

# Lincoln County

## State of the

# County Health Report

# Report

# 2017 Lincoln County State Of The County Report



Research and data analysis completed by:  
Lincoln County Health Department Public Health Educator  
between January 1 and February 16, 2018

# Lincoln County Partnership for Health

## Who are we?

The Partnership for Health is a community-based partnership that brings together community members, leaders, and organizations to address local health issues.

### Special Thanks to Partnership Organizations:

- Lincoln County Health Department • Atrium Health-Lincoln
- Lincoln County Department of Social Services • Lincoln County Schools
- Lincoln County Parks and Recreation • North Carolina Cooperative Extension  
• Partnership for Children of Lincoln and Gaston Counties • Gaston College
- United Way of Lincoln County • Sally's YMCA of Denver • Lincoln County Family YMCA • Helping Hands Health Center • Lincoln Wellness Center • Lincoln County Emergency Management • Lincoln County Emergency Medical Services • Lincoln County Transportation • Lincoln County Coalition Against Child Abuse • Lincoln Economic Development Association • Lincoln County Planning and Inspections  
• Lincoln County Environmental Health

Are you or someone in your organization interested in joining the Lincoln County Partnership for Health?

**Call to join: 704-736-2023**



## The 2017-2019 Health Priority Areas

Lincoln County's most recent CHA was completed for 2016. The CHA document can be found online by visiting [www.lincolncounty.org/health](http://www.lincolncounty.org/health) and choosing documents. After analyzing the available data and assessing available resources, the Lincoln County Partnership for Health chose the priorities that Lincoln County should work on for 2017-2019. Action plans were created to be carried out by the Partnership for Health to address the chosen priorities. The Lincoln County Board of Health approved the chosen priorities and action plans to be implemented in Lincoln County. The following priorities were chosen for the 2017-2019 working period:

Priority	Strategy	Implementation Goal
Substance Abuse	Education	Provide age appropriate education to all community members including general information, resources, and treatment.
	Awareness	Provide education to stakeholders in an effort to improve whole community relations regarding the substance abuse issue in our county.
Mental Health	Healthy Social Interactions	Provide child, youth, and family education regarding internet and social media safety, interpersonal relationships, and positive behaviors.
	Education	Provide age appropriate education to all community members including general information, resources, and treatment.
	Awareness	Provide education to all community members in an effort to reduce the stigma associated with mental health disorders.
Chronic Disease	Education	Provide education regarding recommended well-care visits and age appropriate preventative health and wellness screenings to all community members.
		Provide education and resources to assist community members in selecting a primary care physician (PCP) if needed.
	Prevention	Provide education regarding healthy eating and physical activity to all community members.

### Information about the data:

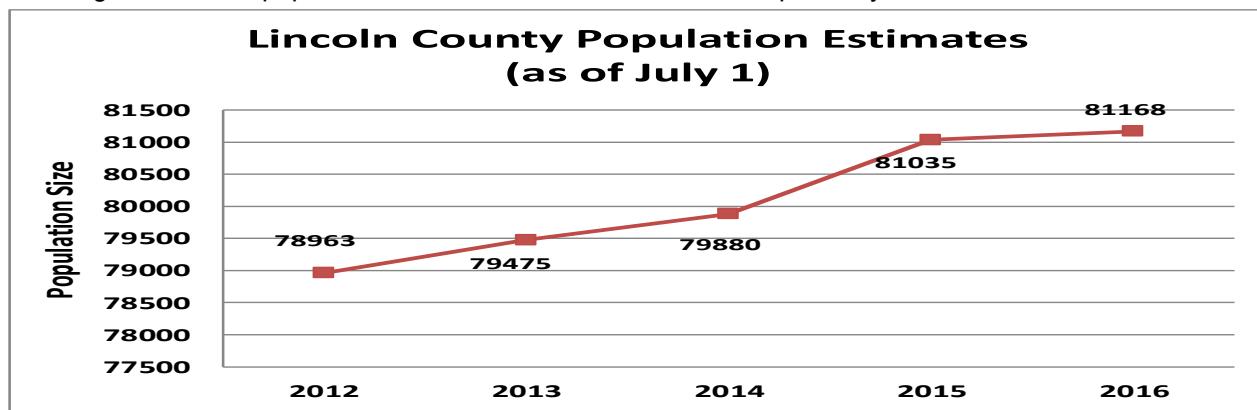
- The Lincoln County health statistics in this report are compared to the State of North Carolina, BRFSS Piedmont region, BRFSS Region 4, bordering counties, or are used as stand-alone statistics.
- A majority of the data is pulled from the North Carolina State Center for Health Statistics, United States Census Bureau, 2016 Lincoln County Community Health Assessment, and other independent data sources.
- Morbidity** is the rate or number of people that are sick with a certain disease/illness.
- Mortality** is the rate or number of people who die of a certain disease.
- BRFSS Piedmont Region (LCR)** is comprised of Alamance, Alexander, Anson, Cabarrus, Caswell, Catawba, Chatham, Cleveland, Davidson, Davie, Durham, Forsyth, Franklin, Gaston, Granville, Guilford, Iredell, Lee, Lincoln, Mecklenburg, Montgomery, Moore, Orange, Person, Randolph, Richmond, Rockingham, Rowan, Stanly, Stokes, Union, Vance, Wake, Warren, and Yadkin counties.
- BRFSS Region 4** is comprised of Alexander, Cabarrus, Catawba, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly, and Union counties.
- Emerging Issues** will be **emphasized in red font** throughout this document.

# Demographics

## Population

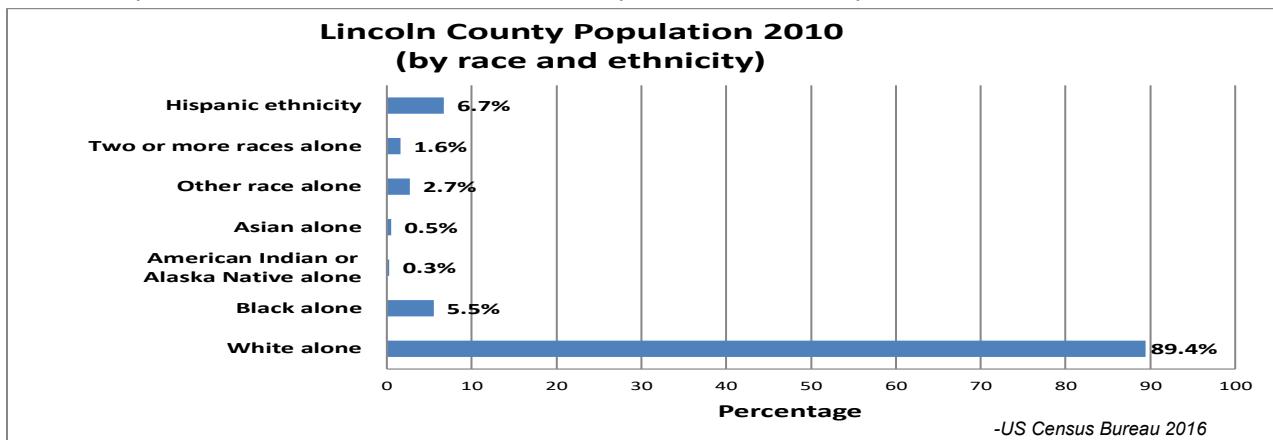
Lincoln County's population continues to increase. In 2016 the population was estimated to be 81,168. This number represents a percentage increase of 2.7% from 2012 to 2016. Males and females held an even percentage of the total population at 49.7% and 50.3% in 2016, respectively.

-US Census Bureau 2016



## Race and Ethnicity

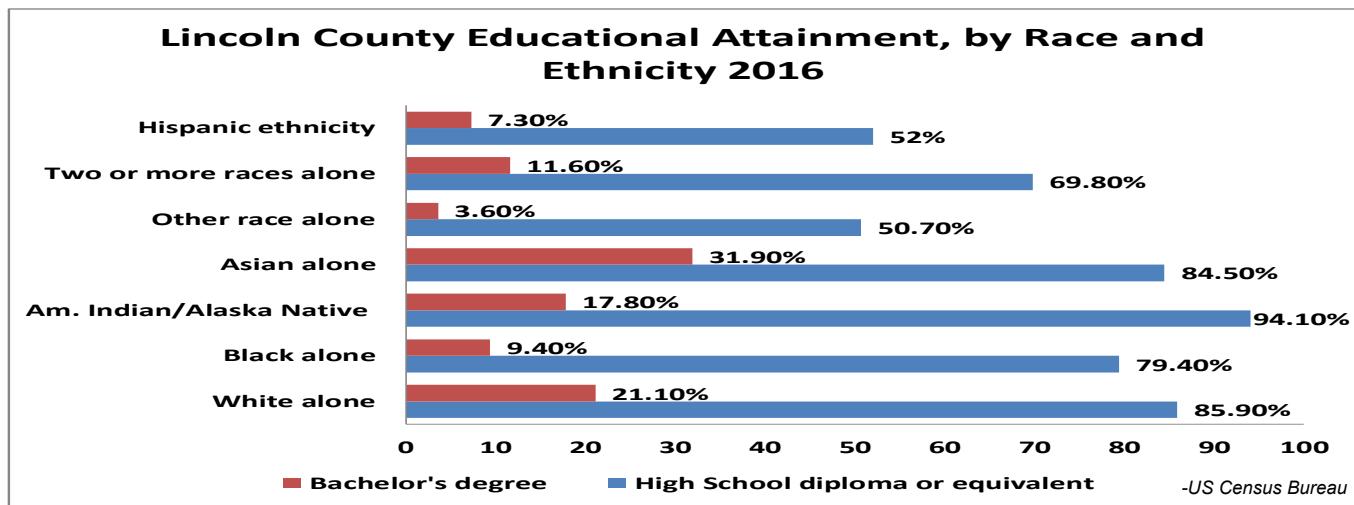
Race and ethnicity are considered separate and distinct. Thus, in addition to race, all residents are categorized by membership in one of two ethnicities, which are "Hispanic" and "Non Hispanic".



## Education

When compared to the State and the United States, Lincoln County's educational accomplishments are mixed. In 2016, 83.9% of people in Lincoln County aged 25 or older held a high school diploma or equivalent, compared to 86.3% for the state and 87.0% nationally. In that same timeframe, 19.7% of residents aged 25 or older held a bachelor's degree or higher, compared to 29.0% for the State and 30.3% nationwide. For the 2016-2017 school year, Lincoln County Schools exceeded the State average for math, science, reading, math 1, English 2 and biology end-of-grade test scores. Lincoln County High Schools had varying 4-year graduation rates between 84.6% and ≥95.0%. The Lincoln County School's dropout rate was 2.09 for the 2015-2016 school year, the Lincoln County Charter School's dropout rate was 0.17 for the same time frame. Dropout rates are important because educational attainment level has been shown to have a direct link to many socioeconomic indicators including poverty status and household income, both of these indicators affect health outcomes.

-NC Report Cards 2016-2017



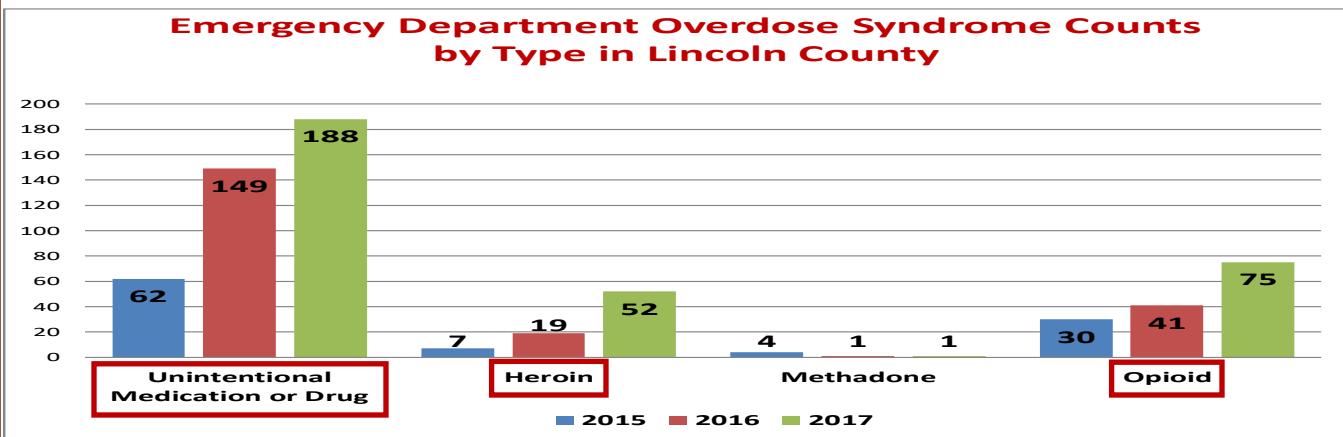
# Priority 1: Substance Abuse

## The Substance Abuse Issue

Substance abuse is an important public health issue because it can influence many aspects of one's life affecting the individual, family and community. Healthy People 2020 states that substance abuse plays a part in expensive social, physical, mental and public health issues (as cited in Lincoln County Community Health Assessment (LCCHA), 2016). Individuals with reduced or absent social ties including family, friends and community are at an increased risk of substance abuse over their peers that have adequate support systems (LCCHA, 2016).

### Illicit Drug Use and Prescription Drug Abuse

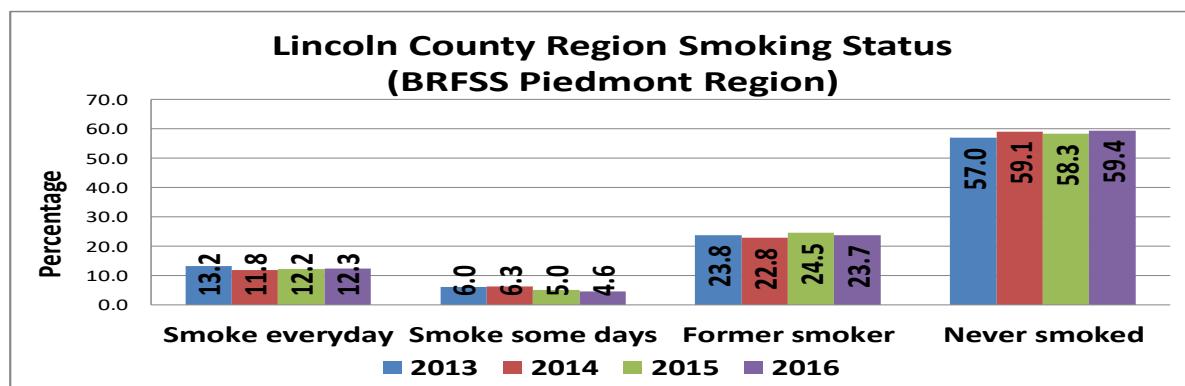
Drug abuse and overdose rates are on the rise. Opioid overdose is the cause of more than 60% of all overdose deaths in the United States. Studies have found that opioid prescriptions for Americans have increased 400%, even though reported pain has not increased (as cited in LCCHA, 2016).



-2015-2017 NC DETECT County-Level Overdose Syndrome Charts

Emergency department syndrome counts of unintentional medication or drug overdoses has seen a 203.2% increase from 2015 to 2017. This is concerning because the percent increase of unintentional medication or drug overdose syndrome counts was 140.3% from 2015 to 2016. However, the syndrome counts of medication or drug overdoses slowed from 2016 to 2017, when compared to the reported increase between 2015 and 2016, with a reported 26.2% increase. Opioid and heroin emergency department syndrome counts are also on the rise, reporting a 150% and 642.9% increase, respectively, from 2015 to 2017 (NC DETECT).

### Tobacco Use



Smoking status in NC BRFSS Piedmont Region/Lincoln County Region (LCR) residents has remained fairly constant in all years reported (NC BRFSS, 2013-2016). This lack of improvement may show a need for more or improved tobacco prevention programming in the LCR. Healthy People 2020 reports that the negative effects of tobacco are not limited to the user, stating that as many as 2.5 million people have died from diseases caused by exposure to second hand smoke since 1964 (as cited in LCCHA, 2016).

### Alcohol Use

Binge drinking has been shown to have negative effects on the body and mental state, and lead to an increased likelihood of alcohol-related unintentional injuries and death. In 2015, 14.0% of NC Region 4 BRFSS respondents indicated that they have binge drank in the past (even once), compared to 13.8% of NC (NC BRFSS, 2015). The percentage of Region 4 BRFSS and NC respondents reporting binge drinking (even once) has increased for 2016 to 15.1% and 14.6%, respectively (BRFSS, 2016). This reported increase of binge drinking regionally and at the state level indicates a need for improved education and prevention strategies regarding the negative consequences associated with alcohol abuse and binge drinking. College students, males, those identifying as non-Hispanic white, and those who earn an income of  $\geq \$50,000$  per year are at a greater risk for binge drinking, thus targeted prevention programming should be considered (as cited in LCCHA, 2016).

## The Mental Health Issue

Mental Health is an important public health issue because poor mental health status can impair one's drive and ability to practice prevention behaviors and participate in necessary treatments, leading to an increased prevalence of chronic disease and premature death (LCCHA, 2016). Healthy People 2020 states that mental health is vital to personal wellness, interpersonal relationships, and the individual's capacity to contribute to society (as cited in LCCHA, 2016). Furthermore, poor physical health can increase one's risk of developing mental health issues.

### Healthy Days

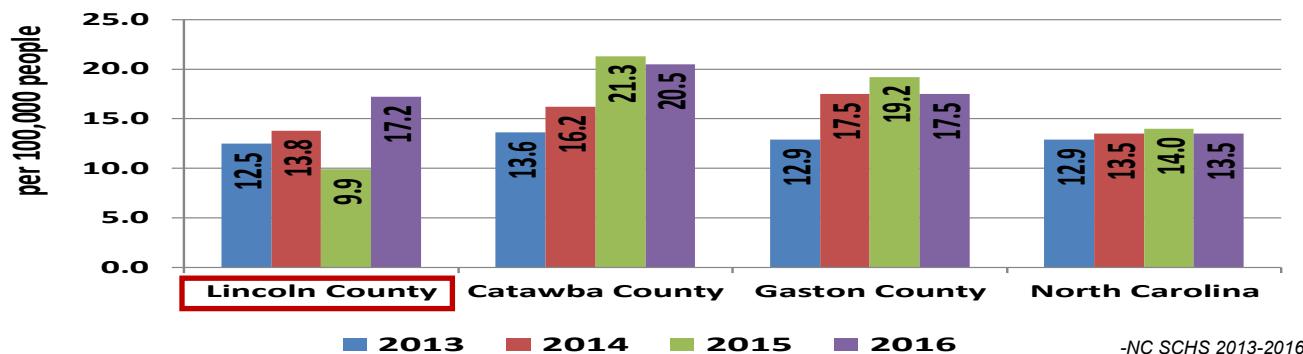
According to the NC BRFSS 2015 and 2016 surveys, the percentage of respondents indicating that there has been at least one day, in the past 30 days prior to the survey, when poor physical or mental health kept them from going about their normal business has improved between the two surveyed years from 20.7% to 17.8%, respectively. Health disparities are realized when looking at the prevalence of poor physical or mental health days when observing gender and household income. Individuals who are male or individuals who report a household income of  $\geq 50,000$  are less likely to report that poor physical or mental health days kept them from going about their normal business at 14.6% and 15.7%, respectively, than individuals who are female or individuals who report a household income of  $< 50,000$  at 20.6% and 20.6% (NC BRFSS, 2016).

### Depression, Anxiety and Suicide

Depression and anxiety disorders are quite common and can have a huge impact on individuals and families (LCCHA, 2016). There are many factors that can contribute to depressive and anxiety disorders including poor physical health, previous mental disorders, poverty, illegal drug use or withdrawal, death of a close family member or friend, job loss, being a caregiver long-term to a disabled person, lack of sunlight exposure, or seasonal changes (Mental Health First Aid (MHFA) USA 2016). Developing an anxiety disorder is associated with risk factors including adverse childhood experiences, gender, family history, parental or personal substance abuse, separation or divorce, or side effects from prescription drugs (MHFA USA, 2016). According to the 2016 MHFA USA training book, most anxiety disorders have a median age onset between 7 and 31 years of age, and 18.1% of American adults have at least one diagnosed anxiety disorder (as cited in LCCHA, 2016).

Suicide is known to be a negative health outcome of mental health and substance abuse disorders (LCCHA, 2016). Suicide was the 12th leading cause of death in Lincoln County between years 2011 and 2015 combined, it dropped to the 11th leading cause of death for years 2012 to 2016 combined (NC SCHS). For years 2012 to 2016 combined, suicide was the 10th, 11th and 12th leading cause of death for Catawba County, Gaston County and NC, respectively (NC SCHS). Nationally, suicide is the 3rd leading cause of death for 10 to 24 year olds and the 2nd leading cause of death for 25 to 34 year olds (MHFA USA, 2016). Suicide is preventable. If you suspect someone you know is suicidal or you are considering suicide, please call the National Suicide Hotline number at 1(800)273-8255 for resources, information and treatment options.

**Suicide Mortality Rates by County and State**



### Social Interactions and Mental Health

Many factors can contribute to one's mental health status including many of the social interactions that take place between individuals and groups on a daily basis. Some social interactions that can impact mental health include bullying, school safety, internet and social media safety, interpersonal relationships, and other social behaviors. Bullying, including physical, verbal, social and cyber, can negatively affect one's self esteem and increase the risk of poor academic performance, depression and suicide. Internet and social media usage can be rewarding and allow users to build and maintain relationships with friends and family. However, children and teens are more likely to make irresponsible social media decisions due to lack of impulse control, perceived risks, and consequences including providing too much personal information, emotional hyper-reactivity, and poor decision making (Casey et al., 2008). Children and teens should be monitored while using any social media platform until they are old enough and mature enough to make responsible decisions in regards to social media usage. Since children and teens are much more emotionally hyper-reactive and lack the impulse control that most adults have mastered with age and maturity, they have a harder time learning and using appropriate social skills. For this reason, it is important to promote positive self-image and continually reinforce appropriate social skills to help children and teens navigate their interpersonal relationships and achieve positive social behaviors.

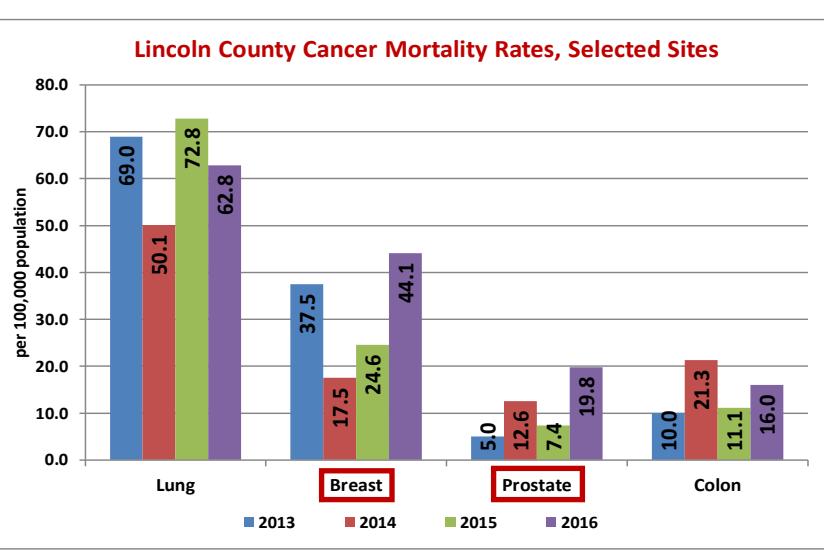
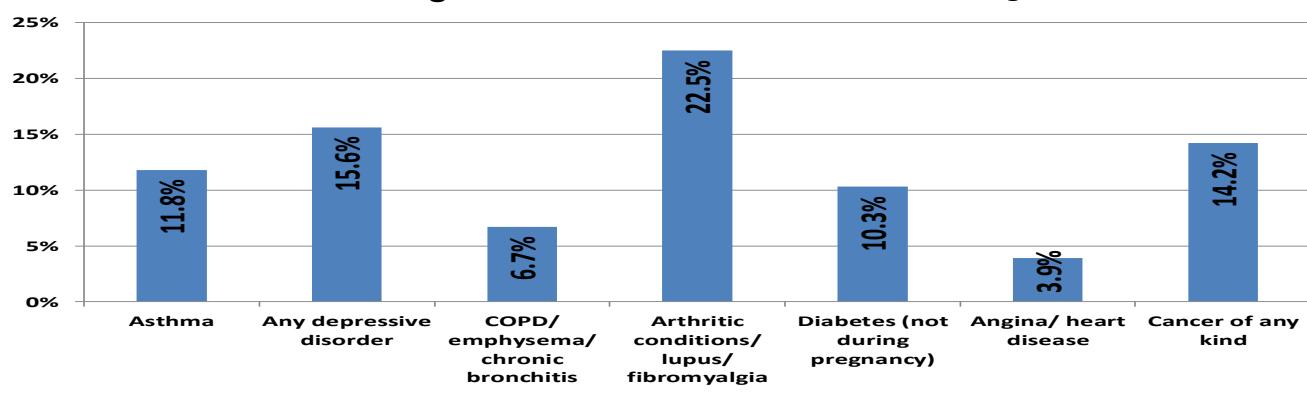
# Priority 3: Chronic Disease

## The Chronic Disease Issue

Chronic Disease is an important public health issue because the presence of chronic disease(s) can greatly impact one's quality of life and financially burden individuals, families, communities and the healthcare system nationwide. Prevention of chronic diseases is vital because an estimated 51.2% of individuals living in NC reported living with at least one chronic disease condition in 2016. Furthermore, 25.7% of individuals residing in NC reported living with two or more chronic disease conditions during the same time period (NC BRFSS, 2016). Comparably, individuals who resided in BRFSS Region 4 (Lincoln County's region) reported living with at least one chronic disease condition at 48.1% and two or more chronic disease conditions at 21.3% in 2016 (NC BRFSS, 2016).

Cause of Death	2012-2016 Age-Adjusted Death Rates/per 100,000 for Selected Counties and NC		North Carolina		Lincoln County		Catawba County		Gaston County	
	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate
Diseases of Heart	2	161.3	1	187.0	1	174.0	1	188.1		
Cancer (all sites)	1	166.5	2	168.6	2	171.4	2	186.7		
Chronic Lower Respiratory Diseases	4	45.6	3	61.8	3	66.2	3	71.3		
Cerebrovascular Disease	3	43.1	4	44.8	5	43.9	5	45.7		
Alzheimer's Disease	5/6	31.9	5	34.9	4	49.3	4	50.2		
Unintentional Injuries (not motor vehicle)	5/6	31.9	6	34.8	6	39.5	6	42.1		
Diabetes Mellitus	7	23.0	7	23.2	8	22.1	8	25.7		
Nephritis, Nephrotic Syndrome, and Nephrosis	9	16.4	8	19.1	9	19.5	12	14.6		
Unintentional Motor Vehicle Injuries	10	14.1	9	18.3	12	15.3	10	15.8		
Pneumonia and Influenza	8	17.8	10	18.2	7	22.5	7	28.8		
Suicide	12	12.9	11	13.4	10	18.0	11	15.6		
Septicemia	11	13.1	12	12.7	11	15.4	9	25.3		
Chronic Liver Disease and Cirrhosis	13	10.3	13	10.4	13	13.8	13	13.1		

### Have you ever been told by a medical professional that you have any of the following conditions? - NC BRFSS, 2016 Region 4



Cancer of all sites was the #2 leading cause of death in Lincoln County for 2012-2016 years combined. NC, Catawba and Gaston Counties have seen a decrease in all-sites cancer mortality in recent years while Lincoln County has seen an increase. The age-adjusted 5-year mortality rate for Lincoln County in 2011-2015 was 165.0 which increased to 168.6 in 2012-2016.

Breast, prostate, and colon cancer death rates have increased in Lincoln County, with breast and prostate cancer rates showing a sharp spike from 2015 to 2016. These rate increases in breast and prostate cancer present a need to increase and target prevention strategies and screening services and opportunities to residents county-wide.

Heart disease was the #1 leading cause of death in Lincoln County for 2012-2016 years combined. Heart disease has been the leading cause of death in Lincoln County for many years; this observation holds true for Catawba and Gaston Counties as well. Heart disease has consistently been the 2nd leading cause of death for NC residents in previous years, falling under cancer (of all sites).

-NC SCHS

Chronic lower respiratory disease was the #3 leading cause of death in Lincoln County for 2012-2016 years combined. Lincoln County and bordering counties of Gaston and Catawba Counties have shown a higher death rate in all years reported between 2012-2016 than NC. Lincoln County's death rate has climbed from 2013 to 2015 from 55.2 to 87.6 per 100,000 population, respectively. In 2016 the Lincoln County death rate for chronic lower respiratory disease dipped down to 73.9 but is still higher than the 2014 rate of 67.6 per 100,000 population.

Diabetes was the #7 leading cause of death in Lincoln County for 2012-2016 years combined. According to the 2016 NC BRFSS, LCR residents were 10.3% likely to answer they have been told by a medical professional they had diabetes (not during pregnancy), compared to 11.3% of NC residents. Lincoln County's 5 year age-adjusted diabetes death rate for 2012-2016 is similar when compared to NC at 23.2% and 23.0%, respectively (NC SCHS).

## Obesity

BMI stands for Body Mass Index and is a relationship between weight and height. Obesity (having a BMI of  $\geq 30$ ) is a leading risk factor for many chronic diseases including diabetes, heart disease, and cancer. In 2016, 34.5% of NC BRFSS Region 4 respondents self-reported they were in the healthy weight range, compared to 31.4% of respondents in NC as a whole. Furthermore, 64.3% of NC BRFSS Region 4 respondents self-reported they were overweight or obese (OO) while 1.3% reported they were underweight during the same time period. Of those people who reported being OO during the 2016 NC BRFSS survey, women in Region 4 self-reported they were OO 74.8% of the time while men self-reported they were OO 55.6% of the time. This is quite a large gap, showing a need for increased intervention programming and strategies targeted toward women in Region 4.

## Behaviors Affecting Chronic Disease

Preventative care is one of the most important ways to manage your health because when a condition is diagnosed early, it is usually easier to treat. According to the 2016 NC BRFSS, 77.2% of women aged 40+ living in Region 4 have had a **mammogram** within the last 2 years, compared to 74.7% in NC as a whole. However, this statistic indicates room for improvement because 22.8% of women aged 40+ living in Region 4 have not had this potentially life saving exam within the last 2 years. Also, 87.5% of women aged 21-65 reported in 2016 to having had a **Pap test** within the past 3 years, leaving 12.5% that are missing out on this vital opportunity in Region 4. Across NC and Region 4, 2016 data reveals a need for increased awareness regarding preventative **prostate exams (PSA)** for men aged 40+. Only 41.9% of men in Region 4 (aged 40+) reported that they have had a PSA test in the past 2 years, compared to 43.7% in NC. This statistic shows a need for improved education and increased screening opportunities for PSA tests to target the 58.1% of Region 4 men aged 40+ that have not had the appropriate screening to potentially catch and treat a prostate condition early. 72.6% of 2016 NC BRFSS Region 4 respondents aged 50-75 reported receiving one or more of the recommended **colorectal cancer screening tests** within the recommended time interval, indicating 27.4% of individuals still needed this screening. Furthermore, only 36.9% of 2016 NC BRFSS Region 4 respondents report **taking a multivitamin daily**.

As per the 2016 NC BRFSS survey, Region 4 residents were more likely to respond that they **participated in physical activity or exercises** (outside of their regular jobs) such as running, calisthenics, golf, gardening, or walking for exercise than NC as a whole at 78.6% and 76.7%, respectively. This is good news because research shows that adequate physical activity decreases your risk for many chronic health conditions including depressive disorders, heart disease, diabetes, high blood pressure and cholesterol, obesity and stroke. In addition to physical activity, sleep quality and length are essential to good health. **Inadequate sleep** can exacerbate chronic conditions and negatively effect one's day to day activities. Research reveals that adults aged 18+ should be getting 7-9 hours of sleep each night, while 6-17 year olds should get around 8-12 hours, 1-5 year olds should receive between 10-14 hours each night, while newborns and infants should get around 12-17 hours of sleep per day (including naps) (CDC-Sleep). Across NC and Region 4, 2016 NC BRFSS data reveals that 66.2% and 68.6% of individuals aged 18+ received the recommended 7 or more hours of sleep per day, respectively.

**Smoking and other tobacco use** is known to shorten life expectancy from smoking related diseases including heart disease, lung cancer and respiratory disease. Also, secondhand smoke doubles the risk of children developing pneumonia, bronchitis and asthma. There has been no improvement in LCR smoking status in recent years, indicating a need for improvement in tobacco prevention programming region wide. **\*Please refer to page 5 of this document for additional tobacco use information.**

A **lack of health insurance or inadequate health insurance** can also exacerbate many chronic disease conditions. According to the 2016 NC BRFSS survey, 87.1% of Region 4 respondents indicated that they had health insurance. A **socioeconomic disparity gap** is noticed when comparing insurance coverage looking at age, education and household income. Of Region 4 respondents that indicated they had insurance coverage in 2016, those that were aged 65+, those with at least some college education, and those that indicated they had a total household income of  $\geq \$50,000$  were more likely to respond that had insurance coverage at 99.5%, 94.0% and 94.8%, respectively, than their counterparts who were between 18 and 64 years of age (not eligible for Medicare), those holding a high-school diploma or less, and those that reported a total household income of less than \$50,000 at 85.5%, 76.3% and 76.9%, respectively. This information potentially indicates a problem with available health insurance coverage options, cost of options available, and/or a lack of financial assistance available or that eligible people are not using the financial assistance available to them.

## Continuing Initiatives and New Initiatives

### Substance Abuse:

- The Lincoln County Partnership for Health chose to focus on two initiatives to positively impact the Substance Abuse strategy.
  - Continuing Initiative: U-Turn Drug Intervention Program.
    - \* The purpose of this intervention is to decrease the number of suspension days from ten (10) to five (5) days for first time offenders in high and middle school, due to possession and/or use of illicit drugs or alcohol, or misuse of prescription drugs that successfully complete the U-Turn drug intervention program.
  - New Initiative: Creation of Substance Abuse Marketing Campaign & Creation of a Comprehensive Resource Guide.
    - \* The purpose of this intervention is to increase the number of media outreach and awareness efforts that educate the community on substance abuse and misuse, treatment, resources and naloxone programs. Additionally, the creation of a complete comprehensive resource guide would aid individuals, families and communities in locating information, services and treatment regarding substance abuse and mental health when needed.

### Mental Health & Healthy Social Interactions:

- The Lincoln County Partnership for Health chose to focus on two initiatives to positively impact the Mental Health and Social Interaction strategy.
  - Continuing Initiative: Mental Health First Aid, (and/or) QPR-Question Persuade Refer, (and/or) other suicide awareness or mental health gatekeeper training; and, increasing awareness of educational events to help reduce the negative stigma associated with mental health disorders.
    - \* The purpose of this intervention is to provide more opportunities for Lincoln County residents and stakeholders to take part in various suicide prevention (and/or) mental health gatekeeper trainings to improve awareness and education regarding mental health issues, resources and treatment.
  - New Initiative: Parks Rx (prescription) intervention program.
    - \* The purpose of this intervention is to increase the number of providers that prescribe their patients Park Rx prescriptions to encourage healthy outdoor activity and improve overall wellness to positively impact mental health status (versus using prescription medications, when appropriate).

### Chronic Disease:

- The Lincoln County Partnership for Health chose to focus on two initiatives to positively impact the Chronic Disease strategy.
  - Continuing Initiative (updated): Chronic Disease Screening.
    - \* The purpose of this intervention is to increase the number of community partners that offer various chronic disease screening opportunities to Lincoln County residents, especially those considered high risk, to potentially diagnose chronic conditions early enough to be treated, reversed or maintained without having further negative effects on the individual. This is not a new initiative for the Lincoln County Health Department, but it has been updated to involve participation from additional county partners.
  - New Initiative: Parks Rx and/or Farmers Market Rx (prescription) intervention program.
    - \* The purpose of this intervention is to increase the number of providers that prescribe their patients Park Rx and/or Farmers Market Rx prescriptions to encourage healthy outdoor activity, healthful eating and improve overall wellness to positively impact chronic disease conditions (verses using prescription medications, when appropriate).

The Lincoln County Partnership for Health and the Lincoln County Board of Health chose and approved the initiatives that are being used to address the 2016 Community Health Assessment priorities. Action plans were submitted to the state of NC in September 2017.

Lincoln County Partnership for Health			
Committee Sub-Groups for 2016 Community Health Assessment Priorities	Sub-Group Members	Progress	
Substance Abuse: Marketing Campaign & Resource Guide	United Way of Lincoln County, YMCA of Greater Charlotte, Lincoln County Emergency Management, Partners Behavioral Health Management, Lincoln Economic Development Association, Lincoln County Emergency Medical Services & Lincoln County Health Department		Continued strategic planning and initial action is currently underway with all strategies. Committee chairpersons have been chosen and plans have been developed to address each strategy. Work group action meetings were held on November 8, 2017 and January 10, 2018. A third work group action meeting is planned for February 28, 2018.
Mental Health: Suicide/Gatekeeper training & reducing stigma	Atrium Health-Lincoln, Lincoln County Schools, Partners Behavioral Health Management, Lincoln County Health Department & Gaston College		
Mental Health & Chronic Disease: Healthy Rx/ Farmers Market Rx/ Parks Rx prescription program	Lincoln County Parks and Recreation, Lincoln County Planning and Inspections, Lincoln County WIC, Partners Behavioral Health Management, Lincoln County Health Department, Lincoln County Environmental Health & Lincoln County Cooperative Extension		
Chronic Disease: Screenings	Lincoln County Senior Services, Lincoln County Health Department, Helping Hands, Partners Behavioral Health Management & Lincoln County Environmental Health		

# References

**Behavioral Risk Factor Surveillance System (BRFSS)—**  
[www.schs.state.nc.us/data/brfss/survey.htm](http://www.schs.state.nc.us/data/brfss/survey.htm)

**Centers for Disease Control and Prevention—**  
[https://www.cdc.gov/sleep/about\\_sleep/how\\_much\\_sleep.html](https://www.cdc.gov/sleep/about_sleep/how_much_sleep.html)

**Lincoln County Health Department 2016 Community Health Assessment—**  
<http://www.lincolncounty.org/DocumentCenter/View/11881>

**Lincoln County Schools 2013 Annual Report—**<http://www.lincoln.k12.nc.us/>

**NC Report Cards for Lincoln County Schools & Lincoln Charter Schools—**  
<https://ncreportcards.ondemand.sas.com/src/?county=Lincoln>

**NC State Center for Health Statistics—**<http://www.schs.state.nc.us/data/>

**US Census Bureau—**<https://www.census.gov/data.html>

