2011 Youth Risk Behavior Survey
Winston–Salem/Forsyth County High School Students
Survey Highlights

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Winston-Salem/Forsyth County School System &

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Epidemiology and Surveillance Division

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Table of Contents

Introduction & Overview……...3
Alcohol, Tobacco, & Other Drugs ……...…4
Automobile & Bicycle Safety……6
Violence-Related Behavior ……..8
Sex Behavior…..……..10
Suicide-Related Attitudes & Behavior……...…12
Weight Management & Nutrition……..……..…14
Physical Activity & Health……..16
Selected Health Issues……...…18

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 among 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 communities.

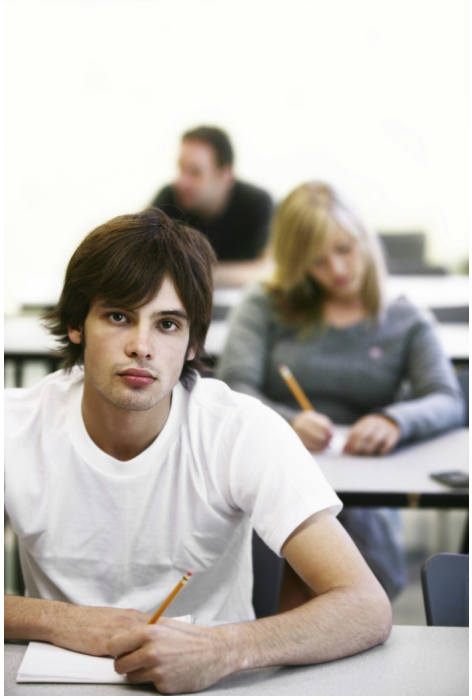
The survey has been adapted to meet the needs of North Carolina as both middle school and high school students are sampled across the state by North Carolina Healthy Schools. The survey is conducted every 2 years to assess health risk behaviors that contribute to some of the leading cause of morbidity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

Characteristic	WSFC High Schools (%)	Survey Participants (%)
Grade		
9th	28.4	32.6
10th	25.3	30.9
11th	25.0	21.6
12th	21.3	14.9
Race		
White	47.2	58.3
Black	34.1	32.8
Other	18.7	8.9

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 13 public high schools in WSFC to a total of 1,532 high 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.

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 and other drugs 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. [1] Among illicit drugs, marijuana is the most used in youth.[1]

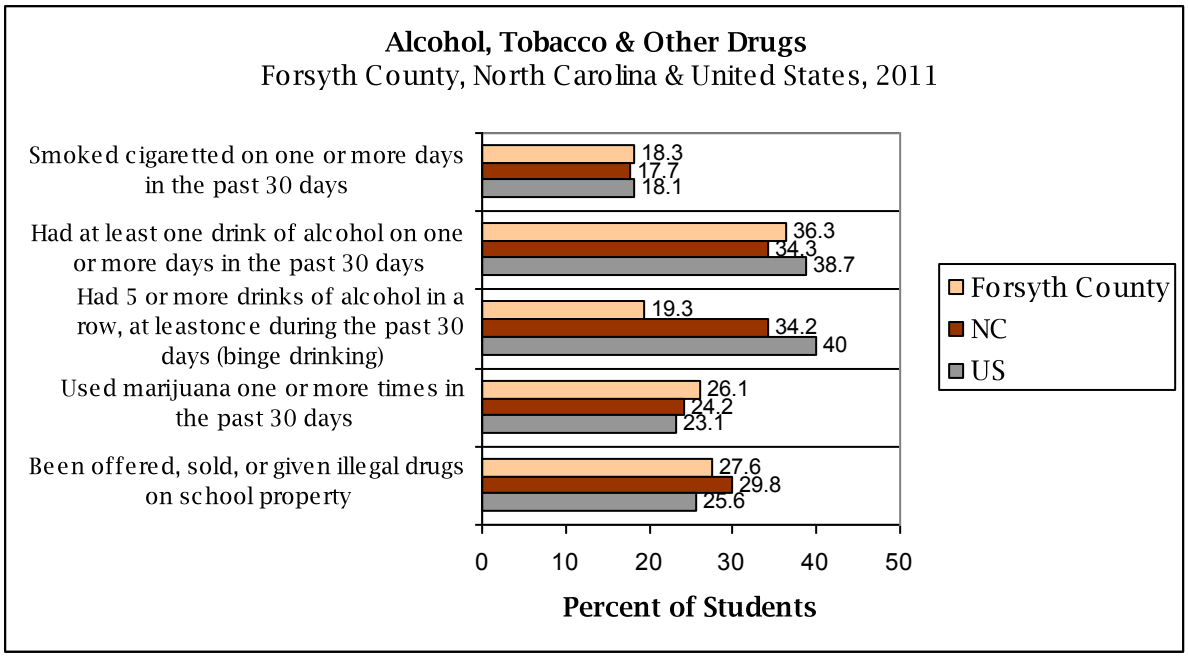
Overall WSFC high school students reported having used alcohol, cigarettes and other tobacco, inhalants, marijuana, cocaine, steroids and other prescription drugs. Males have higher rates of lifetime alcohol, tobacco, and other drugs (ATOD) use in all categories. WSFC 12th grade students reported the age of first use for alcohol, cigarettes, and marijuana occurred between the average age of 11.3-11.9 years.

WSFC high school students reported the following lifetime prevalence-of-use rates:

- 61.5% consumed alcohol
- 42.8% used marijuana
- 31.2% smoked cigarettes
- 17.7% used prescription drugs without a prescription

Alcohol Use

Students reported that 40% of them had their first drink of alcohol between 13 and 16 years old. Students reported that 7.3% of them had at least one drink of alcohol on school property in the past 30 days. Overall, 63.7% of students reported not drinking in the past 30 days.



Tobacco Use

Cigarette use by all high school students at any point in their lives was reported by 28.8% of females and 33.2% of males. In the past 30 days, 8.2% of students reported using chewing tobacco, snuff, or dip on more that 1 days.

Alcohol, Tobacco, & Other Drugs	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Smoked cigarettes on one or more days in the past 30 days	18.3%	17.7%	18.1%	19%	18%	20%
Had at least one drink of alcohol on one or more days in the past 30 days	36.3%	34.3%	38.7%	37%	35%	42%
Had 5 or more drinks of alcohol in a row, on at least 1 day during the past 30 day (binge)	19.3%	34.2%	40.0%	20%	19%	24%
Used marijuana one or more times in the past 30 days	26.1%	24.4%	23.1%	22%	20%	21%
Been offered, sold, or given illegal drugs on school property	27.6%	29.8%	25.6%	30%	30%	23%

Other Drugs

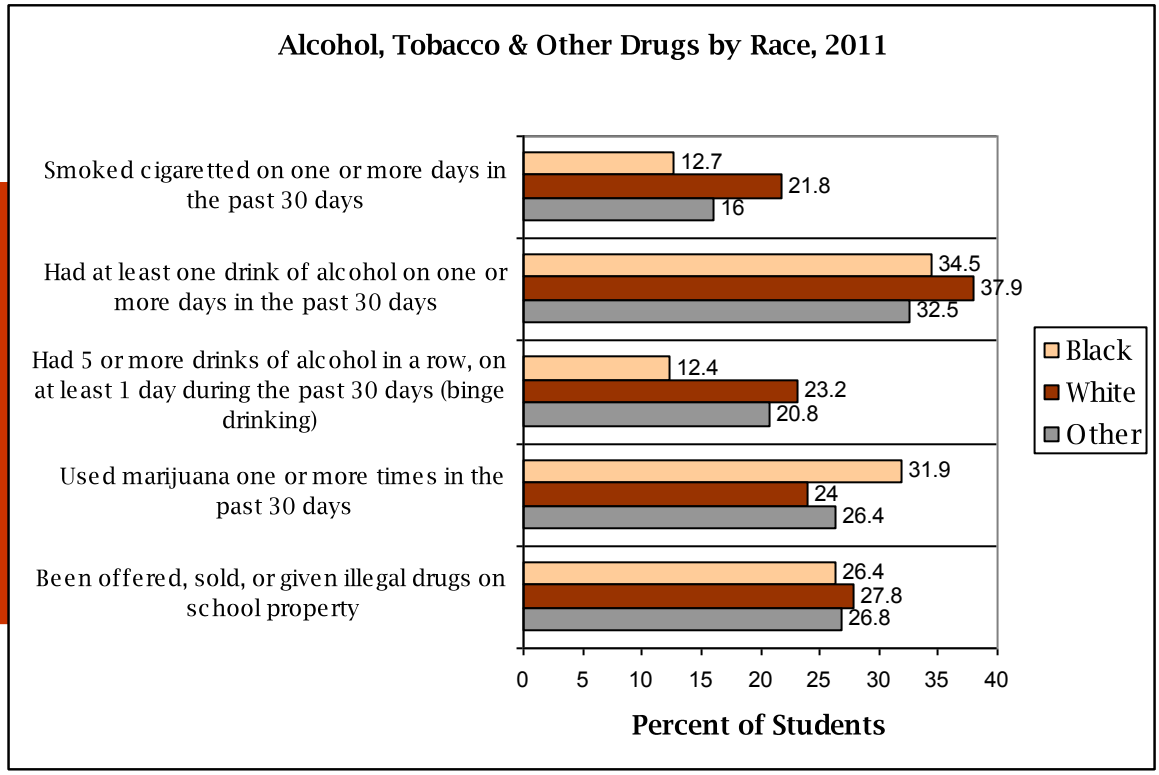
Other drugs had lower reported rates of use. Over half of students, 57.4%, said they have never tried marijuana. Most students, 30.6%, were between the ages of 13-16 when they tried marijuana for the first time. Only 7.5% of students reported using marijuana on school property at least once in the past 30 days.

Other drug use reported by WSFC high school students:

- 7.5% have used cocaine (crack or freebase)
- 11.5% have used inhalants (aerosol spray cans, paints, other sprays)
- 5.4% have used methamphetamines (speed, crystal, crank, or ice)
- 4.1% have taken steroid pills or shots without a doctor's prescription
- 17.7% have used prescription drugs (OxyContin, Percocet, Vicodin, Adderall, Ritalin, Xanax) without a doctor's prescription

18.6% more students reported using marijuana one or more times in the past 30 days in 2011 than in 2009

When using alcohol or drugs, 16.2% of students have gotten into trouble with family or friends, missed school, or gotten into fights



Automobile and Bicycle Safety

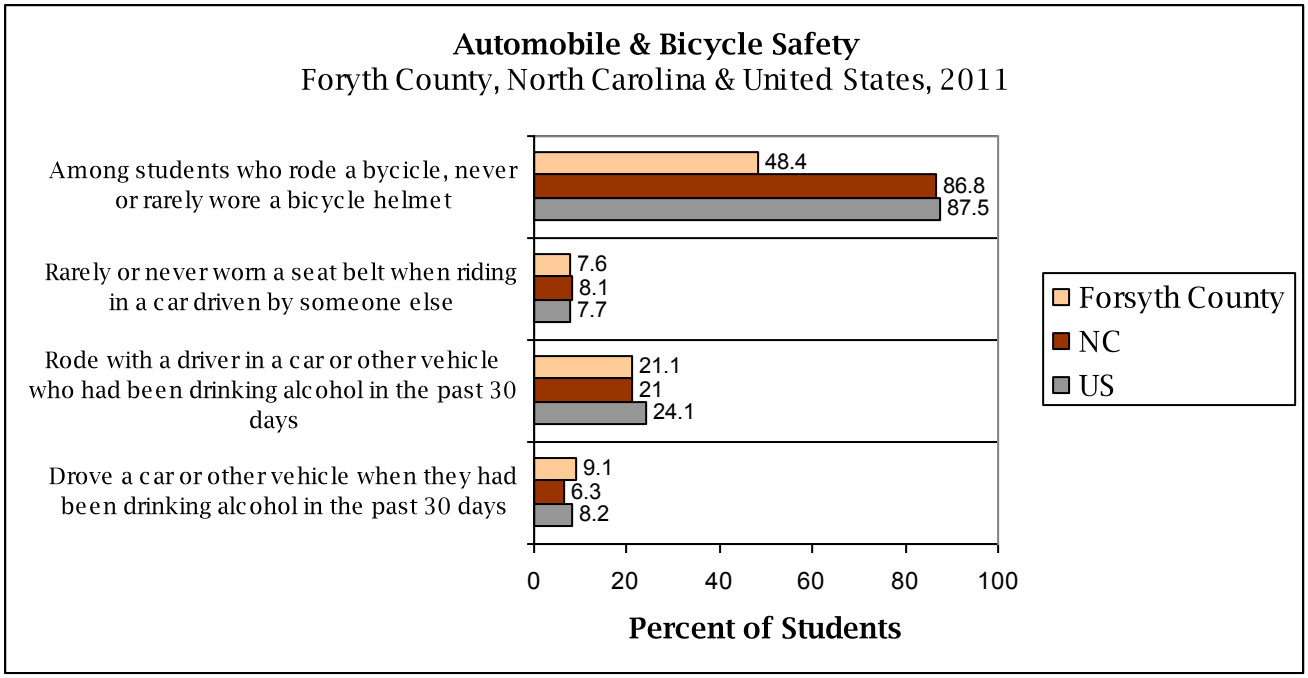
Injuries are the leading cause of death or disability for individuals aged 1-44 years. For adolescents aged 10-24 years old motor vehicle crashes attributed to 30% of deaths in this group from injuries sustained in the crash.[2]

Automobile & Bicycle Safety	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Among students who rode a bicycle, never or rarely wore a bicycle helmet	48.4%	86.8%	87.5%	44%	84%	85%
Rarely or never worn a seat belt when riding in a car driven by someone else	7.6%	8.1%	7.7%	8%	7%	10%
Rode with a driver in a car or other vehicle who had been drinking alcohol in the past 30 days	21.1%	21.0%	24.1%	21%	21%	28%
Drove a car or other vehicle when they had been drinking alcohol in the past 30 days	9.1%	6.3%	8.2%	8%	8%	10%

Among WSFC high school students, 56.3% reported always wearing a seatbelt. When riding a bike, 7.0% reported wearing a helmet most of the time or always.

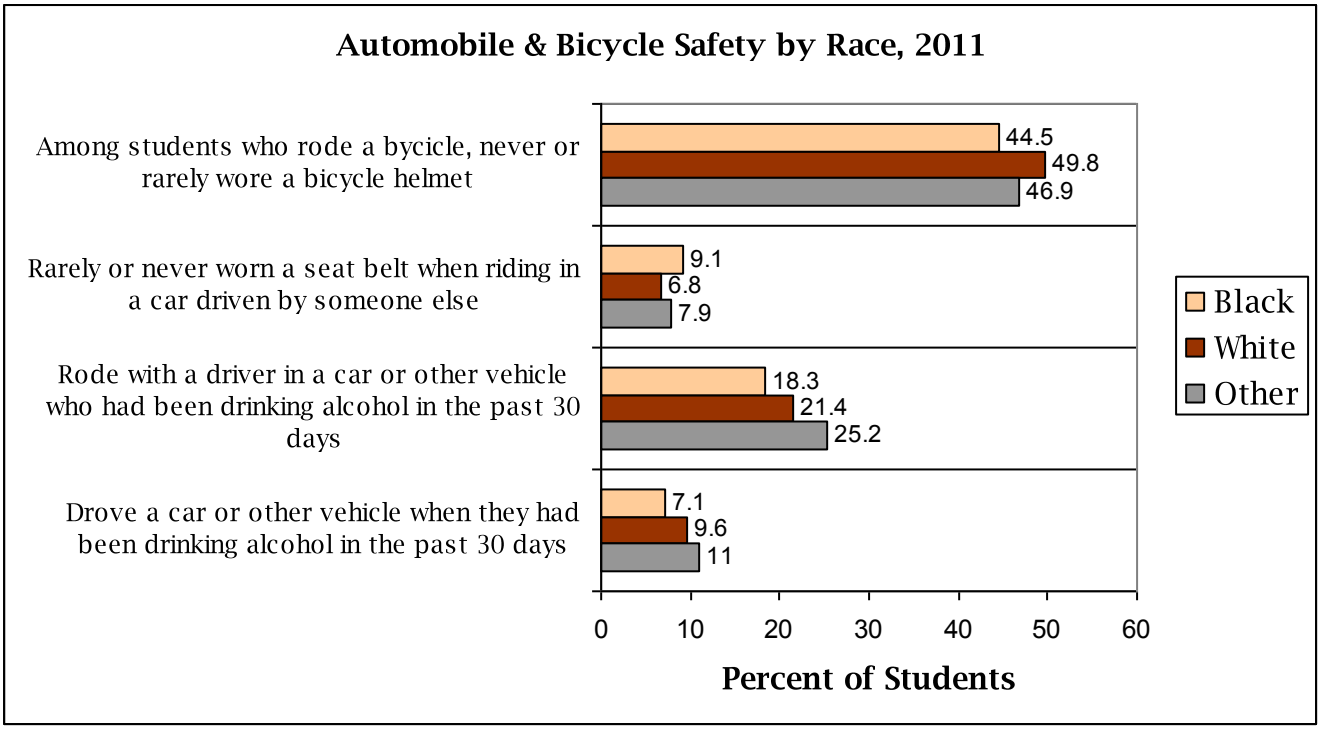
During the past 30 days, 30.2% of high school students reported they text or email while driving a car or other vehicle more than once. The percent of students texting or emailing while driving a car or other vehicle in the past 30 days increases with grade level :

- 55.1% of 12th grade students
- 41.9% of 11th grade students
- 28.7% of 10th grade students



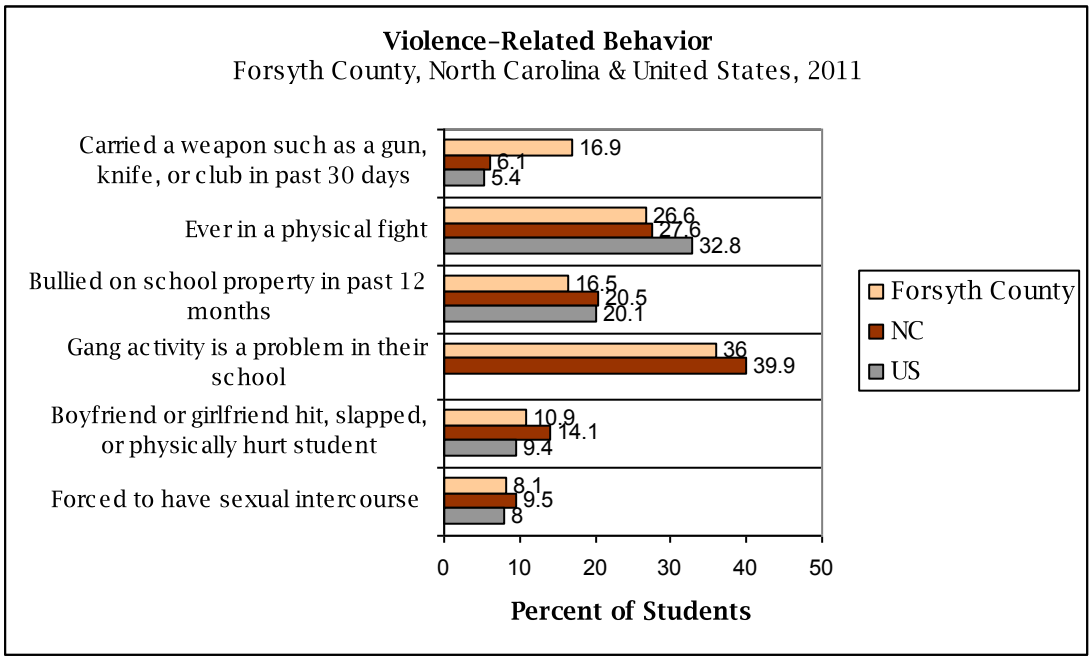
10% more students reported never or rarely wearing a helmet when riding a bicycle in 2011 than in 2009

Males were more likely to drive a car under the influence of alcohol (10.4% versus 7.4%) or send a text or email (32.5% versus 27.6%). Females were more likely than males to ride in a car with someone who had been drinking alcohol (21.5% versus 20.6%).



Violence & Bullying

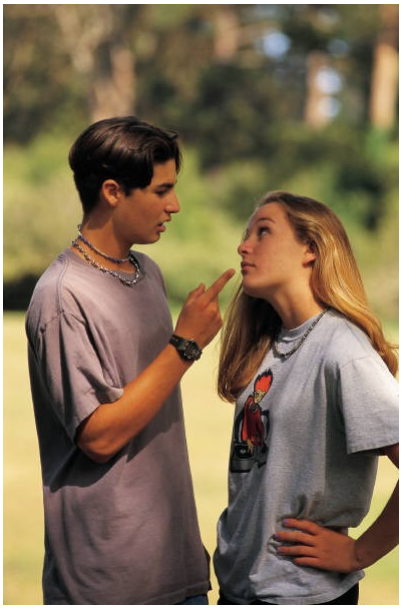
Youth violence includes two types of behavior—violent acts and robbery or assault.[3] Violent acts can cause both emotional and physical harm through bullying, slapping, or hitting.[3] Robbery or assault can lead to injury or death and performed with or without weapons.[3] Youth violence is considered 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]

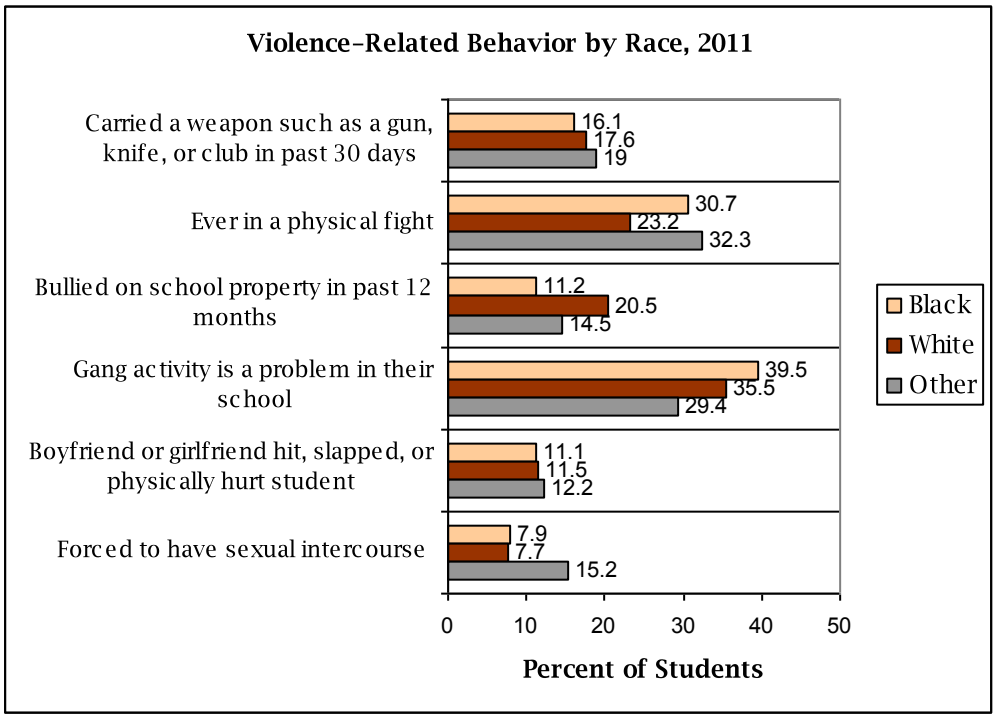


WSFC high school students reported that 6.4% of them had been threatened or injured with a gun, knife, or club on school property in the past 12 months. Males students had a higher percentage reporting that they did not go to school on one or more days in the past 30 days due to feeling unsafe, at 6.5% compared to 4.9% of females. In the past 12 months, 4.2% of students reported sustaining an injury from a physical fight that needed medical treatment.

Dating Violence

- 10.9% of them had been hit, slapped, or physically hurt by their boyfriend or girlfriend on purpose
  - 12.7% of males had been physically hurt
  - 8.8% of females had been physically hurt
- 8.1% of students reported being physically forced to have sexual intercourse when they did not want to
  - 6.3% of males were physically forced to have intercourse
  - 10.2% of females were physically forced to have intercourse





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.[4] Victims of bullying have an increased risk for mental health problems, psychosomatic complaints, and poor school adjustment while the youth abusers of bullying have an increased risk for substance use, academic problems and violence later in life.[4]

Additionally:

- 18.3% of females were electronically bullied in past 12 months
- 8.4% of males electronically bullied in past 12 months
- 57.0% witnessed other students being bullied in past 12 months
- 10.7% were teased or called names because someone thought they were gay, lesbian, or bisexual.

Violence-Related Behavior	***2011 WSFCS***	***2011 NC***	***2011 US***	***2009 WSFCS***	***2009 NC***	***2009 US***
Carried a weapon such as a gun, knife, club in past 30 days	16.9%	6.1%	5.4%	17%	20%	18%
Ever in a physical fight	26.6%	27.6%	32.8%	29%	29%	32%
Bullied on school property in past 12 months	16.5%	20.5%	20.1%	14%	17%	20%
Gang activity is a problem in their school	36.0%	39.9%	n/a	32%	36%	n/a
Boyfriend or girlfriend hit, slapped, or physically hurt student	10.9%	14.1%	9.4%	12%	13%	10%
Forced to have sexual intercourse	8.7%	9.5%	8.0%	8%	9%	7%

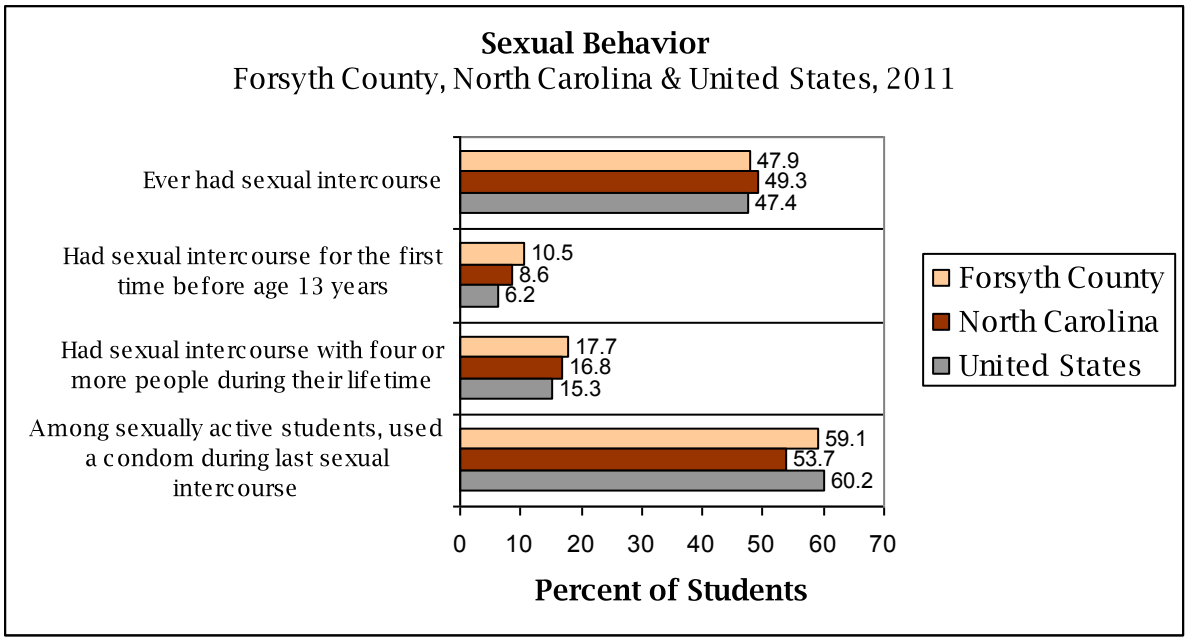
Sexual Behavior

Sex education is deemed a health topic as youth engage in behaviors that lead to pregnancy, sexually transmitted diseases, and place them at risk for HIV infection. Nationally 46% of high school students have had sex, with 39% not using a condom during last sexual intercourse.[5] In 2010 Forsyth County had 636 pregnancies for teens between the ages of 15-19 years old.[6] The same year there were 1,010 sexually transmitted diseases among youth ages 10-19 years including syphilis, chlamydia, and gonorrhea additionally 4 cases of HIV were diagnosed and 1 case of AIDS was diagnosed among this age group.[6]

Sexual Intercourse

The average age of first sexual intercourse for WSFC high school students is 14. Students who engaged in sexual intercourse increased with grade levels:

- 36.7% of 9th grade students
- 45.6% of 10th grade students
- 55.1% of 11th grade students
- 67.6% of 12th grade students
- Males had an average of 3.3 partners during their lifetime
- Females had an average of 2.8 partners during their lifetime
- Males who were sexually active in the past 3 months had an average of 2.1 sex partners
- Females who were sexually active in the past 3 months had an average of 1.4 sex partners
- 10.7% of students reported drinking alcohol or using drugs prior to having sexual intercourse
    - 12.7% of males drank alcohol or used drugs prior to having sexual intercourse
    - 8.6% of females drank alcohol or used drugs prior to having sexual intercourse

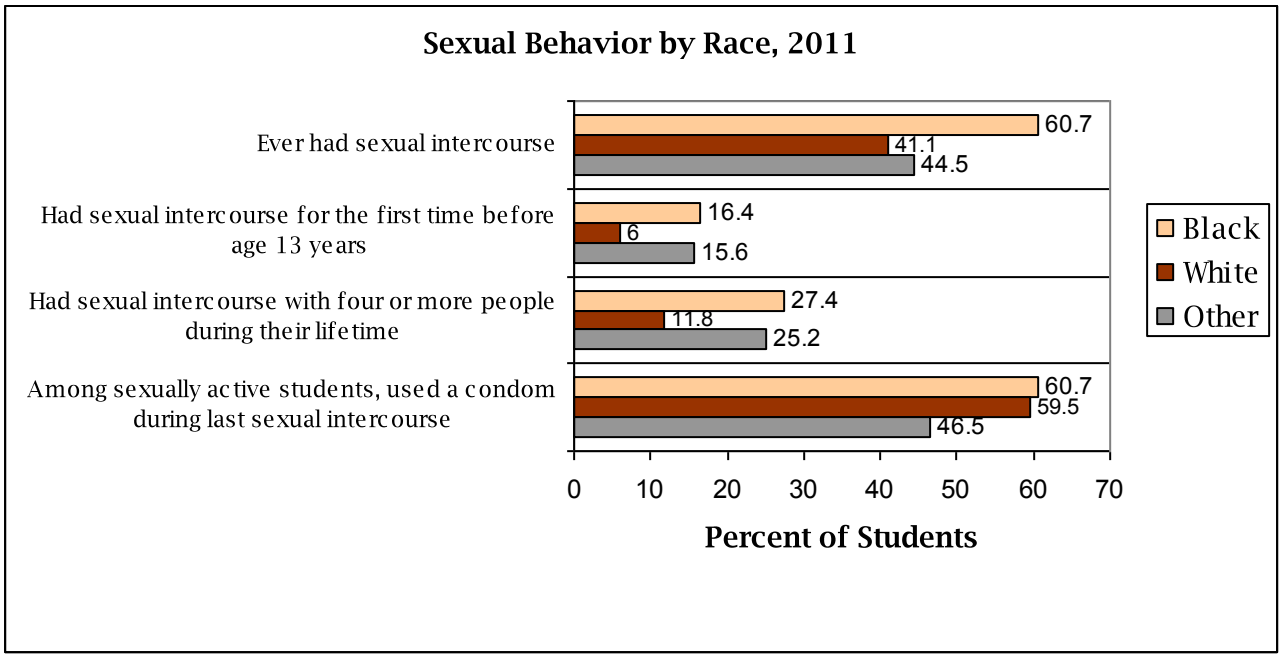


Sex Behavior	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Ever had sexual intercourse	47.9%	49.3%	47.4%	50%	51%	46%
Had sexual intercourse for the first time before age 13 years	10.5%	8.6%	6.2%	10%	8%	6%
Had sexual intercourse with four or more people during their lifetime	17.7%	16.8%	15.3%	16%	16%	14%
Among sexually active students, used a condom during last sexual intercourse	59.1%	53.7%	60.2%	63%	62%	61%

Partner age also varied with gender as 2.9% of females had partners 3 or more years younger than them, and 10.7% of females responding yes to having sexual partners 3 or more years older then they. A higher percentage, 4.2%, of males had sexual partners that were 3 or more years younger, while 8.4% of males had sexual partners that were 3 or more years older than them.

Parental Expectations

WSFC high school students reported that 75.8% of them have had their parents or other adults in their family talk with them about they expected the student to do or not to do when it comes to sex, while 17.7% had not, and 6.6% were unsure. Females had a higher percentage at 81.8% of parental discussion in contrast to males at 70.6%.

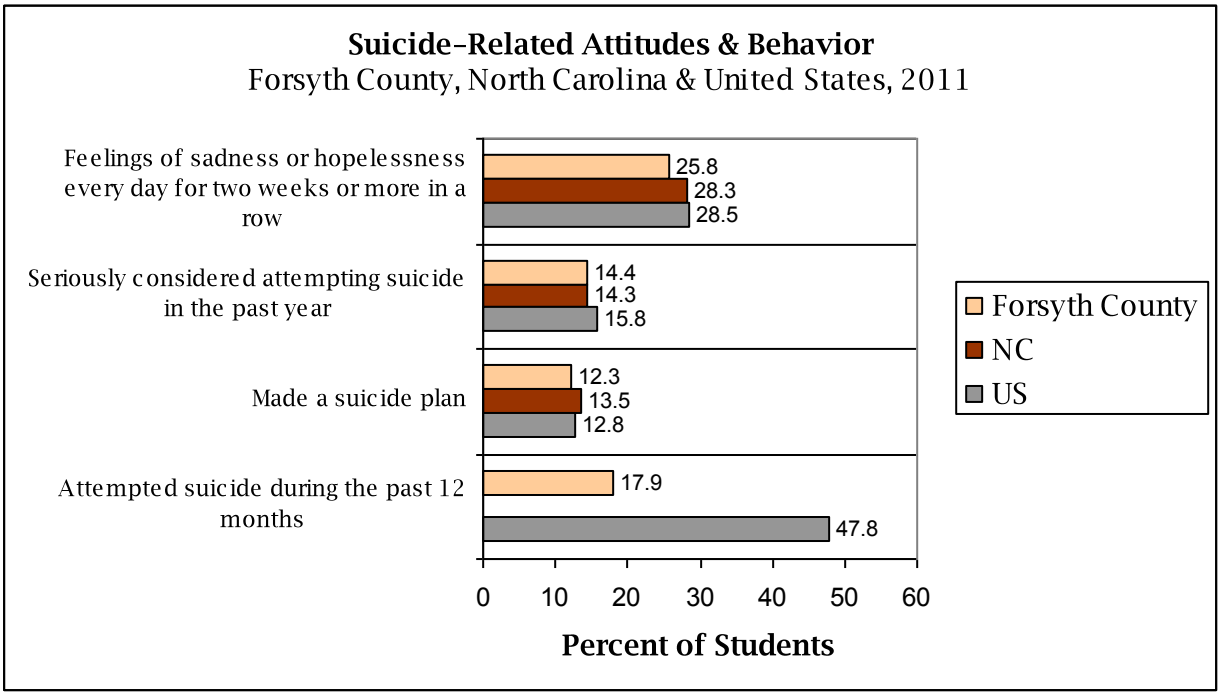


Suicide-Related Attitudes & Behavior

Suicide is the third leading cause of death, accounting for 12% of deaths, for youth ages 10-24 years.[2] For youth ages 10-14, suicide is the fourth leading cause of death.[7] The feelings that lead to suicide are highly treatable if tied to mental or substance abuse disorder.[7]

A higher percentage of females, 32.0%, felt sad and hopeless almost everyday for two weeks or more in row in the past 12 months that they stopped doing usual activities, in contrast to 20.2% of males who felt the same. Others were more likely to report feeling so sad or hopeless almost every day for two weeks or more that they stopped doing some usual activities in comparison to Blacks or Whites.

Overall 14.4% of WSFC high school students seriously considered suicide, with 17.2% 9th grade students reporting they had considered it in comparison to 12.4% of 12th grade students. There was a 7.3 percentage point gap between male and females, with 11% of males considered suicide in comparison to 18.3% of females.

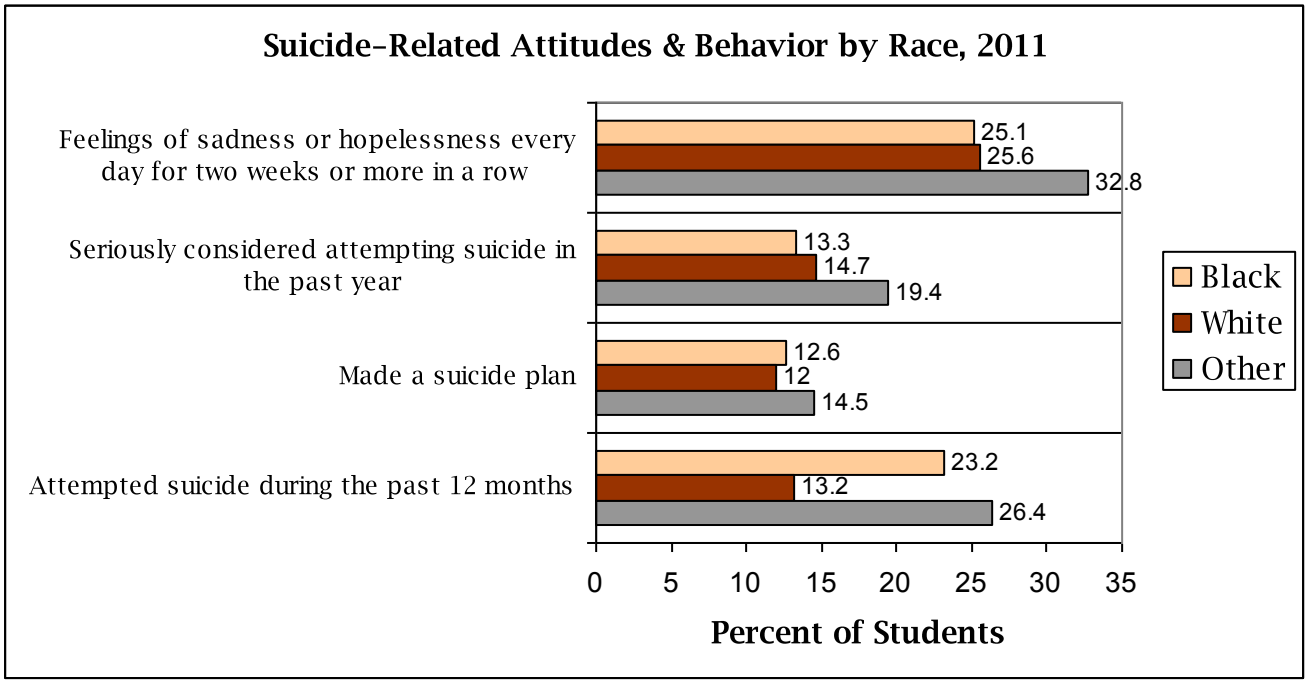


Suicide-Related Attitudes & Behavior	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Feelings of sadness or hopelessness every day for two weeks or more in a row	25.8%	28.3%	28.5%	25%	27%	26%
Seriously considered attempting suicide in the past year	14.4%	14.3%	15.8%	14%	13%	14%
Made a suicide plan	12.3%	13.5%	12.8%	11%	10%	11%
Attempted suicide one or more times in the past year	17.9%	n/a	7.8%	12%	10%	6%

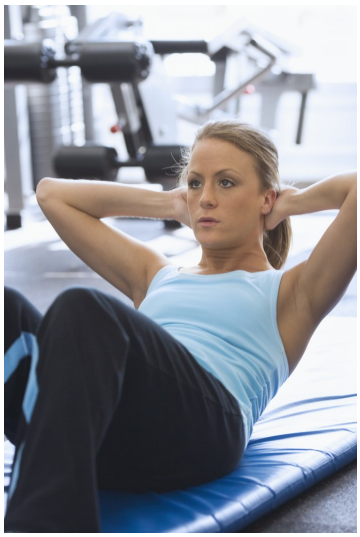
Females reported that 14.5% of them had made suicide plans in comparison to 10.3% of males. Students reported that 17.9% of them had tried to kill themselves. WSFC high school students reported that 5.6% of them had been seriously injured from a suicide attempt, more than 1 in 20 respondents. Males reported that 6.5% of them had to be treated by a doctor or nurse following a suicide attempt in comparison to 4.7% of females needing treatment. Others also were more likely to report needing treatment at 10.4% in comparison to 7.6% of Black students and 4.0% of White students.

49% more students reported that they attempted suicide one or more times in the past year in 2011 than in 2009

High school students turn to their friends or siblings (45.7%), parent or other adult family member (15.5%), or some other person (8.9%) when they feel sad, empty, hopeless, angry, or anxious. A higher rate of males, 79.8%, reported not feeling sad in comparison to 68.0% of females.



Weight Management & Nutrition



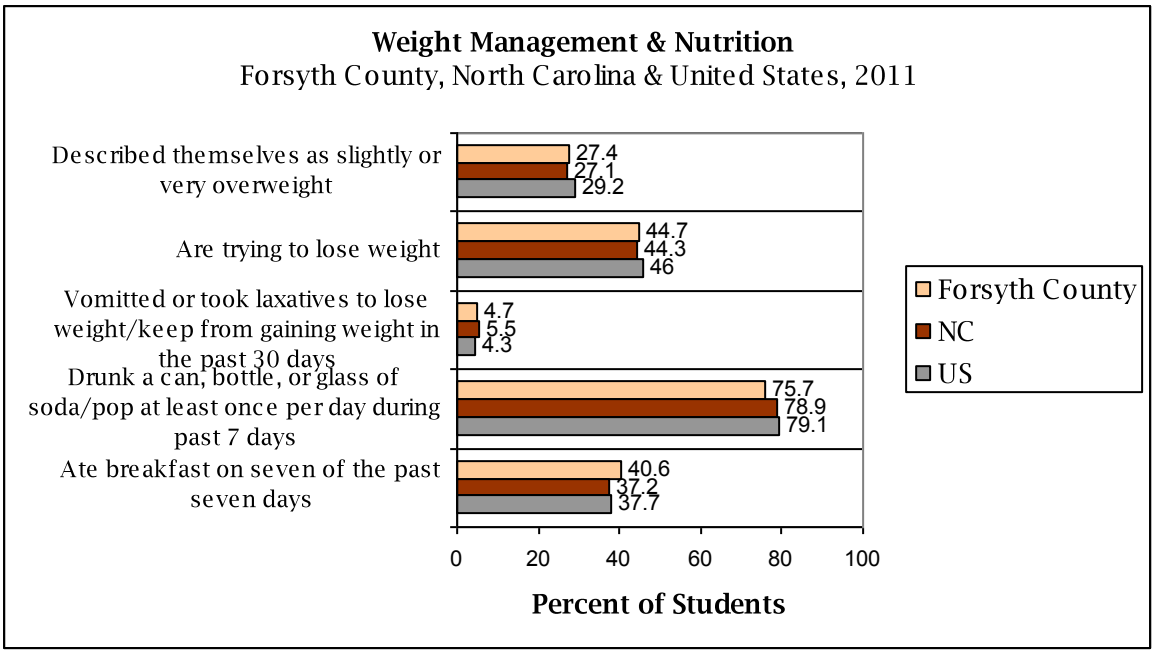
Childhood obesity has more than tripled in the past 30 years. In 2008, 20% of children between 6-11 years old were obese, while 18% adolescents aged 12-19 are obese.[8] There are both immediate and long-term effects on health and well-being for youth who are obese.[8] These effects include[8]:

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

In WSFC high schools, 32.3% of female students and 23.1% of male students described themselves as either "slightly overweight" or "very overweight". Most students, 57.0%, described themselves as being at "about the right weight". More females, 59.8%, were trying to lose weight in comparison to 31.3% of males. In the past 30 days, to either lose weight or keep from gaining weight:

- 69.7% of female students and 52.5% of male students exercised
- 53.0% of female students and 27.1% of male students ate less food
- 5.6% of female students and 5.3% of male students took diet pills, powders, or liquids without a doctor's advice
- 5.8% of female students and 3.7% of male students vomited or took laxatives

64% less students reported drinking a can, bottle, or glass of soda or pop at least once a day in 2011 than in 2009.

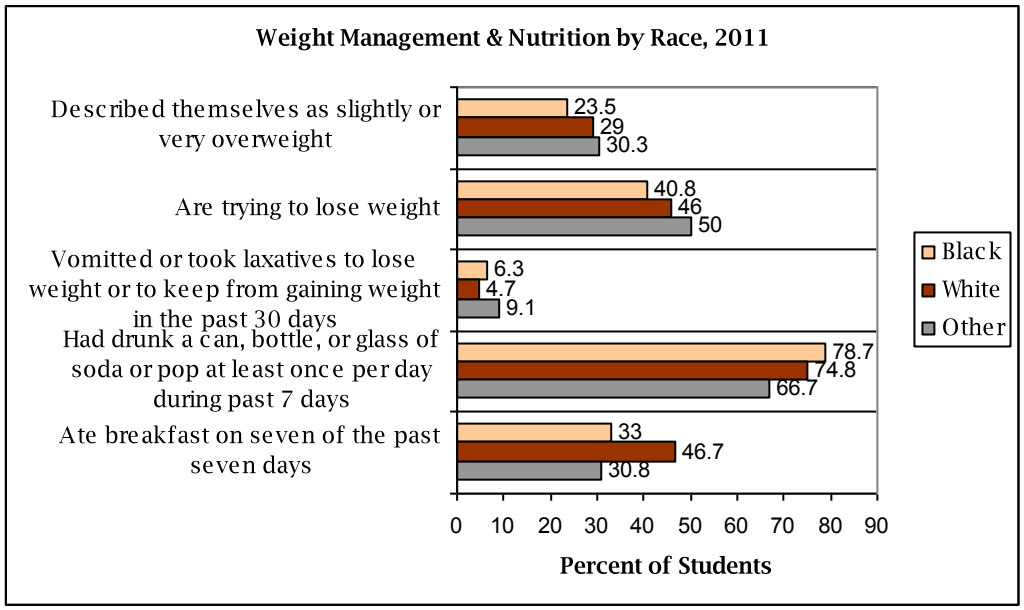


Weight Management & Nutrition	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Described themselves as slightly or very overweight	27.4%	27.1%	29.2%	25%	28%	28%
Are trying to lose weight	44.7%	44.3%	46.0%	43%	46%	45%
Vomited or took laxatives to lose weight or to keep from gaining weight in the past 30 days	4.7%	5.5%	4.30%	5%	5%	4%
Had drunk a can, bottle, or glass of soda or pop at least once per day during past 7 days	23%	30.4%	27.8%	36%	33%	29%
Ate breakfast on seven of the past seven days	40.6%	37.2%	37.7%	38%	34%	n/a

Nutrition

Students reported in the past 7 days they:

- Drank an average of 5 sodas
- Consumed fruit or vegetables an average of 16.4 times
- Ate breakfast an average of 5.5 times
- Had dinner with family an average of 5.3 times
- 78% drank 100% fruit juice one or more times
- 87.3% ate fruit on one or more times
- 60.7% ate a green salad one or more times
- 62.9% ate potatoes one or more times
- 42.4% ate carrots one or more times
- 83.1% ate other vegetables one or more times
- 83.4% drank a sugar sweetened beverage



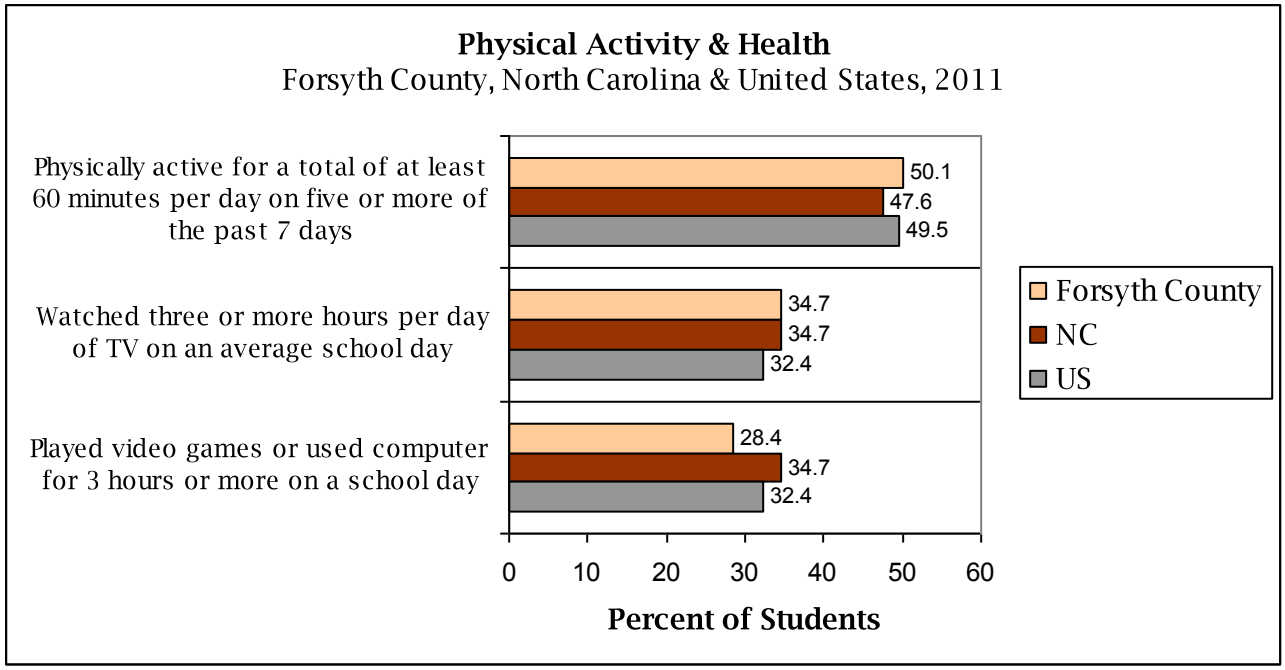
Physical Activity and Health

Physical activity has multiple benefits for children and adolescents that include[9]:

- Improves 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.[9] Physical inactivity can result in increased risk for diseases and illnesses related to overweight and obesity.[9]

Students reported being physically active for at least 60 minutes an average of 5.1 days, with 42.6% of students participating in team sports and 23.6% participating individual sports.

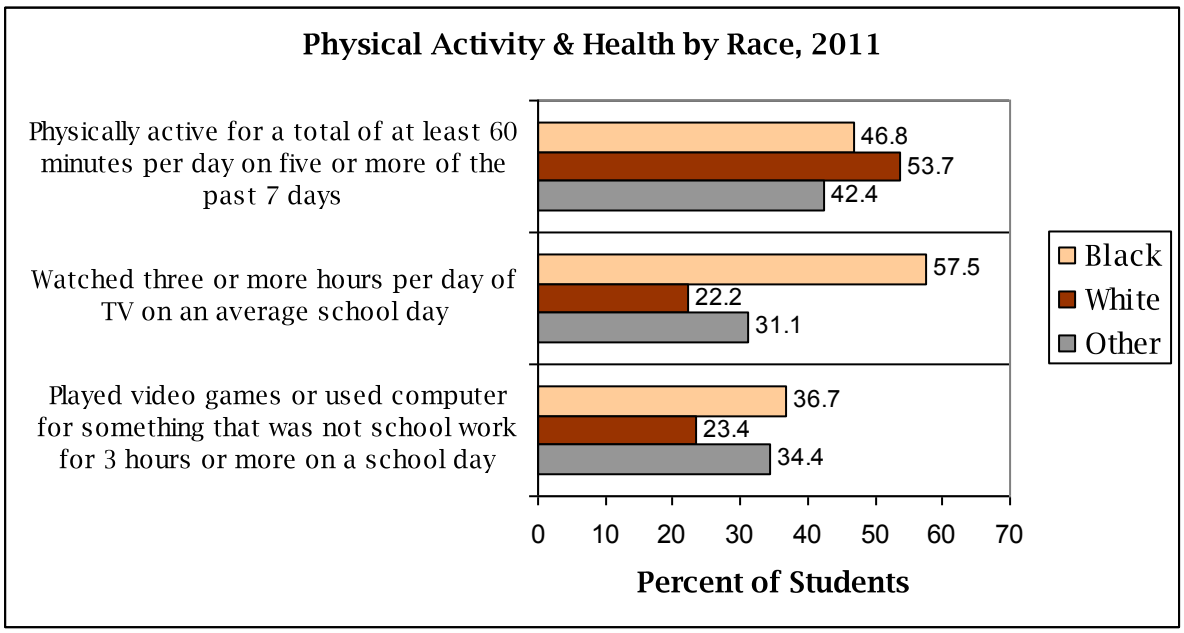


Physical Activity & Health	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Physically active for a total of at least 60 minutes on five or more of the past seven days	50.1%	47.6%	49.5%	46%	46%	37%
Watched three or more hours per day of TV on an average school day	34.7%	34.7%	32.4%	35%	36%	33%
Played video games or used computer for something that was not school work for 3 hours or more a school day	28.4%	34.7%	32.4%	23%	24%	25%

Additionally:

- 5.4% of males and 4.6% of females reported being physically active.
- 5.3% of 9th grade students reported being physically active, above the all average of 5.1%
- 48.5% of males participated in team sports in comparison to 36.0% of females
- Team sport participation decreased with grade level
    - 46.0% of 9th grade students
    - 44.9% of 10th grade students
    - 39.1% of 11th grade students
    - 33.8% of 12th grade students
- 30.7% of males participated in individual sports in comparison to 15.6% of females

23% more students played video games or used computers for something that was not school work 3 or more hours a school day in 2011 than in 2009

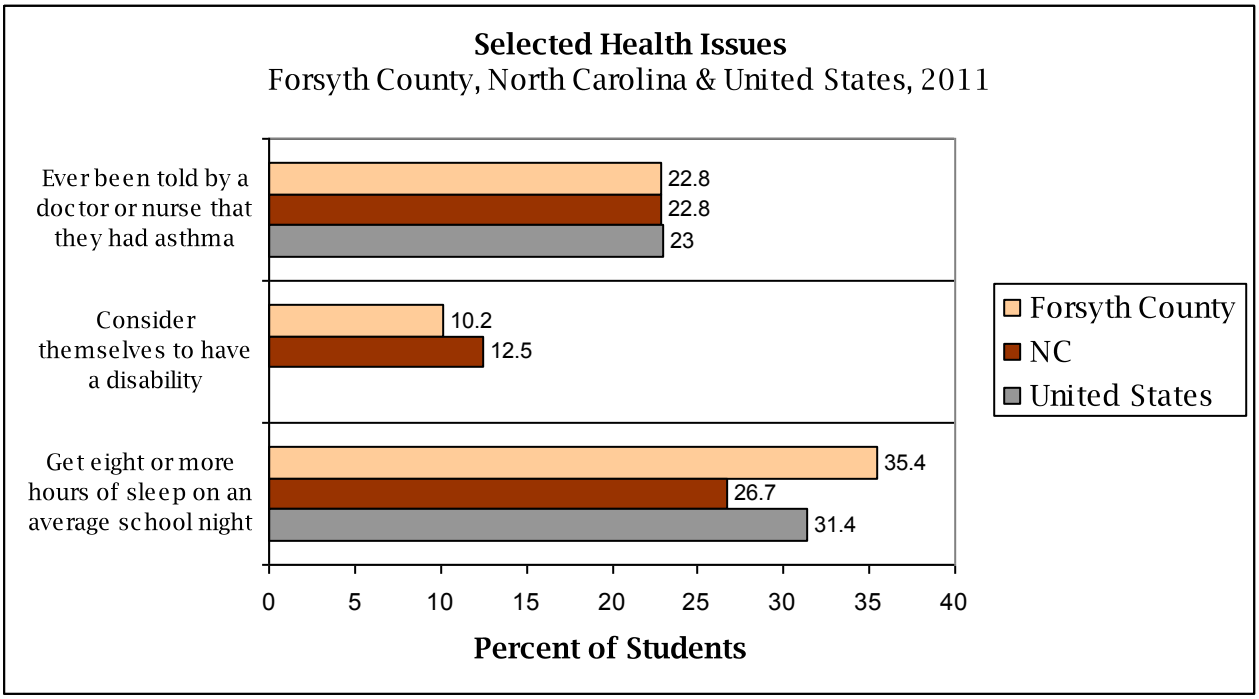


Selected Health Issues

Other conditions also affect adolescents. Health conditions like asthma is common among youth. Asthma is one of the leading chronic diseases among youth in the Nation and a leading cause of school absenteeism10 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.[10] Another health issue among teens is the amount of sleep teens receive. Sleep is recognized as important to public health, with sleep deficiency linked to motor vehicle crashes, industrial disasters, as well as errors in medical and other occupations.[11] 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. [12] In addition the overall health of teens rely on both regular physical visits for physicals and dental visits twice a year.

WSFC high school students reported:

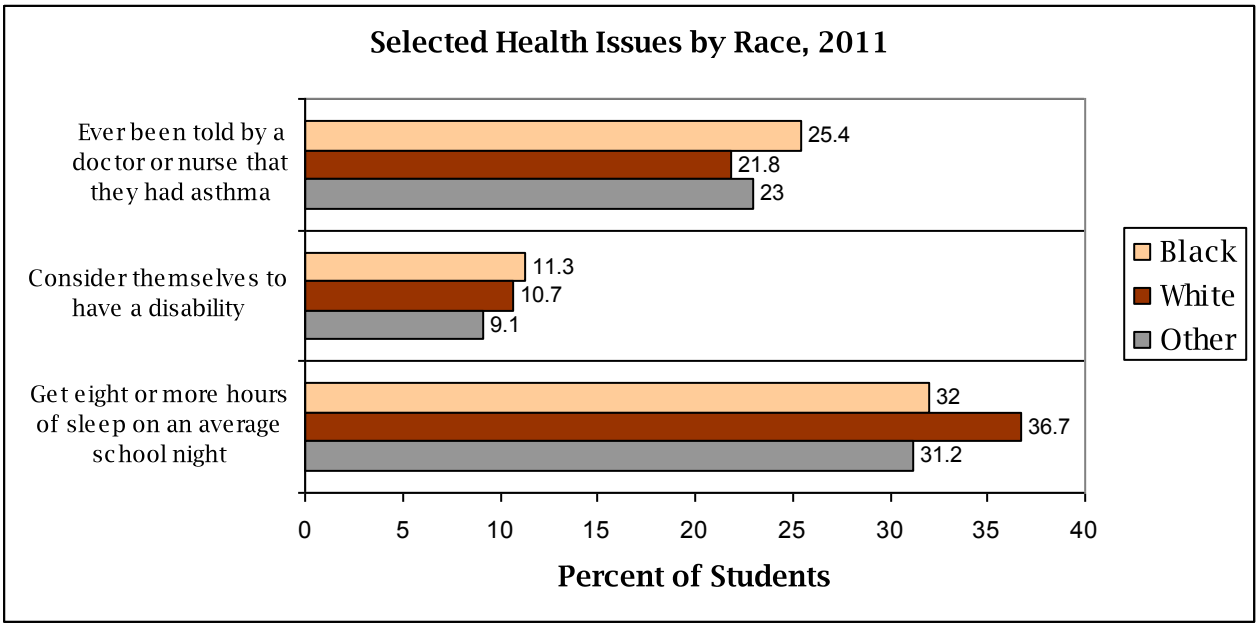
- An average of 6.9 hours of sleep per night
- 16.3% strongly agreed or agreed that they felt alone in life
- 80.0% strongly agreed or agreed that they feel good about themselves
- 54.8% strongly agreed or agreed that their teacher really cares about them and gives them encouragement.
- 15.9% had been tested for HIV
- 10.2% considered themselves to have a disability
- 35.6% have gambled one or more times in the past 3 months
- 16% still had asthma



Selected Health Issues	*2011 WSFCS*	*2011 NC*	*2011 US*	*2009 WSFCS*	*2009 NC*	*2009 US*
Ever been told by a doctor or nurse that they had asthma	22.8%	22.8%	23.0%	22%	22%	22%
Consider themselves to have a disability	10.2%	12.5%	0%	12%	11%	n/a
Get eight or more hours of sleep on an average school night	35.4%	26.7%	31.4%	34%	29%	31%

Additional Differences:

- 11.9% of males considered themselves to have a disability in comparison to 8.25 of females
- 14.3% of White students reported trouble learning, remembering, or concentrating because of a disability or health problem in comparison to 10.7% of Black students and 10.7% of Other students
- For HIV Testing
    - 18.7% of female students and 13.5% of males students were tested tested
    - 23.9% of Black students, 11.5% of White students and 17.5% of Other students were tested



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