

**2011**  
**Lincoln County**

**2011**  
**State Of The County Health**

**Report**

“He who has health, has hope. And he who has hope, has everything.”  
Proverbs

# Lincoln County Partnership for Health

## Who are we?

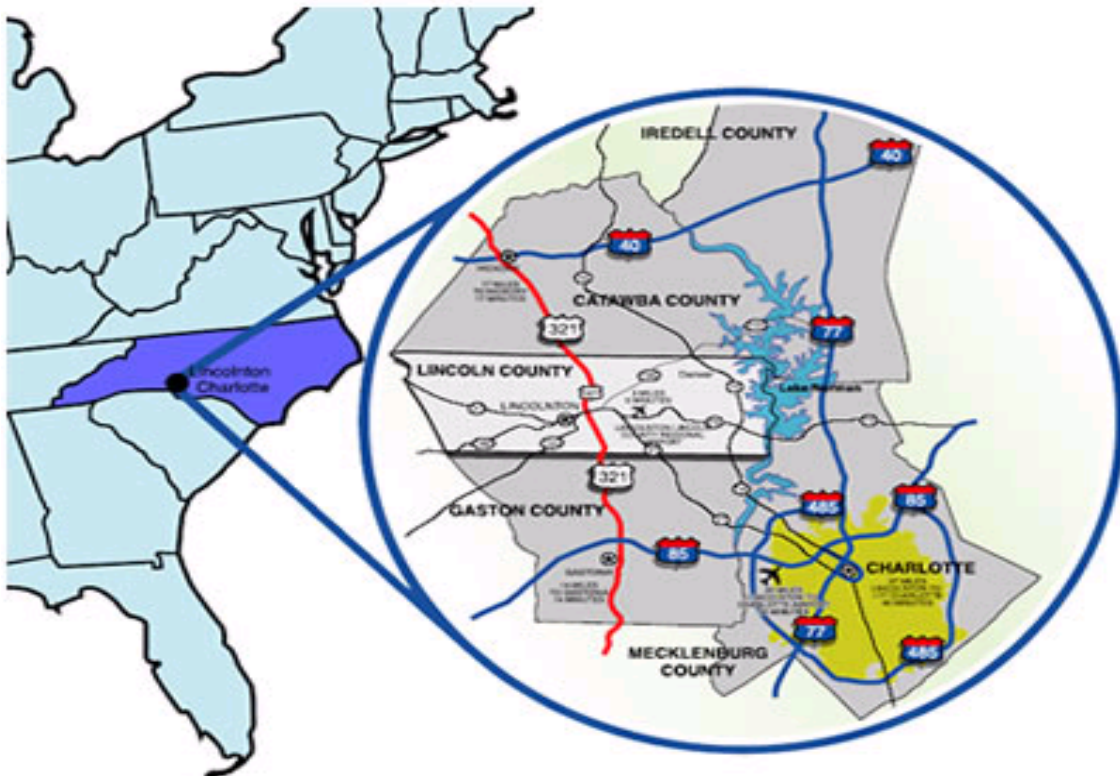
Lincoln County Partnership for Health is a community-based partnership that brings together community members, leaders, and organizations to address local health issues.

## Special Thanks to Partnership organizations:

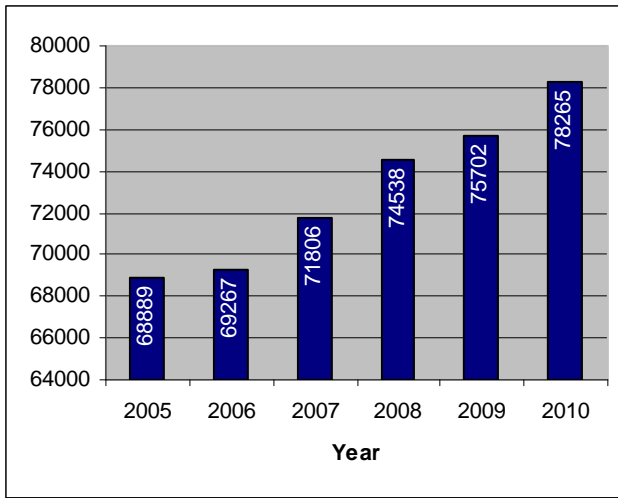
Lincoln County Health Department • Lincoln County Department of Social Services • Lincoln County Schools • CMC-Lincoln • Communities in Schools of Lincoln County • North Carolina Cooperative Extension • United Way of Lincoln County • Lincoln County Family YMCA • Gaston College • Multicultural Center of Hope • Partnership for Children of Lincoln and Gaston Counties • And More!

## Want to see your name here?

Call to join: 704-736-2023



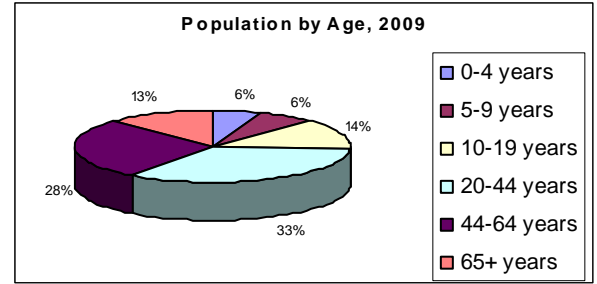
## Population



The population of Lincoln County continues to grow. In 2010, the population was 78,265. We grew 22.7% from 2000-2010.

Males and females each hold an even 50% of the total population

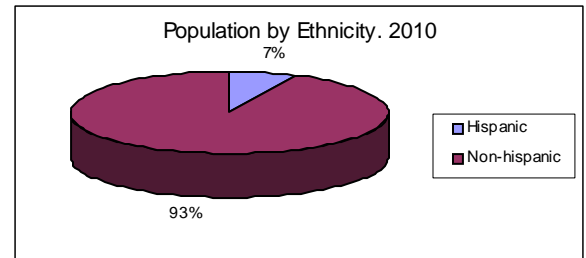
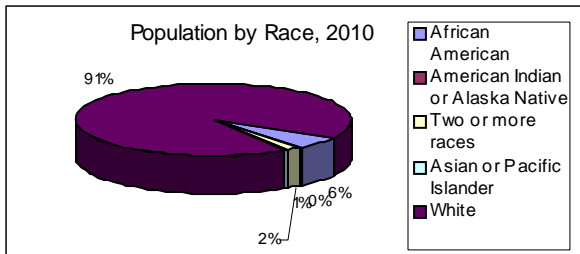
-US Census Bureau



## Race and Ethnicity

Race and ethnicity are considered separate and distinct identities, with Hispanic origin asked as a separate question. Thus, in addition to their race or races, all residents are categorized by membership in one of two ethnicities, which are "Hispanic" and "Non Hispanic".

-US Census Bureau



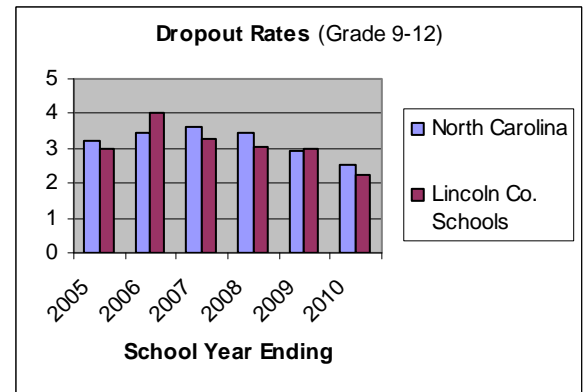
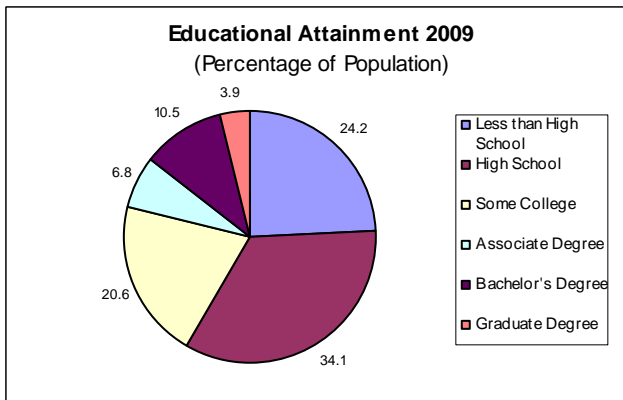
## Education

When compared to the State of North Carolina and the United States, Lincoln County's educational accomplishments are mixed. From 2005-2009, 78% of people in Lincoln County held a high school diploma or equivalent, compared to 83% for the state and 84.6% nationally. In that same timeframe, 17.1% of residents held at least a bachelor's degree, compared to 25.8% for the state and 27.5% nationwide.

After hitting a high of 4.03 in 2006, the Lincoln County **dropout rate fell to 2.27** in 2010.

Lincoln County Schools exceeded the State average scores for math, science, reading and writing tests, and a higher graduation rate

- NC DPI, LCS 2008-09 Annual Report



### Lincoln Charter School

The Lincoln Charter School is a tuition free public school serving Lincoln and surrounding counties where enrollment is decided by a lottery. The school currently has 3 campuses across the county serving 1,200 elementary, middle and high school students.

### Education and Health

Education effects lifestyle choices, knowledge and understanding of health issues, and the health related decisions that people make.

-Alliance for Excellent Education

## The 2009-2013 Health Priority Areas

Every four years, health departments and Healthy Carolinians partnerships are required to complete a Community Health Assessment (CHA). The purpose of this assessment is to identify the community's top health priorities. Lincoln County's most recent CHA was completed in 2009. The full CHA can be found online at [www.lincolncounty.org/health](http://www.lincolncounty.org/health) → Documents. The Lincoln County Partnership for Health chose the priorities that the county should focus on for the next four years. Based on need and ability to address an issue, the following priorities were chosen:

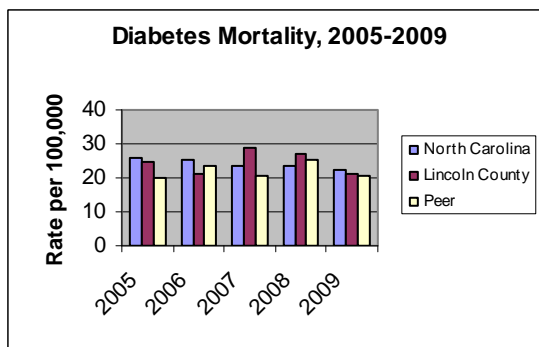
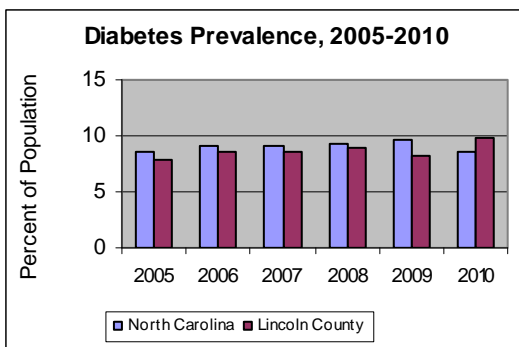
1. Chronic Disease Prevention: diabetes management, heart disease and stroke prevention, obesity prevention, and adult mental health,
2. Financial Wellness: financial preparedness, access to care, and medication affordability and use,
3. Healthy Teens: teen sexual health issues, teen pregnancy prevention, teen tobacco use prevention, drinking and driving education, and youth mental health.

The SOTCH report is an update of the CHA and a snapshot of how we're doing in tackling the above priorities. Trends are identified as either "good" (👍) or "bad" (👎) on the right side of the page. Especially good changes for 2010 are noted with a spotlight (🔦).

### DATA FYI:

- For some health statistics in this report, Lincoln County is compared to both the State of North Carolina and our **Peer Counties**. Lincoln County's peer counties are Alexander, Davie, Randolph, and Yadkin. These were chosen by the State based on similar demographic and health statistics.
- For other statistics in our report, we are compared with the rest of our region, the Piedmont of North Carolina.
- A lot of the data is from the **Behavioral Risk Factor Surveillance System (BRFSS)**. This is a tool from the CDC to determine health behaviors and conditions across the country.
- **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.

## Diabetes



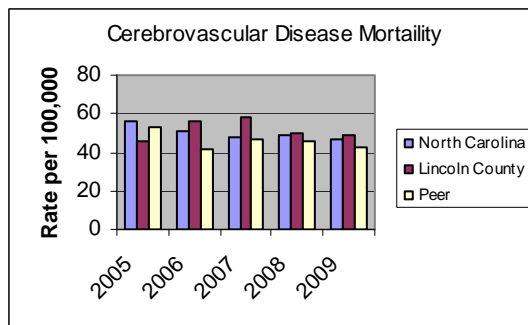
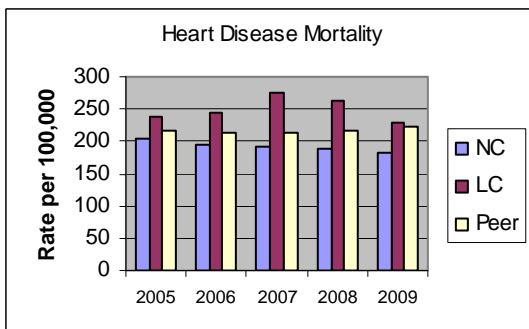
Compared to the State, the Lincoln County Region has a **lower prevalence of diabetes**, as reported in the BRFSS report. The rate fell from 2008 to 2009 from 8.9% to 8.2%. We are below the state of North Carolina, which has the 5th highest diabetes rate in the United States. Lincoln County's **diabetes mortality rate is also falling**. From 2007 to 2009, the rate fell from 28.9 to 21.1. On reason for this may be improved self management. **In 2010, almost 60% of diabetics reported attending a diabetes self management class.** Though our diabetes mortality and morbidity numbers are improving, the health effects of diabetes are hurting our population. Our rates of hospitalization and mortality for **kidney related illnesses** are higher than the state ( 21.3 and 13.7 and 26.4 and 19.5, respectively in 2006). Forty four percent of kidney disease is caused by diabetes. Another condition that can result from diabetes is arthropathy. Lincoln County's hospital discharge rate for **arthropathy** was 32.6 compared to 28.1 for the state.

-NC SCHS



Diabetes prevalence and Mortality  
High number of people practicing self management!

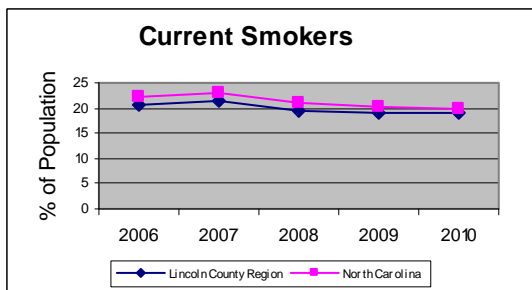
## Heart Disease



Lincoln County is showing progress in **mortality from heart disease and stroke**. After peaking in 2007 at 276.2, the rate fell to 229.8 in 2009. Our stroke rate has also fallen since 2007, when it was 57.7. The rate was 48.9 in 2009. The rate for both is still above both the state and our peers, though the gap is shrinking.



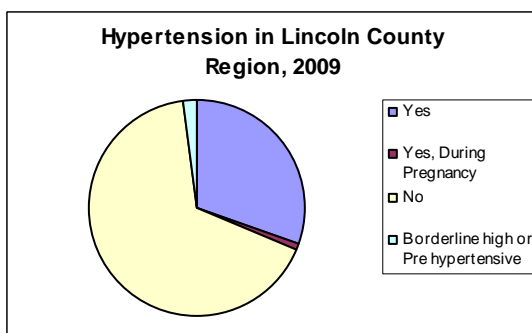
Heart Disease and Stroke mortality



**Smoking** is a major risk factor for both heart attack and stroke. Lincoln County region respondents continue to remain below the state. In 2009, the number of people reporting smoking in the BRFSS fell to its lowest level since 2004. That rate remained the same (18.9%) in 2010. The most dramatic decrease happened from 2007 to 2008, when the rate went from 19.3% to 21.5%. Given this positive, it is important to remember that almost one in five adults in the Lincoln County region reported smoking. It is estimated that over \$5.5 million in Medicaid costs can be attributed to smoking.



Smoking Held to under 20% 2 years in a row!



30.3% of Lincoln County Region 2009 BRFSS respondents reported having current **hypertension**, or high blood pressure. This is an increase from 27.4 in 2007. This means that over a third of the respondents in our region reported having high blood pressure. Hypertension is a major risk factor of heart disease and stroke.

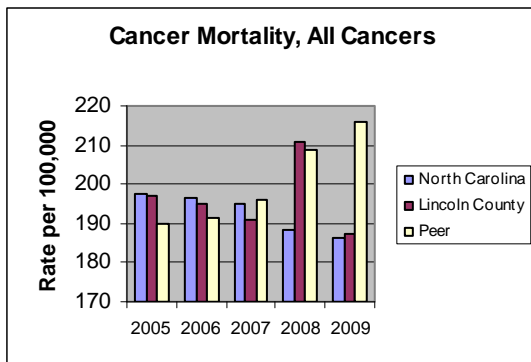


High Blood Pressure



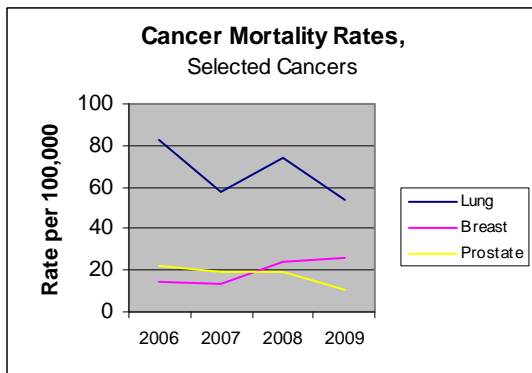
# Priority 1: Chronic Disease Prevention

## Cancer



Though there was a spike in **cancer mortality** in 2008 with a rate of 210.6, it fell in 2009 and is the lowest it has been since 2005. Lincoln County's cancer numbers are slightly above the state, but well below our peer counties. The Lincoln County Region also had better than the state numbers in residents receiving treatment for cancer, with a rate of 7.4 compared to the state's rate of 8.5 in 2009. Also in 2009 9.7% of Lincoln County Region respondents report having had cancer compared to 10.3% of North Carolinians. In Lincoln County, this represents a drop from 12.8% in 2002, the last year that data was collected.

-NC SCHS, NC CATCH



When looking at specific types of cancer, mortality rates vary in Lincoln County. **Lung cancer** rates are unsteady over the past four years, but remain good when compared to the state and peer average. The lung cancer rate fell from 73.8 in 2008 to 54.2 in 2009 compared to 57.3 for the state and 69.7 for our peers. Lincoln County's **prostate cancer** rate has fallen steadily since 2006 when it was 22.4 to 10.6 in 2009. This is especially positive when compared to the state (18.5) and peer (20.8) rates.

**Breast Cancer** is on the rise. The rate increased from 14 in 2006 to 26.2 in 2009. To address this, the **Lincoln County Health Department is currently partnering with the Susan G. Komen Organization** to help underprivileged residents get help.

-NC SCHS, NC CATCH

### TRENDS

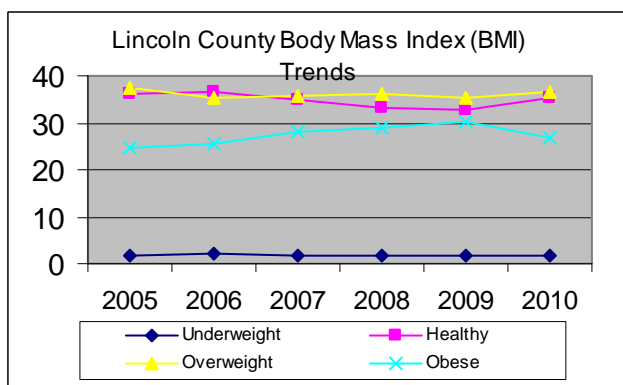


Cancer Mortality (All Cancers), Lung and Prostate Cancer mortality, Cancer Prevalence



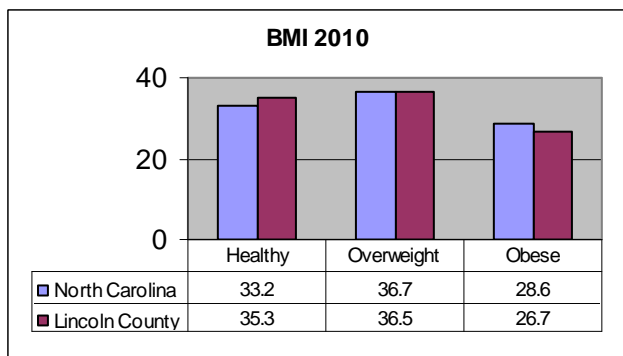
Breast Cancer Mortality

## Obesity



According to the 2010 BRFSS, 63.2% of respondents in the Lincoln County region were overweight or obese. BMI stands for Body Mass Index and is a relationship between weight and height that is associated with body fat and health risk. Obesity, which is defined as having a BMI of 30 or greater, is a leading risk factor for many chronic diseases, including diabetes, heart disease, and cancer.

**While still high, this is a 2% DECREASE from 2009.** People self reporting as 'obese' fell the most dramatically, going from 30.1% to 26.7%, the lowest since 2007. People reporting they had a healthy weight went from 32.9% to 35.3%, the highest since 2006. The Lincoln County Region also has more healthy weight people and less obese people than the State of NC, which is an improvement from 2009.



### What's the big deal with obesity?

Obesity has become the leading health concern of our nation, our state, and our county. In North Carolina, it is estimated that health care costs directly associated

with obesity in 2008 were between \$2,439,000,000 to \$2,777,000,000, or \$371 to \$422 per adult. In Lincoln County alone, there are approximately 50,000 adults, meaning that obesity could be costing the county between \$18.5 and \$21.1 million.

- Americas Health Rankings  
-NC SCHS



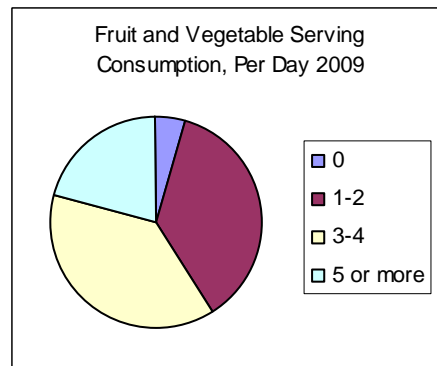
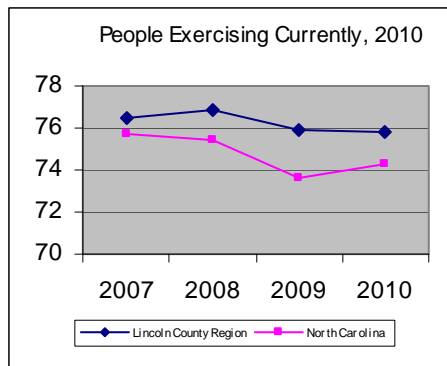
### SPOTLIGHT: Overweight and Obesity

Rates are still too high, but we are trending positively!

# Priority 1: Chronic Disease Prevention

## Behaviors

In 2009, 75.8% of Lincoln County Region respondents reporting exercising more than 30 minutes per day, down from 78.1% in 2006. 20.6% of Lincoln County Region respondents reported consuming 5 or more servings of fruits and vegetables.



Poor nutrition and lack of physical activity contribute to the risk of many chronic diseases, including cancer, diabetes, and obesity.

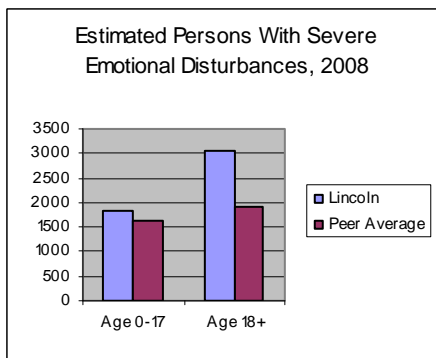
-NC SCHS, NC CATCH

TRENDS



Exercise and Nutrition

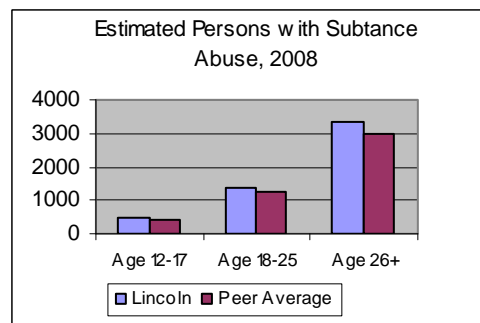
## Mental Health



Lincoln County has a much higher number of persons with **emotional disturbances** than our peers. In 2008, Lincoln County had an estimated 1,821 people under the age of 18 and 3060 people over the age of 18 living in the county with severe emotional disturbances. Our peer averages were 1,642 under 18 and 1,906 over 18. We are in great need of more mental health providers in the county. When compared to the state's rate of two psychologists and 1 psychological associate per 10,000 population, Lincoln County fares poorly at .5 for each rate.

-NC SCHS, NC CATCH

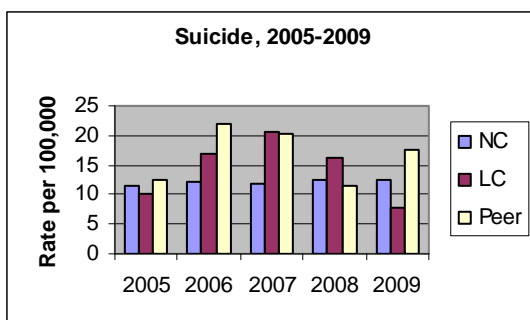
Lincoln County is above its peer counties average for all age groups when considering **substance abuse**. In 2008, there were an estimated 480 residents of Lincoln County age 12-17 who abused a substance. This is actually a decrease from 490 in 2007. A similar decrease occurred in the 26 and above age range, where the number went from 3438 in 2007 to 3371 in 2008. These are especially positive numbers given that our population is growing and we still experienced a decrease. The number for the 18-25 age group did increase, but only slightly, from 1323 to 1393.



-NC SCHS, NC CATCH



Substance Abuse



After hitting a peak of 20.6 in 2007, the Lincoln County suicide rate dropped to 7.9 in 2009. This represents the lowest rate in 5 years and is well below both the state and peer rates.

-NC SCHS, NC CATCH



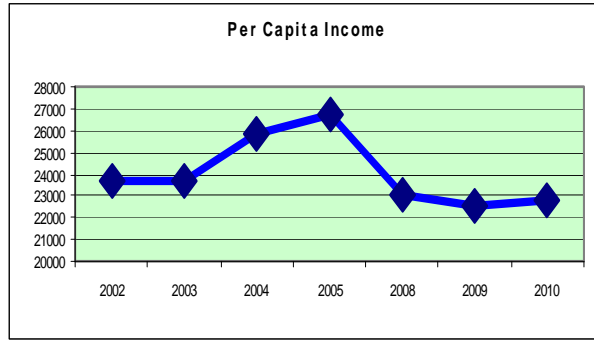
Suicide Rate



# Priority 2: Financial Wellness

## Income

From a high of \$26,785, in 2005, Lincoln County's **per capita income** fell 15.8% to \$22,558 in 2009. We had a slight increase to \$22,734 in 2010. This is a lower income than 2002. We continue to lag behind the State, which had a per capita income of \$26,823 in 2008, when Lincoln County's was \$23,044. This means that the residents of Lincoln County earned 31.8% less than their peers in North Carolina. We also earned about 7% less than the bordering counties of Catawba and Gaston, who had incomes of \$24961 and \$29854 respectively. This is important because the majority of Lincoln County residents travel to these neighboring areas for goods and services. -US Census Bureau

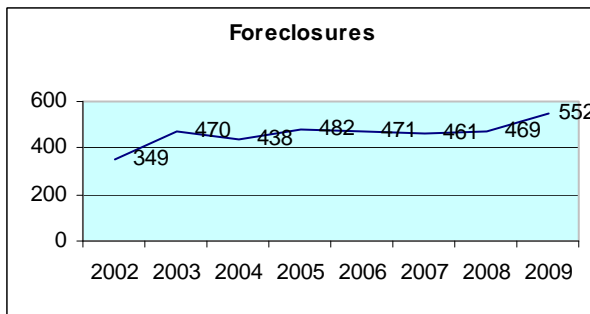


TRENDS



Income Disparity

## Foreclosures



Lincoln County **foreclosures** increased from 170 in 2000 to 552 in 2009. This represents a 224% jump. Foreclosures increase the amount of mental stress on those affected, therefore affecting their physical health, including blood pressure and increasing risk for heart disease and stroke.

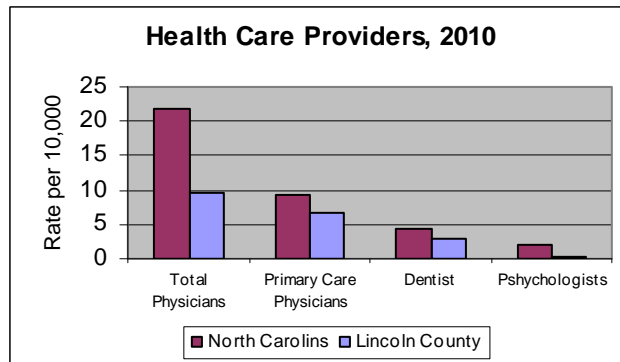
-NC Foreclosure Help



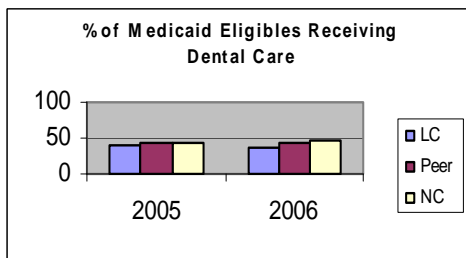
Foreclosures

## Access to Care

**Access to Care:** Lincoln County has fewer healthcare professionals per person than the State in every major discipline. Though we are still lacking severely, the disparity is improving. After the rate for physicians had years of steady decrease from 9.1 to 6.4, the rate rose to 9.5 in 2010. The disparities is especially wide when considering registered nurses (RNs). In 2010, the rate of RNs nurses for the state was 97, compared to 43.3 for Lincoln County.



Access to Care



Another indicator of poor access to care is that in most age categories, the percentage of Medicaid eligible children are not seeing a dentist. This could indicate that the children are unable to find a Medicaid dentist in the county.

-NC SCHS, NC CATCH

## Uninsured

According to the 2010 BRFSS report\*, Lincoln County region residents self-reported an **uninsured rate** of 18.2, down from 19.7 in 2009. The state had a rate of 19.0% in 2010. -NC SCHS, NC CATCH

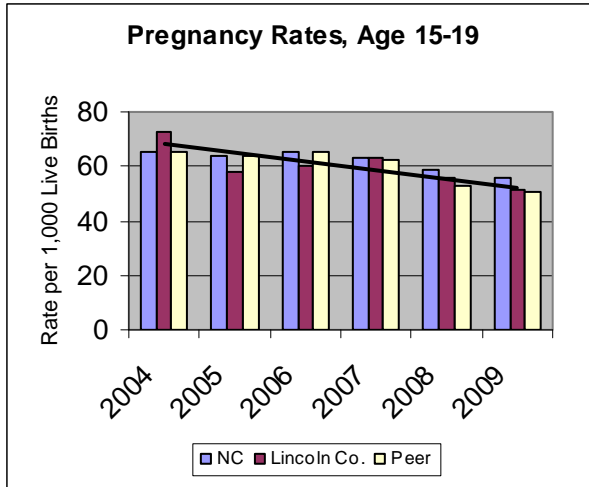
## Unemployed

After hitting a high of 13.7% in August of 2009, the rate fell to 13.2% the following month. It has continued to fall and is now at 10.9 as of September 2011. This is about even with the state rate of 10.4 for September 2011. -NC SCHS, -NC ESC



Uninsured and Unemployed

## Teen Pregnancy



Lincoln County experienced a decrease in the rate of teen pregnancies from 2007 to 2009. North Carolina has the **14th highest teen pregnancy rate** in the United States. While we are currently lower than the State rate, we are higher than our peer counties. The average annual cost associated with a mother age 17 and under in North Carolina is \$3,868. In 2008, there were 47 pregnancies associated with this age group. That means that **in 2008, teen pregnancies cost Lincoln County over \$181,000**. Lincoln County's minority rate for teen pregnancies was 63.5 (down from 102.8 in 2008) compared to the State's rate of 74.3.

-NC SCHS, NC CATCH

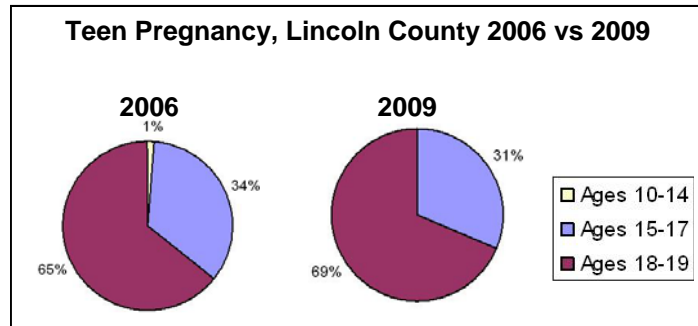
TRENDS



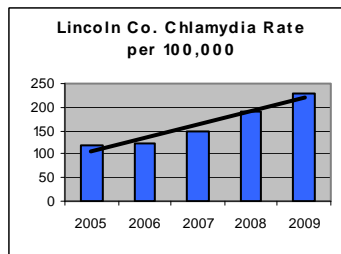
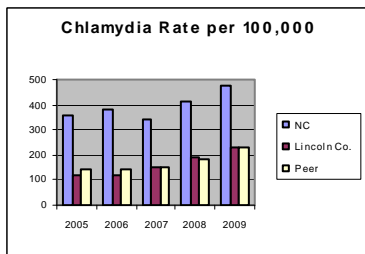
Teen Pregnancy

The age of teenage mothers in Lincoln County is getting slightly older. Since 2006, the rate of teenage mothers who were 15-17 years old has gone from 34% to 31%. There has not been a teenage mother under the age of 15 in Lincoln County since 2006.

-NC SCHS, NC CATCH



## Other Sexual Health Issues



In 2010, there were **46 newly confirmed cases of Chlamydia in Lincoln County in residents aged 19 and under**. This trend fits with the county's Chlamydia rate, which has gone from 120.3 to 230.1 since 2005.

NC 2009 HIV/STD Surveillance Report

There is evidence that there is an **increase in sexually transmitted infections among Lincoln County teens**. The Lincoln County Health Department has seen an increase in gonorrhea cases, HPV (human papillomavirus, the virus that causes genital warts and cervical cancer) cases, as well as 2 confirmed cases of HIV in 19 year olds in 2010.



Other Teen Sexual Health Issues

## Alcohol, Tobacco, and Other Drugs

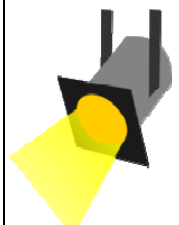
**Youth Tobacco Use Down!** In 2009, 50.1% of high school students reported that they had tried tobacco (cigarettes, cigars, spit tobacco, or other tobacco product). This is **down 5.1%** from 57.6% in 2007. 52.5% of high school students across the state reported the same in 2009. 29.6% of middle school students reported trying tobacco in 2009, compared to 32.9% in 2007. 30.2% of middle schoolers across the state reported the same thing. The Lincoln County Health Department currently runs a program in the schools targeting youth tobacco use. This program will end at the end of this year due to funding cuts from the state.

-NC Youth Tobacco Survey

There are an estimated 480 youth age 12-17 in Lincoln County with substance abuse issues. In 2008, the total population of 12-17 year olds was 6445, meaning that **7.4% of youth age 12-17** had an issue with substance abuse. While this is better than the state rate of 7.9%, Lincoln County's peers had a rate of 5.3%.

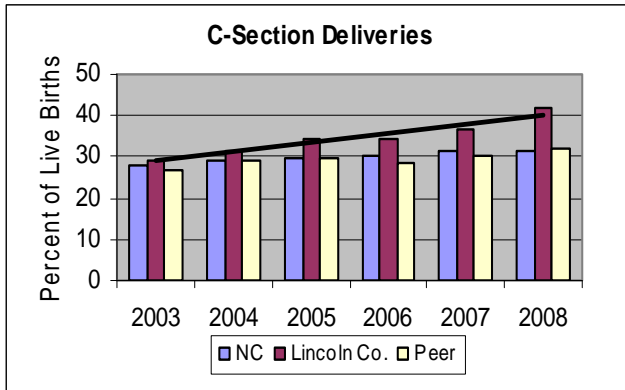
-NC SCHS,

Anecdotal evidence reveals that **marijuana use is high among Lincoln County teens**. Marijuana use can lead to problems with memory and learning, distorted perception (driving ability), trouble with thinking and problem solving and loss of motor coordination.



**SPOTLIGHT:**  
Youth tobacco use down!

## Maternal and Infant Health

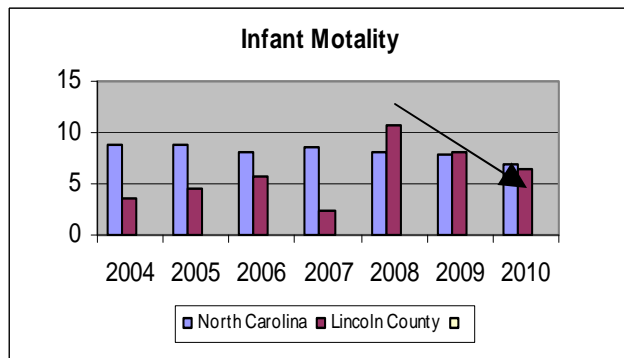


There has been a steady increase in the number of babies born via **c-section**. Between 2003 and 2008, the rate increased from 29.1 to 41.72. The rate of c-sections is up all over the country, and there are differing theories as to why. Research from the CDC states that there is a direct correlation between mothers who are obese and c-sections. They found that for every unit increase in BMI, as measured on arrival for delivery, a woman's risk of cesarean delivery rose by 4 percent. According to the Lincoln County Health Department, the increase in c-sections in Lincoln County is due to failure to progress (through normal delivery because of inadequate contractions, etc.) and an above average rate of primary c-sections

(once a woman gives birth via c-section, all of her subsequent deliveries will be via c-section). C-sections are riskier than vaginal birth. The researchers found the increased number of c-sections led to an increase in kidney failure, respiratory distress syndrome and ventilation and played a minor role in the increase in cases of shock, pulmonary embolisms and transfusions.

-NC SCHS

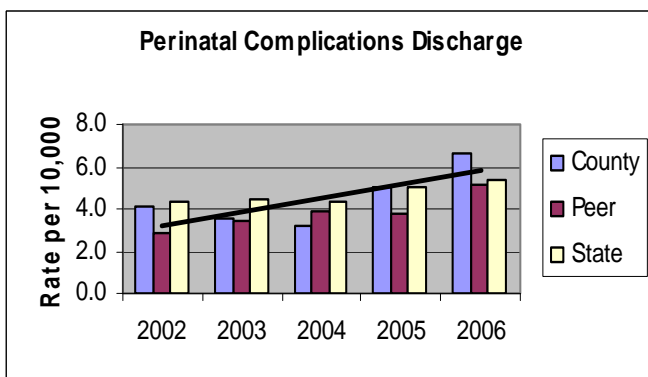
**Infant Mortality:** Lincoln County's infant mortality rate steadily increased from 2003 to 2009. There was a drop in 2007 followed by a spike in 2008. The rate increased 236.6% from 2003 to 2009. In 2010, there was a drop to 6.4, which aligns with the state's drop. North Carolina's 2010 was the lowest in state history!



-NC SCHS



**SPOTLIGHT:**  
Infant mortality down!



Lincoln County has a high rate of **perinatal complication** discharges from the hospital. Perinatal complications include any problems during delivery. Perinatal complications have been linked with several maternal behaviors, such as poor nutrition, lack of prenatal care, and smoking during pregnancy. Lincoln County has poor numbers in all of these areas.

**Prenatal care:** The number of women receiving **early prenatal care** has steadily fallen over the last five years. We are well below both the State and our peer counties, who had rates of 81.97 and 84, in 2008 respectively, compared to Lincoln County's

77.53 for the same year. This could help explain some of the increases in infant mortality that we have seen. We have also seen an increase in the number of **low birth weight babies** in the county, where the number of babies born under 2500gm (~5.8lbs) has increased from 7.8% in 2002 to 10.22% in 2008. The State has remained fairly even in these indicators. Our peer counties have seen a slight overall drop in the number of women receiving early prenatal care and have also seen a spike in infant mortality.

**Mothers who smoke:** Between 2002 and 2007, this rate was consistently around 20%. In 2008, the rate fell to 14.95%, a huge decrease. We are usually above the state and our peers in this. Even with our new trend in a positive direction we are still well above the state, whose rate was 10.4% in 2008.

-NC SCHS

## Here's What We're Doing About It

### Chronic Disease Prevention:

- Walking programs
- Color Me Healthy training
- Collaborations with Pathways MHDDSA
- Health fairs

### Healthy Teens:

- Bullying prevention classes
- Suicide prevention policy building with Lincoln County Schools
- Sexual health education at DSS
- Teen tobacco prevention

### Financial wellness:

- Financial literacy classes
- Foreclosure prevention education
- Financial wellness fairs

# References

**NC SCHS** - North Carolina State Center for Health Statistics, <http://www.schs.state.nc.us/SCHS/>

**BRFSS** - Behavioral Risk Factor Surveillance System, <http://www.schs.state.nc.us/SCHS/data/brfss.cfm>

**Charlotte Regional Partnership** - <http://www.charlotteusa.com/>

**US Census** - <http://quickfacts.census.gov/qfd/states/37/37109.html>

**Lincoln County Schools 2009 Annual Report** - [http://www.lincolncda.org/pdfs/community/lincoln\\_school\\_annual.pdf](http://www.lincolncda.org/pdfs/community/lincoln_school_annual.pdf)

**Lincoln Economic Development Association** - [http://www.lincolncda.org/pdfs/community/at\\_a\\_glance.pdf](http://www.lincolncda.org/pdfs/community/at_a_glance.pdf)

**NC Foreclosure Help** - <http://www.ncforeclosurehelp.org/>

**North Carolina Employment Security Commission**

**NC Tobacco Prevention and Control Branch** - [www.tobaccopreventionandcontrol.ncdhhs.gov/data/Documents/CountyProfiles/LINCOLN.pdf](http://www.tobaccopreventionandcontrol.ncdhhs.gov/data/Documents/CountyProfiles/LINCOLN.pdf)

**American Diabetes Association** - [www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp](http://www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp)

**Guttmacher Institute** - <http://www.guttmacher.org/pubs/2006/09/12/USTPstats.pdf>

**The National Campaign to Prevent Teen Pregnancy** - <http://www.thenationalcampaign.org/costs/pdf/states/northcarolina/onepager.pdf>

**Lincoln County Health Department** - Lincoln County Health Department North Carolina Local Government Debt Setoff Program

**NC Public Health HIV/STD Prevention and Care Branch** - <http://www.epi.state.nc.us/epi/hiv/stats.html>

**Statemaster**—[www.statemaster.com](http://www.statemaster.com)

**America's Health Rankings**—[www.americashealthrankings.com](http://www.americashealthrankings.com)

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