Patients

90 percent of our infants and children are covered by North Carolina Medicaid and Health Choice. – Social Services Provider (Clay County)

Quality Physicians

Good physicians in the community. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Awareness/Education

Lack of education, apathy, effect of drugs on parents, with many local families. – Public Health Representative (Clay County)

Getting the population to see the value in the services being offered. – Other Health Provider (Clay County)

Funding

Lack of funds and willingness to bring children to health departments for the necessary care. – Community Leader (Clay County)

Lack of Providers

No pediatricians available. – Community Leader (Clay County)

Health care primarily provided by mid-level providers rather than by physicians. – Other Health Provider (Clay County)

Lack of specialists and doctors in our county. – Social Services Provider (Clay County)

Socioeconomic Factors

Generational Poverty - Lack of education, substance use, etc. – Community Leader (Clay County)

Injury and Violence

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Awareness. – Community Leader (Clay County)

Effective Law Enforcement

More involved law enforcement. – Community Leader (Clay County)

Collaborative Efforts

Efforts to remove some of the negative effects of drugs, etc. from the local community. – Community Leader (Clay County)

Recognition Of The Problem

Identifying the problem. – Other Health Provider (Clay County)

Nothing/No Progress

Probably very little. The culture within the school system [... regarding] sexual abuse. It is just accepted. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Law Enforcement

Continuous turnover in court system - Many of same people getting arrested over and over and not being penalized for their violent crimes. – Public Health Representative (Clay County)

Cultural/Personal Beliefs

Local culture. Misogyny is rampant culturally and has led to too much domestic violence. Culturally, violence is [... manly]. – Community Leader (Clay County)

Behavior/culture. – Community Leader (Clay County)

Access to Care/Services

Proper treatment and institutional systems are not in place. – Community Leader (Clay County)

Cultural Norms

Frequently a learned behavior-. – Other Health Provider (Clay County)

Socioeconomic Factors

Better school-based education on this issue. – Other Health Provider (Clay County)

Dental Care and Oral Health

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Specific Agencies/Programs

Good dental clinic with health department. – Other Health Provider (Clay County)

Dental Bus

Clay Health Department. Dental Bus. – Community Leader (Clay County)

Access to Care/Services

The new dental clinic. – Other Health Provider (Clay County)

Affordable Care/Services

Local health department offers free dental services for several groups of local inhabitants. – Community Leader (Clay County)

School Programs

Dental clinic - Checks in schools. Military Medical Missions provided occasionally. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Access to Care/Services

Getting patients to properly use the facility. – Other Health Provider (Clay County)

Awareness/Education

Lack of education of the effects of bad dental and oral health and funds to correct this problem. – Community Leader (Clay County)

Lack of community awareness of resources. – Other Health Provider (Clay County)

Insurance Issues

Lack of dental insurance. well water - No fluoride. – Community Leader (Clay County)

Access for Uninsured/Underinsured

No dental insurance and people who can't afford care. – Community Leader (Clay County)

Family Planning

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Health Department

Easy access for individuals to the health departments. – Social Services Provider (Clay County)

Family planning available at the health department. – Other Health Provider (Clay County)

Awareness/Education

Education marketing/PR. – Community Leader (Clay County)

Access to Care/Services

Having family planning services available. – Other Health Provider (Clay County)

Nothing/No Progress

I am not sure what efforts are being done, if any, for the youth in educating them. Also, not sure how pro-active anyone is in the county regarding adults until after pregnancy occurs. Family planning could help with the pregnancies that keep people living at poverty levels. – Community Leader (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Awareness/Education

Wide-spread education on use of contraceptives, need for more proactive approach to youth sexual activity, use of contraception. Generational teen/young pregnancy. risky behavioral- drug/alcohol use lead to unplanned pregnancy. – Other Health Provider (Clay County)

Cultural/Personal Beliefs

Culture. Old ways and behaviors that this is something that is not discussed at home or not supposed

to be discussed at school. Probably stems from the older generation was brought up not to discuss it. So, there is a lack of openness of what programs might already be available. – Community Leader (Clay County)

Many young adults don't take the responsibility of family planning. – Social Services Provider (Clay County)

Access to Care/Services

Getting those who really need these services to access them. – Other Health Provider (Clay County)

Immunizations and Infectious Diseases

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Good public health system, informing the public and having access available. – Other Health Provider (Clay County)

Health Department

Health department providing excellent immunization services. – Public Health Representative (Clay County)

Programs initiated and managed by the health department. – Other Health Provider (Clay County)

Health department. School. – Community Leader (Clay County)

Excellent health department with lab services. Hepatitis C is on a significant rise and treatment available for indigent patients. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Cultural/Personal Beliefs

Increased population who are electing to be religious exempt from immunizations. – Other Health Provider (Clay County)

Needle Exchange Program

No needle exchange available. – Hepatitis C and HIV testing needs to be free and available. Hepatitis C has seen a huge rise in this community and needs to be addressed. – Other Health Provider (Clay County)

Parental Influence

Some parents still not willing to vaccinate-lack of knowledge about vaccine side effects/reactions, etc. – Public Health Representative (Clay County)

Community Focus

Compliance by the general population. – Other Health Provider (Clay County)

Sexually Transmitted Infections

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

Awareness/Education

Education and easy access to Health Services. – Social Services Provider (Clay County)

Health department has education on STDs. – Other Health Provider (Clay County)

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

Denial/Stigma

Stigma and lack of widespread discussion of use of condoms to prevent STDs; risky behaviors such as unprotected sex or sharing needles. – Other Health Provider (Clay County)

Individual embarrassment about seeking education or treatment. – Social Services Provider (Clay County)

Hearing and Vision Conditions

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

No comments

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

No comments

HIV/AIDS

Contributors to Progress

Those identifying this as a critical issue were asked: “What is contributing to progress on this issue in your community?”

No comments

Impediments of Progress

Those identifying this as a critical issue were asked: “What is getting in the way of progress on this issue in your community?”

No comments

Additional Comments

Other issues uncovered through the online key informant survey include the following:

Substance Abuse

| Substance abuse education in and out of school. – Other Health Provider (Clay County)

Opioid Addiction due to Accessibility

| Opioid crisis/substance abuse. – Other Health Provider (Clay County)

Unwed Mothers and Pregnancy Rates

| Parenting. Many young adults are unprepared for the responsibilities of raising a baby, from nutrition to budgeting to appropriate behavior. They haven't a clue. – Community Leader (Clay County)

Data Definitions

Reports of this type customarily employ a range of technical terms, some of which may be unfamiliar to many readers. Health data, which composes a large proportion of the information included in this report, employs a series of very specific terms which are important to interpreting the significance of the data. While these technical health data terms are defined in the report at the appropriate time, there are some data caveats that should be applied from the onset.

Error

First, readers should note that there is some error associated with every health data source. Surveillance systems for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a small number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

Age-adjusting

Secondly, since much of the information included in this report relies on mortality data, it is important to recognize that many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because an individual's risk of death inevitably increases with age. As a population ages, its collective risk of death increases; therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time some communities have higher proportions of "young" people, and other communities have a higher proportion of "old" people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by age-adjusting the data.

Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NC SCHS). It is not necessary to understand the nuances of age-adjustment to use this report. Suffice it to know that age-adjusted data are preferred for comparing most health data from one population or community to another and have been used in this report whenever available.

Rates

Thirdly, it is most useful to use rates of occurrence to compare data. A rate converts a raw count of events (deaths, births, disease or accident occurrences, etc.) in a target population to a ratio representing the number of same events in a standard population, which removes the variability associated with the size of the sample. Each rate has its own standard denominator that must be specified (e.g., 1,000 women, 100,000 persons, 10,000 people in a particular age group, etc.) for that rate.

While rates help make data comparable, it should be noted that small numbers of events tend to yield rates that are highly unstable, since a small change in the raw count may translate to a large change in rate. To overcome rate instability, another convention typically used in the presentation of health statistics is data aggregation, which involves combining like data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data, especially for measures consisting of relatively few cases or events. The calculation is performed by dividing the sum number of cases or deaths in a population due to a particular cause over a period of years by the sum of the population size for each of the years in the same period.

Health data for multiple years or multiple aggregate periods is included in this report wherever possible. Sometimes, however, even aggregating data is not sufficient, so the NC SCHS recommends that rates based on fewer than 20 events—whether covering an aggregate period or not—be considered unstable. In fact, in some of its data sets the NC SCHS no longer calculates rates based on fewer than 20 events. To be sure that unstable data do not become the basis for local decision-making, this report will highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period, or 10 or more events in a single year. Where exceptions occur, the text will highlight the potential instability of the rate being discussed.

Regional arithmetic mean

Fourthly, sometimes in order to develop a representative regional composite figure from sixteen separate county measures the consultants calculated a regional arithmetic mean by summing the available individual county measures and dividing by the number of counties providing those measures. It must be noted that when regional arithmetic means are calculated from rates the mean is not the same as a true average rate but rather an approximation of it. This is because most rates used in this report are age adjusted, and the regional mean cannot be properly age-adjusted.

Describing difference and change

Fifthly, in describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which appear frequently in this report—it is useful to apply the concept of percent difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the scope or significance of the difference or change. Converting the amount of difference or change to a percent takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change.

For example, there may be a rate of for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple

mathematical difference between these rates also is 6.0. But are these same simple numerical differences really of the same significance in both instances? In the first example, converting the 6-point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6-point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.).

Data limitations

Some data that is used in this report may have inherent limitations, due to the sample size, its geographic focus, or its being out-of-date, for example, but it is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.