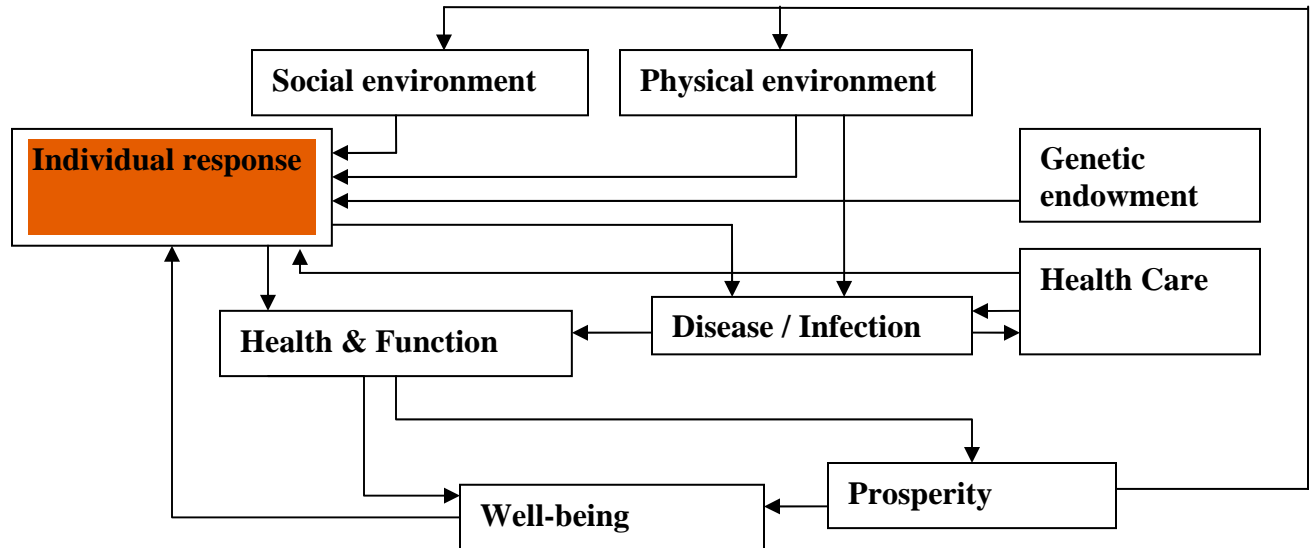


## Individual behavior

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### Key Findings

Main findings in the domain of individual behavior are:

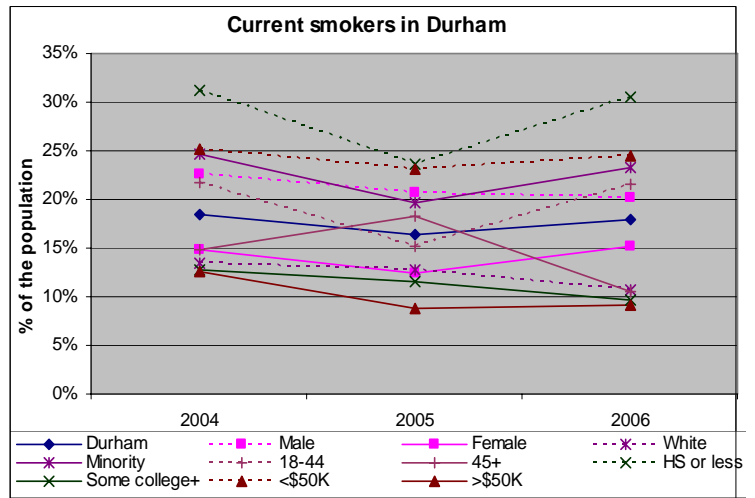
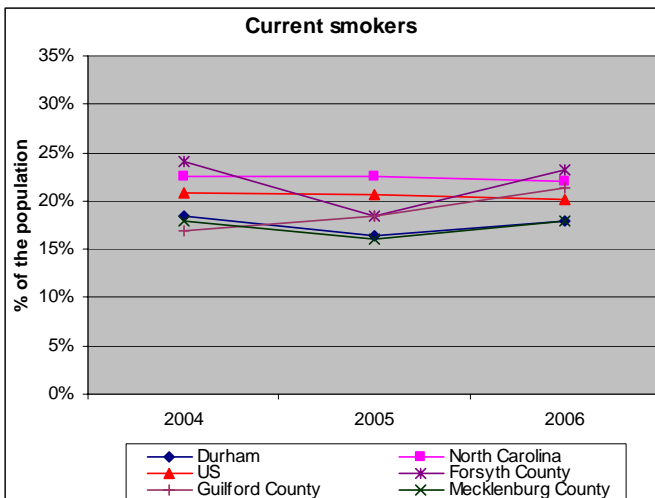
- The numbers of smokers in all population groups continues to decline (from 17.5% in 2003 to 14% in 2007).
- The people of Durham show strong support for additional taxes on cigarettes and prevention programs - with 48.7% saying they would support an additional tax of \$1.00 or more on a packet of cigarettes if the funds went to smoking prevention and cessation programs.
- 78% of residents of Durham County surveyed stated that they believed that they would increase their physical activity if their community had more accessible sidewalks or trails for walking or bicycling.
- The number of women over 40 in Durham County who have had a mammogram in the past two years increased from 80% to 88% between 2004 and 2006. This is the best rate among all the comparison counties.
- The number of people in Durham County who have been screened for colorectal cancer increased from 58% to 74% from 2004 to 2006.
- Between 57-65% of people in Durham are overweight or obese and the numbers of obese people in Durham County, at all income levels, has increased substantially between 2003 and 2007 – especially among those who did not go to college.
- In 2006, 27% of the children (2 – 4 years old) enrolled in the *Women, Infants, Children Program* (WIC) in Durham County were overweight. The Durham rate has increased every year since 2002 (when the rate was 10%) and is also much higher than the 2006 rate of 15% for North Carolina overall.

- In 2005, 27.5% of the Durham population consumed at least 5 fruits and vegetables daily compared with 22.5% for NC overall. The rates are lowest for those who did not attend college, minorities, males, and people in households earning less than \$50,000 a year.
- Only 36.3% of Durham County residents meet national recommendations for physical activity compared with 42.1% statewide. Rates are worse for those who did not attend college, minorities, and people in households earning less than \$50,000 a year.
- The rate of Latina teen pregnancies continues to be high (178 per 1,000 females aged 15-17 compared with 48 per 1,000 for the rest of Durham).

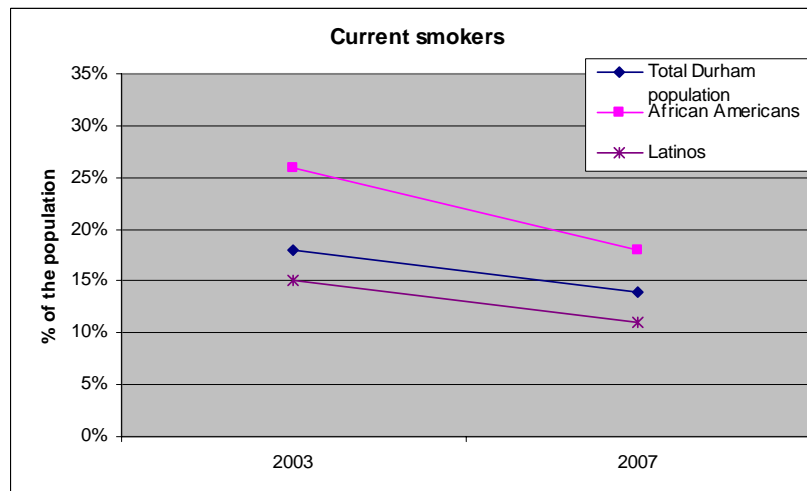
## Substance use

### Tobacco

In 2006, the NC Behavioral Risk Factor Surveillance System (BRFSS) revealed that 18% of people in Durham County are current smokers. The Durham County Health Assessment survey found that 14% of the County smoke cigarettes.



Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>), US Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss](http://www.cdc.gov/brfss))

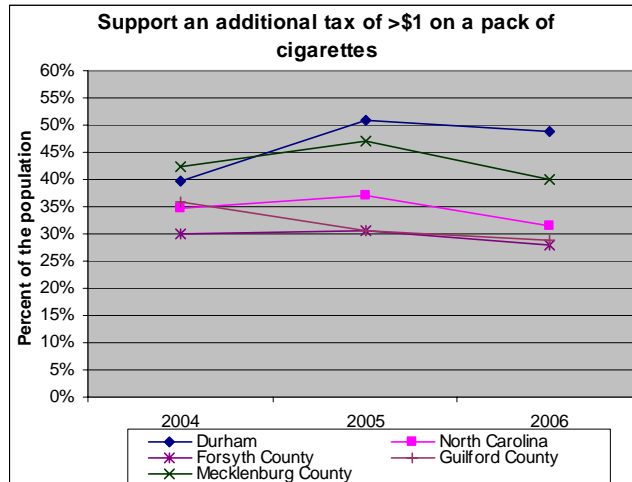


Data source: Durham County Health Assessment survey

**Please note that on all graphs, these indications mean:**

18-44: 18-44 years old	College +: Some college education or more
45+: Over 45 years old	<\$50,000: Household income is less than \$50,000
< HS: High school education or less	>\$50,000: Household income is more than \$50,000

Durham shows a great deal of support for additional taxes on cigarettes, with 48.7% of the county saying they would support an additional tax of over \$1.00 on a pack of cigarettes, if the funds went to prevention and quitting programs.



“This part of the world has changed a lot, but it’s still tobacco city. We have been slower than other areas to come around about smoking.”

“I said I’d never spend \$2 on cigarettes. But maybe the way to get me to quit is to tax it to, \$20 a pack. I supported that.”

- Durham County residents

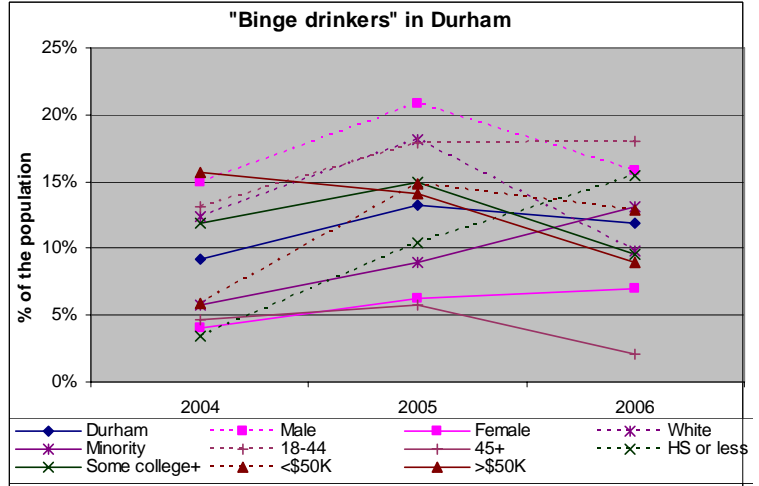
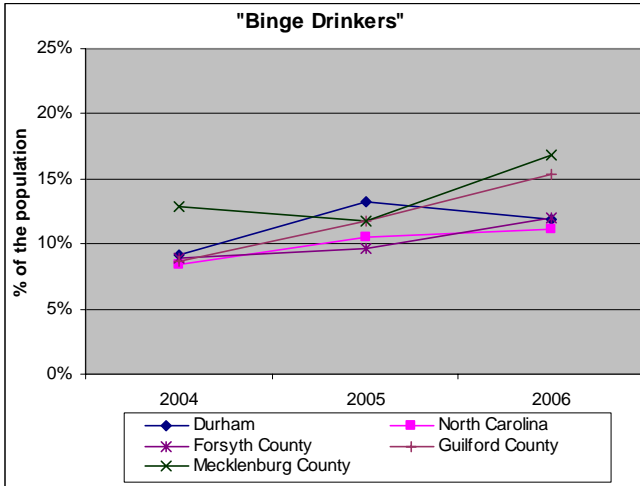
Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>)

\* Note: This question asked, “How much additional tax on a pack of cigarettes would you be willing to support if a considerable portion of the money raised was used to fund smoking prevention programs for our youth and provide treatment options for tobacco users who want to quit?”

Smoking raises a person’s risk for several serious chronic diseases, such as many types of cancer (lung, mouth, throat, bladder, kidney, stomach, and others). It is also associated with emphysema and bronchial diseases. Smokers are twice as likely to die from heart attacks as non-smokers. Altogether, the CDC estimates that smoking can shorten a person’s life by more than 13 years (American Cancer Society, [www.cancer.org](http://www.cancer.org)).

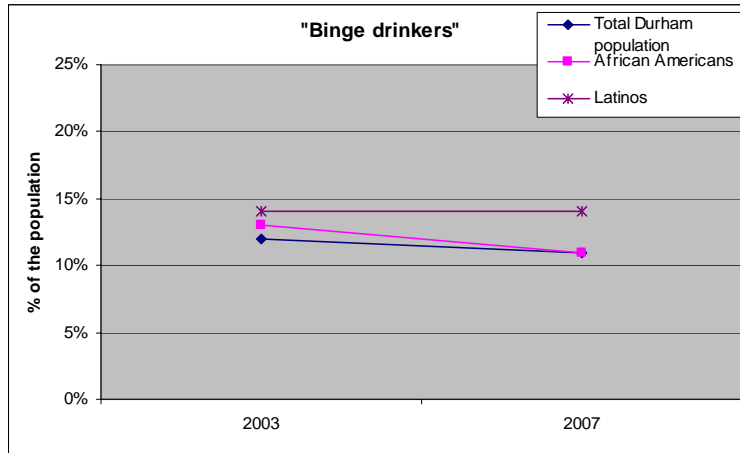
## Alcohol

In 2006, 11.9% of Durham County qualified as “binge drinkers” per the NC BRFSS, because they had consumed five or more drinks on one occasion in the past month. The Durham County Health Assessment survey found a similar rate, at 11%. In the US, a standard drink has about half an ounce of pure alcohol. This amount of pure alcohol is found in 12 oz regular beer or wine cooler; 8oz of malt liquor; 5 oz of wine or 1.5 oz of 80 proof of liquor (gin, rum, vodka, or whiskey).



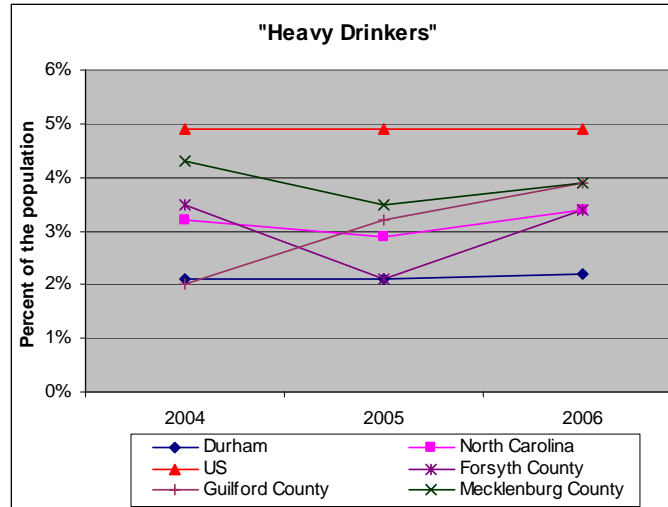
Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>), US Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss](http://www.cdc.gov/brfss))

\* Note: "Binge drinkers" are adults reporting having had five or more drinks on one occasion in the past 30 days



Data source: Durham County Health Assessment survey

The BRFSS also assesses heavy drinkers, defined as men who have more than two drinks per day or women who have more than one drink per day in the past 30 days. Only 2.2% of Durham respondents, or 11 people, could be considered heavy drinkers in 2006.



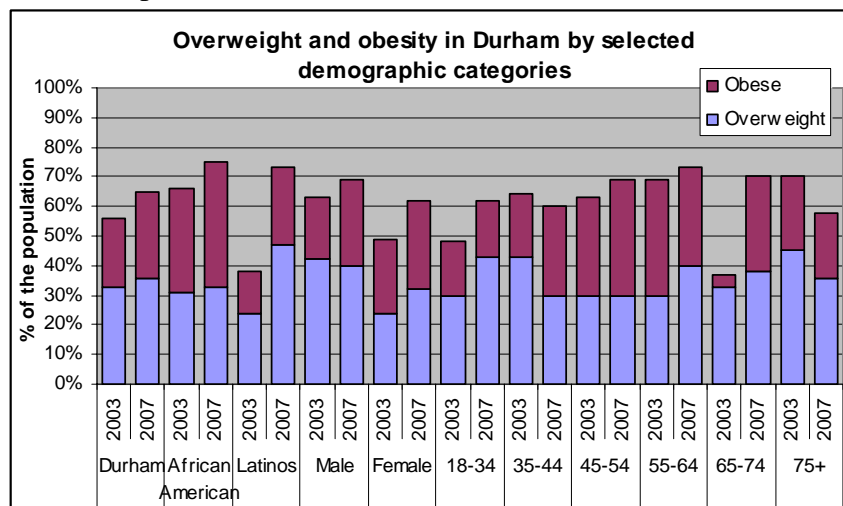
Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>), US Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss](http://www.cdc.gov/brfss))

\* Note: "Heavy drinkers" are adult men having had more than two drinks per day and adult women having more than one drink per day during the past 30 days

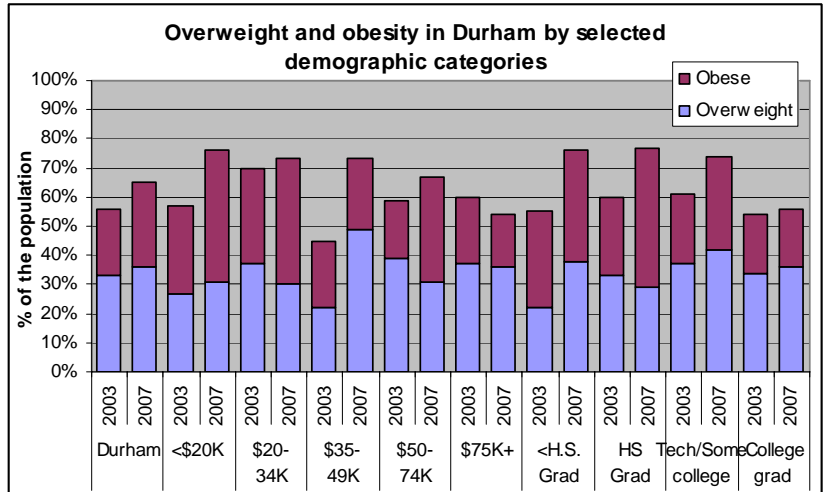
Excessive alcohol consumption can lead to several health problems, which the CDC divided into "immediate" and "long-term" ([www.cdc.gov/alcohol/](http://www.cdc.gov/alcohol/)). Immediate health risks from excessive alcohol include increased risk of injuries, both unintentional (falls, traffic injuries, etc) and intentional (intimate partner violence and child maltreatment), increased risk behaviors such as unprotected sex, alcohol poisoning, and fetal harm if pregnant. Over time excessive alcohol use is associated with strokes, heart diseases, psychiatric problems, cancers (oral, liver, prostate, and breast), and liver disease.

### Overweight / obesity

According to the Durham County Health Assessment survey, 65% of Durham is overweight or obese (Body Mass Index or BMI of >25) – 36% considered "overweight" (compared to 33% in 2003) and 29% "obese" (compared to 23% in 2003).

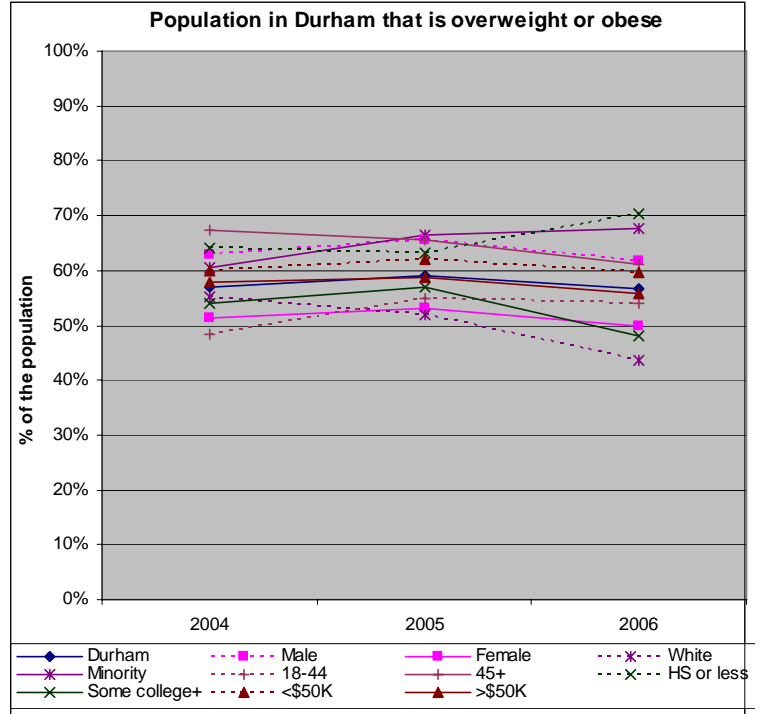
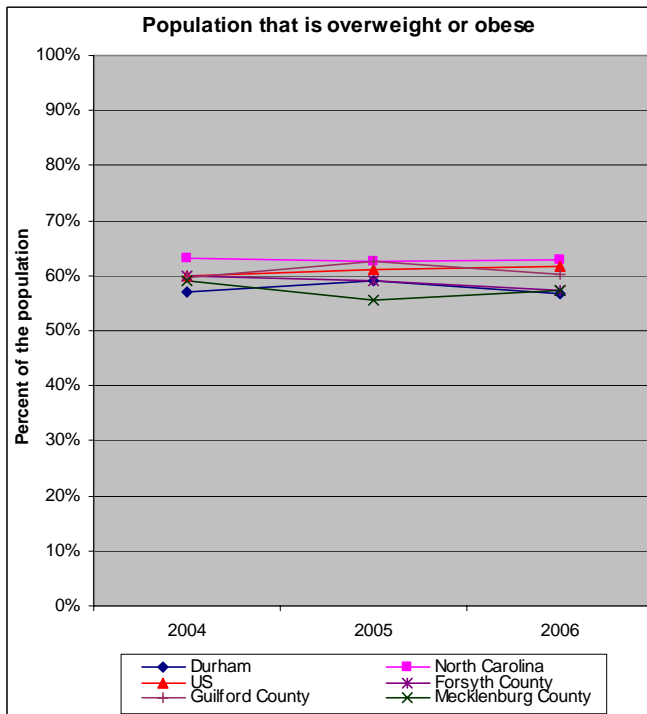


“I used to like Cokes, but I eliminated the Cokes for water. I like to shop, so I go to the mall to do my walking. I love working with flowers, and sorrowfully I put my flowers out to soon and the weather got to them too soon and I lost them this weekend...”  
- Durham County resident



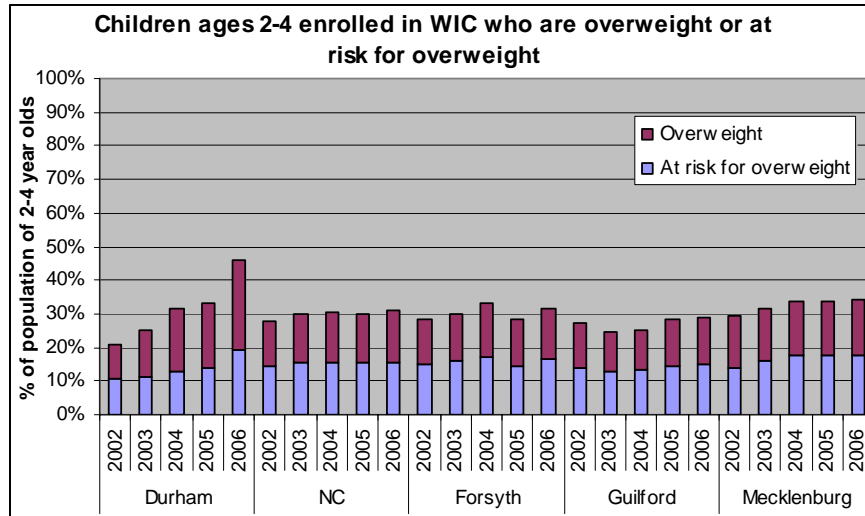
Data source: Durham County Health Assessment survey

The BRFSS found that 56.7% of Durham County overweight or obese in 2006.



Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>), US Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss](http://www.cdc.gov/brfss))

The NC-Nutrition and Physical Activity Surveillance System (NC-NPASS) collects data on children seen in North Carolina Public Health Sponsored WIC and child health clinics. In 2006, 648 of these children, or 26.8% of the total number of children seen at these sites, were overweight.



Data source: North Carolina Nutrition and Physical Activity Surveillance System, <http://www.eatsmarmovemorenc.com/data/index.html>

We have to get the little ones used to eating vegetables. We, since we were small, we're used to eating spicy food, meat, so we're used to that; for this reason we have to show the little ones, because we want the best for them.

- Durham County resident

Overweight and obesity are significant health risks that are associated with several poor health outcomes. For example, overweight or obese people are more likely to develop hypertension, Type 2 Diabetes, heart disease, stroke, osteoarthritis, respiratory problems, and some cancers. The risk rises with the more weight a person has over the recommendation (CDC, <http://www.cdc.gov/nccdphp/dnpa/obesity/>)

### Nutrition

In 2005, the Behavioral Risk Factor Surveillance System asked North Carolinians about how many fruits and vegetables they eat a day. They found that 22.5% of Durham respondents met the recommendation for fruit and vegetable consumption.

Population that consumes at least five fruits or vegetables daily			
Durham	27.5%	Durham	22.5%
NC	22.5%	Male	24.7%
Forsyth	26.9%	Female	30.1%
Guilford	23.7%	Caucasian	32.4%
Mecklenburg	24.4%	Minority	23.0%
		18-44	27.8%
		45+	27.2%
		HS or less	22.9%
		Some college+	30.5%
		<\$50K	24.5%
		>\$50K	35.8%

Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>)

“In my family, we eat almost always at home, not outside. Eat more vegetables and fruit, water all the time. Give my children milk. Take them to the park to run.”

“The people who have time to cook are fortunate to eat home-cooked food, but not those that are running around all day and they have few chances to exercise. My husband & co-workers work from 7:00 AM and don’t get home until 7-8 PM, so they don’t feel like cooking and even less like doing exercise; they get home, eat something quickly, then go to bed so they can wake up early the next day.”

- Durham County resident

In the Youth Risk Behavior Survey of Middle Schools in Durham, African Americans in Middle Schools reported fewer incidences of eating dinner at home with their families. Latino students reported higher incidences of not eating breakfast in the week (25.3% vs. 12.7%). In the High Schools, African Americans students reported lower frequencies in eating salads, carrots, or of drinking milk than other students.<sup>1</sup>

Nutrition is one of the most important parts of staying healthy, because of its direct influence on weight. Good nutrition, as described in the US Department of Health and Human Services and US Department of Agriculture’s *Dietary Guidelines for Americans*, lowers the risk of many chronic diseases such as heart disease, stroke, some cancers, diabetes, and osteoporosis. Fruits and vegetables, in particular, contain the vitamins and minerals to protect the body against many of those diseases ([www.cdc.gov/nccdphp/dnpa/nutrition/](http://www.cdc.gov/nccdphp/dnpa/nutrition/), [www.fruitandveggiesmatter.gov](http://www.fruitandveggiesmatter.gov)).

### Physical activity

The Durham County Health Assessment survey compiled some of the physical activity habits of overweight and obese persons.

	<b>Overweight (25 – 29.9)</b>	<b>Obese ( &gt; 29.9)</b>
<b>Days per Week Participate in Moderate Activity for at least 10 Minutes</b>		
Two times or less a week	14%	11%
Three - four times a week	31%	39%
5 or more times a week	56%	50%
<b>Amount of Time Usually Keep at Moderate Activity</b>		
Half-hour or less	50%	51%
31 min. to an hour	27%	33%
More than an hour	23%	16%
<b>Days per Week Participate in Vigorous Activity for at least 10 Minutes</b>		
Two times or less a week	31%	52%
Three – four times a week	41%	31%
5 or more times a week	28%	17%
<b>Amount of Time Usually Keep at Vigorous Activity</b>		
Half-hour or less	41%	38%
31 min. to an hour	36%	41%
More than an hour	23%	21%

“I think a barrier is our sedentary lifestyle, and the fast food, and the television.”

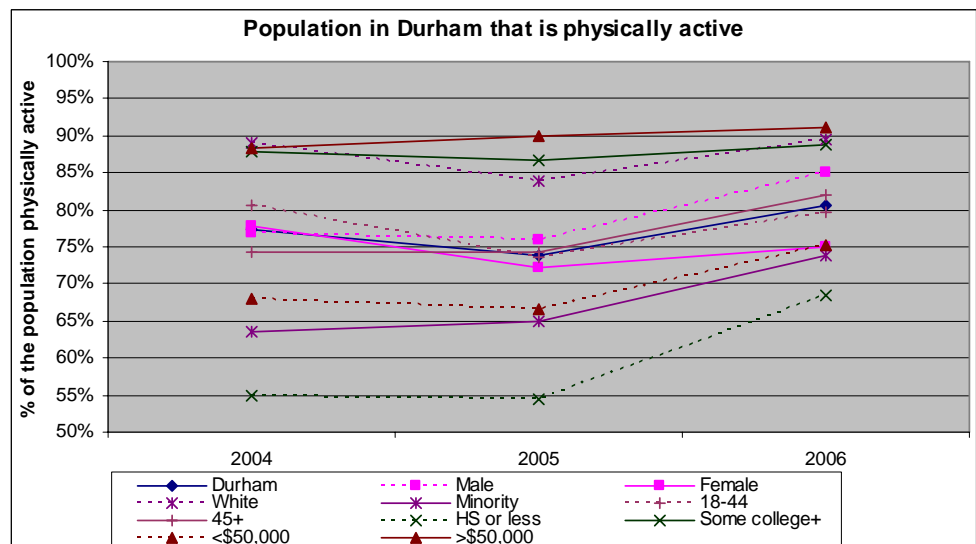
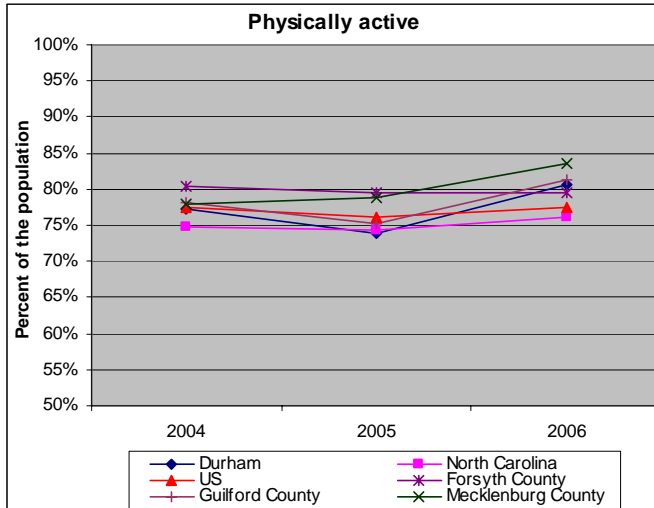
“The 207 channels.”

“Between our parent’s generation and their grandchildren’s generations, we’ve become a drive through society. It’s time to go back to fresh fruits and vegetables, and not sitting in front of the TV. Look at all the obese children now. Back in the day, my mother used to throw me out at 8am and not allow me back unless to eat, and came in before dark to have a bath and go to bed. Because you played outside, that’s what you did. I didn’t have videogames, I didn’t have a cell phone.”

- Durham County residents

<sup>1</sup> YRBS results presented here are preliminary. The final Report on the 2007 YRBS in Durham Public Schools will be available in December 2007.

The BRFSS annually collects data on the percentage of population that engaged in physical activity during the past month (other than as part of a regular job) (this measure includes physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise).



Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>), US Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss](http://www.cdc.gov/brfss))

In 2005, the BRFSS assessed how many people were meeting physical activity recommendations (*moderate physical activity for 30 or more minutes per day, five or more days per week; or vigorous physical activity for 20 or more minutes per day, three or more days per week*).

Population that meets physical activity recommendations				
Durham	36.3%		Durham	36.3%
NC	42.1%		Male	34.1%
Forsyth	41.5%		Female	38.3%
Guilford	42.4%		Caucasian	49.2%
Mecklenburg	43.4%		Minority	24.0%
			18-44	34.8%
			45+	39.0%
			HS or less	26.1%
			Some college+	24.8%
			<\$50K	33.3%
			>\$50K	43.7%

Data source: NC Behavioral Risk Factor Surveillance System (<http://www.schs.state.nc.us/SCHS/brfss>)

In 2006, the BRFSS also asked about the impact of the physical environment on people’s behaviors; 78% of Durham said they believed they would increase their physical activity if their community has more accessible sidewalks or trails for walking or bicycling.

In the Youth Risk Behavior Survey of Middle Schools in Durham<sup>1</sup>, girls reported much higher levels of activity associated with weight loss than boys in Middle Schools. African Americans reported higher rates of watching TV or playing video games 5 or more hours per day, being home alone over 6 hours per day. Latino students reported lower rates of physical activity and participation in extracurricular activities. Caucasian students report much higher rates of physical activity every day of the week (40% vs. 28.4%) and much higher rates of participation in extracurricular activities (77.7% vs. 55% for all other students). In the high Schools, African Americans reported higher rates of watching TV five or more hours per day than other students. Latino students in High Schools reported lower rates of physical activity and participation in extracurricular activities than other students in High Schools.

Physical activity also has a key role in determining weight. The CDC recommends regular physical activity to reduce several health risks, including heart disease, diabetes, colon cancer, depression and anxiety, and others ([www.cdc.gov/nccdphp/dnpa/physical/](http://www.cdc.gov/nccdphp/dnpa/physical/)). They recommend that adults should engage in moderate-intensity physical activities for at least 30 minutes on five or more days of the week.

### **Healthcare screenings**

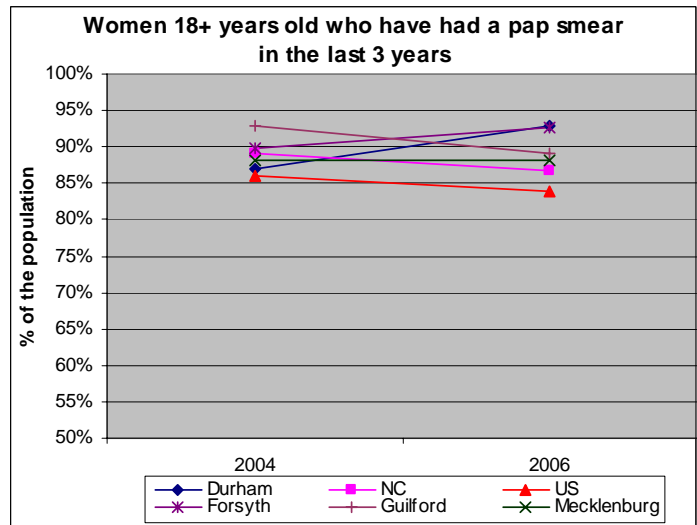
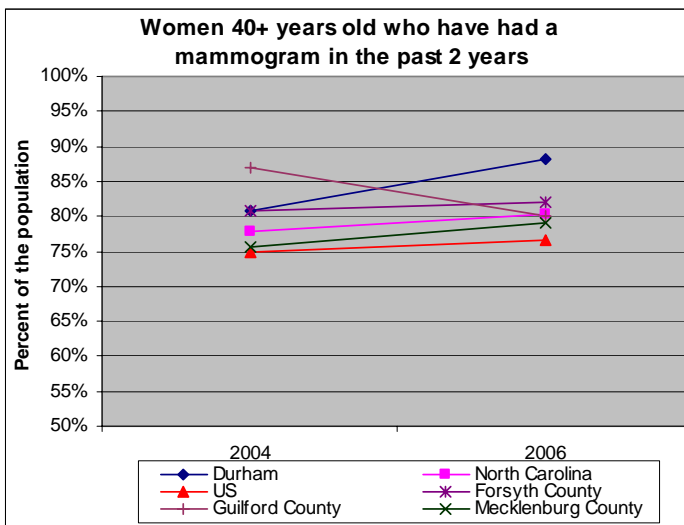
Screenings are an important part of preventive healthcare. Regular checks of medical indicators give healthcare professionals clues if conditions are developing. Early intervention can be

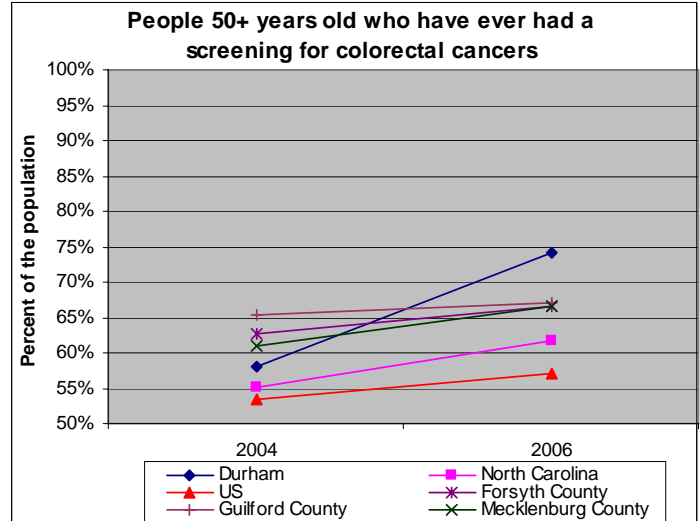
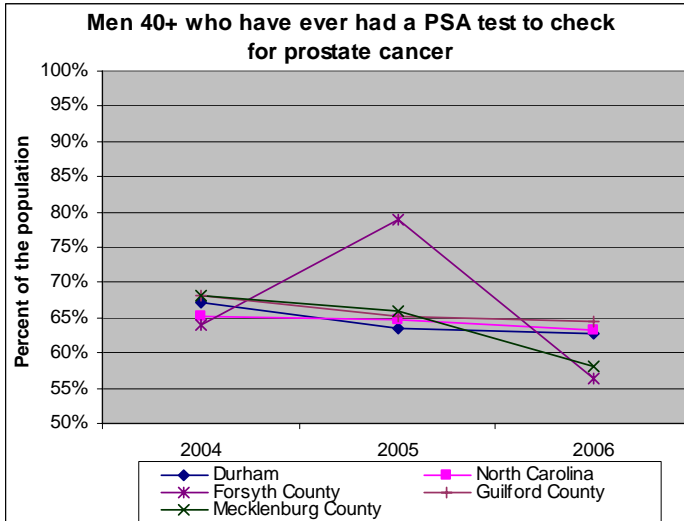
<sup>1</sup> YRBS results presented here are preliminary. The final Report on the 2007 YRBS in Durham Public Schools will be available in December 2007.

lifesaving; for example, detecting breast cancer at its earliest stages improves the likelihood that treatment will be successful (American Cancer Society, [www.cancer.org](http://www.cancer.org)). It can also save time, medical costs, and health, as treatments during diseases' earlier stages can be less invasive and difficult than more aggressive therapies if conditions are more serious.

The National Cancer Institute ([www.cancer.gov](http://www.cancer.gov)) recommends that all women age 40 or older should have a mammogram every one to two years to detect breast cancer, and all women have a Pap test at least once every three years from at least age 21 to detect cervical cancer. While there is some discussion about Prostate-Specific Antigen (PSA) tests (for detection of prostate cancer), some doctors recommend annual tests for men over 50 years old. The US Preventive Services Task Force strongly recommends that clinicians screen men and women 50 years of age or older for colorectal cancer (<http://www.ahrq.gov/clinic/uspstf/uspstfcol.htm>).

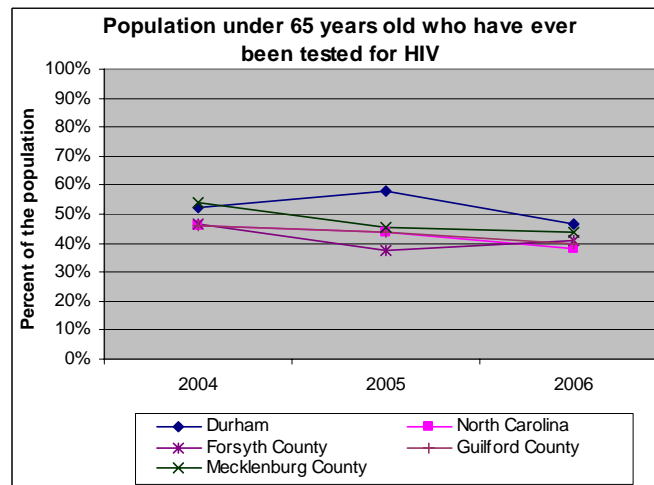
In 2006, the BRFSS found that 88.3% of women over 40 had had a mammogram in the past two years, and that 92.9% of adult women have had a Pap smear in the past three years. 62.7% of men over 40 years old have ever had a PSA test, and 74.1% of people over 50 years old have ever had a sigmoidoscopy or colonoscopy to screen for colorectal cancers.

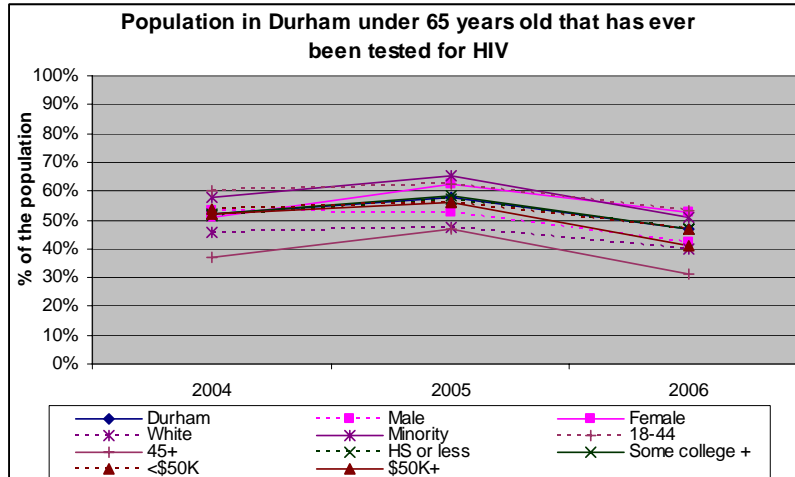




Data source: NC Behavioral Risk Factor Surveillance System ([www.schs.state.nc.us/SCHS/brfss](http://www.schs.state.nc.us/SCHS/brfss)), US Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss](http://www.cdc.gov/brfss))

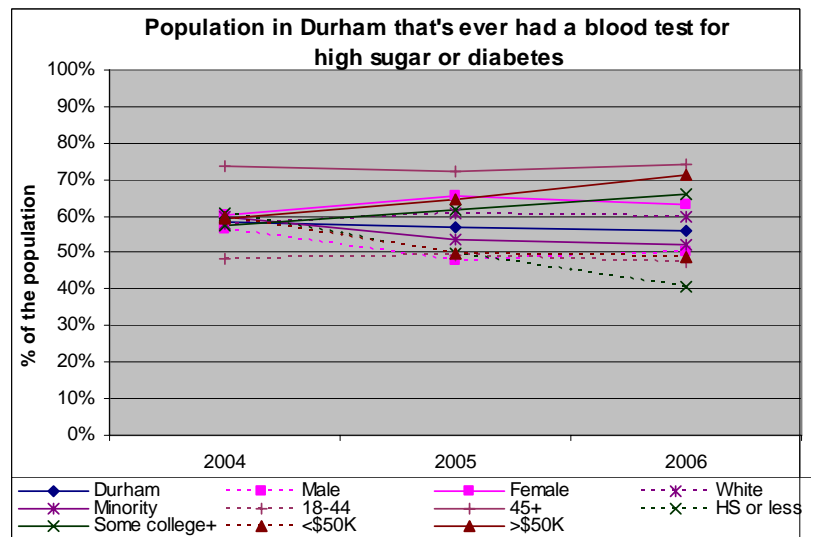
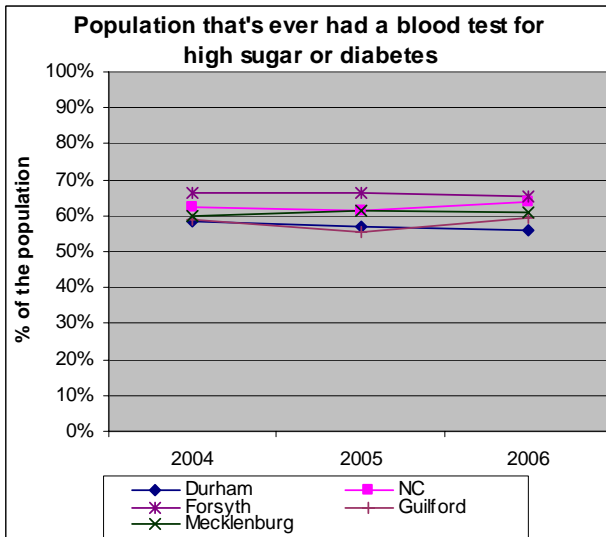
In 2006, the CDC changed their recommendations for HIV testing. The new guidelines (<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>) recommend *routine* HIV screening of adults and adolescents in health care settings in the United States. They also recommend that all pregnant women be screened for HIV unless the patient declines testing. This means that all healthcare providers should offer HIV tests to their patients in any healthcare encounter, whereas before there was a separate counseling, testing, and consent procedure that often only happened at the patient's request. In Durham, 46.8% of persons under 65 in the BRFSS survey have ever been tested for HIV.





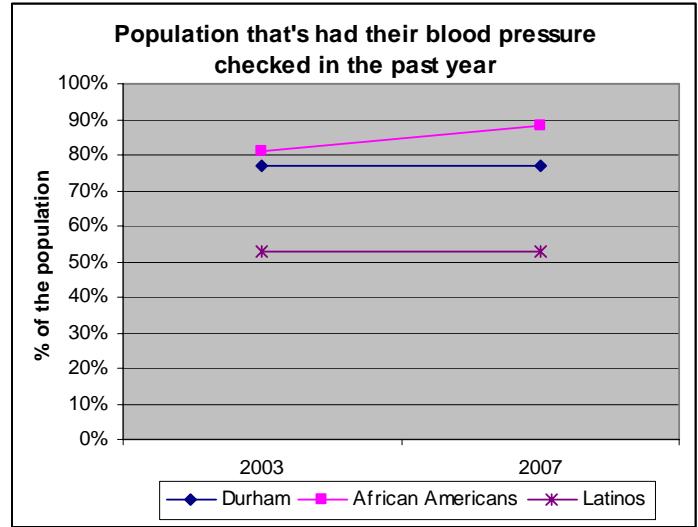
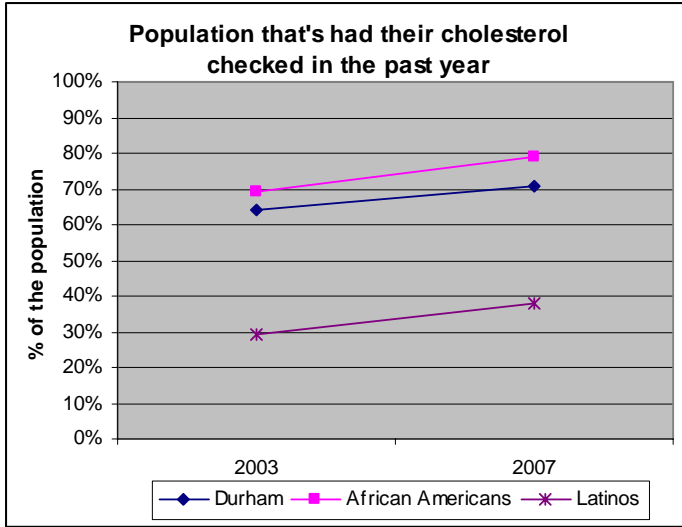
Data source: NC Behavioral Risk Factor Surveillance System ([www.schs.state.nc.us/SCHS/brfss](http://www.schs.state.nc.us/SCHS/brfss))

In 2006, 56.1% of Durham BRFSS respondents had had a blood test for high sugar or diabetes.



Data source: NC Behavioral Risk Factor Surveillance System ([www.schs.state.nc.us/SCHS/brfss](http://www.schs.state.nc.us/SCHS/brfss))

High blood cholesterol is one of the major risk factors for heart disease. High blood pressure can lead to strokes, heart disease, and kidney disease. The Durham County Health Assessment survey found in 2007 that 71% of adults surveyed had had their cholesterol checked in the past year. In addition, 77% have had their blood pressure checked in the past six months.



Data source: Durham County Health Assessment survey

“I know that my mom and daddy hardly ever went to a doctor. And it looks like now every time I turn around I have to go. I’m on a blood thinner so I have to go for my checkup. We hear all these words – cholesterol – my mom and daddy lived in the country, I don’t even think they could pronounce the word. They weren’t ignorant, you know, they were along with everyone else, but you know. When they tell you to come back, you feel like you better go. And I feel like that keeps a lot of people in line with the health, is trying to do what the doctor tells them.”

- Durham County resident

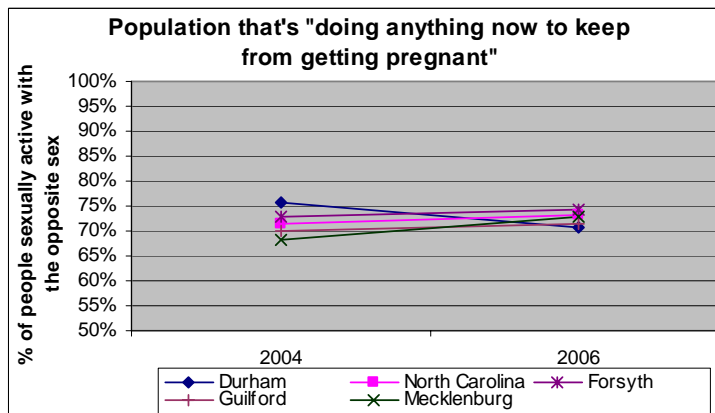
## Reproductive health

### Family planning

“Family planning” means a person knows when they want to have children and how they will prevent having children when they don’t want them. In 2006, according to the BRFSS, 56.3% of Durham was sexually active and doing something to keep from getting pregnant.

“I grew up where it was a bad thing to talk about sex. No matter what you were talking about, it was wrong... My parents, yeah, they were like, ‘Don’t talk about it,’ hush hush, the birds and the bees. I was like, ‘What do you mean, not to talk about it?’ So I had a lot of mixed signals.”

- Durham County resident



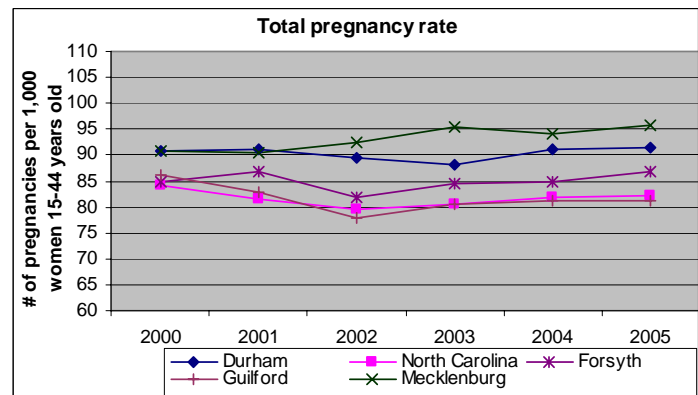
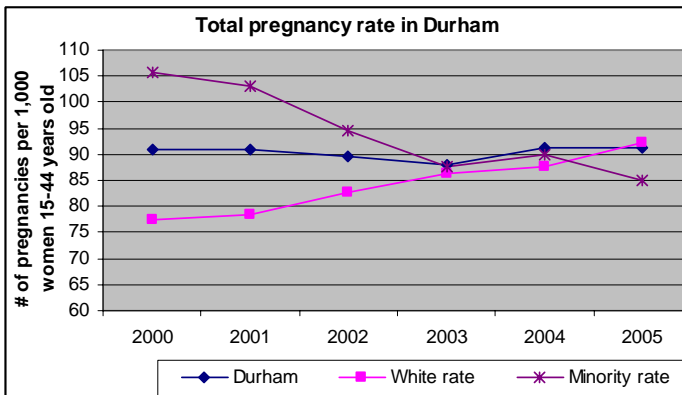
Data source: NC Behavioral Risk Factor Surveillance System ([www.schs.state.nc.us/SCHS/brfss](http://www.schs.state.nc.us/SCHS/brfss))

\*Note: This question was only asked of non-pregnant women 18-50 years old and men 18-59 years old; the percentage is only taken from those who were sexually active and who did not have a same sex partner.

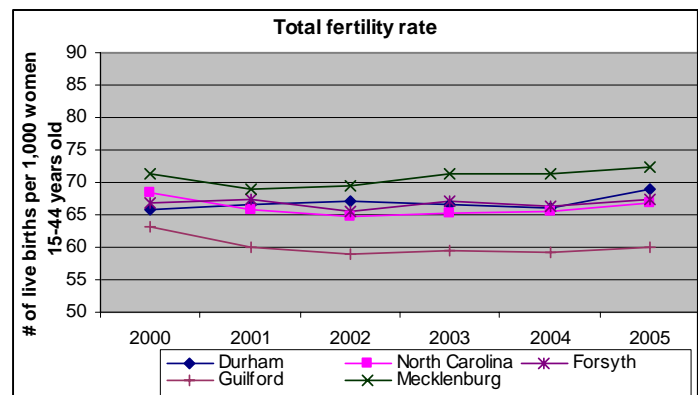
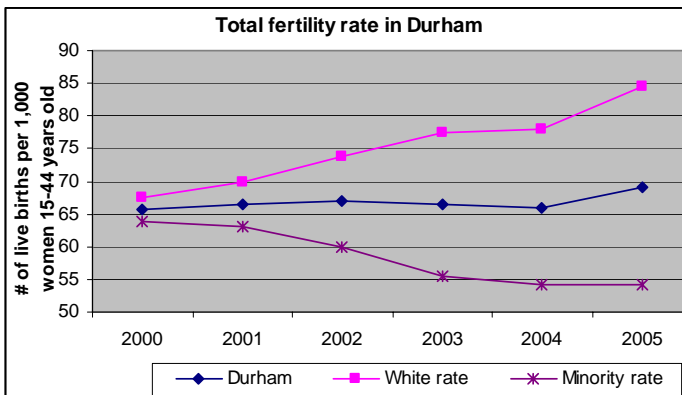
The BRFSS also asked about number of sexual partners in the past year and whether or not a condom was used during the last sexual intercourse. In Durham, 60% of respondents had one partner in the past 12 months (compared to 80.7% in NC), and 24.4% had had no partners. Of those who had sexual partners, 60.1% had used a condom during their last sexual intercourse.

Unintended pregnancy is one that is either mistimed or unwanted at the time of conception. According to the CDC ([www.cdc.gov/reproductivehealth/UnintendedPregnancy](http://www.cdc.gov/reproductivehealth/UnintendedPregnancy)), “Unintended pregnancy is associated with an increased risk of morbidity for women, and with health behaviors during pregnancy that are associated with adverse effects. For example, women with an unintended pregnancy may delay prenatal care, which may affect the health of the infant.” In the US, about half of all pregnancies are unintended. There is no data on the unintended pregnancy rate in Durham, but there is some information on North Carolina statewide. According to the Pregnancy Risk Assessment Monitoring System ([www.schs.state.nc.us/prams](http://www.schs.state.nc.us/prams)) in 2005, 44.4% of pregnant women surveyed had wanted to be pregnant later (33.3%) or not at all (11.1%). Pregnancy unintendedness in NC is associated with mothers with lower income, African American race, and non-married status.

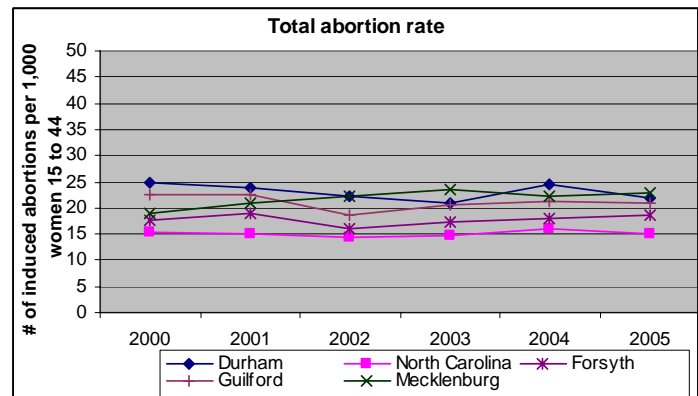
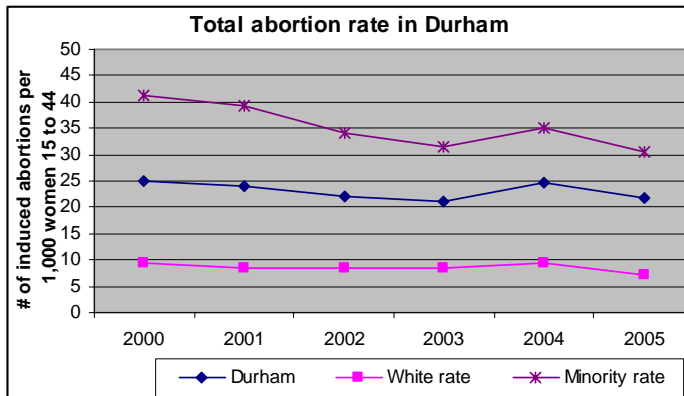
The total pregnancy rate is the number of pregnancies per 1,000 women of reproductive age (15-44 years old). Durham’s rate in 2005 was 91.4 pregnancies per 1,000 women.



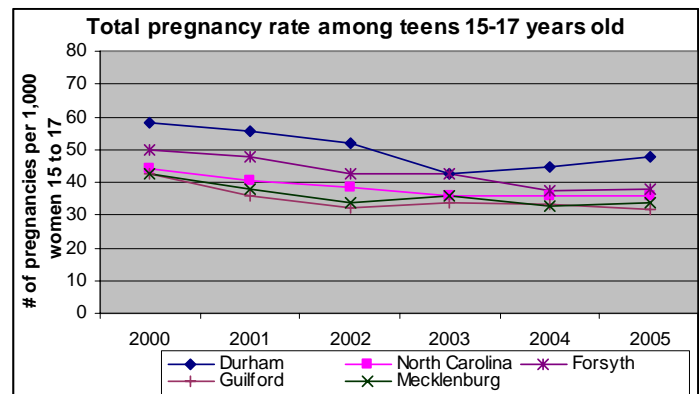
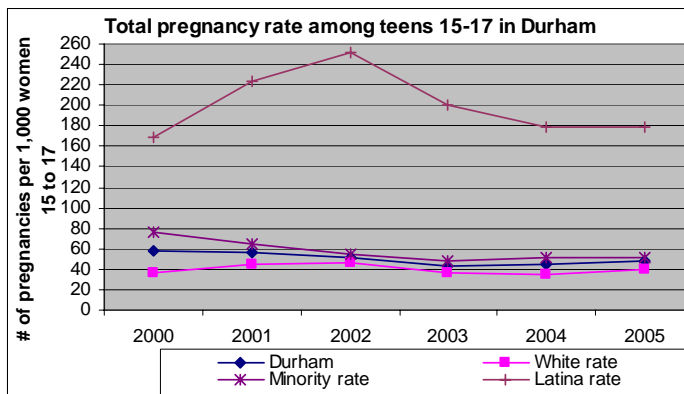
The fertility rate is the number of live births per 1,000 women of reproductive age. Durham’s rate in 2005 was 69 live births per 1,000 women 15-44 years old.



The abortion rate measures the number of induced abortions per 1,000 women of reproductive age. In Durham, in 2005, there were 21.9 abortions per 1,000 women ages 15-44.



The pregnancy rate among teenage girls 15-17 years old in Durham was 47.8 per 1,000 girls 15-17 years old. The rate for girls 15-19 years old was 64.7 per 1,000 teens of that age.



Data source: County Health Data Book, NC State Center for Health Statistics ([www.schs.state.nc.us](http://www.schs.state.nc.us))

Teenage pregnancy has many implications, both to the family's physical health and social well-being. Physically, according to the March of Dimes, ([www.marchofdimes.org](http://www.marchofdimes.org)), it results in an increased risk of premature delivery and low birthweight, leading causes of infant death. Teens are more likely than their older counterparts to engage in risk behaviors during pregnancy such as smoking or late or no prenatal care. They are at greater risk for pregnancy complications like anemia, high blood pressure, and maternal mortality.

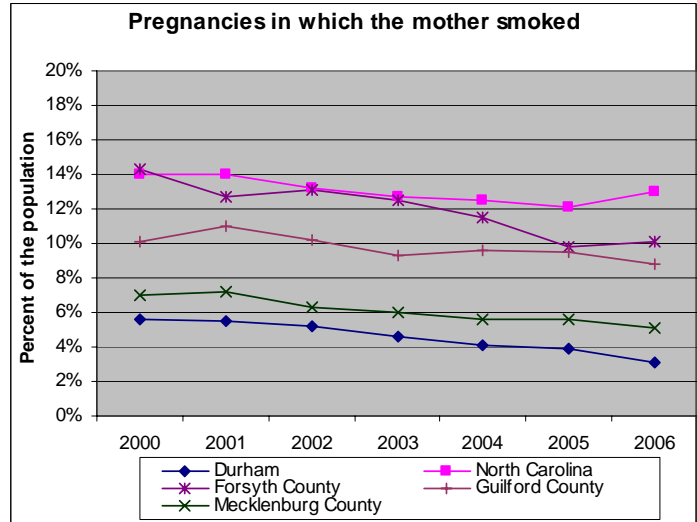
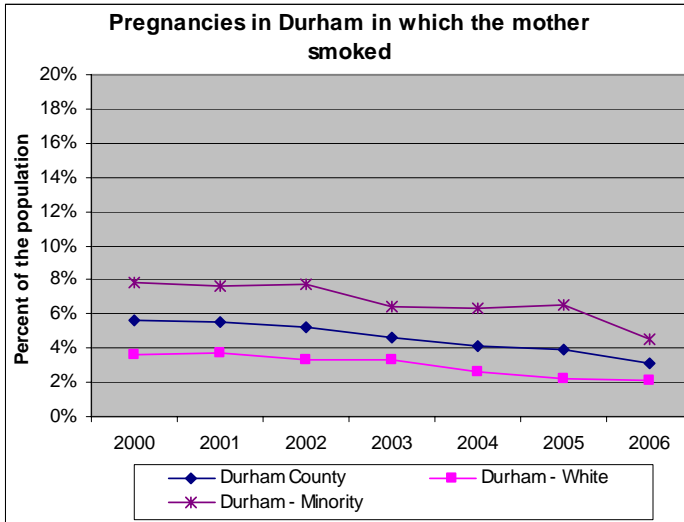
The Adolescent Pregnancy Prevention Coalition of NC ([www.appcnc.org](http://www.appcnc.org)), in their November 2006 report, "By the Numbers: The public costs of teen childbearing in North Carolina," cited research showing the consequences of teen childbearing.

"...compared to those who delay childbearing, teen mothers are more likely to drop out of school, remain unmarried, and live in poverty; their children are more likely to be born at low birth weight, grow up poor, live in single-parent households, experience abuse and neglect, and enter the child welfare system. Daughters of teen mothers are more likely to become teen parents themselves, and sons of teen mothers are more likely to be incarcerated" (p 2).

They found that the average annual cost to the public associated with a child born to a mother aged 17 or younger, due to the above consequences, was \$3,868.

## Pregnancy health

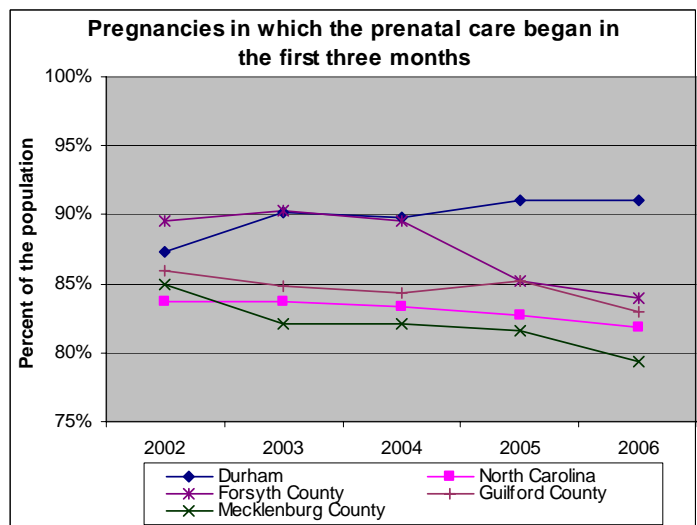
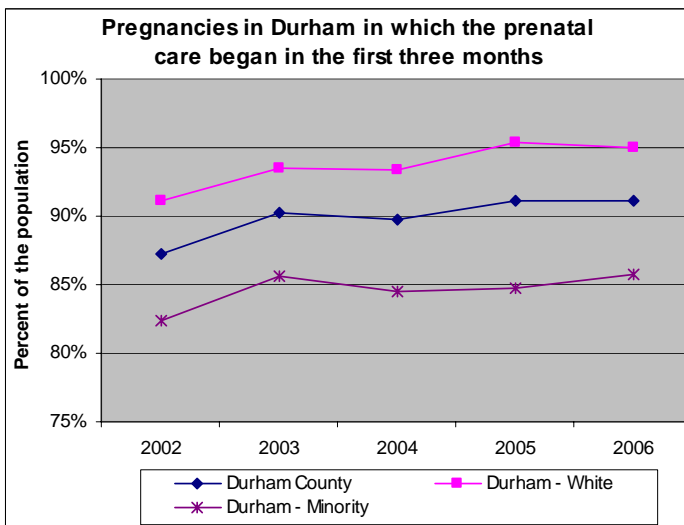
In Durham, 3.1% of mothers smoked during pregnancy in 2006.



Data source: NC State Center for Health Statistics, BABY Book (<http://www.schs.state.nc.us/SCHS/data/county.cfm>)

Smoking during pregnancy nearly doubles the risk of low birthweight, and also raises the risk of preterm delivery (both of which are related to infant mortality and lifelong disabilities). It also affects pregnancy complications such as placental problems and premature rupture of membranes. Smoking during pregnancy also is associated with a higher risk of Sudden Infant Death Syndrome after the child is born ([www.marchofdimess.org](http://www.marchofdimess.org)).

In Durham, 91.1% of mothers in 2006 initiated their prenatal care within the first trimester of their pregnancy.



Data source: NC State Center for Health Statistics, BABY Book (<http://www.schs.state.nc.us/SCHS/data/county.cfm>)

Prenatal care is important to monitor the progress of mother and baby, so that any problems can be identified before they become serious, if possible. The March of Dimes ([www.marchofdimes.org](http://www.marchofdimes.org)) recommends that women contact a healthcare provider as soon as they think they are pregnant. According to the March of Dimes, “Women who see a health care provider regularly during pregnancy have healthier babies, are less likely to deliver prematurely, and are less likely to have other serious problems related to pregnancy.”

There is not a great deal of pregnancy health data for Durham County, however, the Pregnancy Risk Assessment Monitoring System ([www.schs.state.nc.us/SCHS/prams/](http://www.schs.state.nc.us/SCHS/prams/)) takes statewide information on pregnancies. In 2005 it found that 31.6% of women were taking a multivitamin the month before they became pregnant; women who were older, Caucasian, more highly educated, married, and with a higher income were more likely to be taking a multivitamin. The March of Dimes recommends every woman take a multivitamin with at least 400 mcg of Folic Acid every day before she becomes pregnant. Folic acid, if taken within the first weeks of pregnancy (usually before a woman realizes she is pregnant) has been found to greatly decrease birth defects of the spine ([www.marchofdimes.com](http://www.marchofdimes.com)).

Before pregnancy, 36.7% of mothers in North Carolina were overweight or obese, which was more likely among mothers who were older, African American, and less educated.<sup>1</sup>

PRAMS also reports that in 2005, 40.3% of mothers in North Carolina are exclusively breastfeeding when their child is eight or more weeks old; breastfeeding rates in NC are associated with mothers of higher income and education levels.<sup>2</sup>

Only 68% of mothers report laying their baby down on its back to sleep, with 16% placing them on their sides and 15.5% on their stomachs. African American and younger mothers are less likely to put their babies to sleep on their backs. The National Institute of Child Health and Human Development, AAP, and Maternal and Child Health Bureau have implemented the “Back to Sleep” campaign since 1994 to reduce infant deaths by placing babies on their backs when sleeping, after it was found that a prone position, along with other risk factors, was associated with Sudden Infant Death Syndrome, or SIDS (also known as “crib death”) (<http://www.nichd.nih.gov/sids/>).

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<sup>1</sup> Maternal obesity is associated with adverse outcomes such as birth defects, labor and delivery complications, fetal and neonatal mortality, and maternal complications such as hypertension, gestational diabetes, and pre-eclampsia ([www.marchofdimes.com/files/MP\\_MaternalObesity040605.pdf](http://www.marchofdimes.com/files/MP_MaternalObesity040605.pdf)).

<sup>2</sup> The American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists, World Health Organization, and many other health organizations recommend exclusive breastfeeding for the first six months of life, citing breastmilk’s many benefits to both infant and mother. For the baby, breastfeeding decreases its chance of infections and diarrhea, Sudden Infant Death Syndrome, diabetes (types I and II), overweight and obesity, asthma, cancers, and infant mortality; for the mother, breastfeeding often means less postpartum blood loss, earlier return to pre-pregnancy weight, and decreased risks of breast and ovarian cancers (American Academy of Pediatrics Section on Breastfeeding. “Breastfeeding and the Use of Human Milk.” [Pediatrics](http://pediatrics.com). 2005 Feb;115(2):496-506.).

## Motor vehicles

According to the NC Behavioral Risk Factor Surveillance System, 86.1% of Durham County always uses seatbelts when driving or riding in a car, and 91.2% of Durham County has not driven after drinking alcohol in the past 30 days.

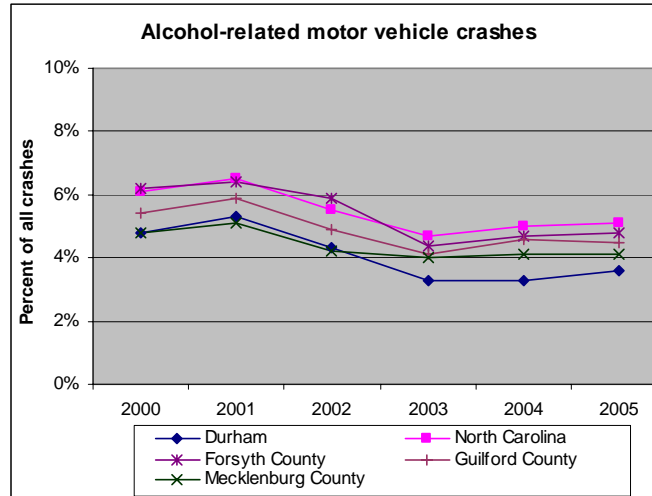
Population that always uses a seatbelt when driving or riding in a car	
Durham	86.1%
NC	86.7%
Forsyth	84.2%
Guilford	85.7%
Mecklenburg	84.3%

Population that has NOT driven after having perhaps too much to drink in the past 30 days	
Durham	91.2%
NC	96.6%
Forsyth	93.3%
Guilford	95.6%
Mecklenburg	95.0%

Data source: NC Behavioral Risk Factor Surveillance System ([www.schs.state.nc.us/SCHS/brfss](http://www.schs.state.nc.us/SCHS/brfss))

The Durham County Health Assessment survey found that in both 2003 and 2007, 99% of respondents have not driven after having too much alcohol. The percentage of people who never rode with a driver who had too much to drink in the past 30 days rose from 96% to 98% in 2007.

According to the “Report on Substance Use and Abuse in Durham County” (Page 41) ([www.healthydurham.org](http://www.healthydurham.org)) for Durham County residents during the years 2000-2004, motor vehicle accidents were the third leading cause of death for youth aged 0-19 (rate = 7.3), the second leading cause of death for individuals aged 20-39 (rate = 15.6) and the seventh leading cause of death for individuals aged 40-64 (rate = 13.8) (North Carolina State Center for Health Statistics, 2006). According to the North Carolina Division of Motor Vehicles, one-quarter of these fatal accidents involved alcohol (North Carolina Alcohol Facts, 2006). Approximately 300 injuries a year in Durham County are related to traffic accidents involving alcohol.



Data source: UNC Highway Safety Research Center, <http://www.hsrmc.unc.edu/ncaf/>

## Discussion

People's choices about their lifestyles and health habits have a great impact on their health. This is why public health education and clinical health counseling have focused on helping individuals make better choices about their health behaviors over the past years. Lifestyles, as Evans and Stoddart pointed out, are an appealing target of healthcare and health promotion programs, because they are under the control of the individual. Thus influencing individuals' health behaviors is appealingly simple and potentially empowering to the individual.

However, as this assessment has pointed out, the determinants of health are many, as are the influences on individuals' behaviors. We all make our own choices about how to maintain our health, but we are heavily influenced by our social, physical and institutional environments. Evans and Stoddart used smoking as an example of this complexity,

"Tobacco is not only toxic, but addictive, and addiction most commonly commences in childhood. Consequently the presumption that users rationally and voluntarily 'choose' smoking as a 'lifestyle' is particularly inappropriate. Furthermore, the observation that smoking behavior is very sharply graded by socioeconomic class undercuts the argument that it represents an individual choice, and indicates instead a powerful form of social conditioning" (p 44).

Another example of the interplay between choice and environment is that of physical activity. A locally headquartered national movement to design communities that encourage physical activity, Active Living by Design ([www.activeliving.org](http://www.activeliving.org)), points out that the sprawl that characterizes most American communities today encourages driving, and discourages walking and biking. Another example is the Baby-Friendly Hospital Initiative, which increases breastfeeding rates among patients at hospitals that implement the "Ten Steps to Successful Breastfeeding" at their institutions. Personal choice is a powerful factor, but it is heavily influenced, and it can be difficult to change lifestyles without changing the environments in which they exist.

## **Initiatives and Resources in Durham**

### *Substance use*

- The Durham County Health Department has teen tobacco prevention and quit smoking programs in their Health Education Division. [www.durhamcountync.gov/departments/phth/](http://www.durhamcountync.gov/departments/phth/), 560-7600.
- The Durham Center is the local management entity responsible for ensuring that Durham County citizens who seek help for mental illness, developmental disabilities and substance abuse receive the services and supports for which they are eligible to achieve their goals and to live as independently as possible. [www.durhamcenter.org](http://www.durhamcenter.org), 560-7200.
- Durham Together for Resilient Youth is a coalition focused on reducing substance use among youth. [www.durhamtry.org](http://www.durhamtry.org), 491-7811.
- The Alcohol and Drug Council of NC's mission is to reduce the suffering and economic cost of alcoholism and other abuse and addiction. [www.alcoholdrughelp.org](http://www.alcoholdrughelp.org).

### *Healthy weight*

- The Durham County Health Department's Health Education and Nutrition Divisions have programs to help people improve their nutrition and physical activity. [www.durhamcountync.gov/departments/phth/](http://www.durhamcountync.gov/departments/phth/), 560-7600.
- Durham has three branches of the YMCA, with many organized programs that promote good health, strong families, confident children and better communities. [www.ymcatriangle.org](http://www.ymcatriangle.org), 667-9622.
- Duke University Health System's Division of Community Health has health promotion programs throughout the Durham community. [www.communityhealth.mc.duke.edu/](http://www.communityhealth.mc.duke.edu/), 681-3187.
- Durham's Parks and Recreation Department manages many local parks and recreational centers to help citizens discover, explore, and enjoy life through creative and challenging recreational choices that contribute to their physical, emotional, and social health. [www.durhamnc.gov/departments/parks/](http://www.durhamnc.gov/departments/parks/), 560-4355.

### *Healthcare screenings*

- Lincoln Community Health Center provides outpatient healthcare to the underserved population in Durham. [www.lincolnchc.org](http://www.lincolnchc.org), 956-4000.
- The Durham County Health Department provides clinical services in family planning, sexually transmitted infections, tuberculosis, immunizations, and dentistry. They also provide programs in community health, health education, environmental health, and nutrition. <http://www.durhamcountync.gov/departments/phth/>, 560-7600.

### *Family planning and pregnancy health*

- The Durham County Health Department also has a family planning clinic and community health programs, and administers the Maternity Clinic at Lincoln Community Health Center. [www.durhamcountync.gov/departments/phth/](http://www.durhamcountync.gov/departments/phth/), 560-7600.
- Planned Parenthood of Central North Carolina offers family planning healthcare services. [www.plannedparenthood.org/centralnc](http://www.plannedparenthood.org/centralnc), 866-942-7762.

- Lincoln Community Health Center's maternity clinic includes "Baby Love," a prenatal maternity care coordination program, and the WIC nutrition program. <http://www.durhamcountync.gov/departments/phth/>, 956-4000.
- Duke University Medical Center / Teer House provides prenatal classes on prepared childbirth, breastfeeding, infant care and infant CPR taught by Lamaze certified childbirth instructors. [www.dukehealth.org](http://www.dukehealth.org), 477-2644.