2011 Youth Risk Behavior Survey
Winston-Salem/Forsyth County Middle School Students
Survey Highlights

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Introduction & Overview

The Youth Risk and Behavior Survey (YRBS) was developed by the Centers for Disease Control and Prevention (CDC) to monitor behaviors which contribute to death and other health and social problems that affect youth and young adults. The data is used to help schools, government agencies, and community organizations develop programs that address the most pertinent issues in their community.

The survey has been adapted to meet the needs of North Carolina as both middle school and high school students are sampled across the state by North Carolina Healthy Schools. The survey is conducted every 2 years to assess health risk behaviors that contribute to some of the leading causes of morbidity and mortality in youth.

In addition to the state's administration of the YRBS, the survey is administered locally to Winston-Salem/Forsyth County School System (WSFC) students. In 2011, the YRBS was administered to 15 public middle schools in WSFC to a total of 2,184 middle school students. The survey was administered during 2nd period to randomly selected classes. Parents had the option to decline their child's participation in the survey by returning the Passive Parental Consent Form that was sent home before the scheduled survey day.

Characteristic	WSFC Middle (%)	Surveyed Youth (%)
Grades		
6th	34.1	28.7
7th	33.2	36.8
8th	32.6	34.2
Race		
White	46.2	58.4
Black	28.0	29.8
Other	25.8	11.9

These highlights should be taken with caution with interpretation as trend and (multi-year) analysis would be more reliable. For more information, please contact Ayotunde Ademoyero, Director of Epidemiology and Surveillance, Forsyth County Department of Public Health at ademoyat@forsyth.cc

Alcohol, Tobacco, & Other Drugs

The use of alcohol, tobacco, and other drugs (ATOD) in youth has been linked to the causation of unintentional injuries, physical fights, illegal behavior, and academic and occupational problems. Alcohol is used by youth more than tobacco and other drugs while among illicit drugs, marijuana is the most used in youth.[1]

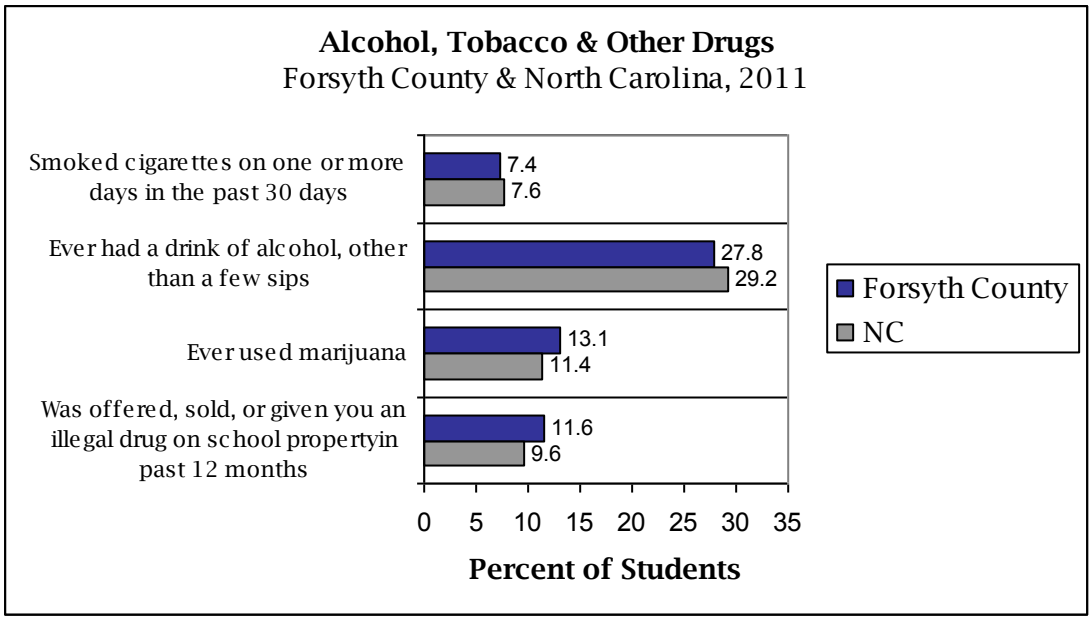
Overall WSFC middle school students reported having used alcohol, cigarettes and other tobacco, inhalants, marijuana, cocaine, steroids and other prescription drugs. Among ATOD use, students had the highest lifetime prevalence-of-use rates for alcohol (27.6%), marijuana (13.0%), cigarettes (12.8%), and inhalants (12.0%).

Age of First Use

WSFC eighth grade students reported the age of first use:

- For alcohol at age 11.4
- For cigarettes as age 11.1
- For marijuana at age 11.4

Marijuana use begin before age 11 for 5.1% of WSFC middle school students in comparison to the North Carolina reporting use began before age 11 3.9%.



Alcohol Use

Students reported getting alcohol in the past 30 days by some other way (5.4%), someone gave it to them (4.7%), took it from store or family member (3.1%), someone bought it for me (2.0%), and store (2.0%). Restaurants or bar (0.3%) and public events (0.2%) were instances in which students reported they were less likely to get alcohol.

Tobacco Use

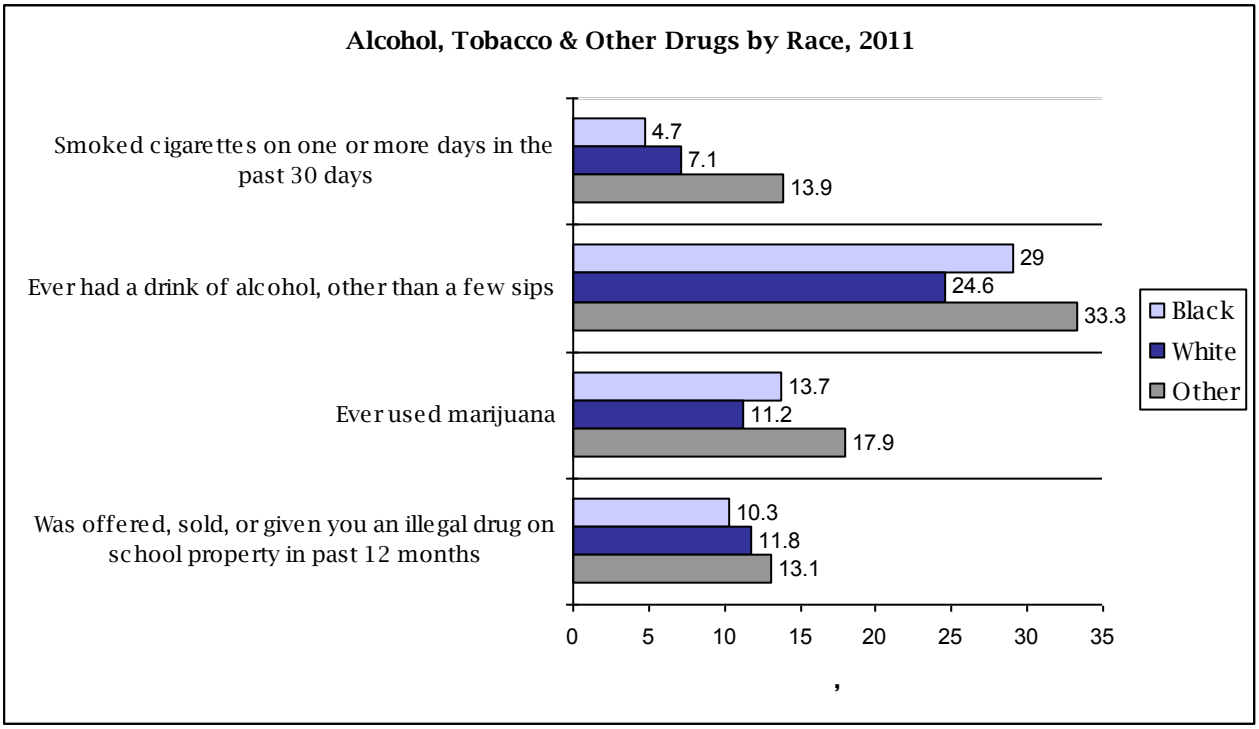
Cigarette use by all middle school students was reported at any point in their lives was 12.8% with 12.4% of females and 13.4% of males having smoked at some point in their lives. In the past 30 days, 4.5% of students reported using chewing tobacco, snuff, or dip on more that 1 day.

Alcohol, Tobacco & Other Drugs	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Smoked cigarettes on one or more days in the past 30 days	7.4%	7.6%	7%	8%
Ever had a drink of alcohol, other than a few sips	27.8%	29.2%	29%	30%
Ever used marijuana	13.1%	11.4%	13%	10%
Been offered, sold or given an illegal drug on school property	11.6%	9.6%	12%	9%

Other Drugs

Other drugs had lower reported use among middle school students. Cocaine, including crack or freebase, was reported having been used by 3.6% of WSFC middle school students slightly higher than the state's 3.1%. Inhalant use was reported by 12% of students. Students also reported the following prescription drug use:

- 2.0% reported using steroid pills or shots not prescribed to them
- 5.8% reported using other prescription drugs (OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax) that were not prescribed to them

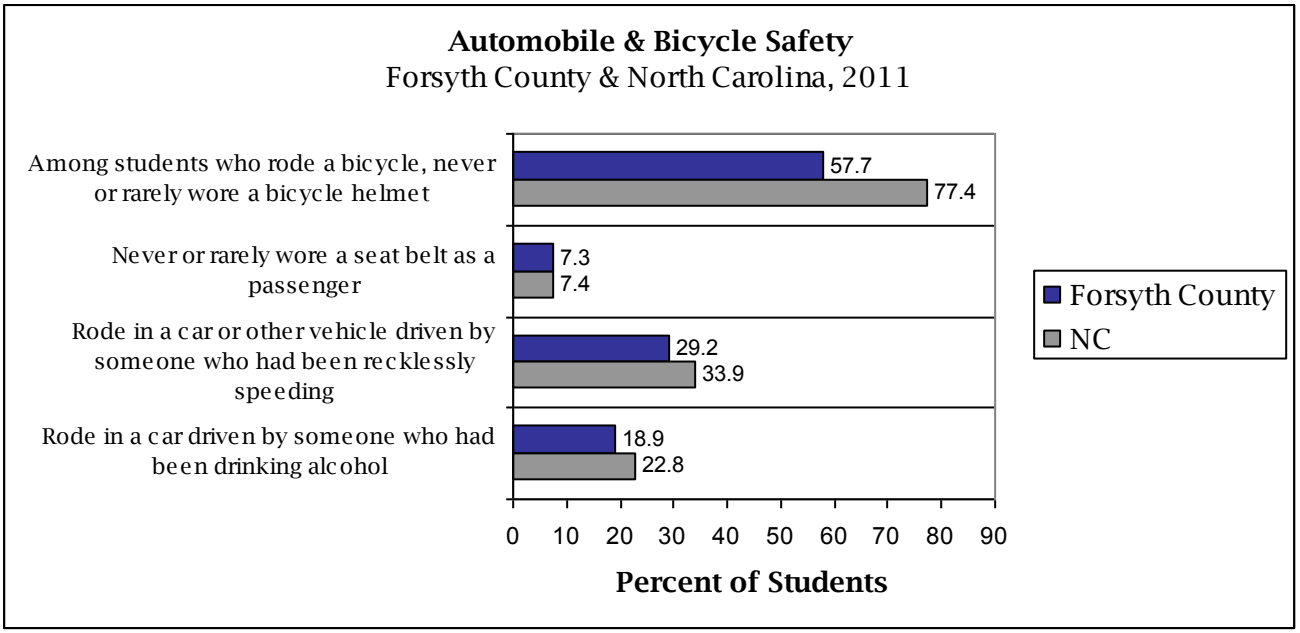


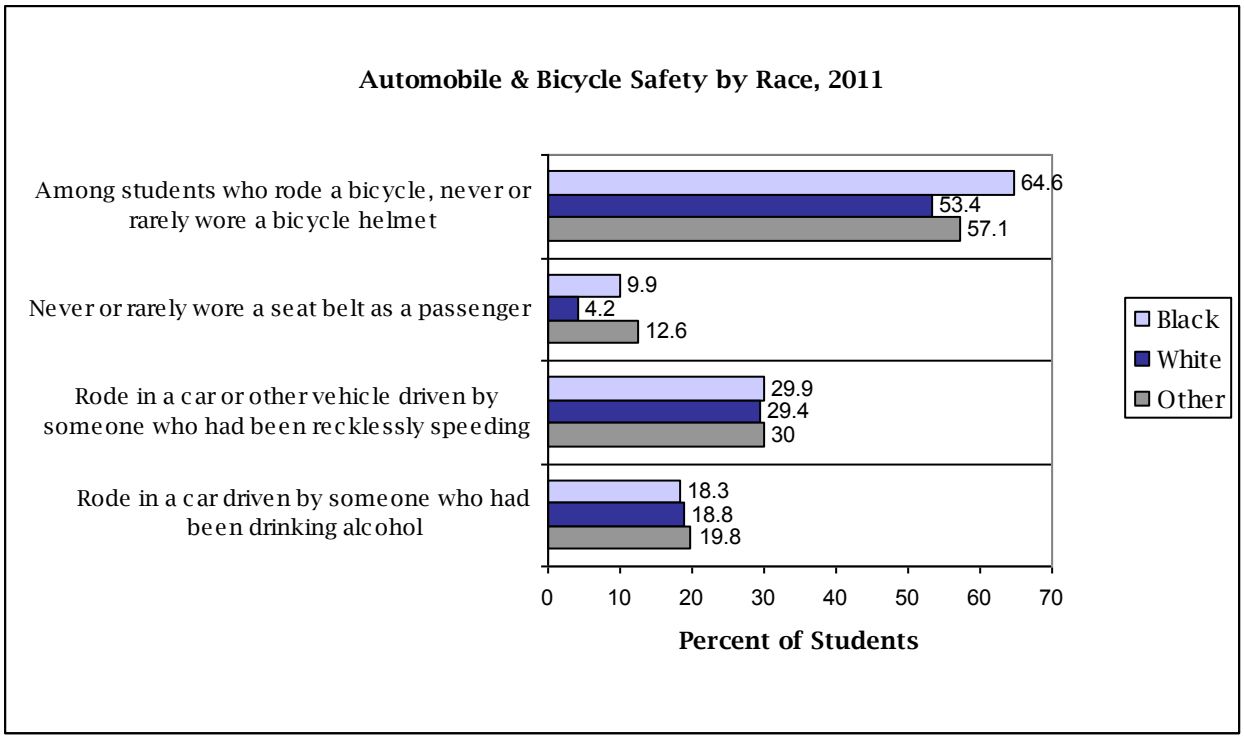
Automobile & Bicycle Safety

Injuries are the leading cause of death or disability for individuals aged 1-44 years. For adolescents aged 10-24 years olds motor vehicle crashes attributed to 30% of deaths in this group from injuries sustained in the crash.[2]

Automobile & Bicycle Safety	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Among students who rode a bicycle, never or rarely wore a bicycle helmet	57.7%	77.4%	55%	76%
Never or rarely wore a seat belt as a passenger	7.3%	7.4%	7%	7%
Rode in a car driven by someone who had been recklessly speeding	29.2%	33.9%	33%	38%
Rode in a car driven by someone who had been drinking alcohol	18.9%	22.8%	24%	27%

Among WSFC middle school students, 57.7% reported always wearing a seatbelt. Females were more likely to always wear a seatbelt at 59.2% in comparison to males at 56.0%. Eighth grade students were less likely to report always wearing a seatbelt at 50.4% in comparison to 60.7% of seventh grade students and 62.9% of sixth grade students.





When riding a bike, 14.4% reported wearing a helmet most of the time or always. Males were less likely wear a helmet when biking as 51.5% of male students reported never wearing a helmet in comparison to 39.8% of females. WSFC middle school students were less likely than the state average to never or rarely wear a helmet when biking.

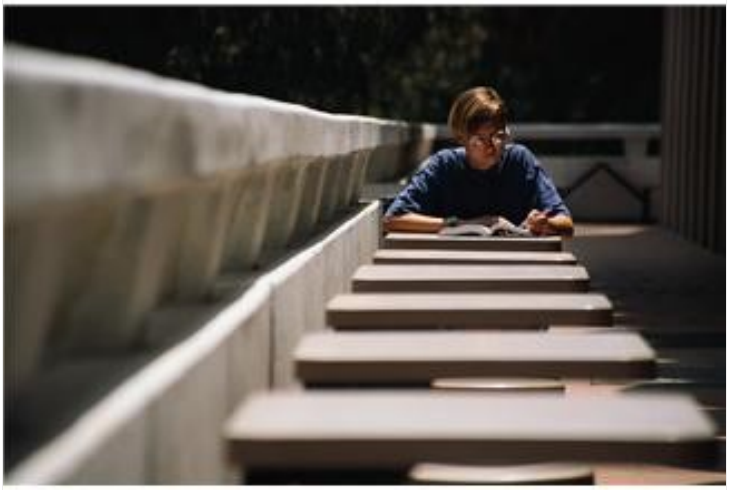
When asked about helmet use when rollerblading or skateboarding, 50.5% did not ride, 33.9% never wore one, 6.6% rarely wore one, 3.9% sometimes wore one, 3.0% wore one most of the time, and 2.2% always wore one.

Eighth grade students were more likely than sixth and seventh grade students to ride in a car with someone who had been recklessly speeding or drinking alcohol. WSFC middle school students reported an increase of 5.1 percentage points since 2009 in riding in a car driven by someone who had been drinking alcohol, while the state average saw a decrease of 4.2 percentage points.

21% less students reported riding in car driven by someone who had been drinking alcohol in 2011 than in 2009

Violence-Related Behavior

Youth violence includes two types of behavior—violent acts and robbery or assault. Violent acts can cause both emotional and physical harm through bullying, slapping, or hitting while robbery or assault can lead to injury or death and performed with or without weapons.[3] Youth violence is considered the second leading cause of death for young people between 10 and 24 years old.[3] Violence can lead to death, injuries, and disabilities while also affecting the health of communities.[3] Among those youth killed by homicide 86% were males.



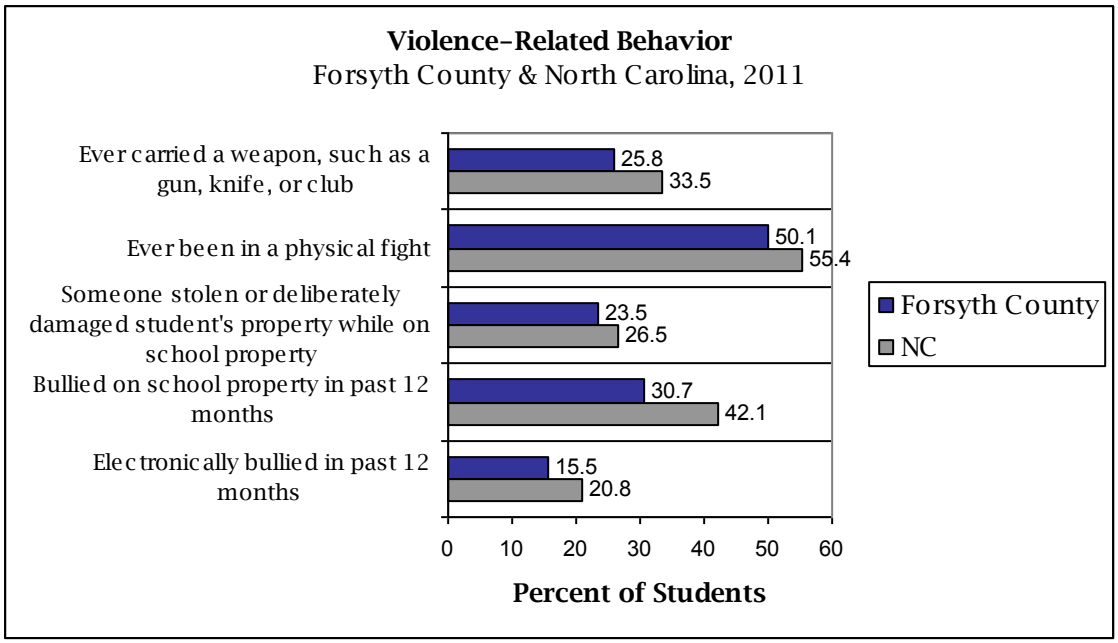
WSFC middle school students reported that 5.1% of them had been threatened or injured with a gun, knife, or club on school property in the past 12 months, while 25.8% have carried a weapon such as a gun, knife, or club. Similar to NC, WSFC saw in a decrease in students carrying weapons since 2009, although WSFC middle school students are less likely to carry weapons in comparison to the state. A smaller amount of students, 3.0%, did not go to school on one or more of the past 30 days because it felt unsafe. Of the students who were in a physical fight (50.1%), 4.7% reported sustaining an injury that needed medical treatment. WSFC middle school students reported at a higher rate that there was gang activity at their school at 30.1% than the state's average of 22.5%.

WSFC middle school students reported decreases on all selected Violence-Related Behavior questions in 2011.

Bullying

Bullying is considered a form of youth violence and includes: attack or intimidation with intention to cause fear, distress, or harm through physical, verbal, or psychological/relational means; imbalance of power between the bully and victim; or repeated attacks or intimidation between the same children over time.[3] Bullying can occur both in-person in through the use of technology in an electronic form.[5] In the 2007-2008 school year, a higher percentage of middle schools reported daily or weekly occurrences of bullying in comparison to elementary and high schools.[5]

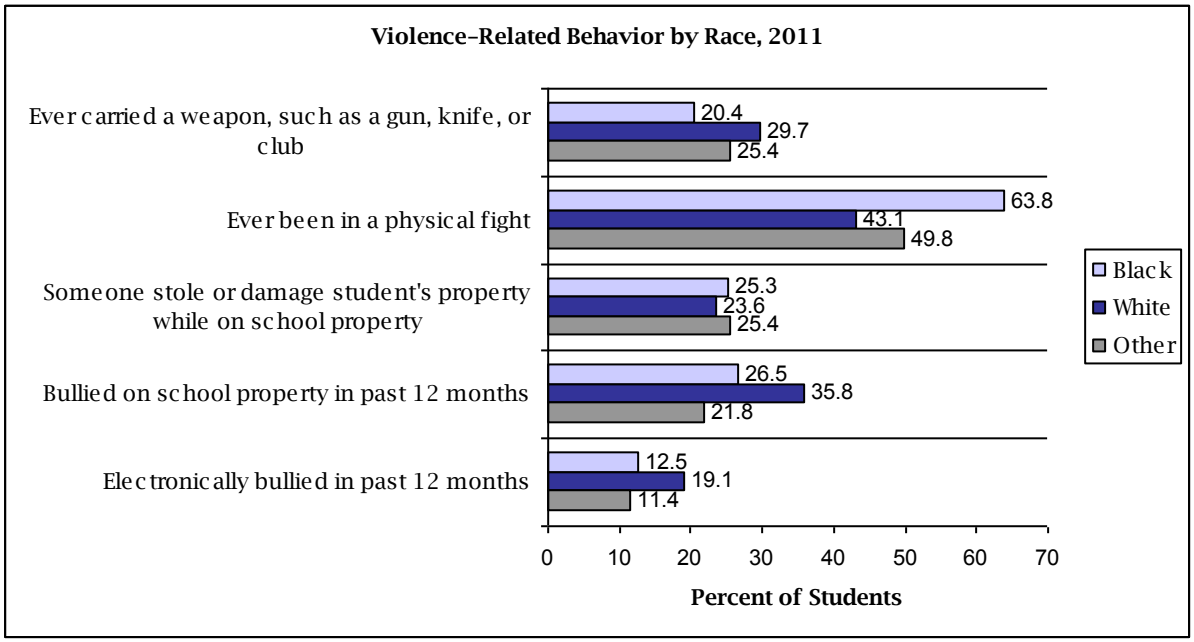
Violence-Related Behavior	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Ever carried a weapon such as a gun, knife, club	25.8%	33.5%	32%	39%
Ever in a physical fight	50.1%	55.4%	53%	53%
Someone stole or damage student's property while at school	23.5%	26.5%	28%	28%
Bullied on school property in past 12 months	30.7%	42.1%	34%	42%
Electronically bullied in past 12 months	15.5%	20.8%	19%	21%



Bullying affects health in the form of physical injury, social and emotional distress, and even death.[5]

Victims of bullying have an increased risk for mental health problems, psychosomatic complaints, and poor school adjustment while the youth who are committing acts of bullying have an increased risk for substance use, academic problems and violence later in life.[3]

A higher percentage of females, 19.6%, reported being electronically bullied than males at 10.9%. In the past 12 months, 64.7% of students witness other students being bullied in schools. Students reported that 17.3% of them had been victims of teasing or name calling because someone thought they were gay, lesbian, or bisexual.



Sex Education

Sex education is deemed an important health topic as youth are affected by pregnancy, sexually transmitted diseases, and other behaviors that place them at risk for HIV infection.

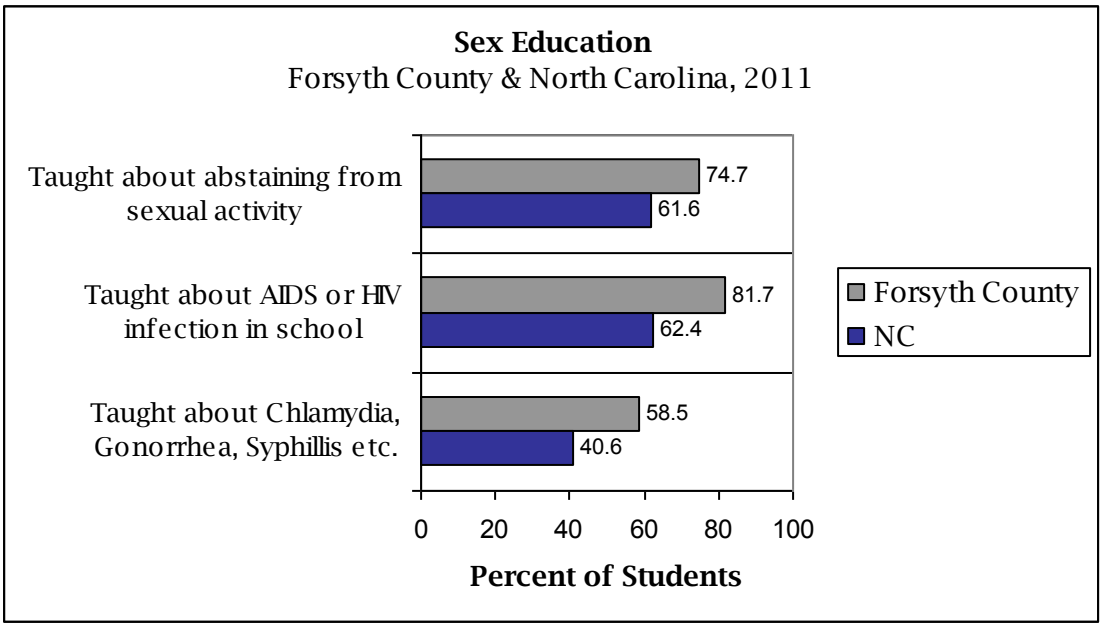
Abstinence

Most middle schools students, 74.7%, reported being taught about abstinence, while females reported a higher percentage level, at 78.5%, than males at 70.4%. The percent of students reporting being taught abstinence also increased with grade levels, as 56.4% of 6th grade students, 77.7% of 7th grade students, and 86.3% of 8th grade students reported that they had been taught about abstinence. WSFC middle school students reported higher than the state average in being taught about abstinence from sexual activity.

AIDS/HIV and other STDs

Most students, 81.7% also reported being taught about AIDS/HIV in schools. Similar to abstinence education, the levels increase with grade levels as 60.2% of 6th grade students, 87.8% of 7th grade students, and 93.0% of 8th grade students reported being taught about AIDS/HIV in school.

There is a difference also between grade levels when asked if taught about other STDs, 22.5% of 6th grade students, 61.5% of 7th grade students, and 85.3% of 8th grade students reported they had been taught. Overall 58.5% of middle school students reported being taught about other STDs. Similar to being taught about abstinence, WSFC middle school students reported higher than the state total of being taught about AIDS and



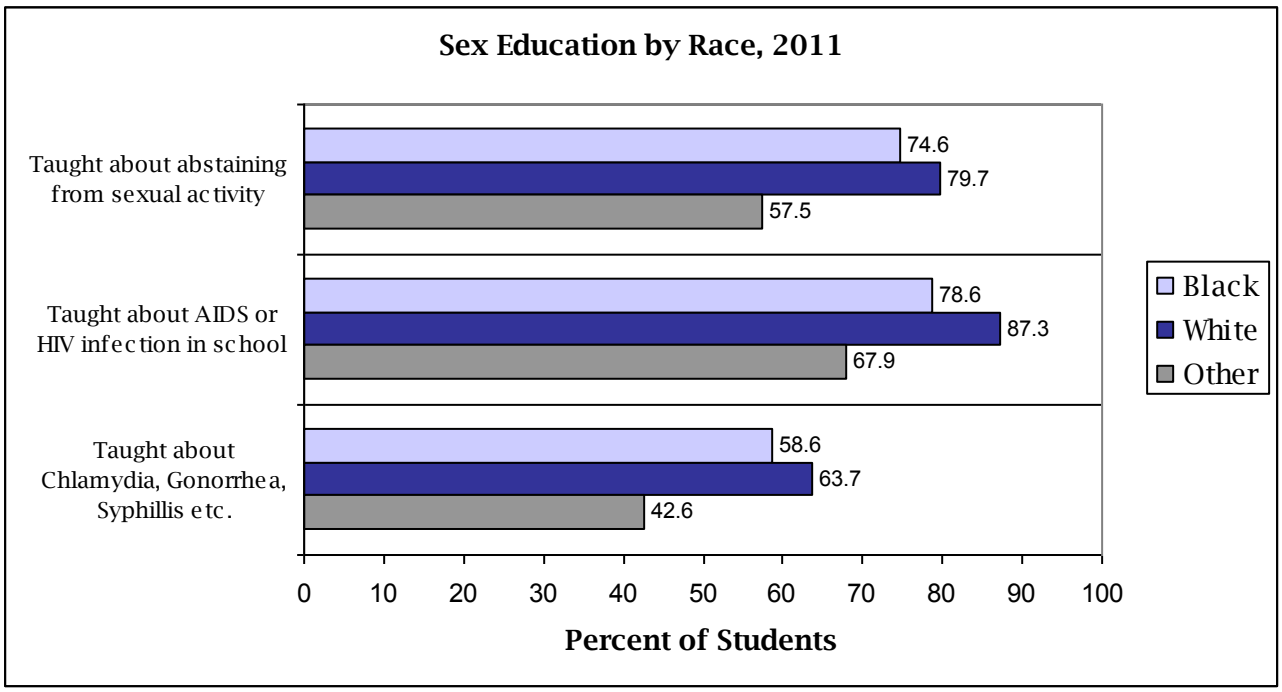
Sex Education	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Taught about abstaining from sexual activity	74.7%	61.6%	72%	66%
Taught about AIDS or HIV infection	81.7%	62.4%	83%	69%
Taught about Chlamydia, Gonorrhea, Syphilis etc	58.5%%	40.6%	55%	49%

HIV as well as Chlamydia, Gonorrhea, Syphilis and other STDs. In contrast to the state total, WSFC middle school females are more likely to have been taught about STDS than middle school males

Parental Expectation

WSFC middle school students reported that 59.6% of them have had their parents or other adults in their family talk with them about what they expected the student to do or not to do when it comes to sex, while 29.0% had not, and 11.4% were unsure.

In between 2009 and 2011Forsyth County saw increases in the percent of students being taught about abstinence and other STDS, while in comparison North Carolina had decreases in the number of students taught about abstinence and other STDS.



Suicide-Related Attitudes & Behavior

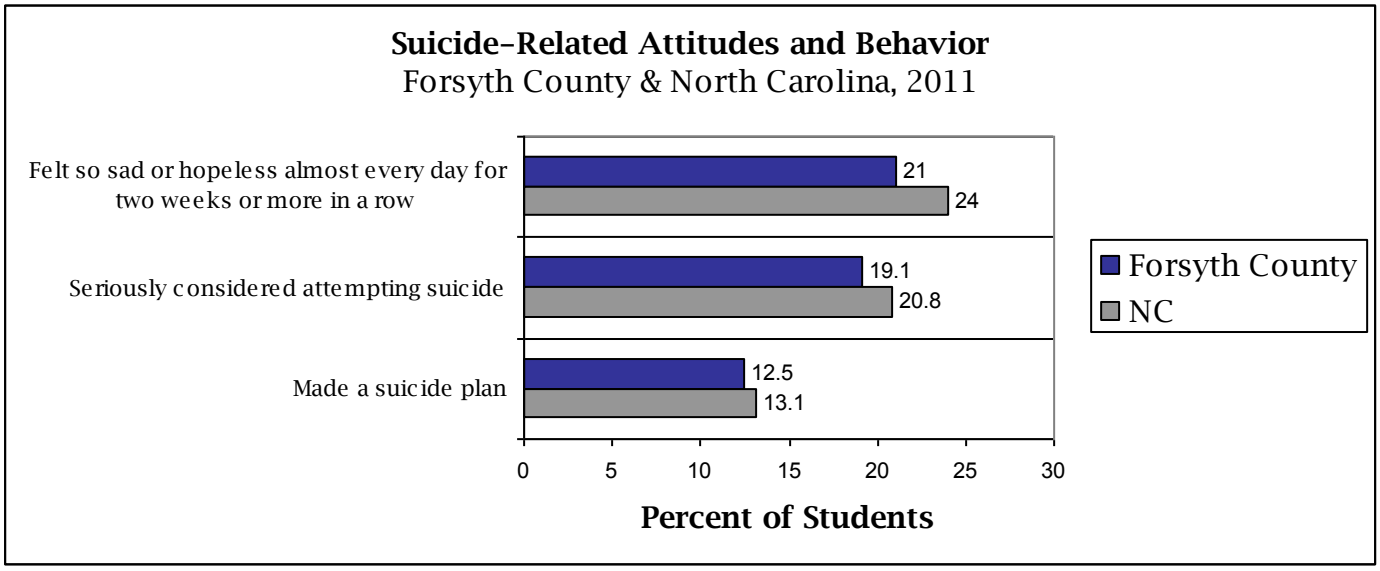
Suicide is the third leading cause of death for youth ages 10-24 years, and accounts for 12% of all deaths for this age group.[2] Males are more likely to die from suicide then females in the 10-24 years old age group, while females are more likely to report having attempted suicide than males. Hispanic youth were more likely to report attempting suicide than their white or black counterparts, while Native American/Alaskan Native youth have higher rates of suicide related fatalities.

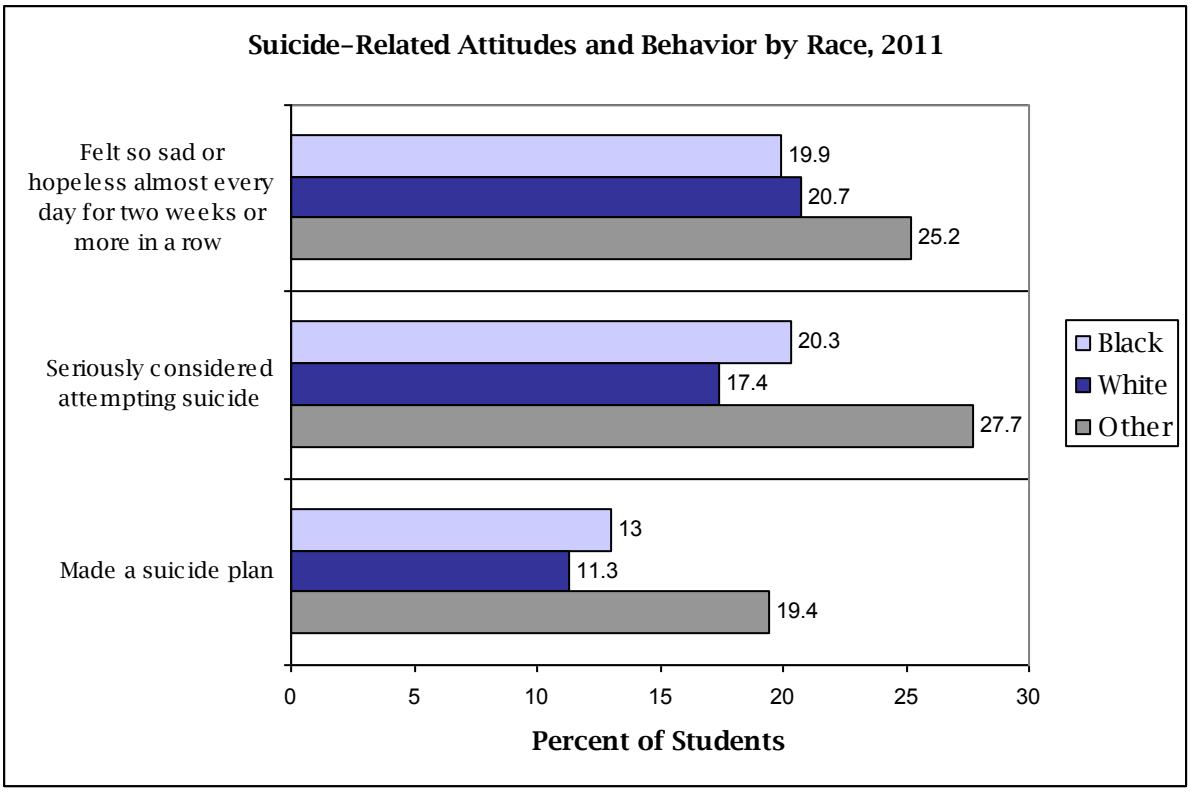
Suicide-Related Attitudes & Behavior	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Felt so sad or hopeless almost every day for two weeks or more in a row	21%	24%	26%	23%
Seriously considered attempting suicide	19.1%	20.8%	20%	19%
Made a suicide plan	12.5%	13.1%	15%	13%

12% less students made a suicide plan in Forsyth County in 2011 than in 2009, while North Carolina saw no changes

WSFC middle school students reported that 21.0% of them had feelings of sadness or hopelessness for two weeks or more in a row that they stopped doing some usual activities. When asked about suicide, 19.1% reported seriously considering attempting suicide, with 22.2% of females reporting that while 15.6% of males said they did. Females were also more likely than males to report having made a suicide plan, 14.8% vs. 10.0%.

Students reported that 9.3% of them had tried to kill themselves. A higher percentage females, 10.8%, reported that they have tried to kill themselves than males at 7.5%.





Middle school students talk to friends or siblings (40.8%), parent or other adult family member (24.6%), or some other person (5.7%) when they feel sad, empty, hopeless, angry, or anxious. A higher rate of males, 34.9%, reported not feeling sad in comparison to 17.6% of females.

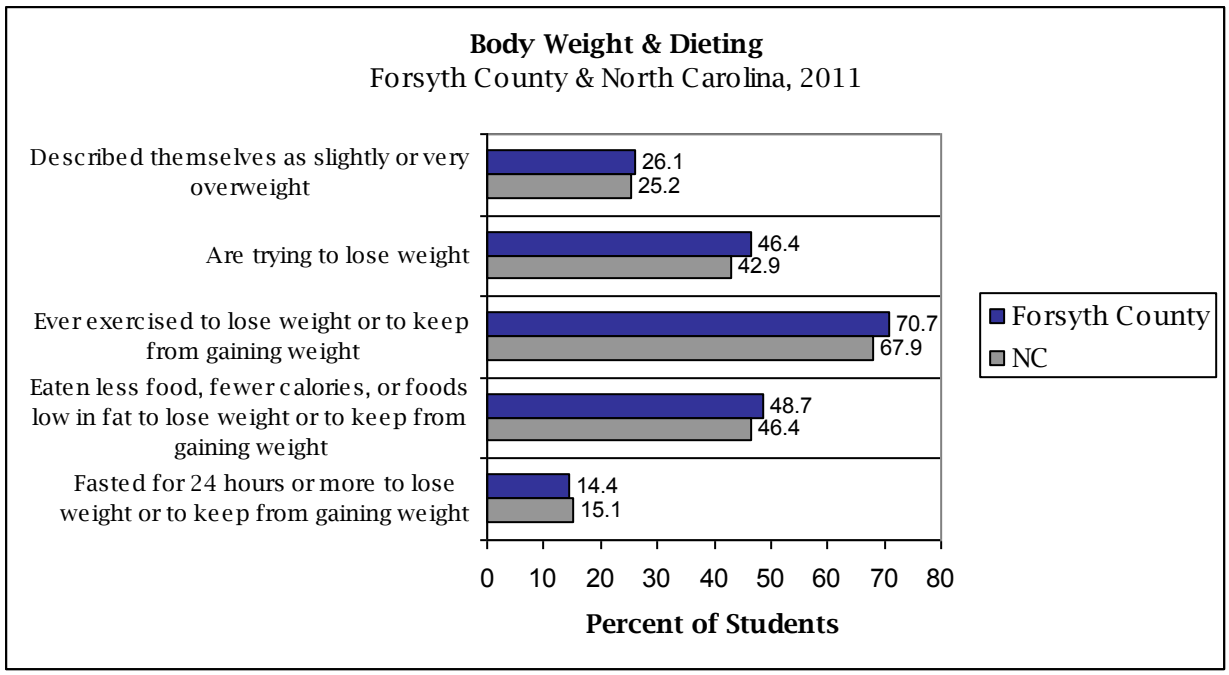
Body Weight & Dieting

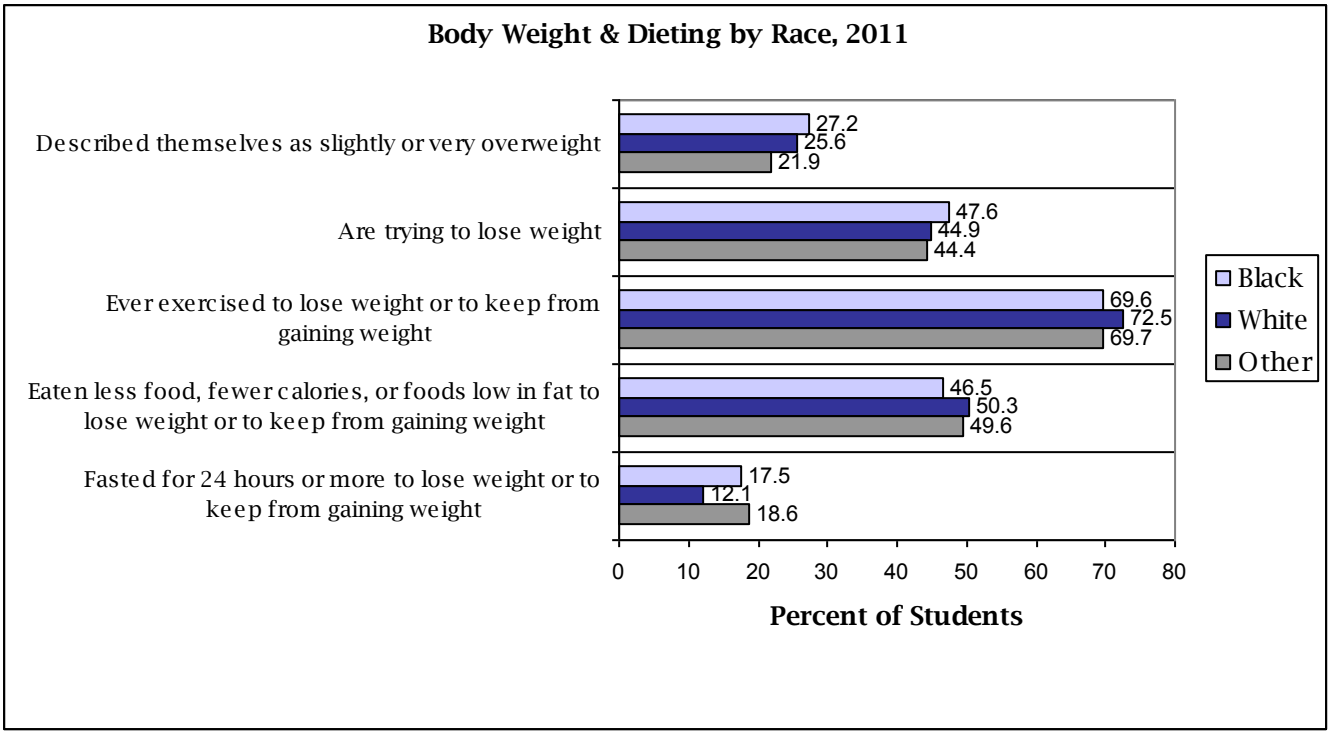
Obesity in children has more than tripled in the past 30 years. In 2008 of the nation's children 20% of children between 6-11 years old were obese, while 18% adolescents aged 12-19 were considered obese.[6] There are both immediate and long-term effects on health and well-being for youth who are obese.[6]

Body Weight & Dieting	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Described themselves as slightly or very overweight	26.1%	25.2%	26%	26%
Are trying to lose weight	46.4%	42.9%	47%	46%
Ever exercised to lose weight or to keep from gaining weight	70.7%	67.9%	70%	71%
Eaten less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight	48.7%	46.4%	43%	46%
Fasted for 24 hours or more to lose weight or to keep from gaining weight	14.4%	15.1%	15%	15%

These effects include[6]:

- Increased risk factor for cardiovascular disease (high cholesterol, high blood pressure)
- Increased likelihood to have pre-diabetes
- Increased risk for bone and joint problems, sleep apnea, and social and psychological problems (stigmatization and poor self-esteem)
- Increased likelihood to be obese adults
- Increased risk for cancers





In WSFC middle schools 28.6% of female students and 23.2% of male students described themselves as either "slightly overweight" or "very overweight." Most students, 56.5%, described themselves as being at "about the right weight." More females, 54.9%, were trying to lose weight in comparison to 36.7% of males.

- 5.2% of students reported they had taken diet pills, powders or liquids without doctor's advice to lose weight or keep from gaining weight (excluding meal replacement products like Slim Fast)
- 6.7% reported they have vomited or taken laxatives to lose weight or to keep from gaining weight
    - Males and females reported about the same percentages with 6.4% and 6.8% respectively
- 18.4% reported skipping meals to lose weight or keep from gaining weight in the past 30 days

Meals

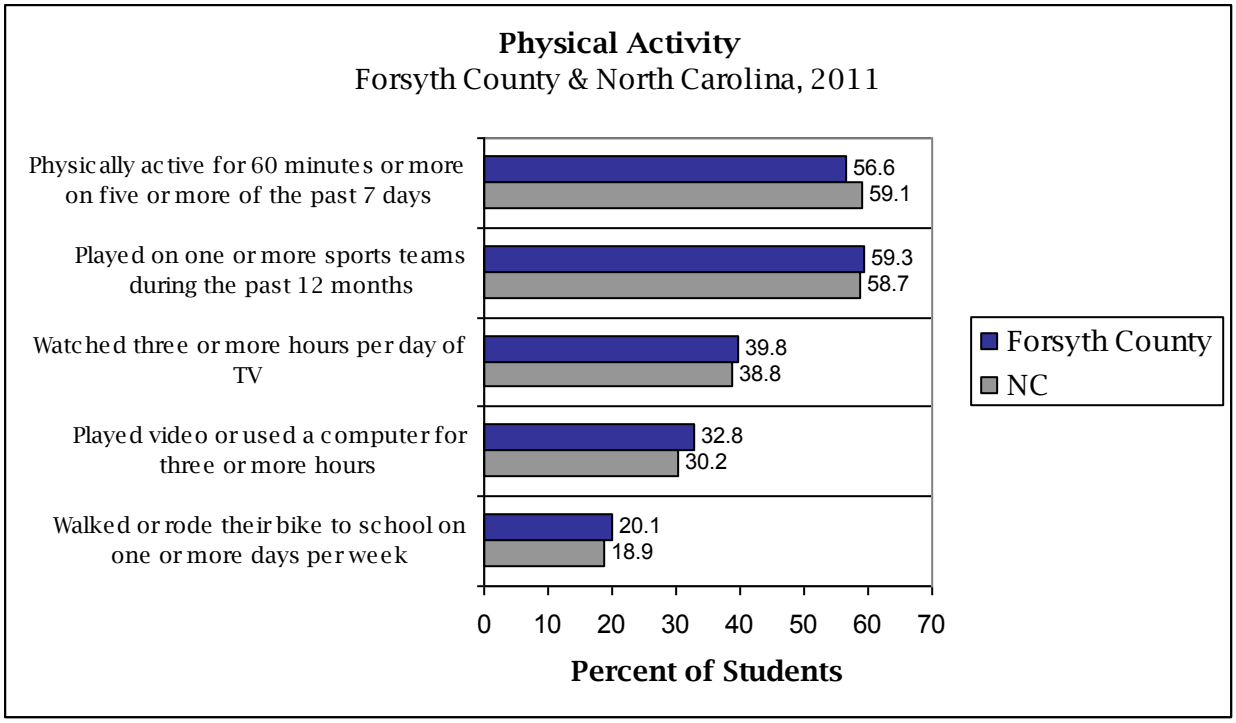
Students reported in the past 7 days:

- 45.9% ate breakfast on all days
- 48.7% ate dinner at home on all days with family

Physical Activity and Health

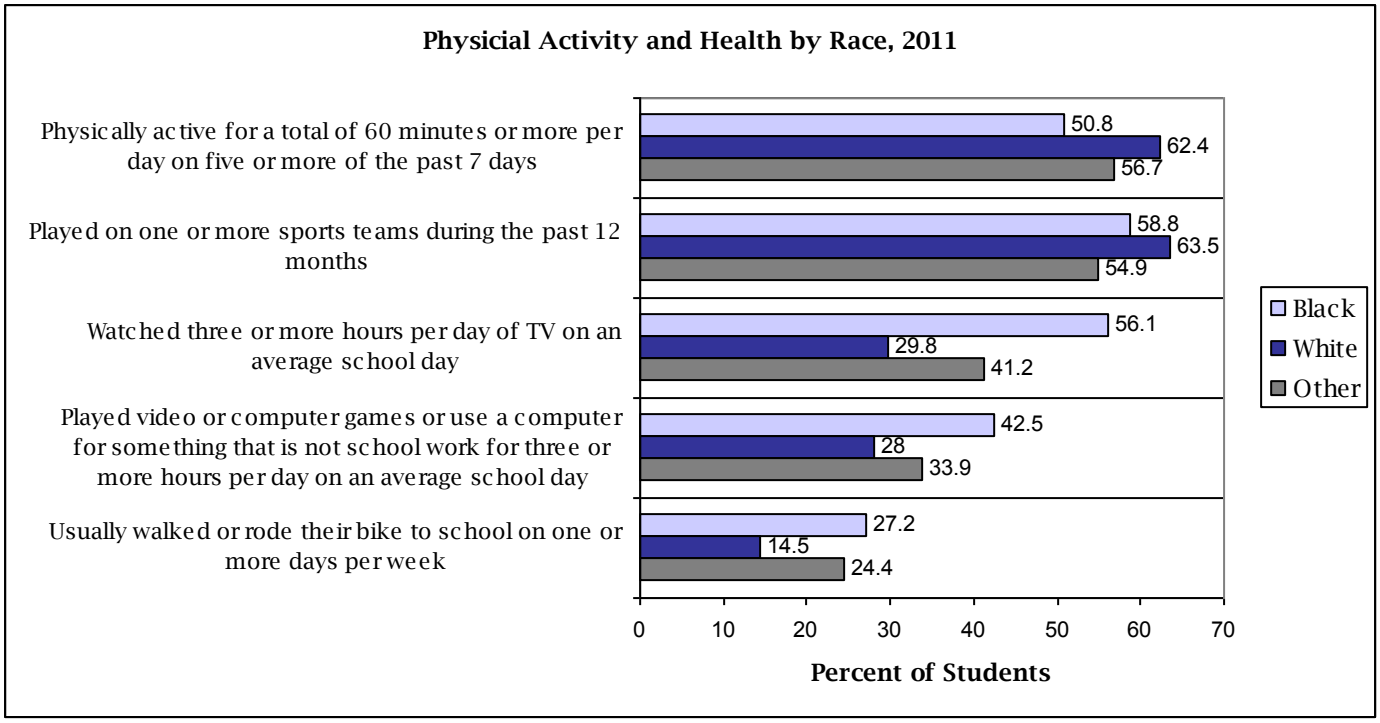
Physical activity has multiple benefits for children and adolescents that include[7]:

- Improvements in strength and endurance
- Builds healthy bones and muscles
- Controls weight
- Reduces anxiety and stress
- Improves self-esteem levels
- Improves blood pressure and cholesterol levels
- Improves academic performance
- Reduces risk for developing chronic diseases



Youth between the ages of 6 and 17 years old are recommended to receive at least 60 minutes of physical activity daily.[7] Physical inactivity can result in increased risk for diseases and illnesses related to overweight and obesity.

Physical Activity & Health	***2011 WSFCS***	***2011 NC***	***2009 WSFCS***	***2009 NC***
Physically active for a total of 60 minutes or more per day on five or more of the past seven days	56.6%	59.1%	55%	60%
Played on one or more sports teams during the past 12 months	59.3%	58.7%	57%	62%
Watched three or more hours per day of TV on an average school day	39.8%	38.8%	41%	38%
Played video or computer games or use computer for something that is not school work for three or more hours per day on an average school day	32.8%	30.2%	28%	26%
Usually walked or rode their bike to school on one or more days per week	20.1%	18.9%	20%	19%

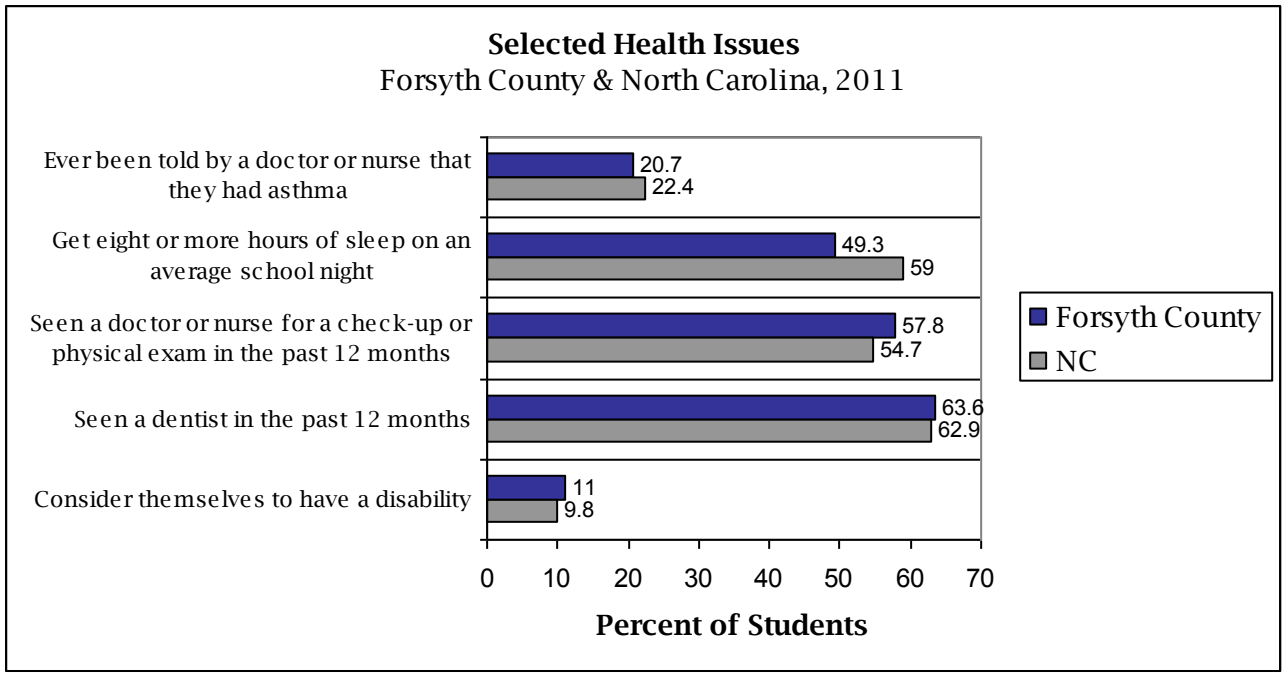


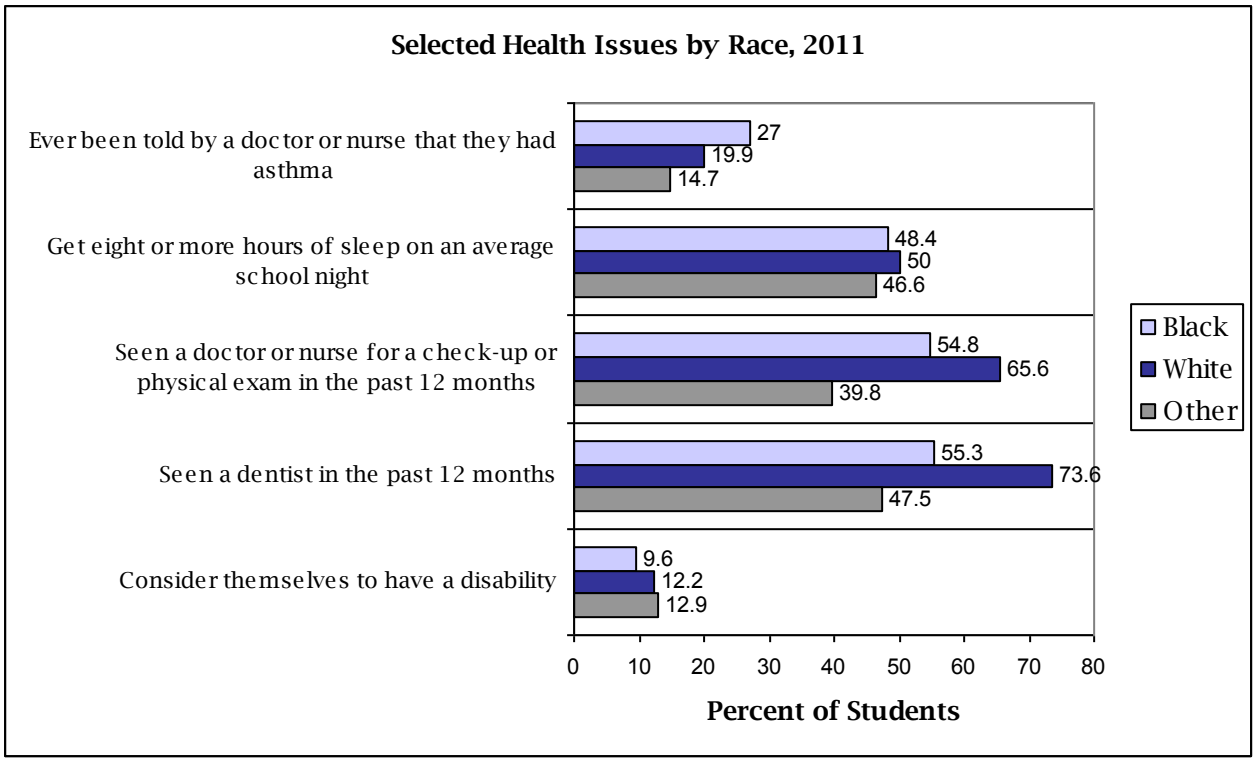
Selected Health Issues

Other conditions also affect youth. Health conditions such as asthma is common among youth. Asthma is one of the leading chronic diseases among youth in the Nation and a leading cause of school absenteeism.[8] Youth who are low-income, minorities, or live in inner cities experience asthma that results in more emergency department visits, hospitalizations, and death than the general population.[8]

Selected Health Issues	*2011 WSFCS*	*2011 NC*	*2009 WSFCS*	*2009 NC*
Ever been told by a doctor or nurse that they had asthma	20.7%	22.4%	20%	19%
Get eight or more hours of sleep on an average school night	49.3%	59%	51%	58%
Seen a doctor or nurse for a check-up or physical exam in the past 12 months	57.8%	54.7%	58%	58%
Seen a dentist in the past 12 months	63.6%%	62.9%	61%	63%
Consider themselves to have a disability	11%	9.8%	11%	12%

The amount of sleep teens receive is another health issue as sleep is recognized as important to public health. Sleep deficiency is linked to motor vehicle crashes, industrial disasters, as well as errors in medical and other occupations.[9] Sleep deficiency also increases risk for chronic diseases. Teens ages 10-17 years old are recommended to receive 8.5-9.25 hours of sleep a night. [10] In addition the overall health of teens rely on both regular physical visits for physicals and dental visits twice a year.





Overall, WSFC middle school students reported that:

- 17.0% strongly agreed or agreed that they felt alone in life
- 77.9% strongly agreed or agreed that they feel good about themselves
- Average hours of sleep per night was 7.3 hours
- 50.4% participated in school activities other than sports, such as band, drama, student government etc.
- 60% strongly agreed or agreed that their teacher really cares about them and gives them encouragement
- Reported higher percentages than the state total for seeing a doctor or nurse for a check-up

- Reported higher percentages for having an asthma action plan on file at school than the state total (13.3% versus 5.0%)

References

1. Centers for Disease Control and Prevention. (2010). Healthy Youth: Alcohol & Drug Use. Retrieved from: http://www.cdc.gov/healthyyouth/alcoholdrug/index.htm
2. Centers for Disease Control and Prevention. (2010). Healthy Youth: Injury & Violence. Retrieved from: http://www.cdc.gov/healthyyouth/injury/index.htm
3. Centers for Disease Control & Prevention. (2010). Understanding Youth Violence Fact Sheet. Retrieved from: http://www.cdc.gov/ViolencePrevention/pdf/YV-FactSheet-a.pdf
4. Centers for Disease Control & Prevention. (2010). Youth Violence: Facts at a Glance. Retrieved from: http://www.cdc.gov/ViolencePrevention/pdf/YV-DataSheet-a.pdf
5. Centers for Disease Control and Prevention. (2011). Understanding Bullying Fact Sheet. Retrieved from: http://www.cdc.gov/ViolencePrevention/pdf/Bullying_Factsheet-a.pdf
6. Centers for Disease Control and Prevention. (2011). Adolescent and School Health: Childhood Obesity Facts. Retrieved from: http://www.cdc.gov/healthyyouth/obesity/facts.htm
7. Centers for Disease Control and Prevention. (2011). Adolescent and School Health: Physical Activity Facts. Retrieved from: http://www.cdc.gov/healthyyouth/physicalactivity/facts.htm
8. Centers for Disease Control and Prevention. (2012). Healthy Youth: Asthma. Retrieved from http://www.cdc.gov/HealthyYouth/asthma/
9. Centers for Disease Control and Prevention. (2011). CDC Feature: Insufficient Sleep is a Public Health Epidemic. Retrieved from http://www.cdc.gov/Features/dsSleep/
10. Centers for Disease Control and Prevention. (2012). About Sleep: How Much Sleep Do I Need? Retrieved from http://www.cdc.gov/sleep/about_sleep/how_much_sleep.htm