

GEORGIA DEPARTMENT OF PUBLIC HEALTH

GEORGIA YOUTH RISK BEHAVIOR SURVEY REPORT

2003, 2005, 2007, 2009, 2011

Acknowledgements

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Summary

Some behaviors pose immediate threats to health (e.g. drinking and driving); others are more closely related to long-term threats to health (e.g. inadequate physical activity). The Georgia Youth Risk Behavior Survey provides information about both immediate and long-term threats to health among middle and high school students in Georgia, including unintentional injuries, violence, suicide, tobacco use, alcohol and other drug use, initiation of risky behaviors, obesity, weight loss practices, dietary behaviors, nutritional behaviors, physical activity, physical education, and sedentary behaviors.

With respect to 17 health objectives that were targeted in the national public health objectives for 2010 (Healthy People 2010, see Appendix A.1), Georgia high school students met only one objective: riding in the past 30 days with a driver who had been drinking alcohol (20.4 vs. U.S. objective of 30%), and were within 1-2% of the national objective for four objectives as of 2009: seat belt use (90.3% vs. U.S. objective of 92%), physical fighting in the past 12 months (32.3% vs. U.S. objective of 32%), past month use of cigarettes (16.9% vs. U.S. objective of 16%) and carrying a weapon on school property (6.0% vs. U.S. objective of 4.9%).

Current national health objectives for 2020 show that Georgia met one objective: reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol (24.3 vs. U.S. objective of 25.5); and is within 1-2% of the national objective for four objectives (Healthy People 2020, Appendix A.2): reduce bullying among adolescents (19.1 vs. U.S. objective of 17.9), reduce the proportion of adolescents who engage in disordered eating behaviors in an attempt to control their weight (14.8 vs. U.S. objective of 12.9), reduce tobacco product use – past month (22.7 vs. U.S. objective of 21.0), and reduce cigarette use (17.0 vs. U.S. objective of 16.0).

Introduction

Much of the behaviors that put adults at elevated risk for disease and death are initiated in adolescence. These include tobacco use, physical inactivity, poor dietary habits, and behaviors that can result in unintentional injuries and violence. These behaviors may be prevented or modified among school-aged children.

To monitor priority health-risk behaviors that put youth at risk for the leading causes of morbidity and mortality, the Georgia Department of Public Health, in collaboration with the Georgia Department of Education, conducts the Georgia Youth Risk Behavior Survey (YRBS) among a sample of students enrolled in public middle and high schools, statewide. The YRBS is conducted every odd year in the spring and this report provides the trends in health behaviors among youth using data collected in 2003, 2005, 2007, 2009, and 2011. For each survey year, the approximate sample size is 2,200 for middle school students and 1,900 for high school students. Data collected via YRBS include: unintentional injuries and violence, bullying, tobacco use, alcohol and other drug use, dietary behaviors, and physical activity. By monitoring these behaviors, Georgia can assess the overall progress of programs and policies used to reduce the behaviors that put youth at risk for developing potentially preventable health problems. A detailed description of the survey population and the survey methods are provided in Appendix B.

MIDDLE SCHOOL FINDINGS

RISK BEHAVIORS FOR UNINTENTIONAL INJURIES

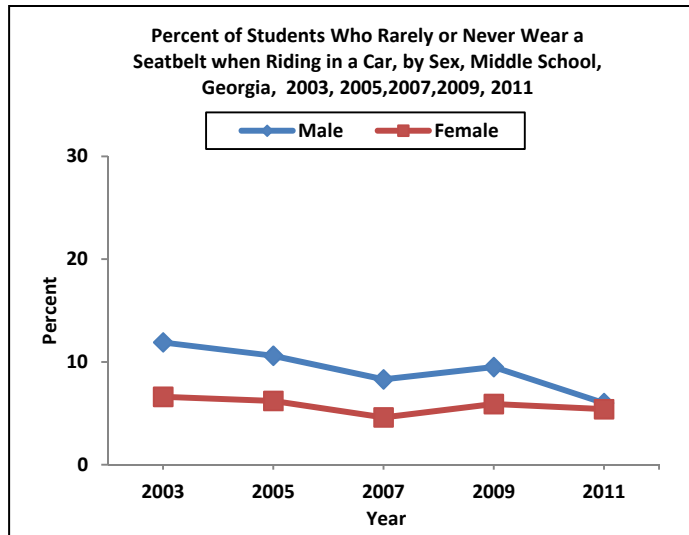
This section measures trends in the prevalence of behaviors that result in unintentional injuries among the youth in Georgia.

Motor-vehicle related injuries are a major cause of death among 5 – 20 year olds.¹ In 2009, among 4,076 individuals, aged between 5 and 20 years, that were killed in passenger vehicle crashes, nearly 56% were unrestrained.¹ In the event of a motor-vehicle accident, the appropriate use of seat belts reduces the risk of fatality among front-seat passengers by 45% and the risk of moderate – to – critical injury by 50%.² In 2008, among 15 to 20 year old drivers involved in motor vehicle crashes, approximately one-fifth of those killed and 4% of those injured had been drinking alcohol.³

The responses of interest that were used to determine the prevalence of behaviors that result in unintentional injuries among middle school students were:

- Students who said they never or rarely wear a seatbelt when riding in a car.
- Students who have ever ridden in a car driven by someone who had been drinking alcohol.

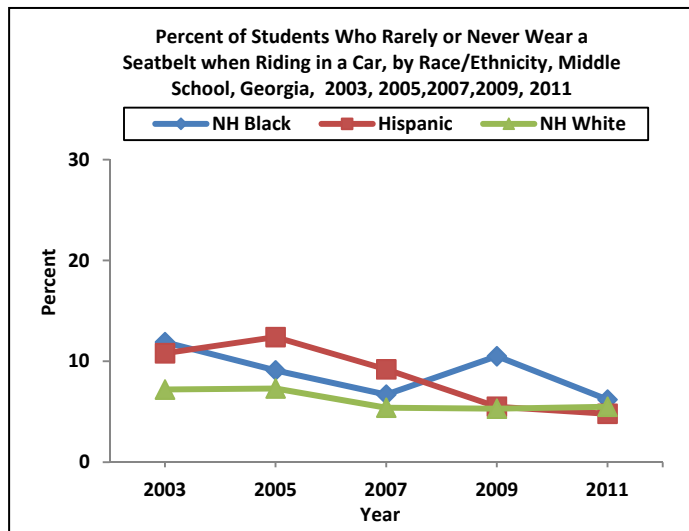
Seatbelt Use



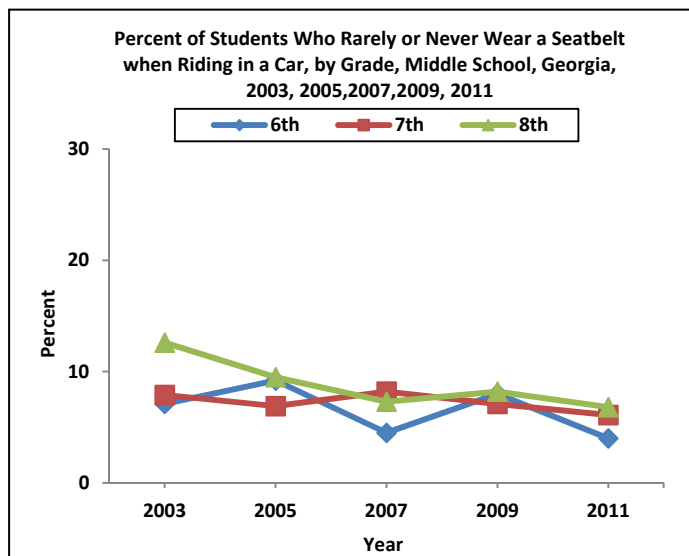
The percentage of students who rarely or never wear a seatbelt when riding in a car driven by someone else declined significantly from 2003 (9.3%) to 2011 (5.7%).*

Between 2003 and 2011, the prevalence of rarely or never wearing a seatbelt reduced from 12% to 6% among male students,* and from 7% to 5% among females.

Between 2003 and 2009, male students were significantly more likely than female students to not wear a seatbelt when riding in a car.* However in 2011, no gender differences were observed.



The prevalence of not wearing a seatbelt while riding in a car remained stable for non-Hispanic white, steadily declined for Hispanic, and fluctuated among non-Hispanic black students.

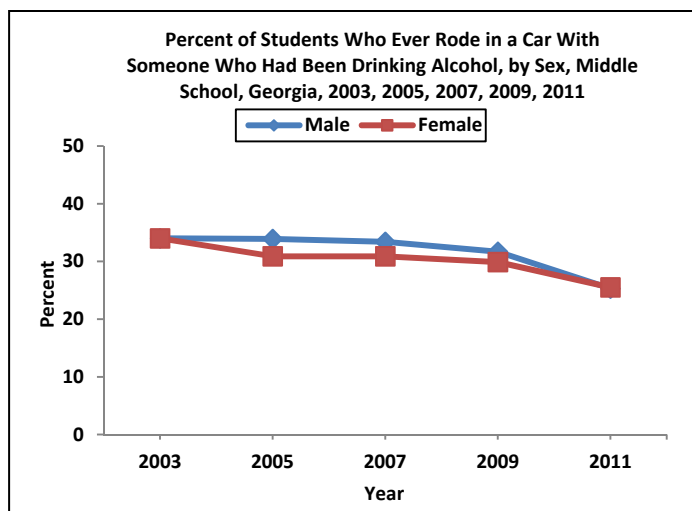


Students in the 8th grade were more likely than 6th graders to not wear a seatbelt when riding in a car.

The percentage of 8th graders who do not wear a seat belt decreased from 12% in 2003 to 7% in 2011.*

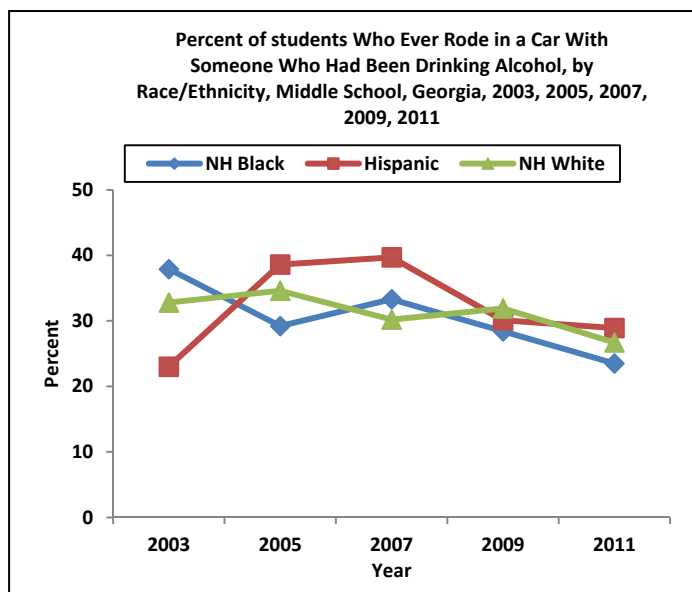
*Statistically significant at the 95% confidence level

Rode With Driver Who Had Been Drinking

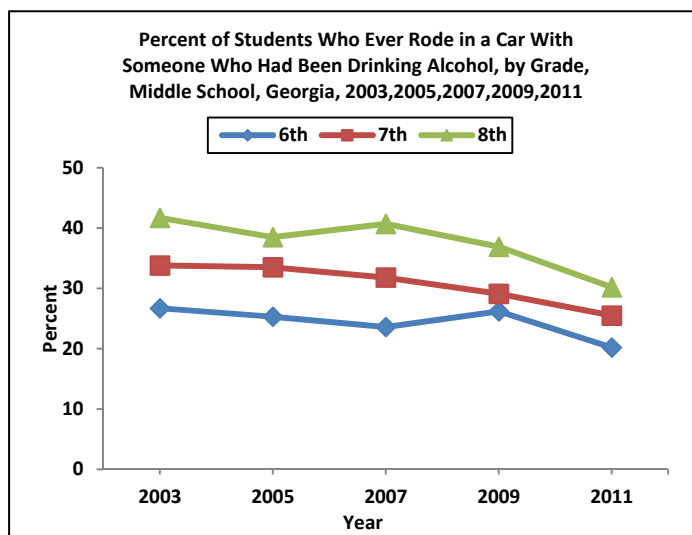


The overall prevalence of ever riding in a car driven by someone who had been drinking alcohol significantly declined from 2003 (34%) to 2011 (25%).*

Between 2003 and 2011, the percentage of male students who ever rode in a car with a drunk driver decreased from 34% to 25%* as well as for females from 34% to 26%.*



Non-Hispanic black, Hispanic and non-Hispanic white students were equally likely to ride in a car with someone who had been drinking alcohol.



Across all grade levels, there was a decline in the prevalence of riding in a car with a drunk driver between 2003 and 2011.

*Statistically significant at the 95% confidence level

VIOLENCE – RELATED BEHAVIORS

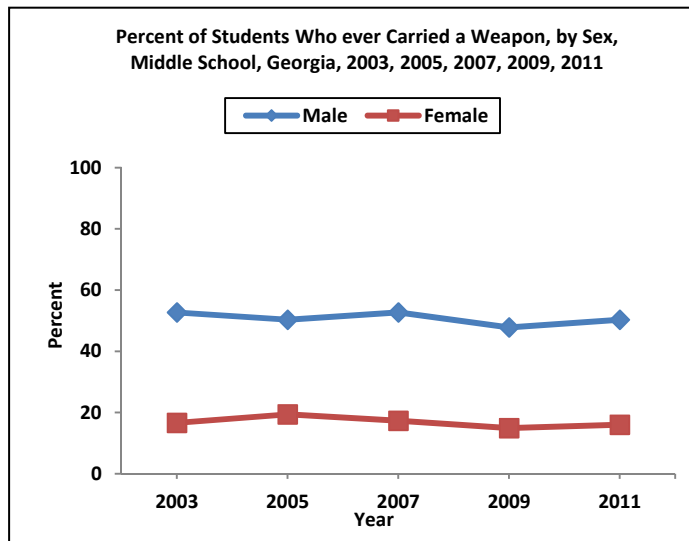
This section measures the trend in violence-related behaviors. The second leading cause of death among 15 – 19 year olds is homicide (9.6 / 100, 000).⁴ In 2009, nearly 94% of homicides in the United States were committed with a weapon, such as a gun, knife or club.⁵ Similarly, in 2009 nearly 92% of homicides among 15 – 19 year olds in Georgia were committed with a weapon.[§] Physical fighting is associated with other problem behaviors⁶ and serious injury – related health outcomes.⁷

The prevalence of violence-related behaviors among middle school students was measured by:

- Students who responded that they have ever carried a weapon, such as a gun, knife, or club.
- Students who reported that they have ever been in a physical fight.

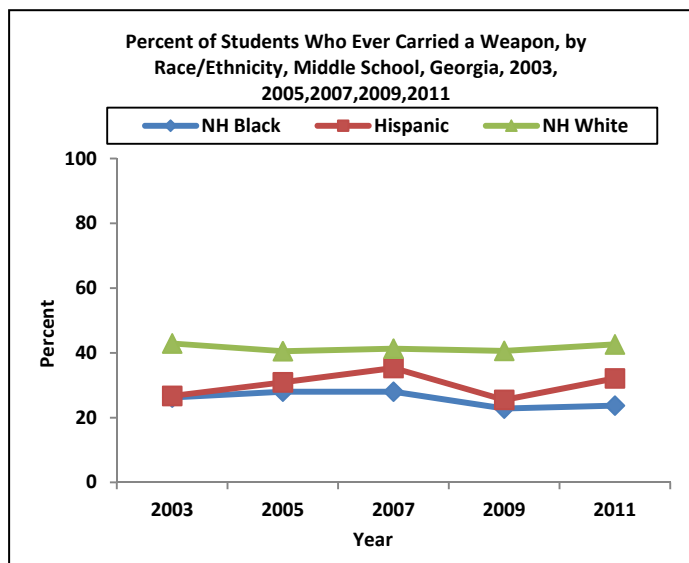
[§] Data Source: 2009 Georgia Violent Death Reporting System (GVDRS)

Weapon Carrying

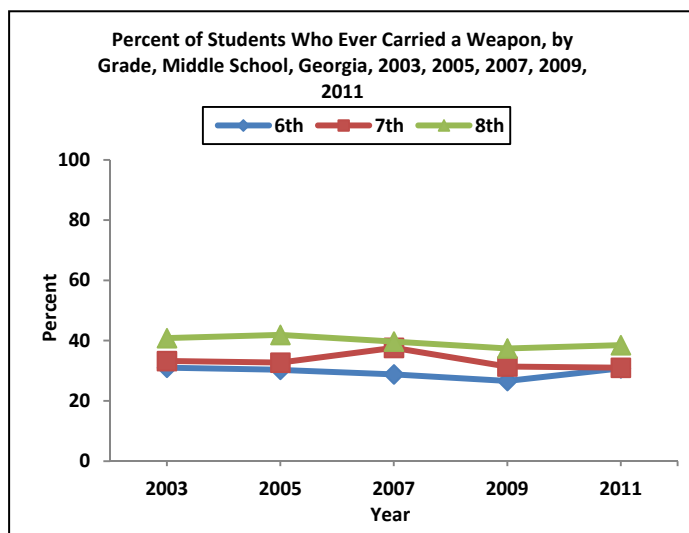


The percentage of middle school students who have ever carried a weapon declined slightly from 2003 (35%) to 2011 (34%).

Male students were at least three times more likely than female students to have ever carried a weapon.*



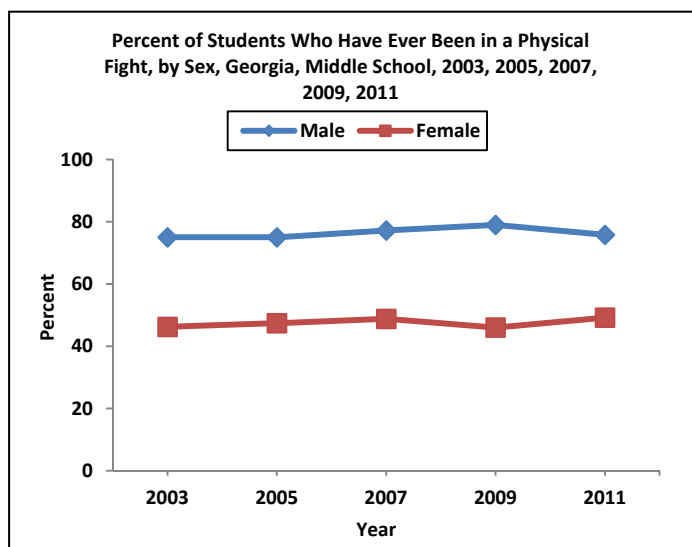
Ever carrying a weapon was more common among non-Hispanic white students than non-Hispanic black and Hispanic students.



Ever carrying a weapon was more common among 8th graders than among 6th graders.

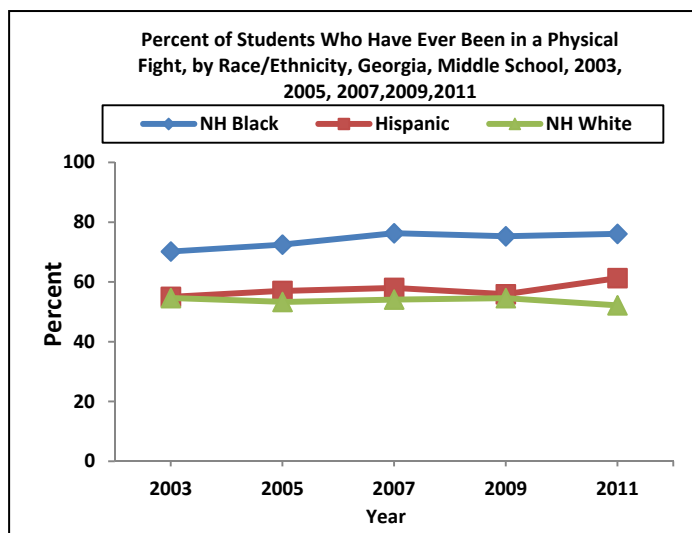
*Statistically significant at the 95% confidence level

Physical Fighting

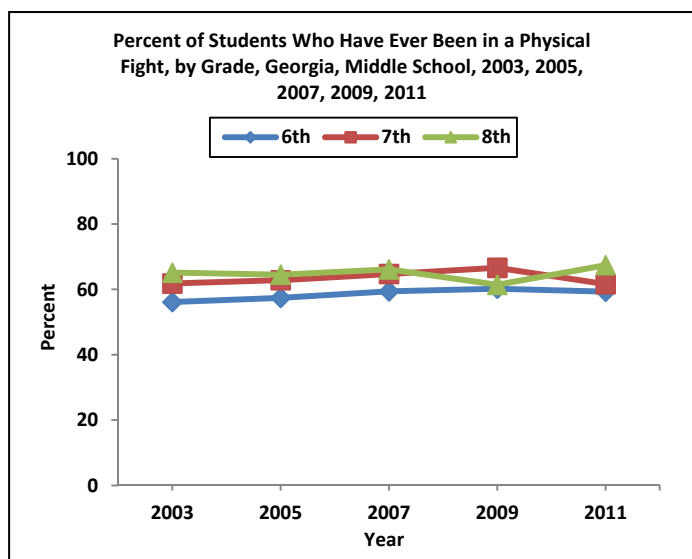


The percentage of students who have ever been in a physical fight increased from 2003 (61%) to 2011 (63%).

Male students were almost twice as likely as female students to have ever been in a physical fight.*



Non-Hispanic black students were more likely than non-Hispanic white and Hispanic students to have ever been in a physical fight.* Physical fighting among black students increased slightly over the five year span.



Students at all grade levels were equally likely to have ever been in a physical fight.

*Statistically significant at the 95% confidence level

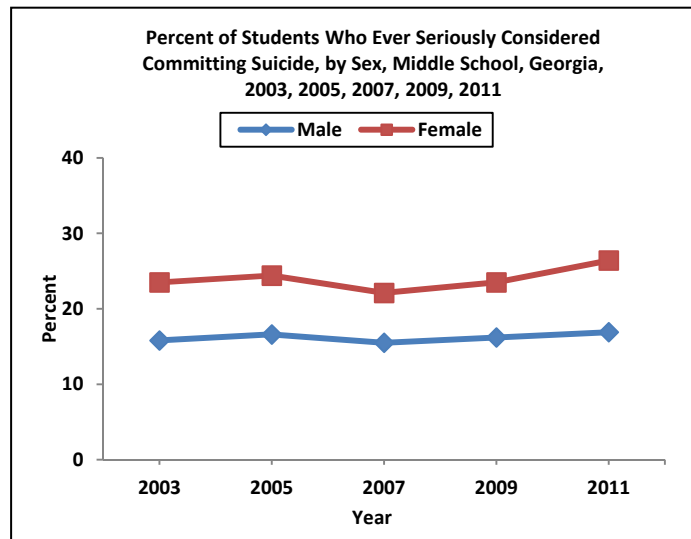
SUICIDE

Suicide is the third leading cause of death among individuals aged between 15 – 19 years old.⁴ Suicide ideation and attempts are associated with various factors including bullying victimization,⁸ drug use,⁹ and disordered eating behavior.¹⁰

Suicide ideation among middle school students was measured with the question:

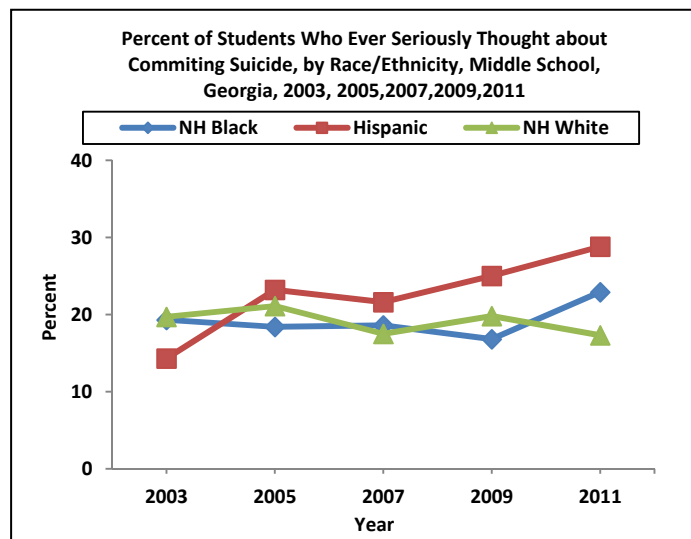
- Have you ever seriously thought about killing yourself?

Seriously Considered Attempting Suicide

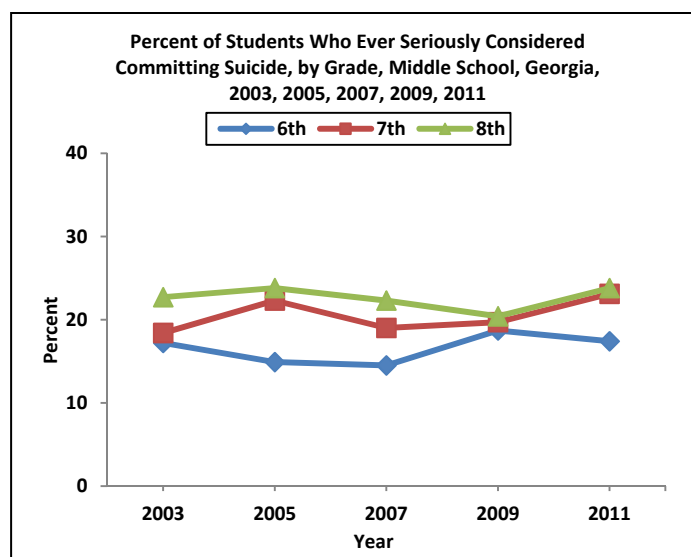


Over the years, the percentage of middle school students who had ever seriously considered attempting suicide remained stable at about 20%.

Female students were more likely than male students to seriously consider committing suicide across all years. This difference was significant in 2003, 2005, 2007, and 2011.



The prevalence of ever having serious thoughts about attempting suicide was more common among Hispanic students than among non-Hispanic black and non-Hispanic white students. Among Hispanic students, this increased significantly from 2003 (14%) to 2011 (29%).*



The prevalence of ever having serious thoughts about attempting suicide was higher among 7th and 8th graders when compared to 6th graders.

*Statistically significant at the 95% confidence level

TOBACCO, ALCOHOL AND OTHER DRUG USE

These questions measure the trends in ever and current smoking patterns, alcohol use, and age of initiation. Cigarette smoking is a leading cause of death,¹¹ and contributes to nearly 440, 000 deaths annually in the United States.¹² Cigarette smoking increases the risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix.¹¹ Individuals who start smoking at age 15 or younger have a two-fold increase in risk of lung cancer compared to those who start at age 20 and older.¹³

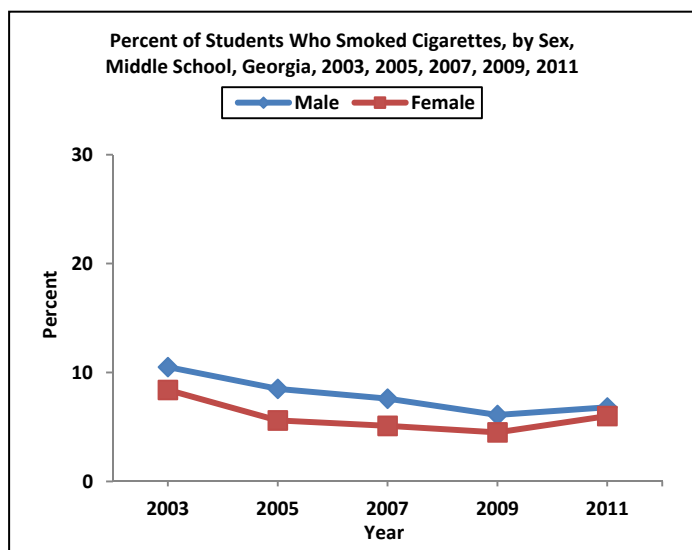
More young people use alcohol than tobacco or illicit drugs.¹⁴ Alcohol addiction is five times more likely among individuals who start drinking before 15 years than those who start drinking at age 21 or older.¹⁵ Heavy alcohol use is also associated with risky sexual behaviors,¹⁶ and use of cigarettes, marijuana, cocaine and other illegal drugs among young people.¹⁷

Use of illegal drugs among teenagers is associated with risk behaviors including heavy alcohol and tobacco use,¹⁴ violence and delinquency,¹⁸ and suicide.⁹

The prevalence of tobacco, alcohol and other drug use among middle school students was measured by the percentage of students who;

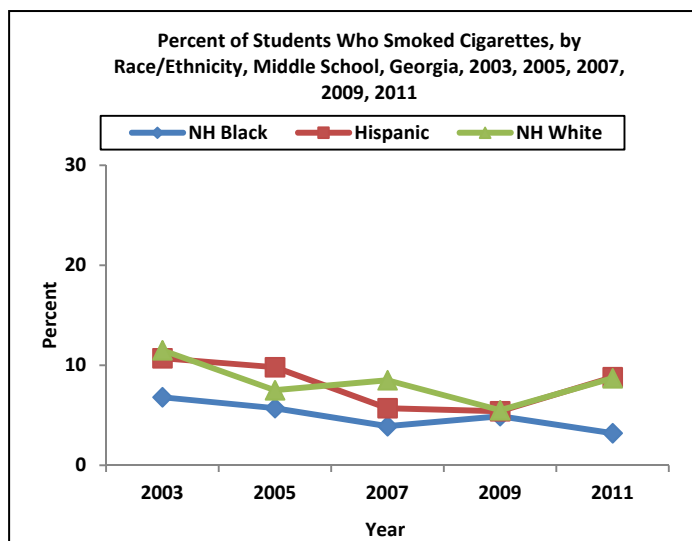
- Smoked cigarettes on one or more days within 30 days of the survey.
- Had ever had a drink of alcohol, other than a few sips.
- Had ever used marijuana.
- Smoked a whole cigarette for the first time before the age of 11 years.
- Had their first drink of alcohol other than a few sips before the age of 11.
- Tried marijuana for the first time before the age of 11.

Current Cigarette Use

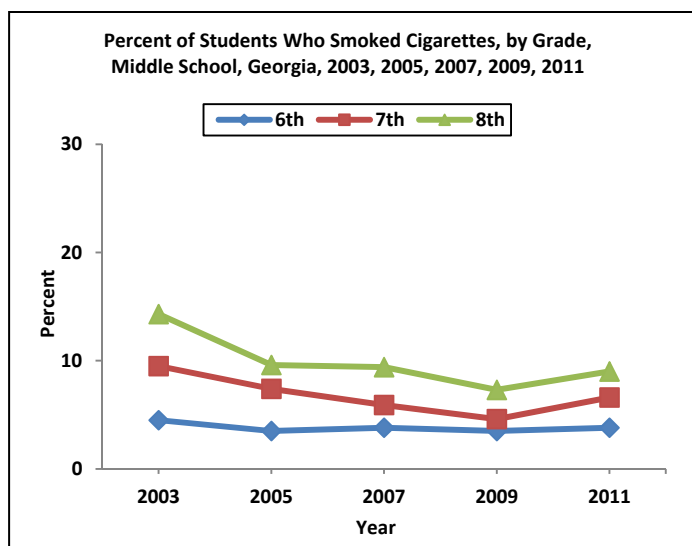


The percentage of students who smoked cigarettes on at least 1 day within 30 days of the survey declined significantly from 2003 (9%) to 2009 (5%)* but increased slightly in 2011 (6%).

Between 2003 and 2009, current cigarette use was more common among male students when compared to female students. However, by 2011 it was equally likely among both genders.



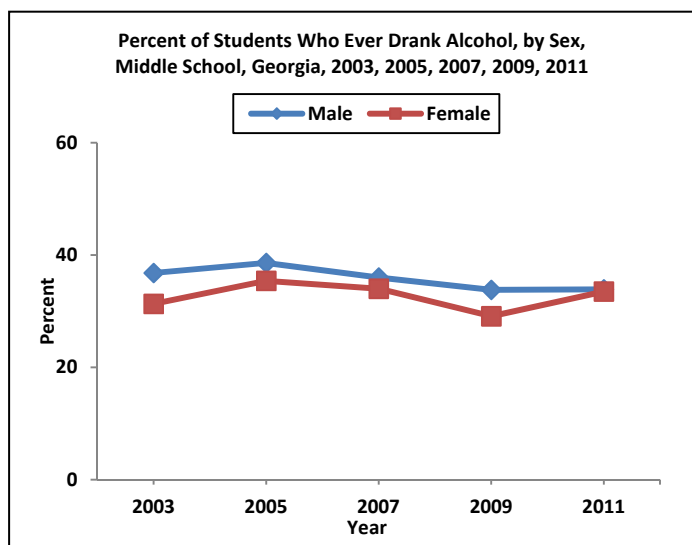
Current cigarette smoking was more common among non-Hispanic white and Hispanic students than among non-Hispanic black students. Among non-Hispanic blacks the prevalence of current cigarette smoking has steadily declined.



Current cigarette smoking was more common among 8th graders when compared to students in 6th and 7th grade.

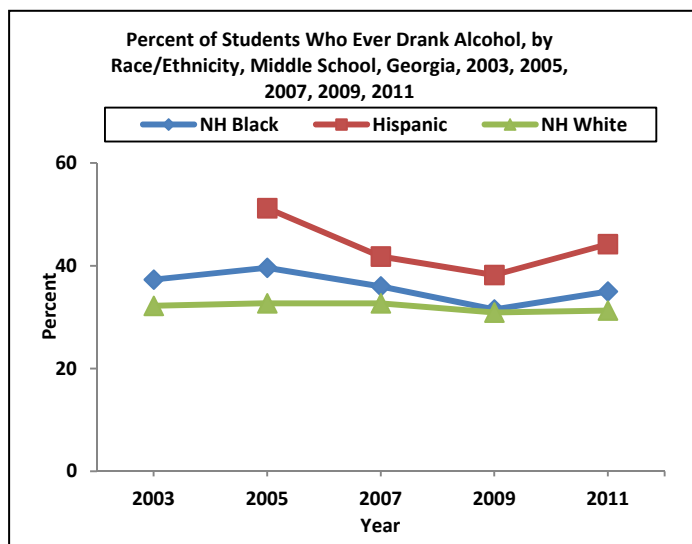
*Statistically significant at the 95% confidence level

Lifetime Alcohol Use

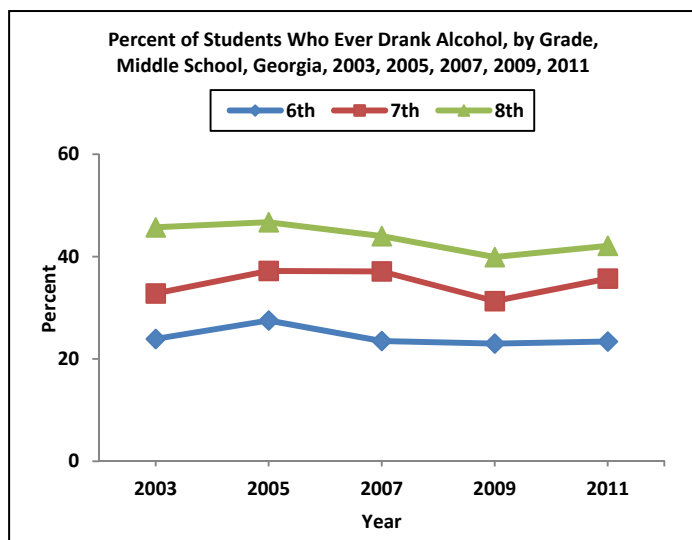


The percentage of middle school students who had ever had a drink of alcohol, other than a few sips, fluctuated between 34% and 37% over the years.

Between 2003 and 2009, the prevalence of ever drinking alcohol was slightly higher among male than female students. By 2011, students of both genders were equally likely to have ever had a drink of alcohol.



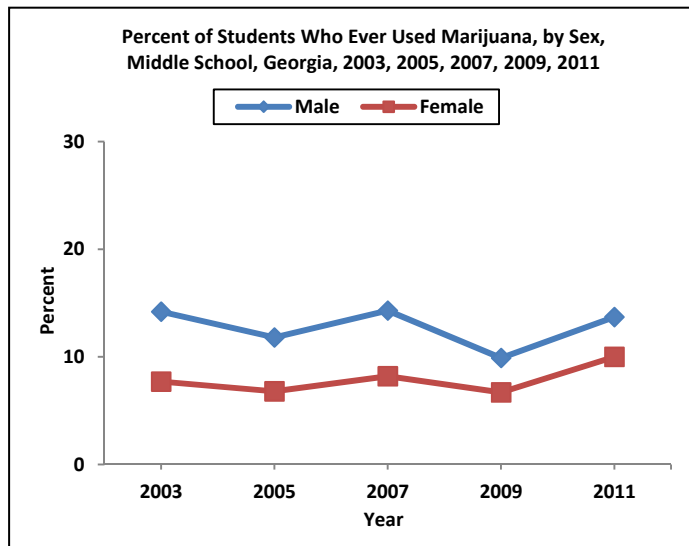
Ever drinking alcohol was more common among Hispanic and non-Hispanic black students when compared to non-Hispanic white students.



Students in 8th grade were significantly more likely than 6th graders to have ever had a drink of alcohol.*

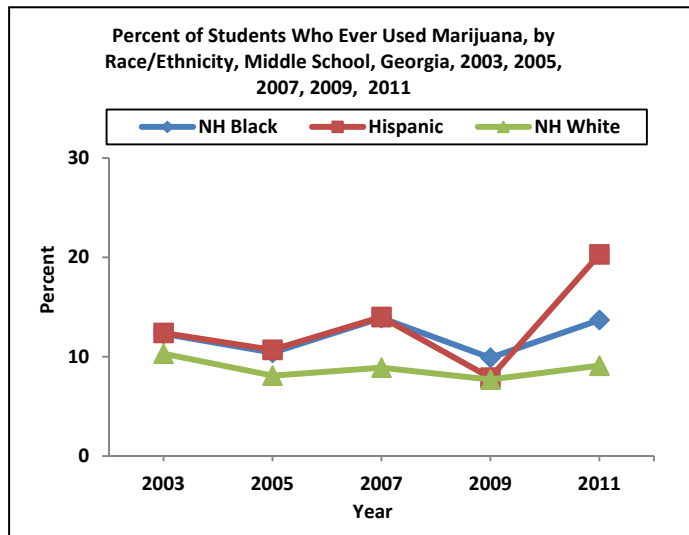
*Statistically significant at the 95% confidence level

Lifetime Marijuana Use

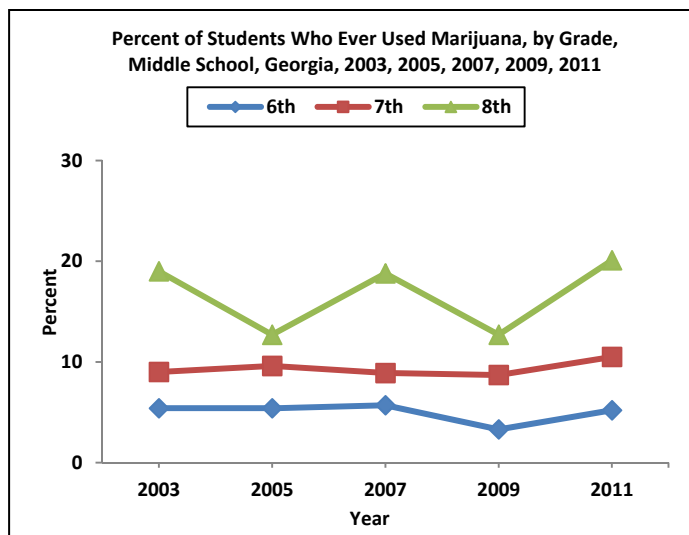


The percentage of middle school students who ever used marijuana fluctuated between 8% and 11% over the years.

Male students were more likely than female students to have ever used marijuana.



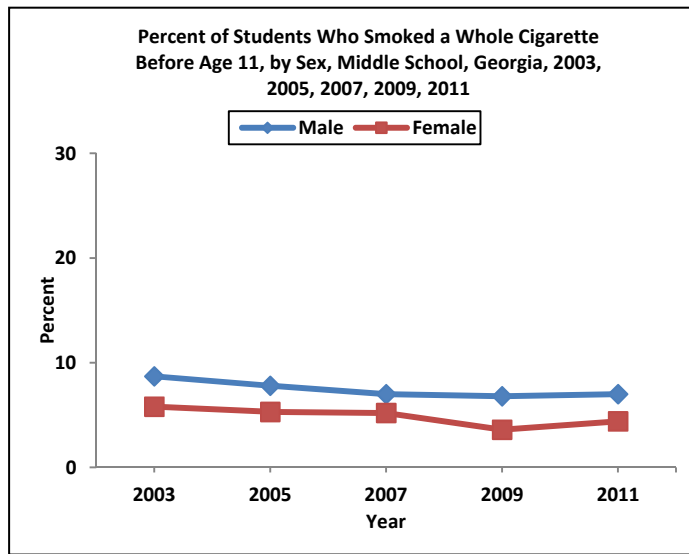
Lifetime marijuana use was more common among non-Hispanic black and Hispanic students than among non-Hispanic white students. The percentage of Hispanic students who ever used marijuana increased significantly from 2009 (8%) to 2011 (20%).*



Students in 8th grade were significantly more likely than students in 6th grade to have ever used marijuana.* The percentage of 8th graders who have ever used marijuana increased from 2009 (13%) to 2011 (20%).*

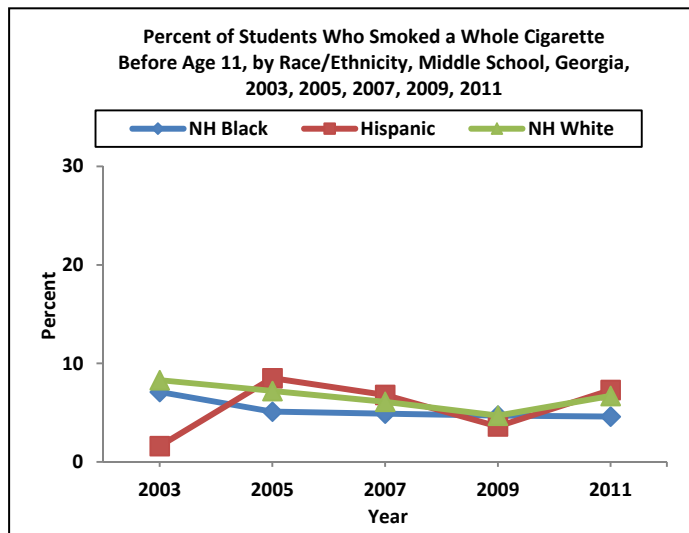
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Age of Initiation of Cigarette Smoking

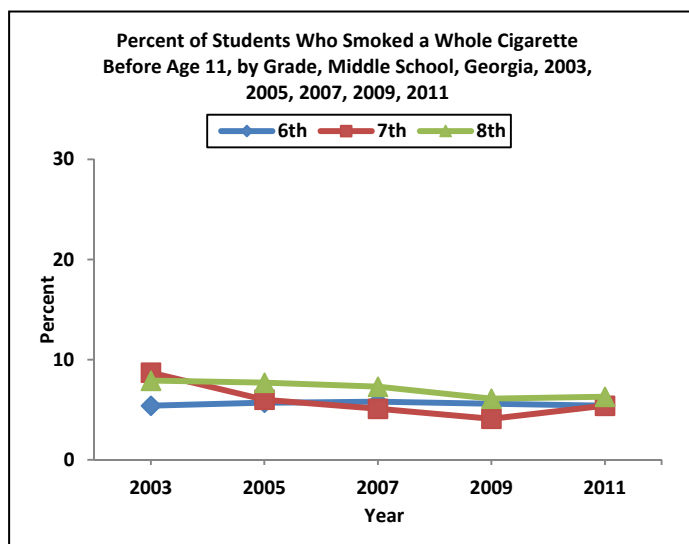


The percentage of middle school students who smoked a whole cigarette for the first time before age 11 declined slightly from 2003 (7%) to 2011 (6%).

Smoking a cigarette before age 11 was more common among male students than among female students.



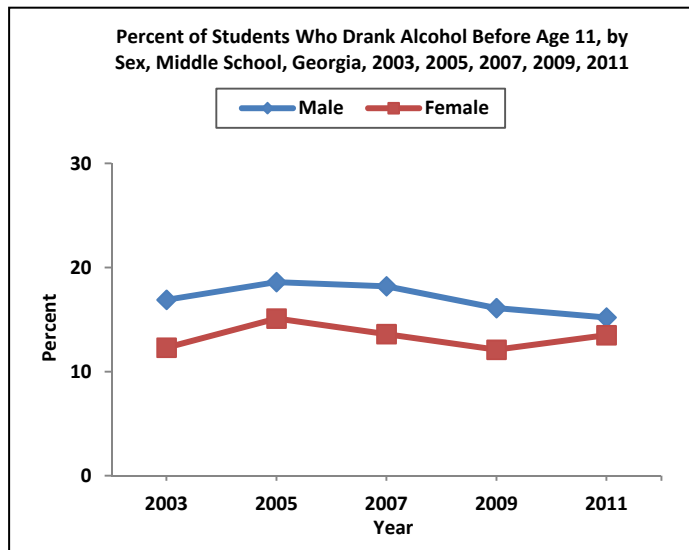
Smoking a cigarette before age 11 was more common among non-Hispanic white students when compared to non-Hispanic black students.



Smoking a cigarette before age 11 was more common among students in the 8th grade when compared to students in other grades.

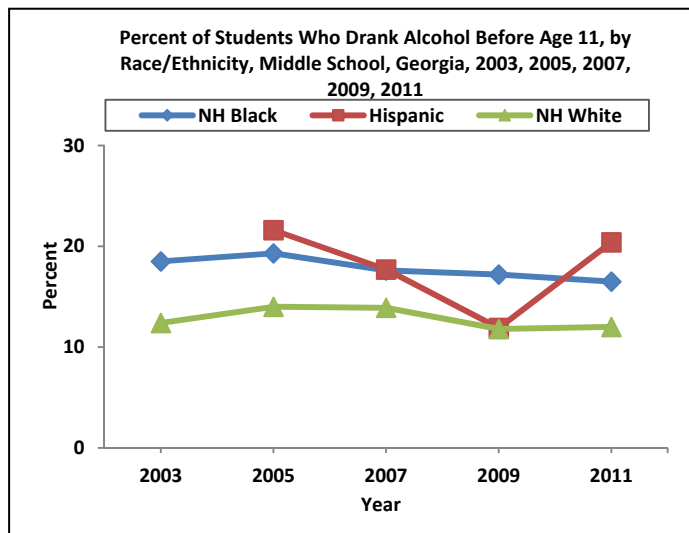
*Statistically significant at the 95% confidence level

Age of Initiation of Alcohol Use

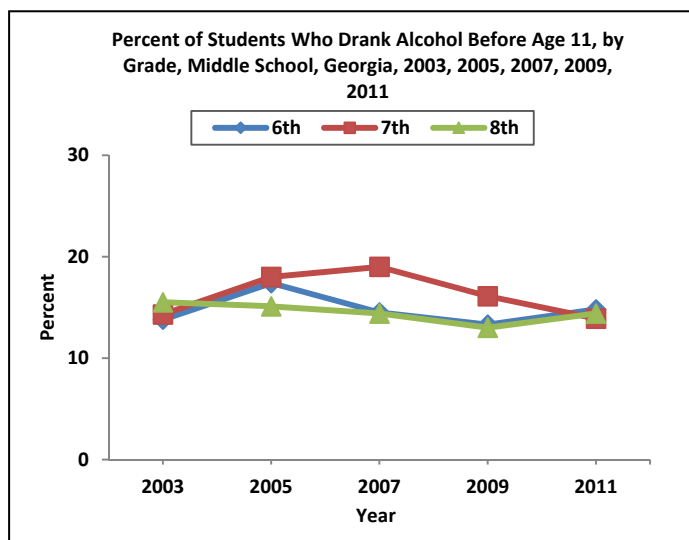


The percentage of middle school students who had ever had a drink of alcohol, other than a few sips, before age 11 fluctuated between 14% and 17% over the survey period.

Between 2003 and 2009, drinking alcohol before the age of 11 was more common among male students than among female students. However in 2011, early initiation of alcohol use was similar among both genders.



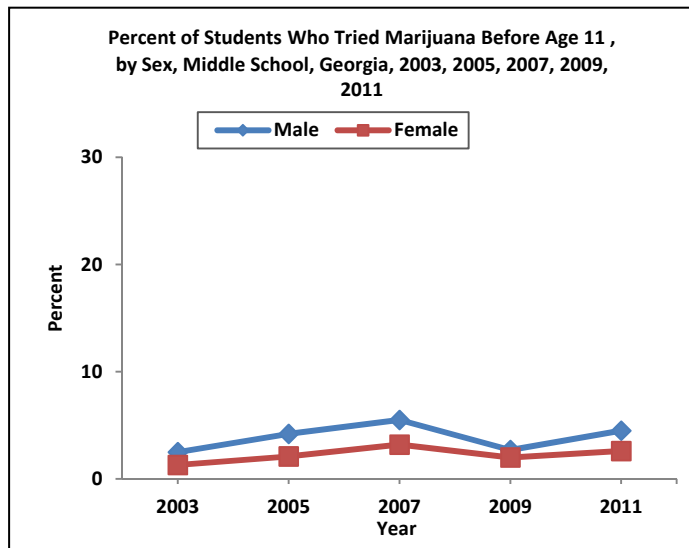
Early initiation of alcohol use was more common among non-Hispanic black and Hispanic students than among non-Hispanic white students.



The percentage of 7th graders who had their first drink of alcohol before the age of 11 declined from 2007 to 2011. However, the percentage of 6th and 8th graders who tried alcohol before the age of 11 decreased in 2009 and slightly increased in 2011.

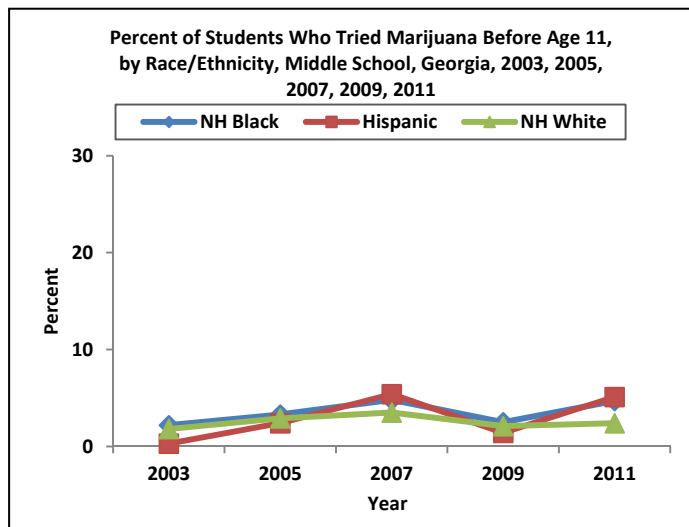
*Statistically significant at the 95% confidence level

Age of Initiation of Marijuana Use

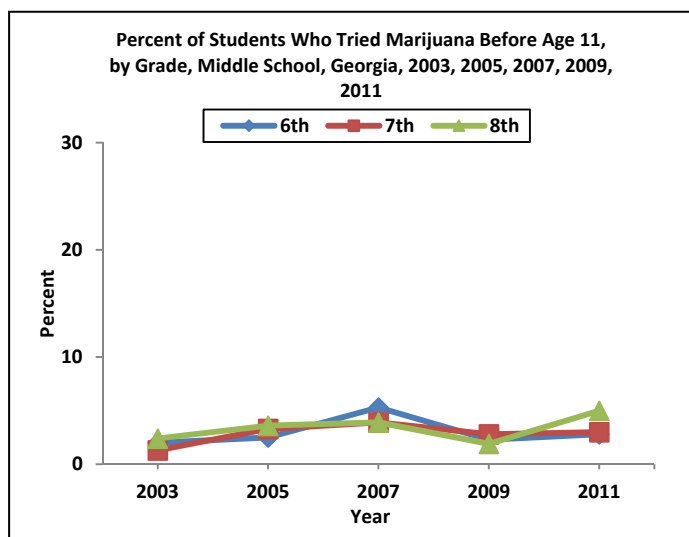


The percentage of students who tried marijuana for the first time before age 11 increased from 2003 (2%) to 2007 (5%), followed by a slight decrease in 2011 (4%).

Trying marijuana before age 11 was more common among male students than among female students.



Between 2003 and 2009, middle school students in all racial/ethnic groups were equally likely to have tried marijuana before age 11. In 2011, non-Hispanic black and Hispanic students were more likely to have tried marijuana before the age of 11 when compared to non-Hispanic white students.



Trying marijuana before the age of 11 does not differ by grade level. Among students in each grade level, the percentage of students who tried marijuana before the age of 11 fluctuated during the survey period.

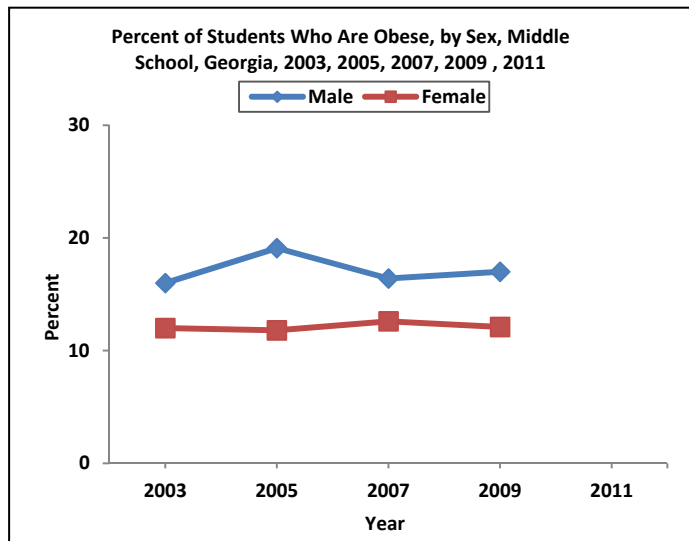
*Statistically significant at the 95% confidence level

OBESITY

Obesity during adolescence is a risk factor for various health problems such as type 2 diabetes, obstructive sleep apnea, hypertension, dyslipidemia, and metabolic syndrome.¹⁹ It is also associated with negative psychological and social consequences such as low self esteem, teasing, and bullying. Obese adolescents are more likely to become obese adults.²⁰

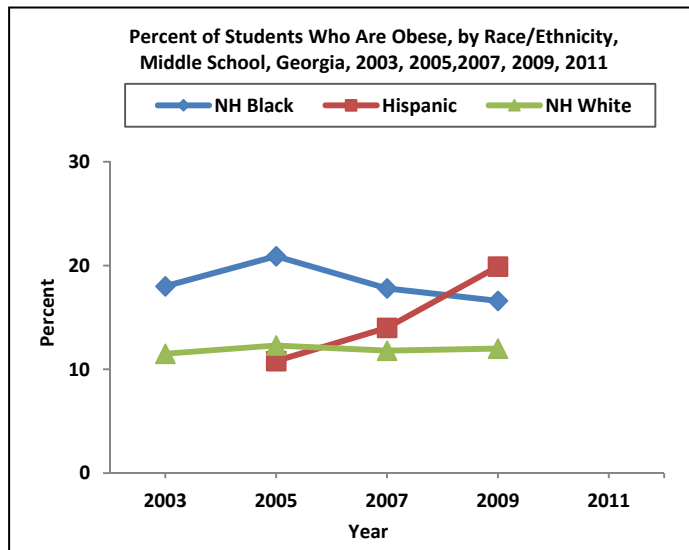
To determine the prevalence of obesity among middle school students, respondents were asked to indicate their height (in feet/inches) and weight (in pounds). The values obtained were used to calculate the Body Mass Index (BMI) for each respondent. Adolescents at or above the 95th percentile for BMI by their age and gender, as determined by the 2000 Centers for Disease Control and Prevention (CDC) Growth Charts, were considered to be obese.

Obese[¥]

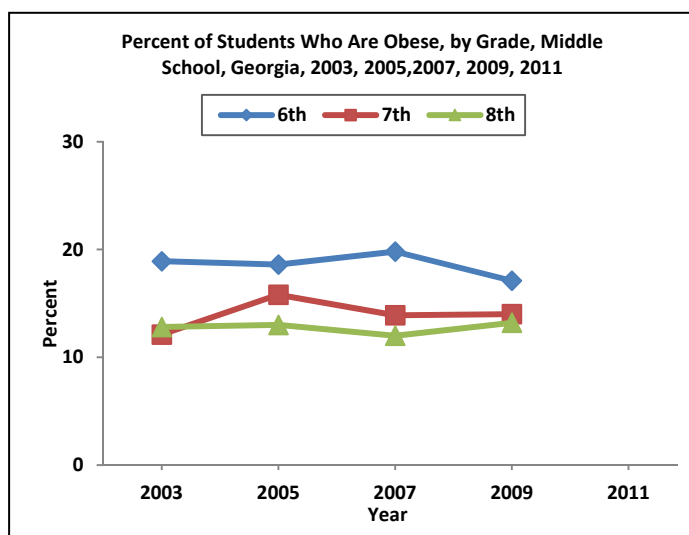


The percentage of middle school students who were obese remained stable around 15% across all years.

The prevalence of obesity was higher among male students when compared to female students.



In 2003 and 2007, non-Hispanic black students were significantly more likely to be obese than non-Hispanic white students.* However in 2011, obesity was more common among Hispanic students when compared to non-Hispanic black and non-Hispanic white students.



Being obese was more common among 6th graders compared to 7th and 8th graders. In 2005, 6th graders were significantly more likely than 8th graders to be obese.*

*Statistically significant at the 95% confidence level

¥ Body mass index information was not collected for MS in 2011

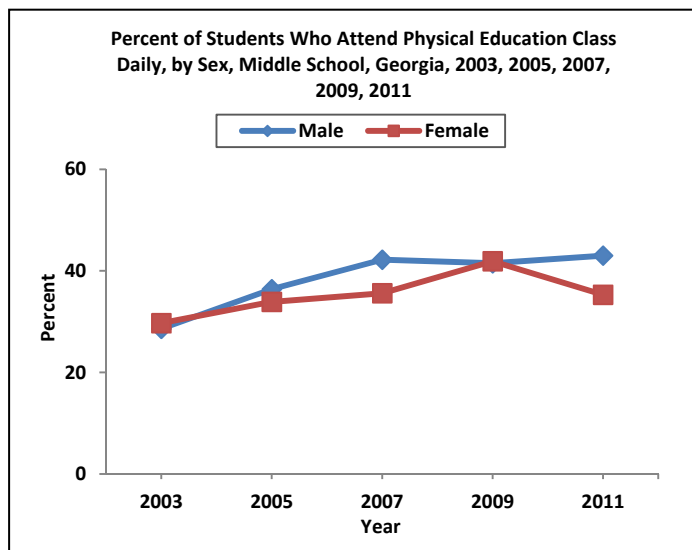
PHYSICAL ACTIVITY

Regular physical activity among young people can help build and maintain healthy bones and muscles, maintain body weight and reduce body fat, reduce feelings of depression and anxiety, and promote psychological well-being.^{21, 22} The risk of high blood pressure, heart disease, diabetes, obesity, some types of cancer, and premature death is decreased among individuals who participate in regular physical activity. The amount of time spent on sedentary activities such as watching TV and using a computer is associated with childhood and adult obesity.²³

The prevalence of regular engagement in physical and sedentary activity among middle school students was determined by:

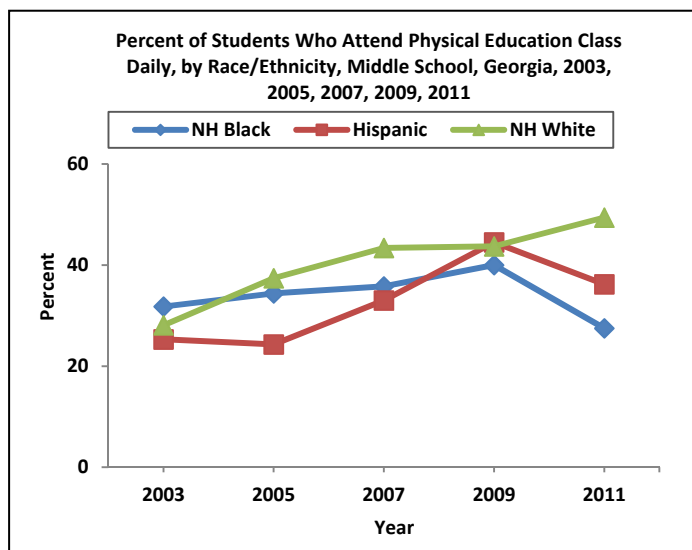
- The percentage of students who attended physical education (PE) classes daily on an average week when they were in school.
- The percentage of students who spent 3 or more hours watching TV on an average school day.

Physical Education

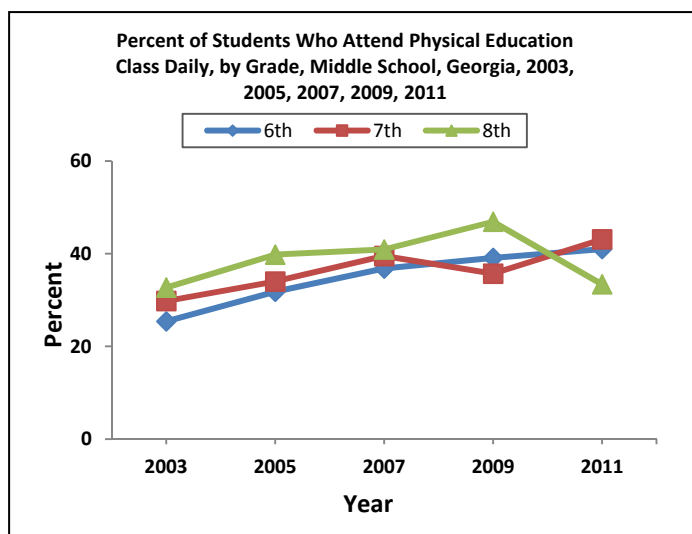


The percentage of middle school students who attended physical education (PE) classes daily in an average week when they were in school increased from 2003 (29%) to 2007 (39%), and remained stable in 2011 (39%).^{##}

Daily attendance of PE classes by males increased from 2003 (29%) to 2007 (42%) and remained stable to 2011 (43%). Daily attendance among females fluctuated from 2003 (30%) to 2009 (42%), and 2011 (35%).



Daily attendance of PE classes was more common among non-Hispanic white students than among non-Hispanic black and Hispanic students.

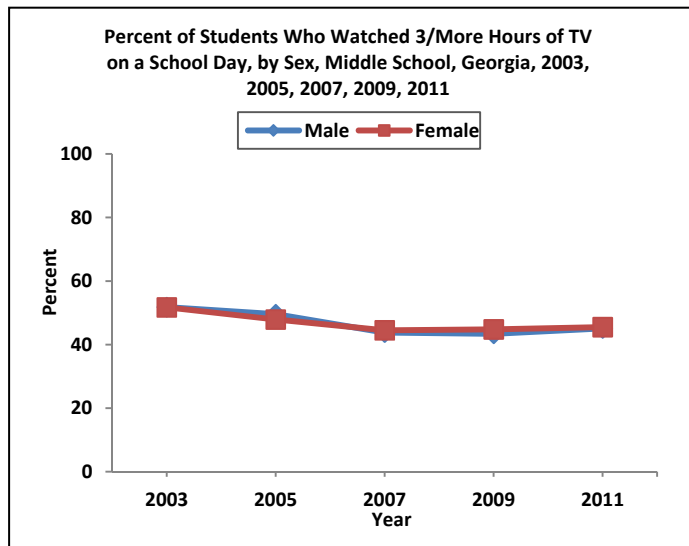


Between 2003 and 2009, daily attendance in PE class was more common among 8th graders than among 6th and 7th graders; however, in 2011, daily attendance of PE class was more common among 6th and 7th graders than among 8th graders.

^{##} While PE is mandated in all Georgia middle schools, there is no instructional time requirement. Therefore not all middle schools in Georgia will provide daily PE classes. This may have an impact on the observed prevalence.

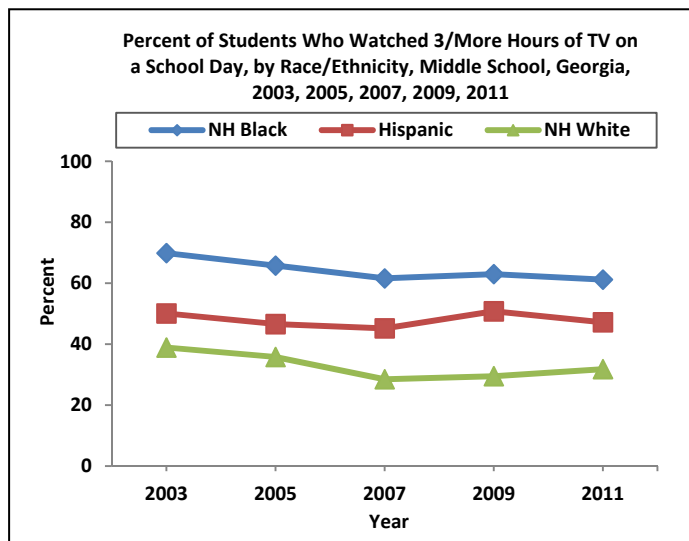
*Statistically significant at the 95% confidence level

Television Viewing

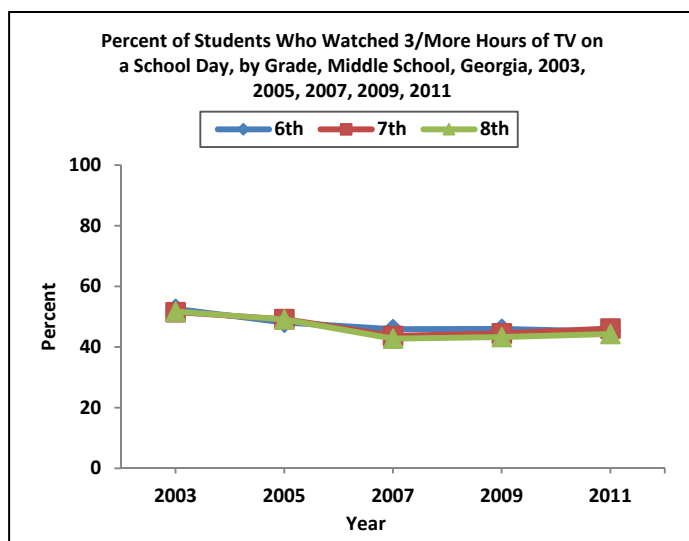


The percentage of middle school students who watched 3 or more hours of television (TV) on an average school day decreased from 2003 (52%) to 2011 (46%).

Male and female students were equally likely to watch three or more hours per day of TV on an average school day.



Non-Hispanic black students were more likely to watch three or more hours of television per day when compared to non-Hispanic white and Hispanic students.



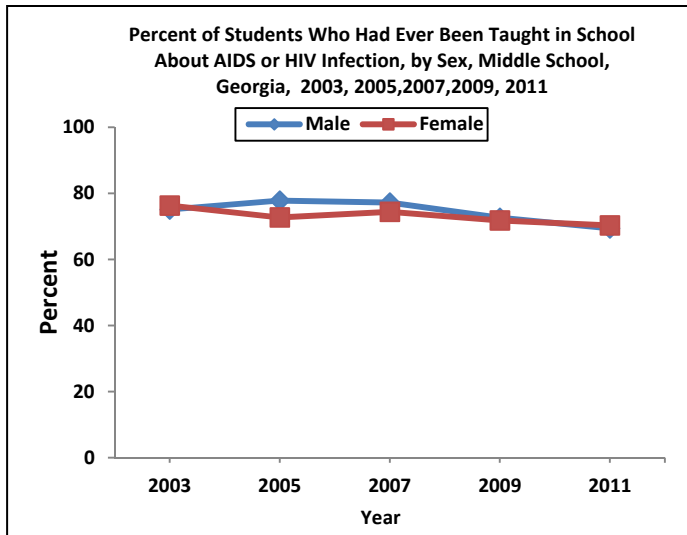
There were no grade-level differences in prevalence of watching three or more hours of television viewing per day.

*Statistically significant at the 95% confidence level

Reproductive Health Education

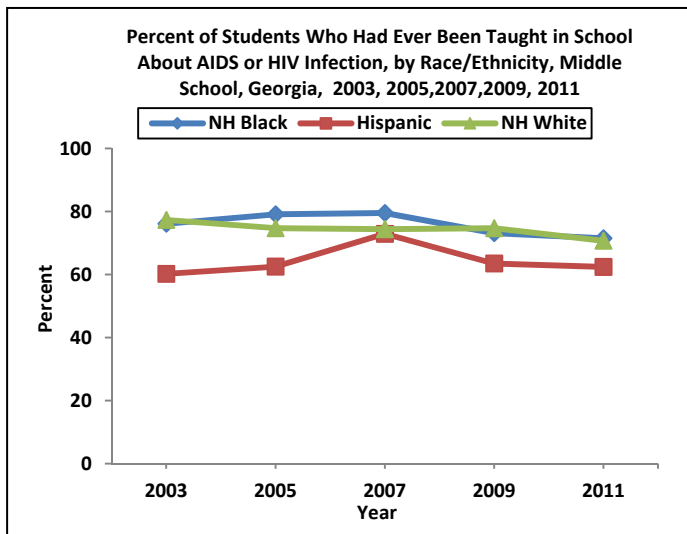
This question measures the prevalence of HIV/AIDS prevention education among high school students. Even though individuals aged 15 – 24 years make up just a quarter of the sexually-active population, it is estimated that nearly 50% of all sexually transmitted diseases (STDs) (representing 9.1 million cases)²⁴ and 6,610 cases of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)²⁵ are diagnosed among this group annually. Educating young people on HIV/AIDS will empower them to protect themselves from getting infected.

Ever Been Taught About HIV/AIDS

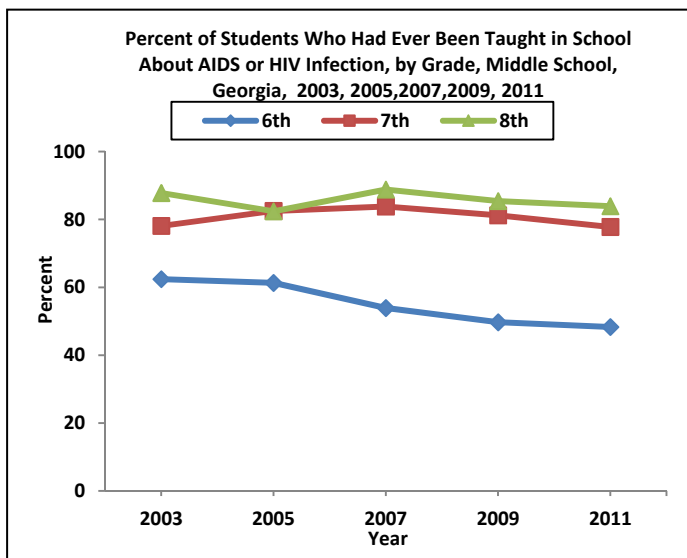


The percentage of middle school students who had ever been taught in school about AIDS or HIV infection declined from 2003 (76%) to 2011 (70%).

Male and female students were equally likely to report that they had ever been taught in school about AIDS or HIV infection. This declined slightly among both genders.



The prevalence of having ever been taught in school about AIDS or HIV infection was higher among Non-Hispanic black and non-Hispanic white students when compared to Hispanic students.



Seventh and 8th graders were significantly more likely to report that they had ever been taught in school about AIDS or HIV infection compared to 6th graders.*

*Statistically significant at the 95% confidence level

HIGH SCHOOL FINDINGS

RISK BEHAVIORS FOR UNINTENTIONAL INJURIES

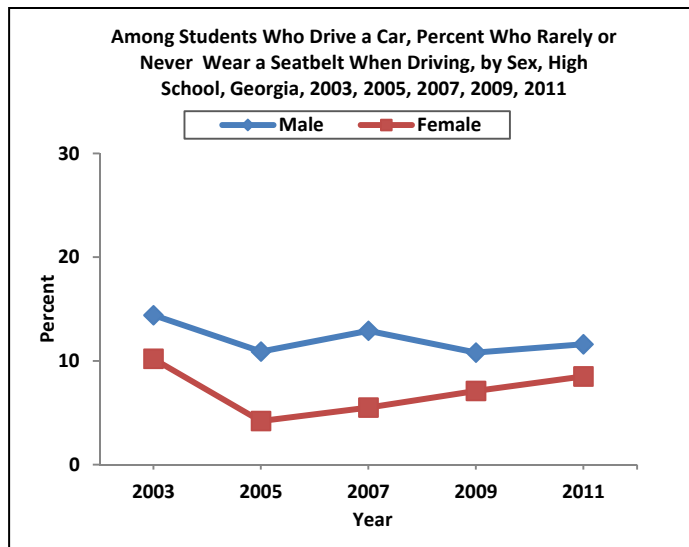
This section measures the trends in the prevalence of behaviors that result in unintentional injuries among the youth in Georgia.

Motor-vehicle related injuries are a major cause of death among 5 – 20 year olds.¹ In 2009, among 4,076 individuals, aged between 5 and 20 years, that were killed in passenger vehicle crashes, nearly 56% were unrestrained.¹ In the event of a motor-vehicle accident, the appropriate use of seat belts reduces the risk of fatality among front-seat passengers by 45% and the risk of moderate – to – critical injury by 50%.² In 2008, among 15 - 20 year old drivers involved in motor vehicle crashes, approximately one-fifth of those killed and 4% of those injured had been drinking alcohol.³

Responses of interest that were used to assess the prevalence of behaviors that lead to unintentional injury among high school students were:

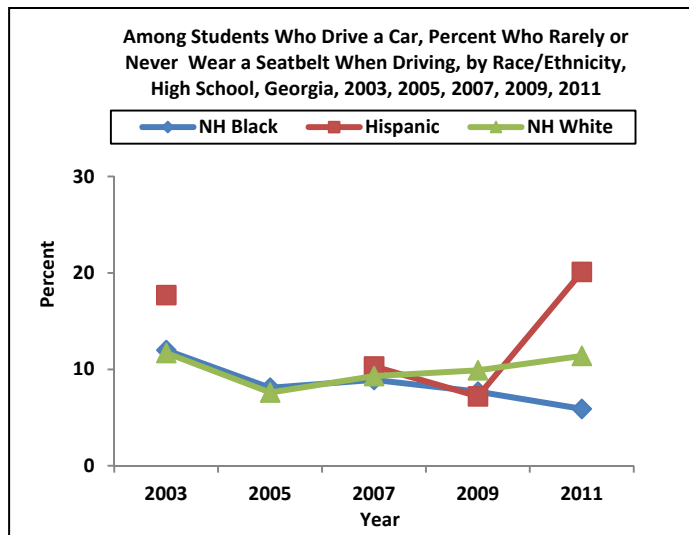
- Among students who drive a car, the percentage who responded that they rarely or never wear a seat belt when driving.
- The percentage of students who drove a car 1 or more times during the past 30 days before the survey, when they had been drinking alcohol.

Seatbelt Use

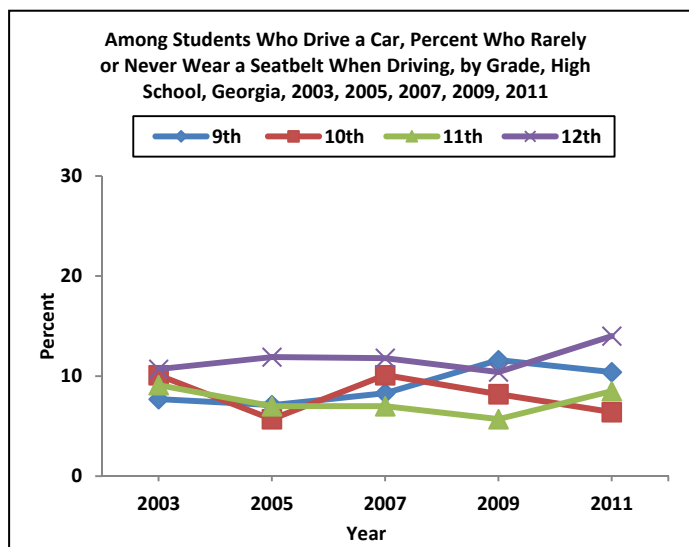


Among high school students who drove a car, the percentage of students who rarely or never wore a seatbelt when driving increased from 2005 (8%) to 2011 (10%).

Not wearing a seatbelt when driving was more common among male students when compared to female students.



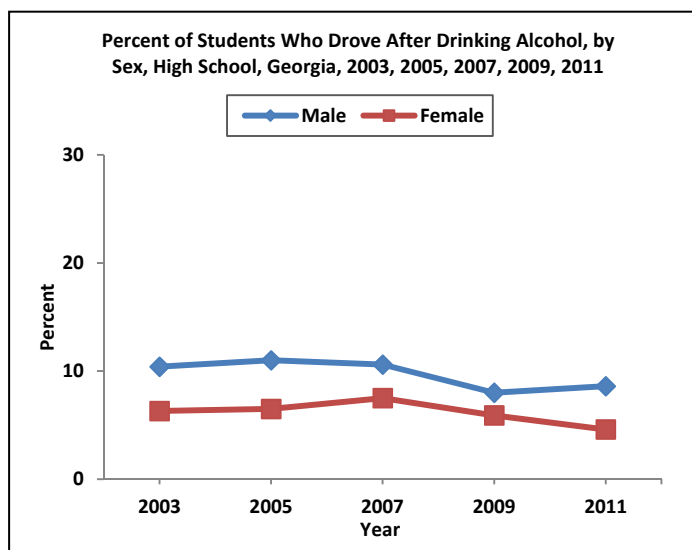
In 2007 and 2009, students of all races/ethnicities were equally likely to rarely or never wear a seatbelt when driving. In 2003 and 2011, not wearing a seatbelt when driving was more common among Hispanic students than non-Hispanic black and white students.



Not wearing a seatbelt when driving was more common among 12th graders when compared to 10th and 11th graders. Approximately 15% of 12th graders rarely or never wore seat belts while driving.

*Statistically significant at the 95% confidence level

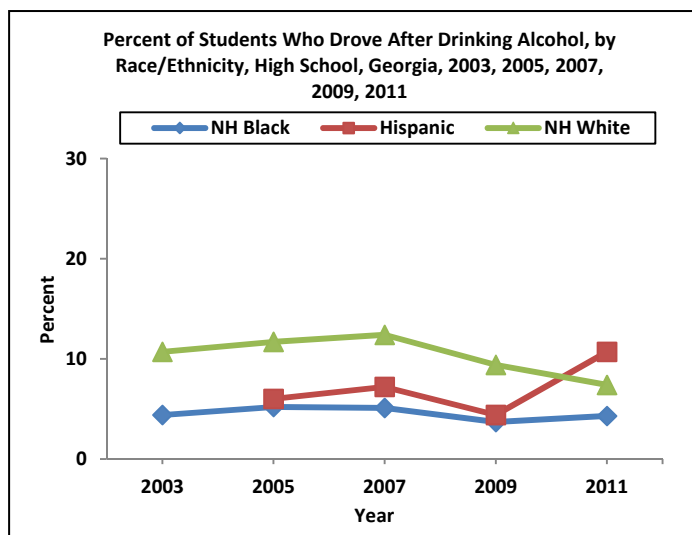
Drinking and Driving



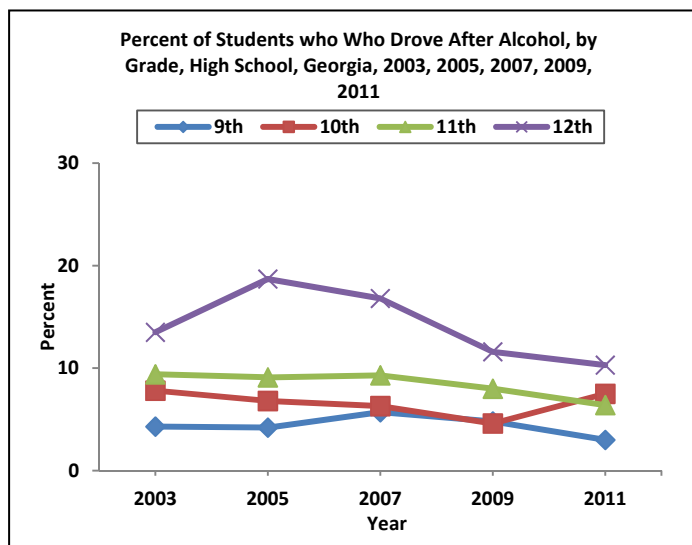
The percentage of high school students who drove a car or other vehicle after drinking alcohol within 30 days of the survey remained stable from 2003 (8%) to 2007 (9%) and decreased from 2007 to 2011 (7%).

National Rate (2011): 8%

Driving after drinking alcohol was more common among male students than among female students.



Non-Hispanic white and Hispanic students were more likely than non-Hispanic black students to drive after drinking alcohol.



Driving after drinking alcohol was more common among 12th graders compared to 9th, 10th, and 11th graders.

*Statistically significant at the 95% confidence level

VIOLENCE – RELATED BEHAVIORS

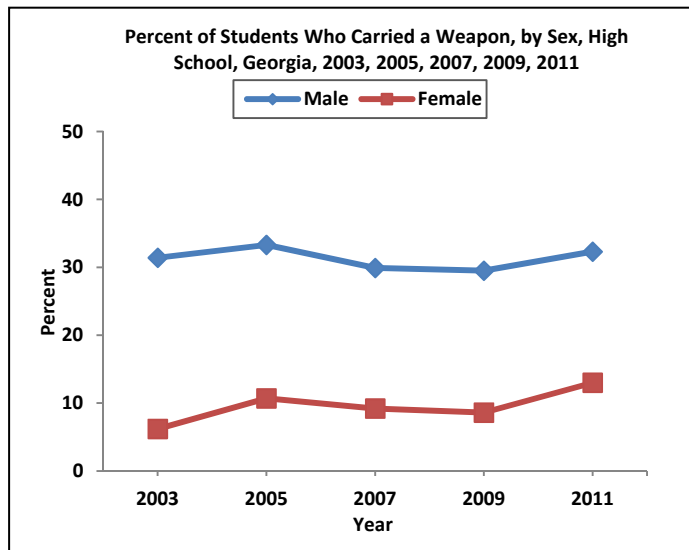
This section measures the trend in violence-related behaviors. The second leading cause of death among 15 – 19 year olds is homicide (9.6 / 100, 000).⁴ In 2009, nearly 94% of homicides in the United States were committed with a weapon, such as a gun, knife or club.⁵ Similarly, in 2009 nearly 92% of homicides among 15 – 19 year olds in Georgia were committed with a weapon.[§] Physical fighting is associated with other problem behaviors⁶ and serious injury – related health outcomes.⁷

The prevalence of violence-related behaviors among high school students were measured by:

- The percentage of students who reported that they had carried a weapon, such as a gun, knife, or club in the previous 30 days before the survey.
- The percentage of students who reported that they had been in a physical fight one or more times in the previous 12 months before the survey.

[§] Data Source: 2009 Georgia Violent Death Reporting System (GVDRS)

Weapon Carrying

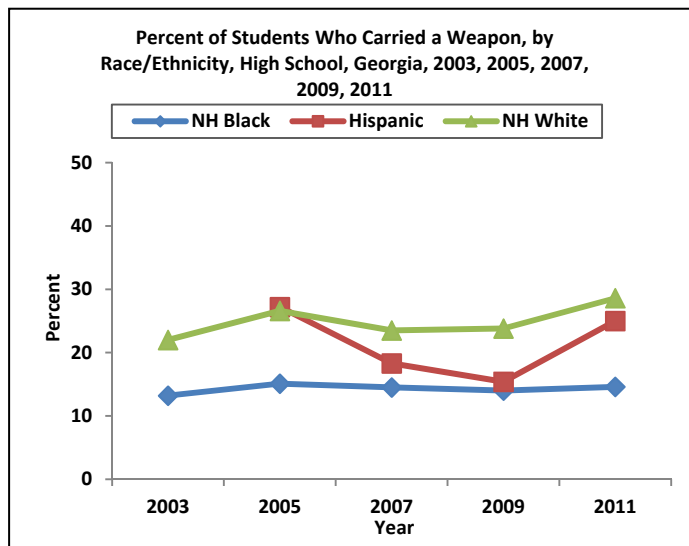


The percentage of students who carried a weapon on at least 1 day within 30 days of the survey fluctuated between 19% and 23% over the years.

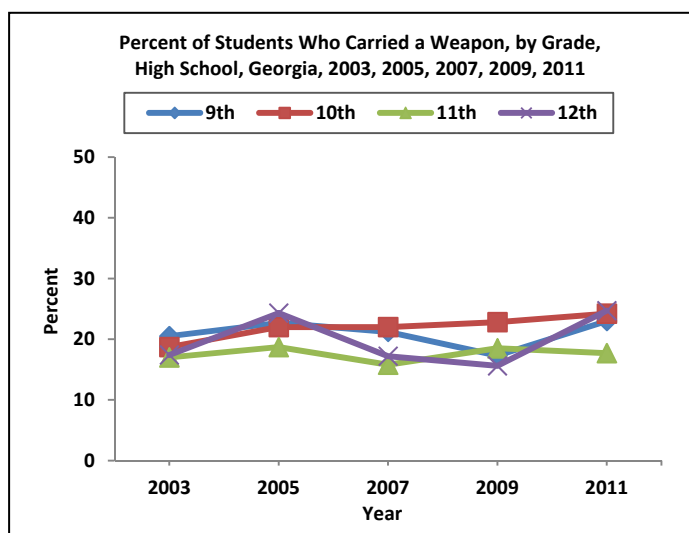
Georgia Rate (2011): 23%

National rate (2011): 17%

Male students were almost 3 times more likely than female students to carry a weapon.*



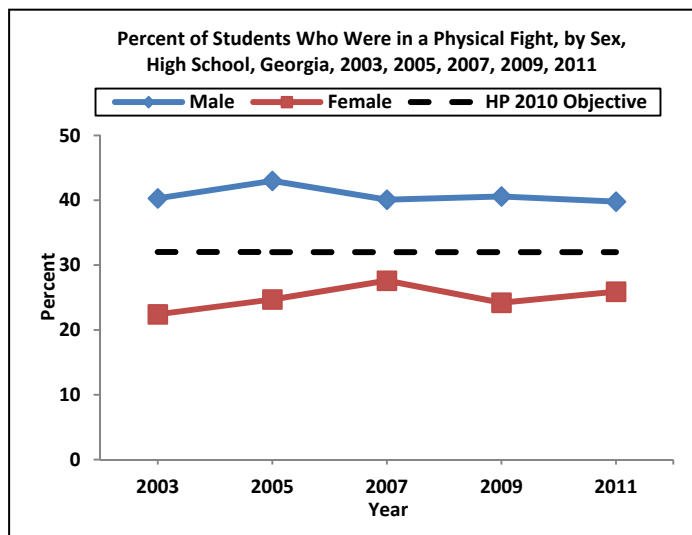
Non-Hispanic white students were more likely than non-Hispanic black students to carry a weapon.* Trends among black students remained stable but steadily increased among white students.



The percentage of 10th graders who carried a weapon within the past 30 days increased from 2003 (19%) to 2011 (24%). Weapon carrying among students in the other grade levels fluctuated during this period.

*Statistically significant at the 95% confidence level

Physical Fighting

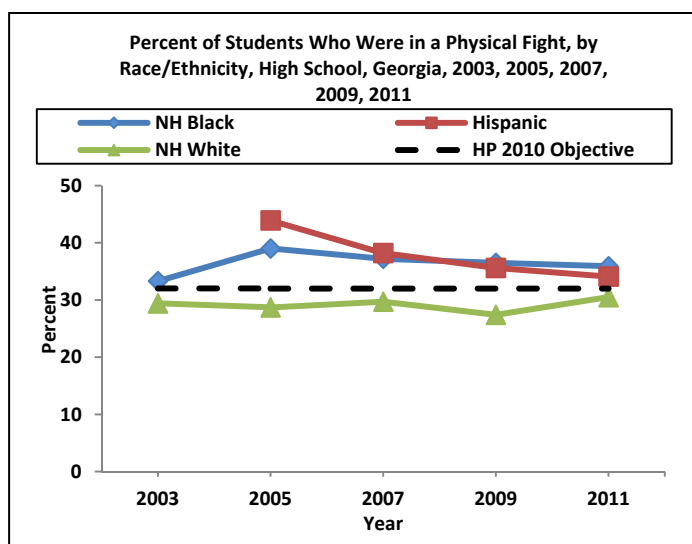


The percentage of high school students who were involved in a physical fight during 12 months before the survey increased slightly from 2003 (31%) to 2007 (34%) and remained stable to 2011 (33%).

Healthy People 2010 Objective: Reduce physical fighting among adolescents to 32%.

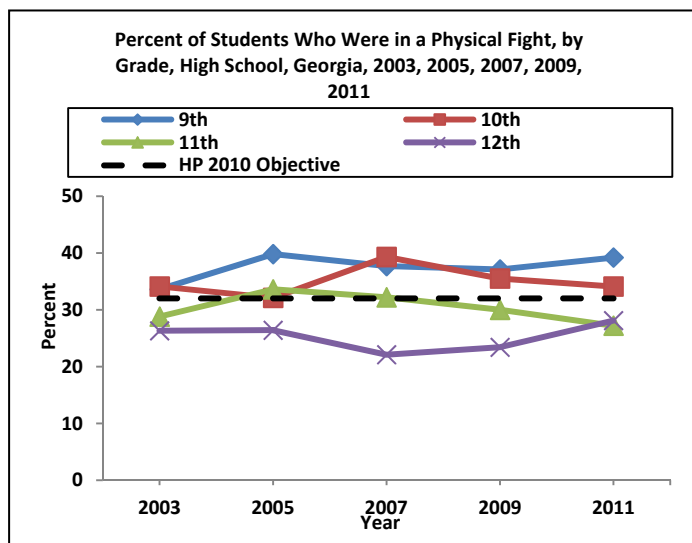
Georgia rate (2009): 32.3%. Within 1% of objective

National Rate (2011): 33%



Male students were nearly 2 times more likely than female students to have been in a physical fight.*

Physical fighting was more common among non-Hispanic black and Hispanic students when compared to non-Hispanic white students.



Physical fighting was more common among students in 9th and 10th grades when compared to students in 11th and 12th grades.

*Statistically significant at the 95% confidence level

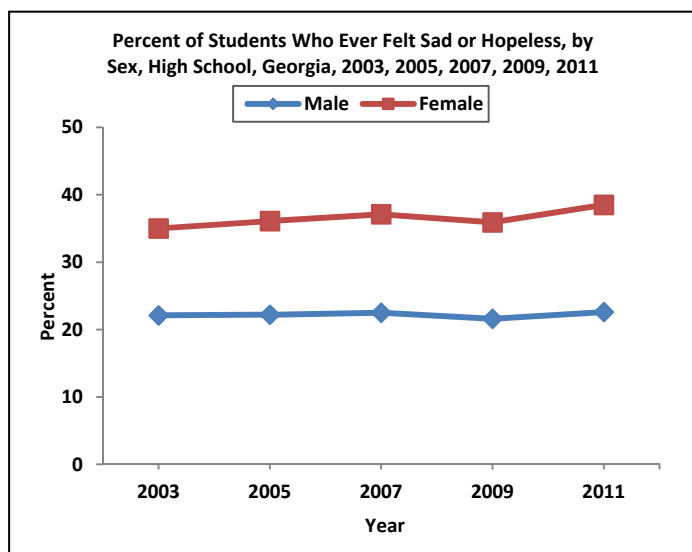
SUICIDE

Suicide is the third leading cause of death among individuals aged between 15 – 19 years old.⁴ Suicide ideation and attempts are associated with various factors including bullying victimization,⁸ drug use,⁹ and disordered eating behavior.¹⁰

The prevalence of suicidal ideation among high school students was determined by;

- The percentage of students who reported that they ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the 12 months before the survey.
- The percentage of students who ever seriously considered attempting suicide during the 12 months before the survey.

Felt Sad or Hopeless

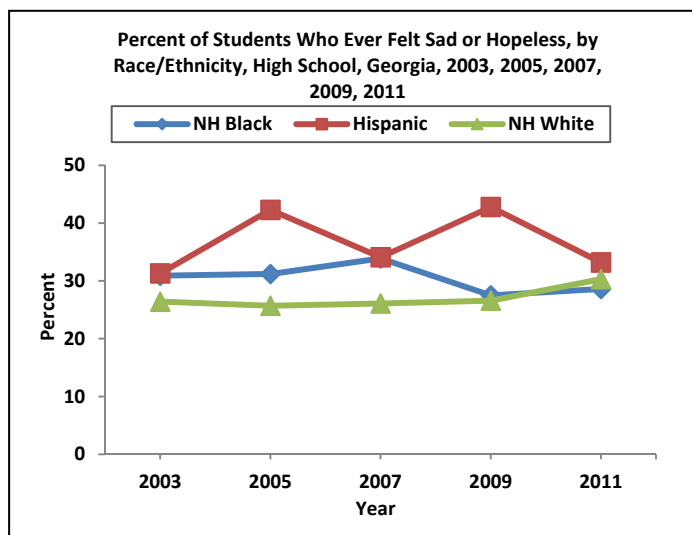


The percentage of high school students who, during the 12 months before the survey, reported feeling so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing usual activities remained stable over the survey period.

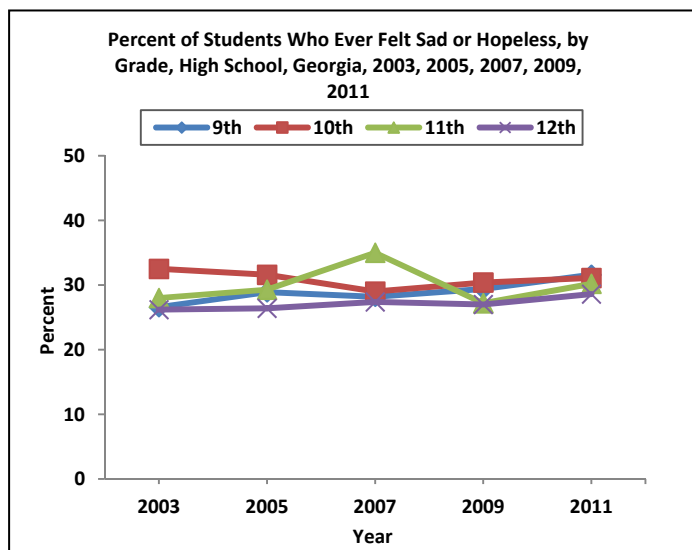
Georgia Rate (2011): 31%

National Rate (2011): 29%

Female students were nearly 2 times more likely than male students to have felt so sad or hopeless almost every day for 2 or more weeks in a row.*



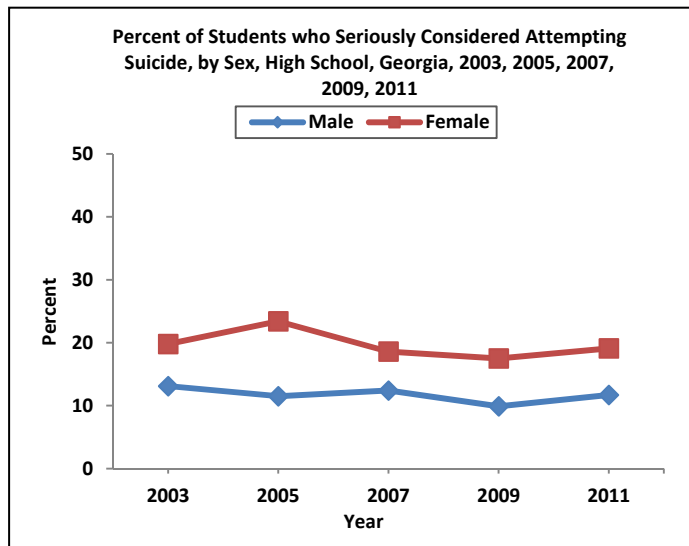
The prevalence of having felt sad or hopeless almost every day for 2 or more weeks in a row was higher among Hispanic students when compared to non-Hispanic white students. This fluctuated among Hispanic students over the survey period.



Students at all grade levels were equally likely to have felt sad or hopeless almost every day for 2 or more weeks in a row. The percentage of 11th graders who felt sad or hopeless fluctuated over the survey period.

*Statistically significant at the 95% confidence level

Seriously Considered Attempting Suicide

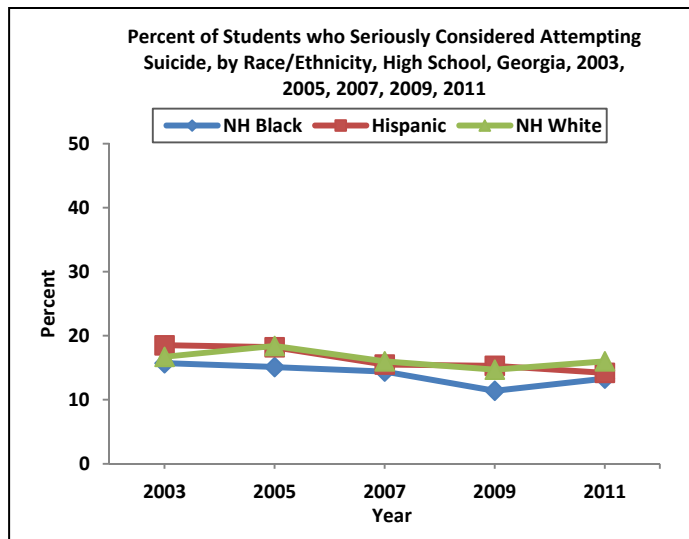


The percentage of high school students who seriously considered attempting suicide during the 12 months before the survey remained stable over the years.

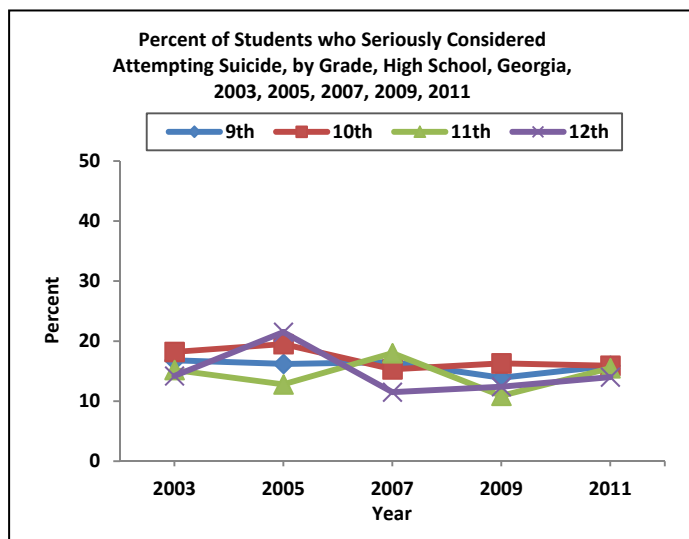
Georgia Rate (2011): 16%

National Rate (2011): 16%

Female students were more likely than male students to seriously consider attempting suicide.*



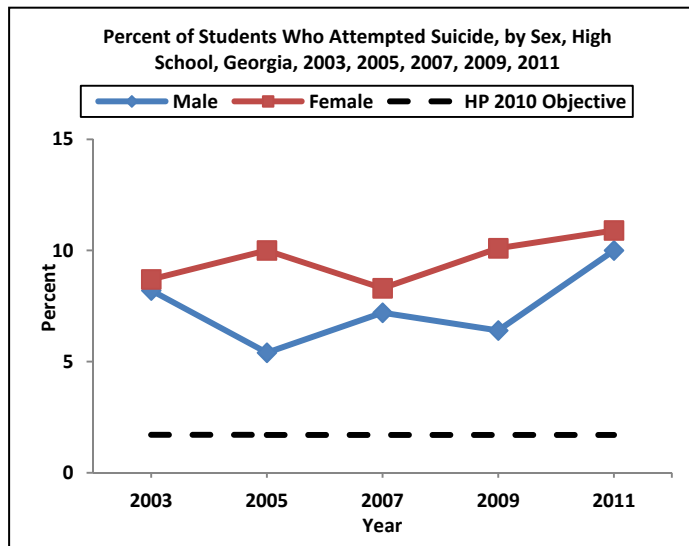
Students of all races/ethnicities were equally likely to seriously consider attempting suicide.



The prevalence of having seriously considered attempting suicide remained stable among 9th graders across all five survey years, whereas it fluctuated among 10th, 11th, and 12th graders.

*Statistically significant at the 95% confidence level

Actually Attempted Suicide



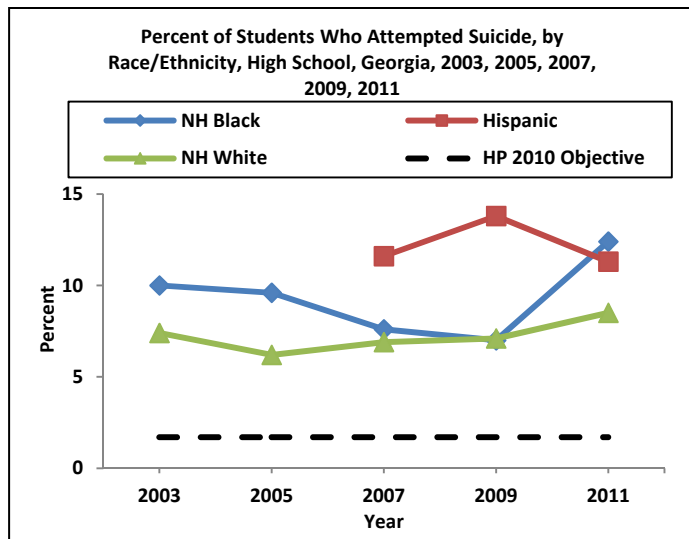
The percentage of students who actually attempted suicide one or more times within 12 months of the survey increased slightly from 2003 (9%) to 2011 (11%).

Healthy People 2010 Objective: Reduce suicide attempts by adolescents to 1.0%

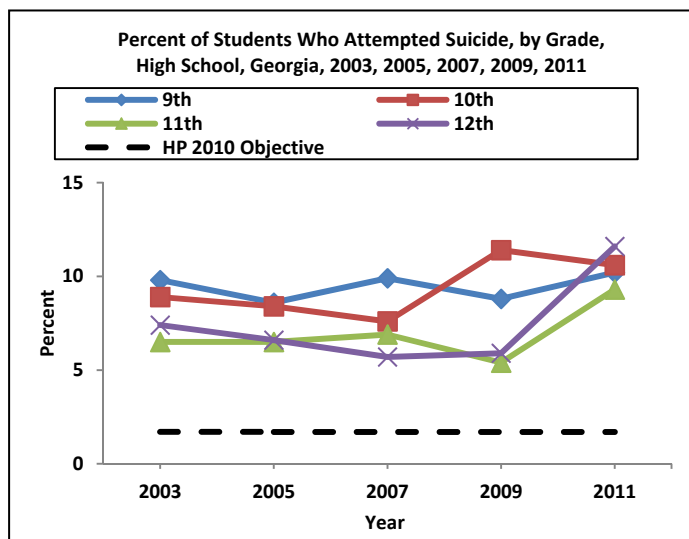
Georgia Rate (2009): 8%. Goal not met.

National Rate (2011): 8%

The prevalence of suicide attempts among both male and female students fluctuated over the survey period.



Having attempted suicide was more common among Hispanic students than non-Hispanic white students. The prevalence of having attempted suicide among non-Hispanic blacks decreased steadily from 2003 (10%) to 2009 (7%) but increased in 2011 (10%). Among non-Hispanic whites it declined from 2003 (7%) to 2005 (6%) and increased steadily to 2011 (9%).



The prevalence of having attempted suicide was higher among 9th and 10th grade students than among 11th and 12th graders. Among all grade levels, the prevalence of having attempted suicide fluctuated.

*Statistically significant at the 95% confidence level

TOBACCO, ALCOHOL AND OTHER DRUG USE

These questions measure the trends in ever and current smoking patterns, alcohol use, and age of initiation. Cigarette smoking is a leading cause of death,¹¹ and contributes to nearly 440, 000 deaths annually in the United States.¹² Cigarette smoking increases the risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix.¹¹ Individuals who start smoking at age 15 years or younger have a two-fold increase in risk of lung cancer compared to those who start at age 20 years and older.¹³

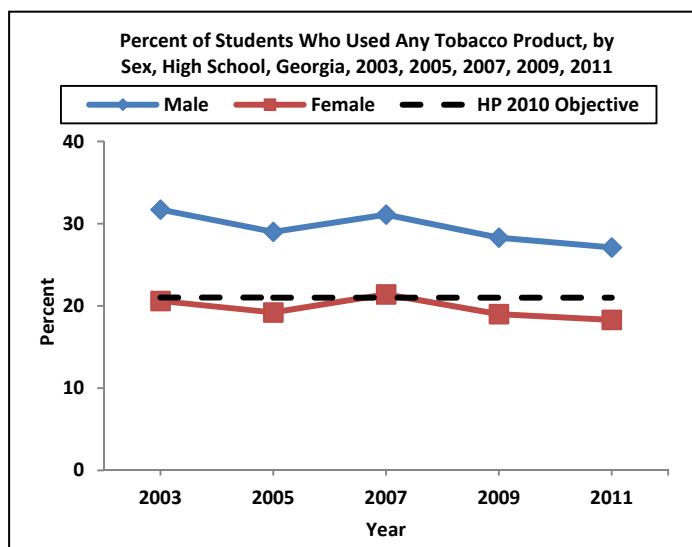
More young people use alcohol than tobacco or illicit drugs.¹⁴ Alcohol addiction is five times more likely among individuals who start drinking before 15 years than those who start drinking at age 21 years or older.¹⁵ Heavy alcohol use is also associated with risky sexual behaviors,¹⁶ and use of cigarettes, marijuana, cocaine and other illegal drugs among young people.¹⁷

Use of illegal drugs among teenagers is associated with risk behaviors including heavy alcohol and tobacco use,¹⁴ violence and delinquency,¹⁸ and suicide.⁹

The prevalence of tobacco, alcohol and other drug use among middle school students was measured by the percentage of students who;

- Smoked cigarettes or cigars or used chewing tobacco, snuff, or dip on one or more days within 30 days of the survey (Current tobacco use).
- Smoked cigarettes on one or more days within 30 days of the survey (Current cigarette use).
- Used chewing tobacco, snuff, or dip on one or more days within 30 days of the survey (Current smokeless tobacco use).
- Had at least one drink of alcohol on one or more days within 30 days before the survey.
- Had 5 or more drinks of alcohol in a row, within a couple of hours, on one or more days within 30 days before the survey (Binge drinking).
- Used marijuana one or more times in the previous 30 days before the survey (Current marijuana use).
- Smoked a whole cigarette for the first time before the age of 13 years.
- Had their first drink of alcohol other than a few sips before the age of 13 years.
- Tried marijuana for the first time before the age of 13 years.

Current Tobacco Use

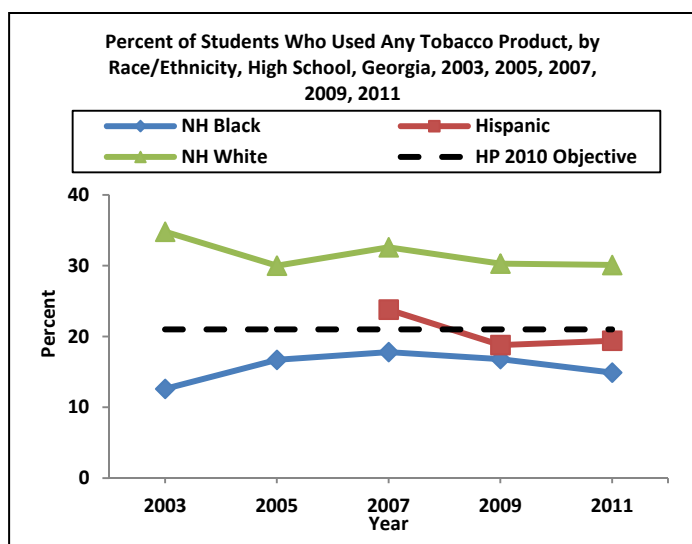


The percentage of high school students who smoked cigarettes or cigars or used chewing tobacco, snuff, or dip on 1 or more days within 30 days of the survey declined from 2003 (26%) to 2011 (23%).

Healthy People 2010 Objective: Reduce use of any tobacco product by adolescents to 21%.

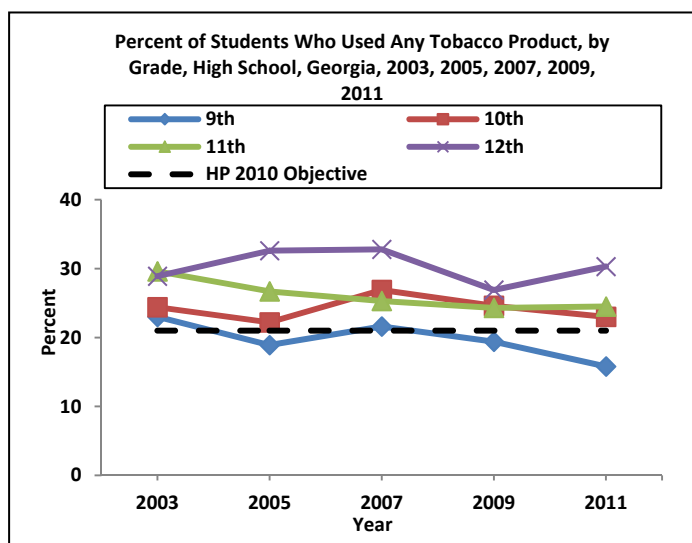
Georgia Rate (2009): 23%. Within 2% of objective

National Rate (2011): 23%



The prevalence of current tobacco use was higher among male than female students. This difference was significant in 2003, 2005, 2007, and 2009.*

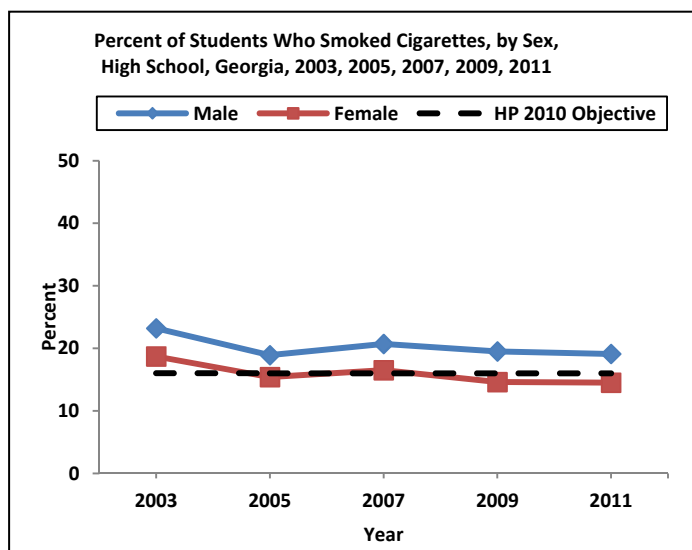
Non-Hispanic white students were significantly more likely than non-Hispanic blacks to be current users of tobacco products.*



The prevalence of current tobacco use was higher among 12 graders than among students in other grade levels.

*Statistically significant at the 95% confidence level

Current Cigarette Use

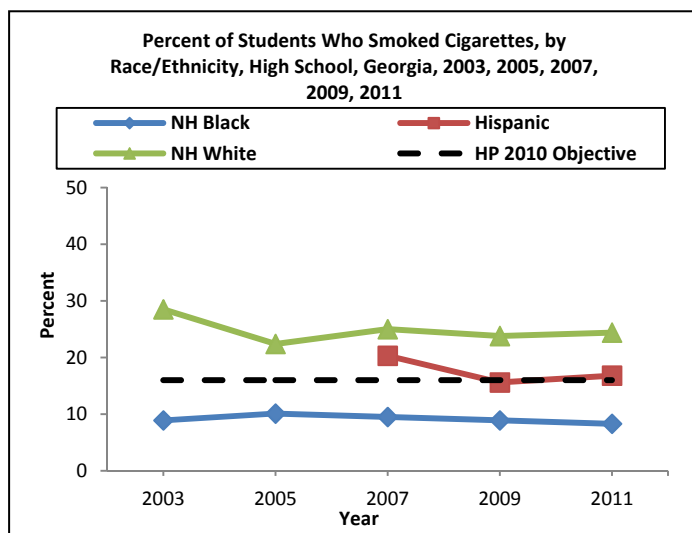


The percentage of high school students who smoked cigarettes on at least 1 day during 30 days before the survey declined from 2003 (21%) to 2011 (17%).

Healthy People 2010 Objective: Reduce cigarette use (past 30 days) among adolescents to 16%.

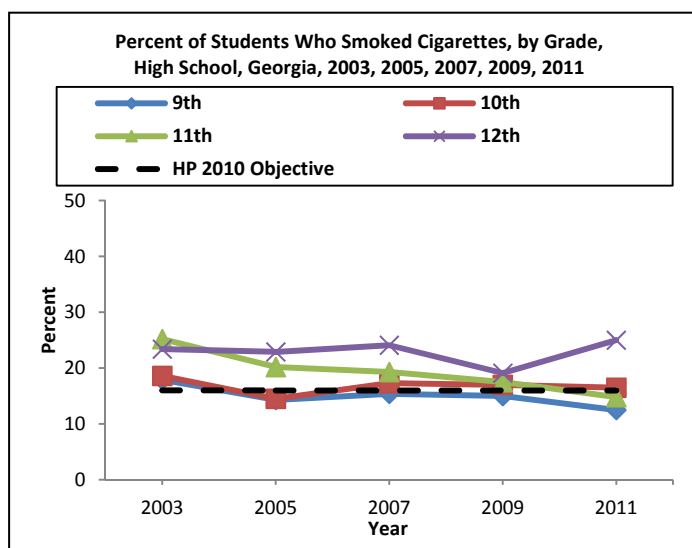
Georgia rate (2009): 17%. Within 1% of objective

National Rate (2011): 18%



Current cigarette use was more common among male students when compared to female students.

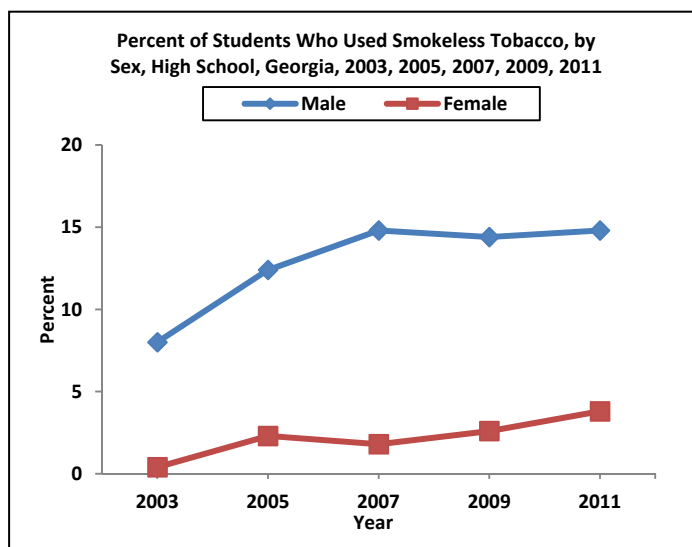
Non-Hispanic white students were over two times more likely than non-Hispanic black students to currently smoke cigarettes.*



Current cigarette smoking was more common among 12th graders when compared to students in other grades.

*Statistically significant at the 95% confidence level

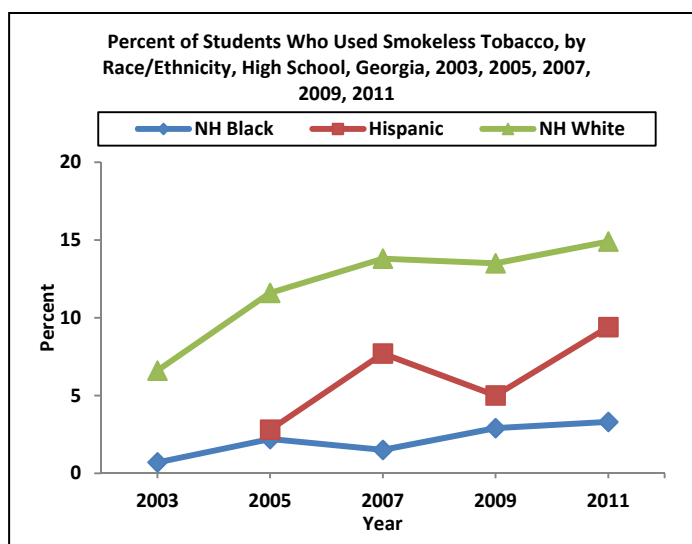
Current Smokeless Tobacco Use



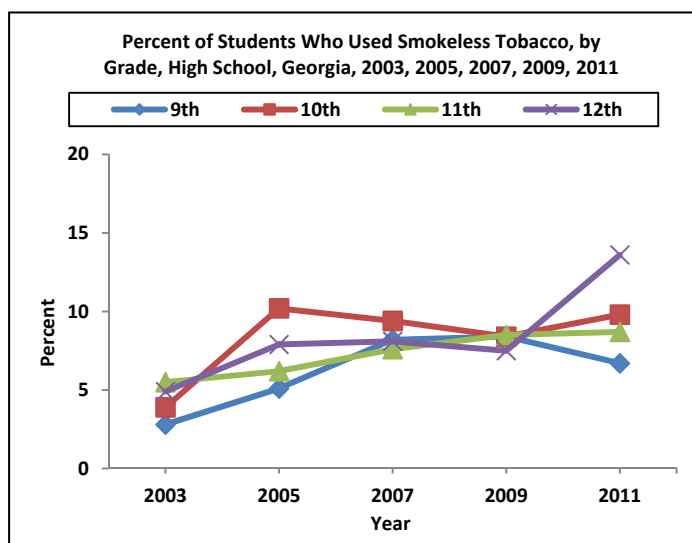
The percentage of high school students who used chewing tobacco, snuff, or dip on 1 or more days within 30 days of the survey increased significantly from 2003 (4%) to 2011 (10%).*

National Rate (2011): 8%

Male students were significantly more likely than females to currently use smokeless tobacco.* Among both genders, the prevalence of current smokeless tobacco use increased significantly from 2003 to 2011.* (Males; 8% - 15%. Females; 0.4% - 4%).



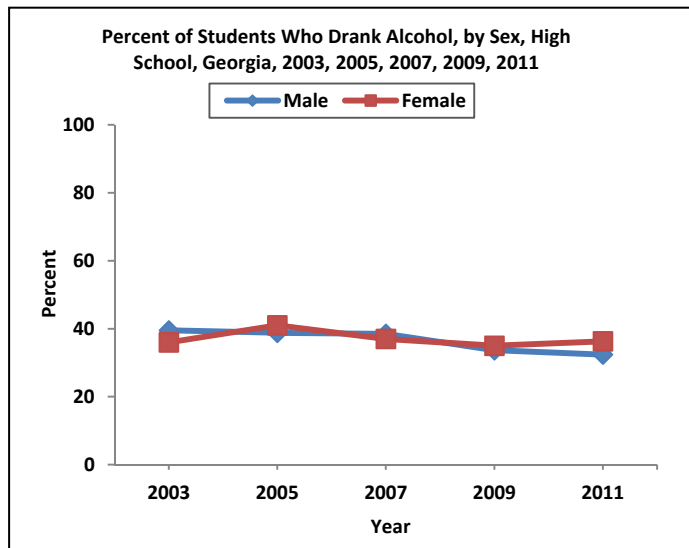
Non-Hispanic white students were significantly more likely than non-Hispanic blacks to currently use smokeless tobacco.* The prevalence of current smokeless tobacco use increased among non-Hispanic black and white students and fluctuated among Hispanics over the survey period.



The prevalence of current smokeless tobacco use among students at all grade levels fluctuated over the survey period.

*Statistically significant at the 95% confidence level

Current Alcohol Use

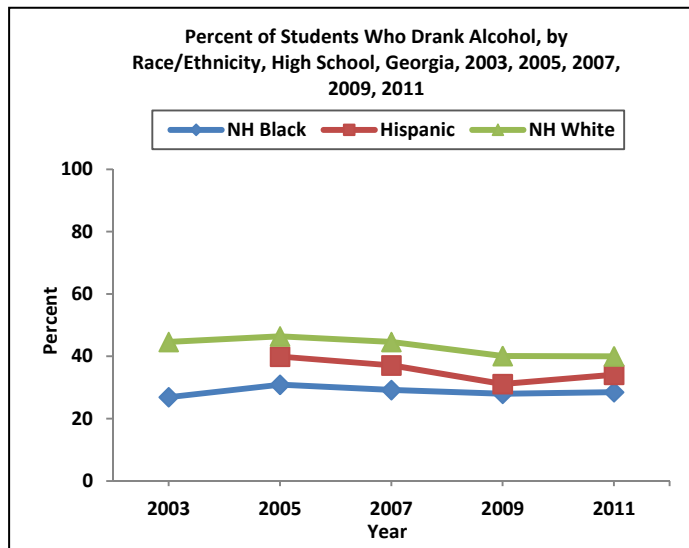


More than a third of high school students reported having at least one drink of alcohol on at least 1 day during 30 days before the survey. This prevalence remained stable over the survey period.

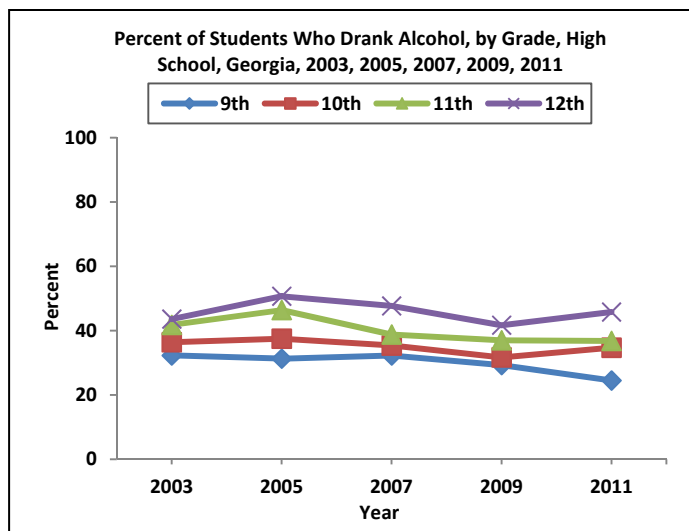
Georgia Rate (2011): 35%

National Rate (2011): 39%

Male and female students were equally likely to currently use alcohol.



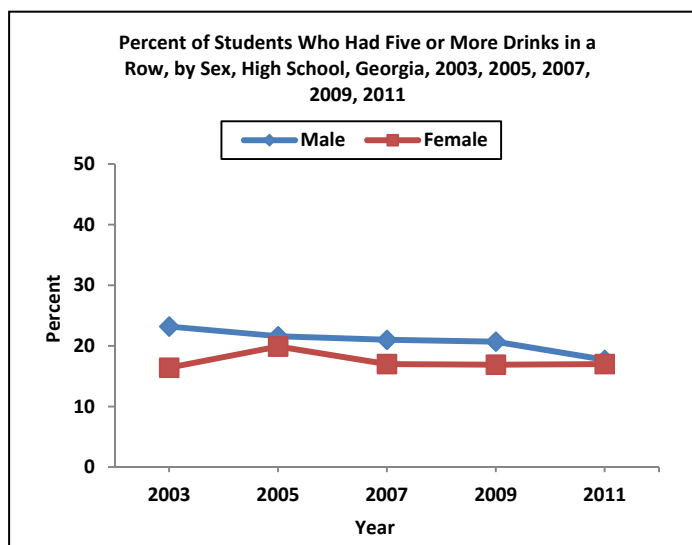
Non-Hispanic white students were more likely than non-Hispanic black students to currently use alcohol.*



Students in 12th grade were more likely than students in 9th grade to currently use alcohol.*

*Statistically significant at the 95% confidence level

Binge Drinking

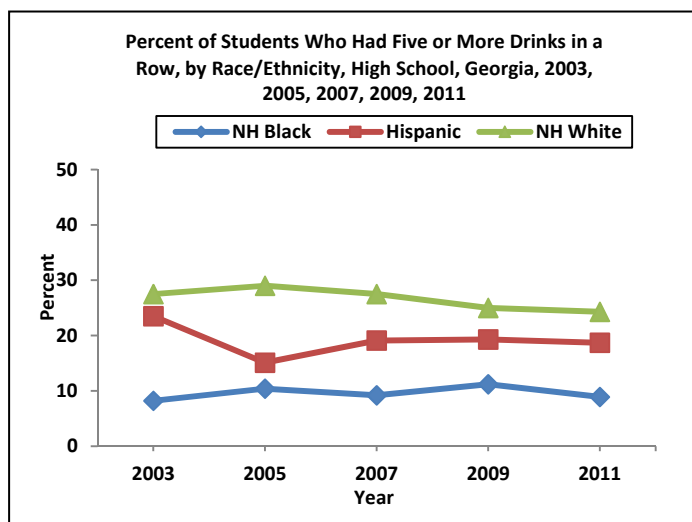


The percentage of high school students who had five or more drinks of alcohol in a row within a couple of hours, on at least 1 day during the 30 days before the survey (i.e. binge drinking) remained stable during the survey period.

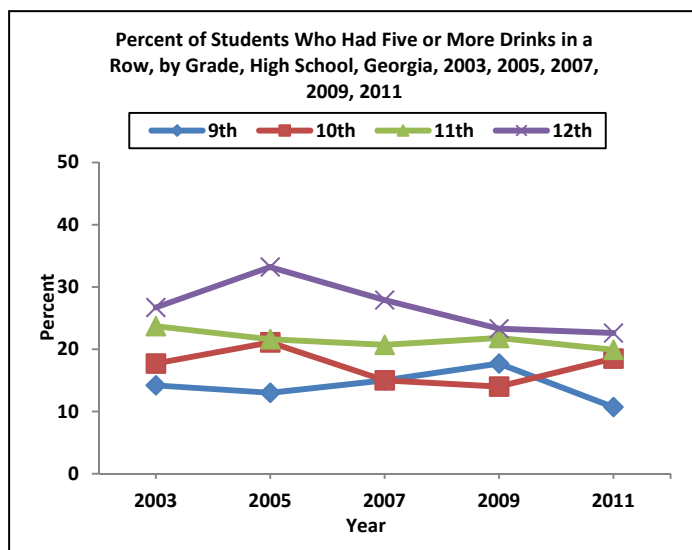
Georgia rate (2011): 18%.

National Rate (2011): 22%

Binge drinking was more common among male students than among female students.



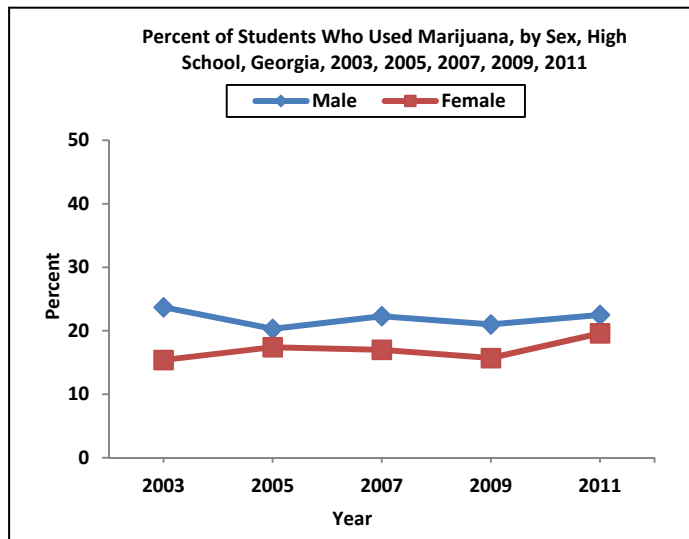
Non-Hispanic white students were approximately three times more likely than non-Hispanic black students to binge drink.*



Binge drinking was more common among 12th graders when compared to students in other grades.

*Statistically significant at the 95% confidence level

Current Marijuana Use

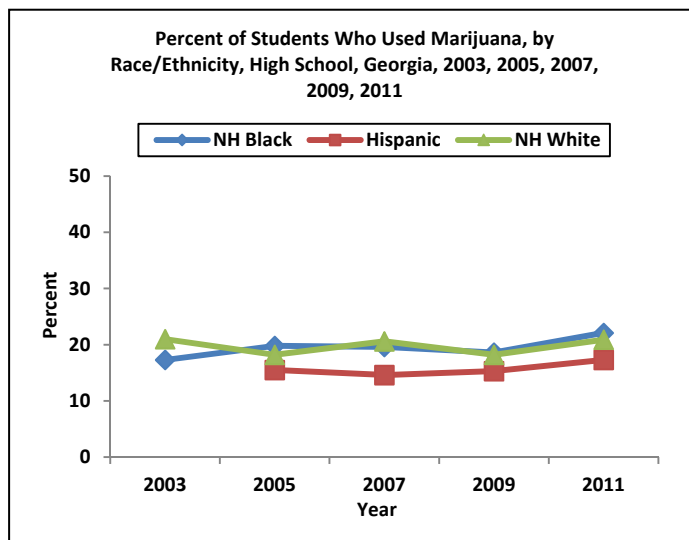


The percentage of students who used marijuana one or more times during the 30 days before the survey fluctuated between 19% and 21% over the survey period.

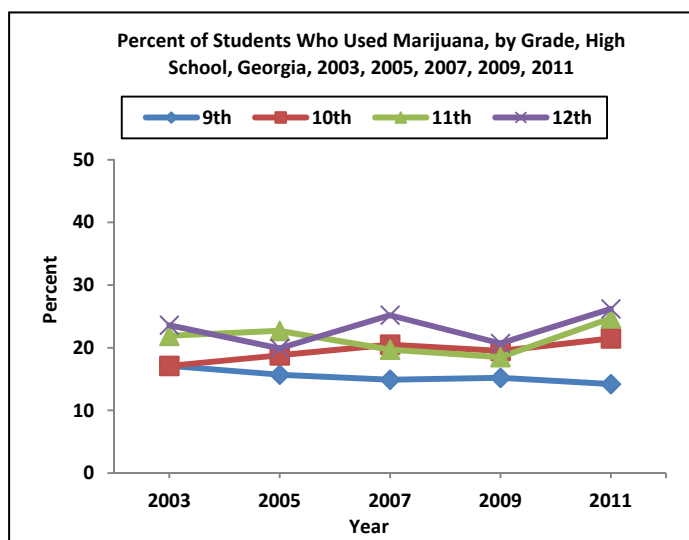
Georgia rate (2011): 21%

National Rate (2011): 23%

Marijuana use was more common among male students than among female students.



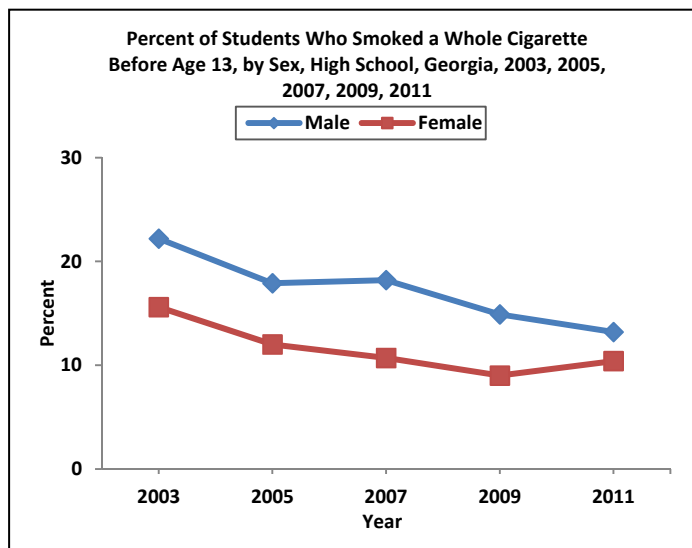
Marijuana use was more common among non-Hispanic black and non-Hispanic white students when compared to Hispanic students.



Marijuana use was more common among students in 12th grade when compared to 9th graders.

*Statistically significant at the 95% confidence level

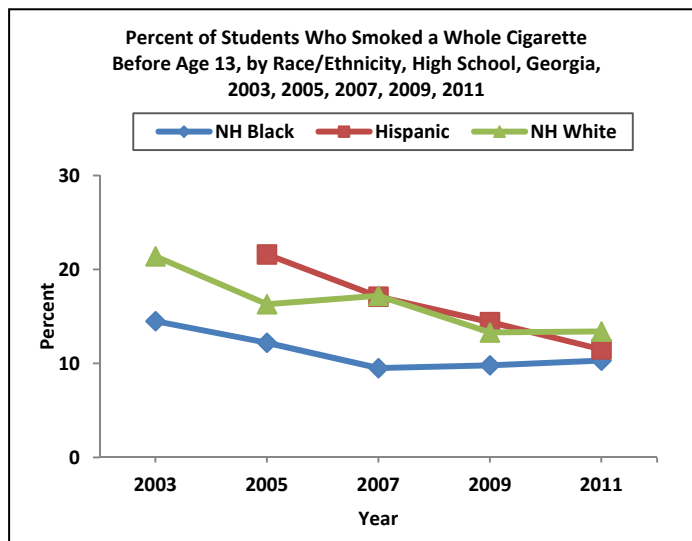
Age of Initiation of Cigarette Smoking



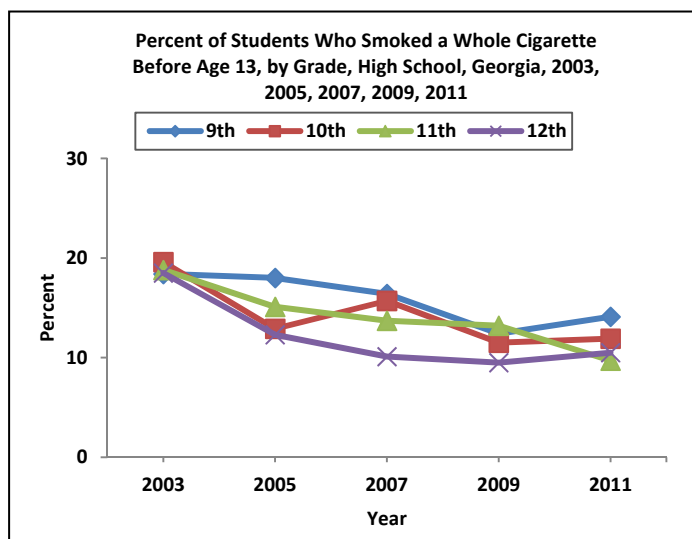
The percentage of students who smoked a whole cigarette for the first time before age 13 years decreased significantly from 2003 (19%) to 2011 (12%).*

National Rate (2011): 10%

The percentage of male students who smoked a whole cigarette for the first time before the age of 13 years decreased significantly from 2003 (22%) to 2011 (13%).* Among females, it declined from 16% to 10% over the same period.



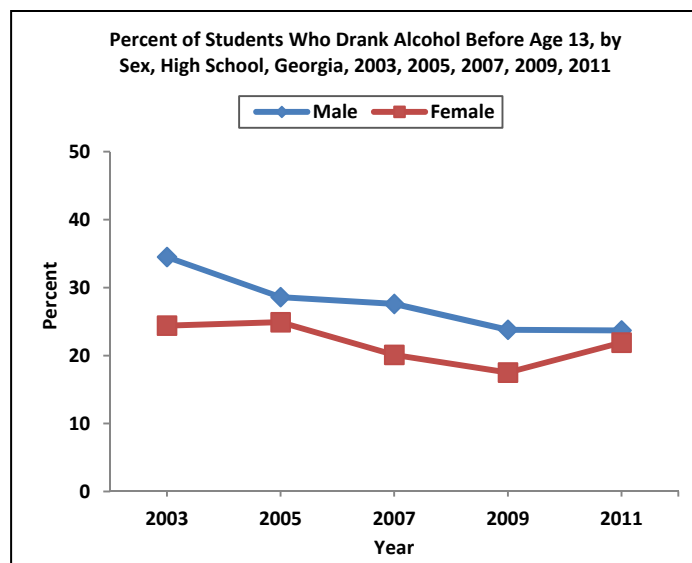
Early cigarette smoking initiation was more common among non-Hispanic white and Hispanic students when compared to non-Hispanic black students.



Early cigarette smoking initiation among 10th graders decreased significantly from 2003 (20%) to 2011 (12%).* Among 11th graders, it decreased across all five years.

*Statistically significant at the 95% confidence level

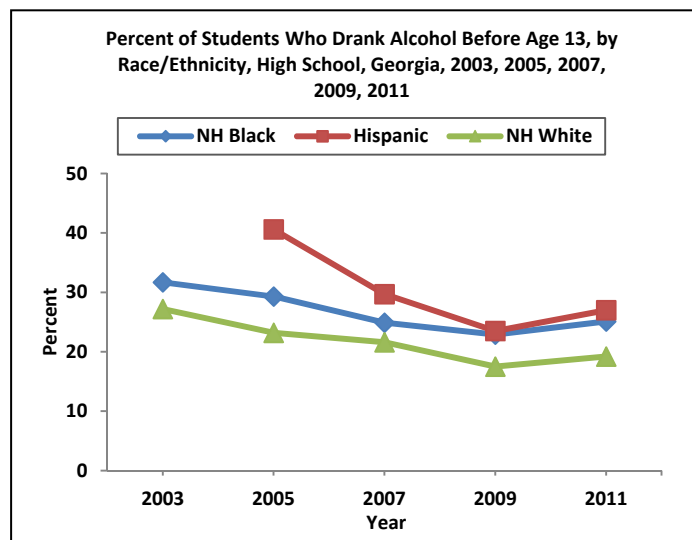
Age of Initiation of Alcohol Use



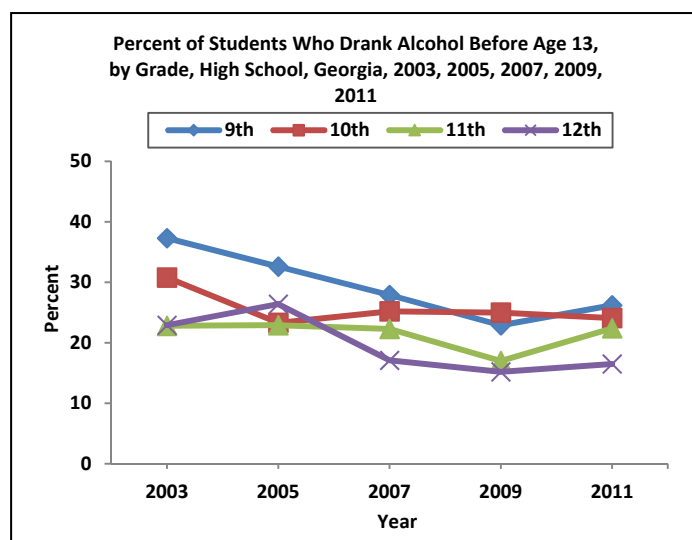
The percentage of high school students who had their first drink of alcohol other than a few sips before age 13 years fluctuated from 2003 (30%) to 2009 (21%)* and 2011 (23%).

National Rate (2011): 21%

In 2003 and 2007, male students were significantly more likely than female students to have had their first drink of alcohol before the age of 13.* By 2011, early initiation of alcohol use was similar among both genders.

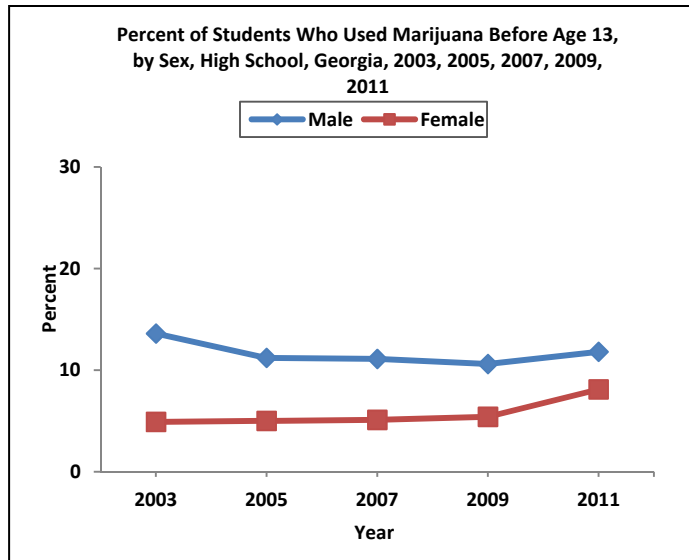


Drinking alcohol before the age of 13 years was more common among non-Hispanic white and Hispanic students when compared to non-Hispanic black students. Among Hispanic students, drinking alcohol before the age of 13 years fluctuated from 2005 (41%) to 2009 (24%)* and 2011 (27%).



Drinking alcohol before the age of 13 years was more common among 9th graders when compared to students in 11th and 12th grade. The percentage of 10th graders who drank alcohol before age 13 decreased from 2003 (31%) to 2011 (24%).*

Age of Initiation of Marijuana Use

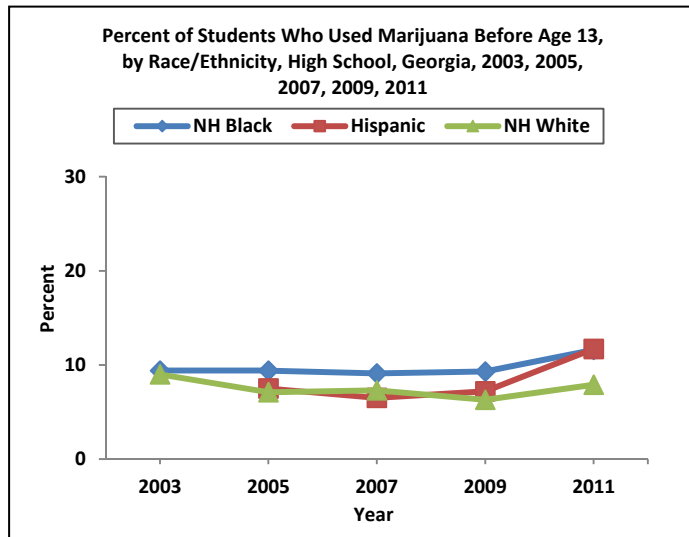


Trying marijuana for the first time before age 13 among high school students remained stable during the survey period.

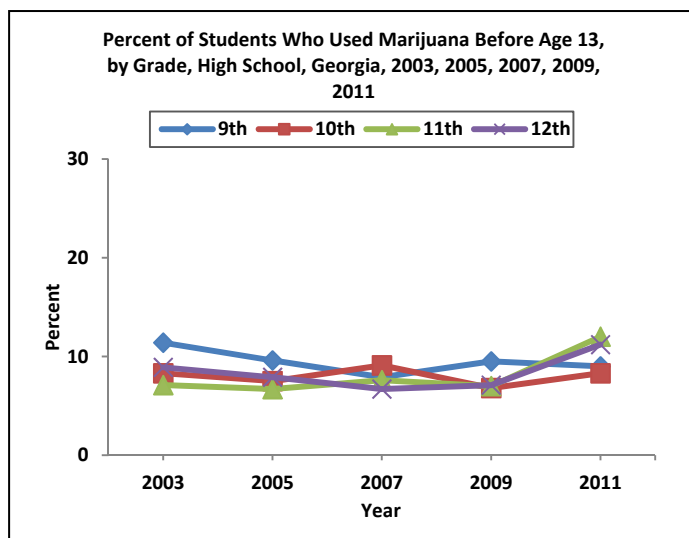
Georgia Rate (2011): 10%

National Rate (2011): 8%

From 2003 to 2009, male students were significantly more likely than female students to try marijuana before the age of 13 years.*



Trying marijuana before age 13 was more common among non-Hispanic black students than among non-Hispanic white students.



Among students in all grades, the percentage of students who used marijuana before the age of 13 years fluctuated over the survey period.

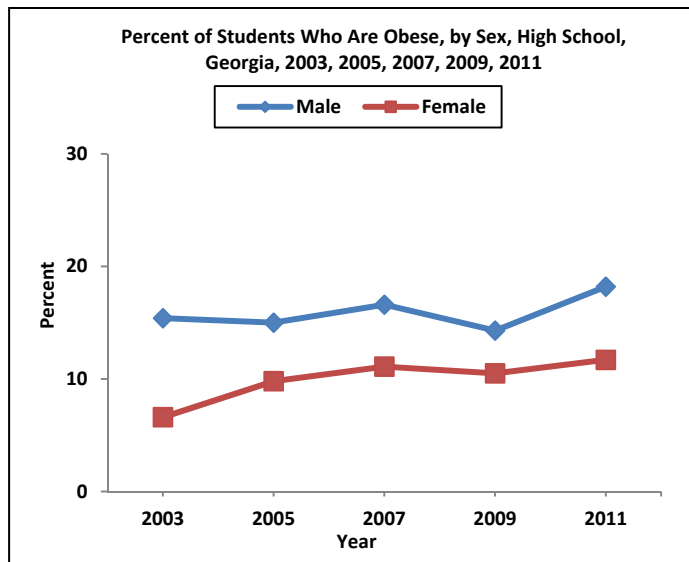
*Statistically significant at the 95% confidence level

OBESITY

Obesity during adolescence is a risk factor for various health problems such as type 2 diabetes, obstructive sleep apnea, hypertension, dyslipidemia, and metabolic syndrome.¹⁹ It is also associated with negative psychological and social consequences such as low self-esteem, teasing, and bullying. Obese adolescents are more likely to become obese adults.²⁰

To determine the prevalence of obesity among high school students, respondents were asked to indicate their height (in feet/inches) and weight (in pounds). The values obtained were used to calculate the Body Mass Index (BMI) for each respondent. Adolescents at or above the 95th percentile for BMI by their age and gender, as determined by the 2000 Centers for Disease Control and Prevention (CDC) Growth Charts, were considered to be obese.

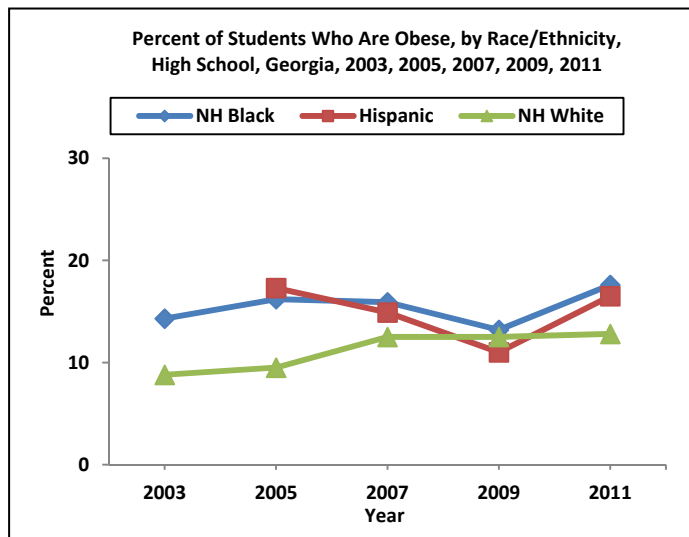
Obese



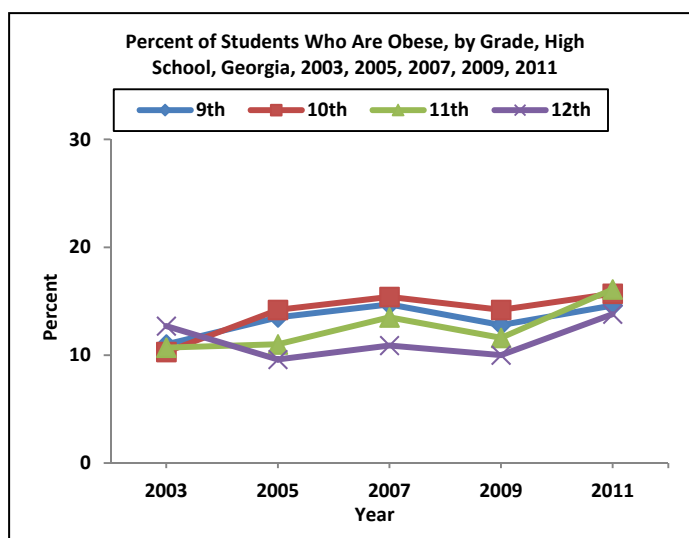
The percentage of high school students who were obese increased from 2003 (11%) to 2011 (15%).

National Rate (2011): 13%

In 2003, 2007, and 2011, male students were significantly more likely to be obese when compared to females.* The percentage of female students who were obese increased significantly from 2003 (7%) to 2011 (12%).*



Being obese was more common among non-Hispanic black students when compared to non-Hispanic white students.



Obesity was more common among students in 10th grade than students in 12th grade. Among all grades, the percentage of students who were obese fluctuated during the survey period.

*Statistically significant at the 95% confidence level

FRUIT AND VEGETABLE CONSUMPTION

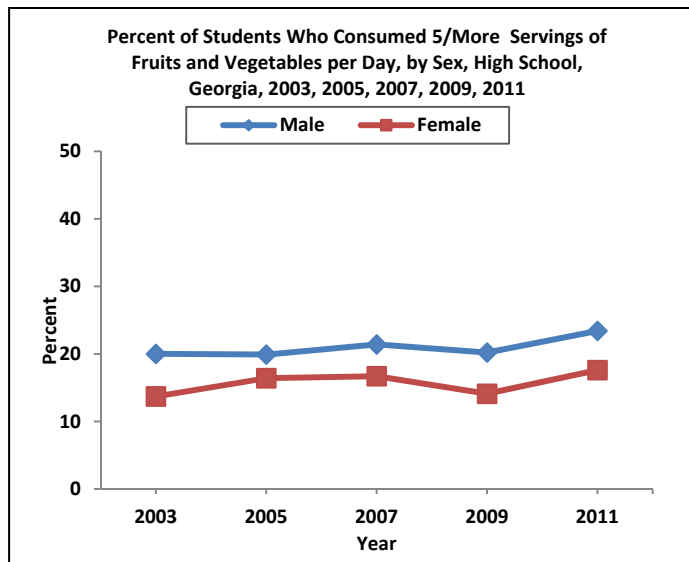
Fruits and vegetables are rich sources of complex carbohydrates, vitamins, minerals, and other substances that are essential for good health. Individuals who consume a higher quantity of fruits and vegetables regularly may have a decreased risk for some types of cancer,²⁶ cardiovascular disease,²⁷ stroke,²⁸ and being overweight.²⁹

To determine the percentage of high school students who met the recommended daily intake of 5 servings of fruits and vegetables, responses to six questions were combined to create one response variable. These were the percentage of students who responded that they:

- Drank 100% fruit juices such as orange juice, apple juice, or grape juice 2 or more times daily in the previous 7 days before the survey.
- Ate fruit 2 or more times daily in the previous 7 days before the survey.
- Ate green salad 3 or more times daily in the previous 7 days before the survey.
- Ate potatoes 3 or more times daily in the previous 7 days before the survey.
- Ate carrots 3 or more times daily in the previous 7 days before the survey.
- Ate other vegetables 3 or more times daily in the previous 7 days before the survey.

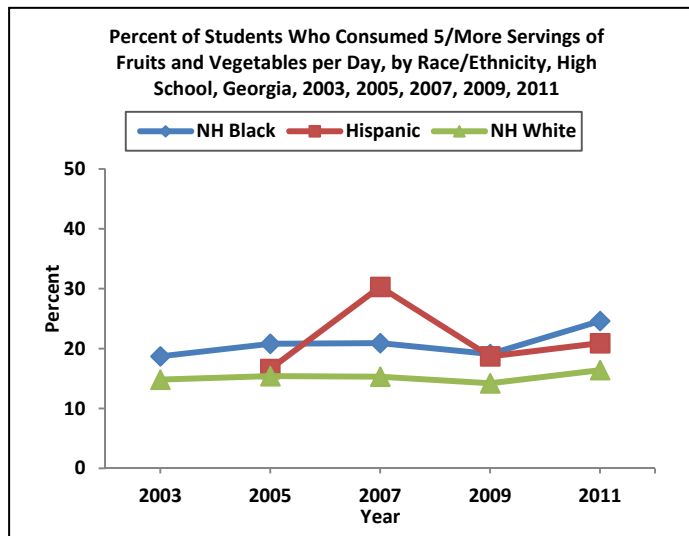
This final response variable showed the percentage of students who ate fruits two or more times daily **and** ate vegetables 3 or more times daily during the previous 7 days before the survey.

Ate 5 or More Servings of Fruits and Vegetables

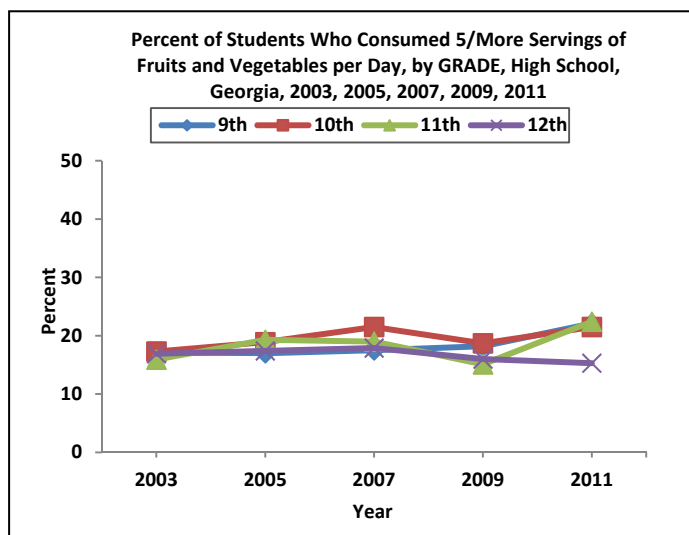


The percentage of high school students who consumed five or more servings of fruits and vegetables per day increased between 2003 (17%) and 2011 (21%).

In 2003 and 2009, male students were significantly more likely than female students to consume five or more servings of fruits and vegetables per day.*



Fruit and vegetable consumption was more common among non-Hispanic black and Hispanic students when compared to non-Hispanic white students. This difference was significant in 2007.*



Between 2003 and 2009, there were no differences in the percentage of students who consumed fruits and vegetables daily by grade level. In 2011 fruit and vegetable consumption was more common among 9th, 10th, and 11th graders when compared to 12th graders.

*Statistically significant at the 95% confidence level

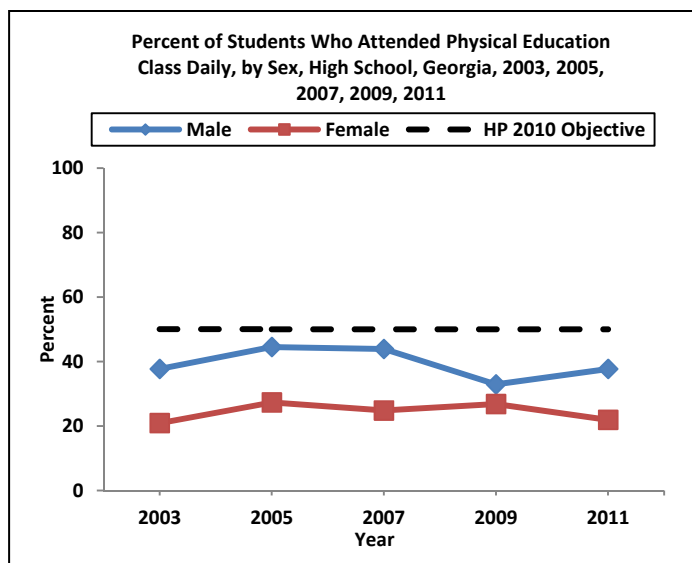
PHYSICAL ACTIVITY

Regular physical activity among young people can help build and maintain healthy bones and muscles, maintain body weight and reduce body fat, reduce feelings of depression and anxiety, and promote psychological well-being.^{21, 22} The risk of high blood pressure, heart disease, diabetes, obesity, some types of cancer, and premature death is decreased among individuals who participate in regular physical activity. The amount of time spent on sedentary activities such as watching TV and using a computer is associated with childhood and adult obesity.²³

The prevalence of regular engagement in physical and sedentary activity among middle school students was determined by:

- The percentage of students who attended physical education (PE) classes daily on an average week when they were in school.
- The percentage of students who spent 3 or more hours watching TV on an average school day.

Daily Attendance of Physical Education Class



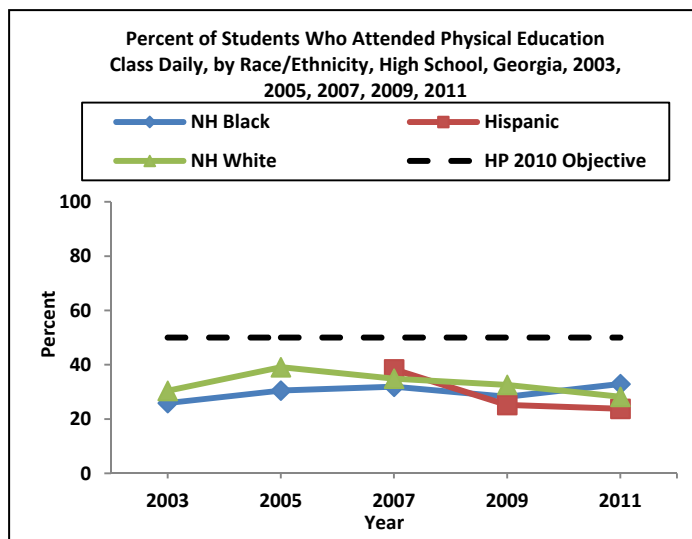
The percentage of high school students who attended physical education (PE) class daily in an average week when they were in school fluctuated from 2003 (29%) to 2007 (34%), and 2011 (30%).^{##}

Healthy People 2010 Objective: Increase the proportion of adolescents who participate in daily school physical education to 50%.

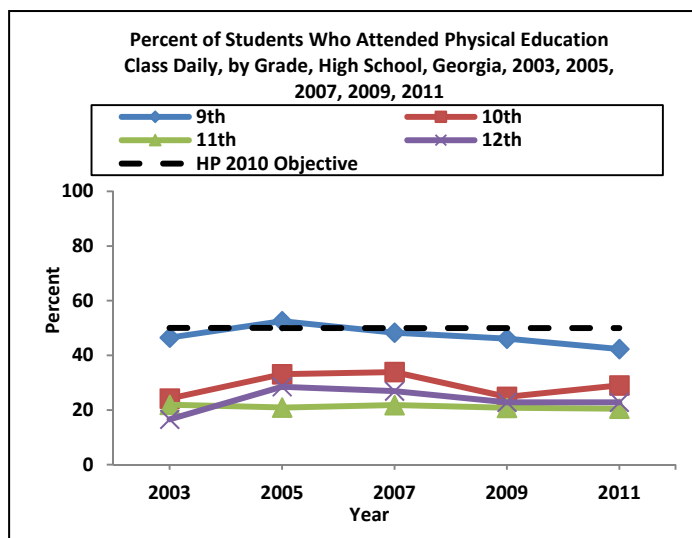
Georgia rate (2009): 30%. Goal not met.

National Rate (2011): 32%

Male students were more likely than females to attend PE class daily across all years. This difference was significant in 2003, 2005, 2007 and 2011.*



Between 2003 and 2009, attending PE class daily was more common among non-Hispanic white students than non-Hispanic blacks. In 2011, it was more common among non-Hispanic blacks than non-Hispanic whites. The percentage of Hispanic students who attended PE class daily decreased between 2007 (38%) and 2011 (24%).

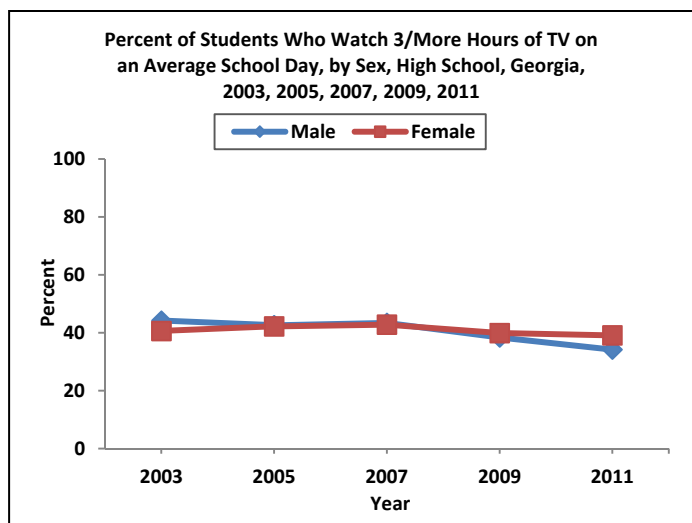


Ninth graders were significantly more likely than 11th and 12th graders to attend PE class daily.* In 2003, 2007, and 2009, 9th graders were significantly more likely than 10th graders to attend PE class daily.*

^{##}High schools students in Georgia are required to earn 0.5 credits (one semester) of PE for graduation. Therefore not all students in any grade will offer PE in the semester of the survey. This may affect the prevalence levels observed.

*Statistically significant at the 95% confidence level.

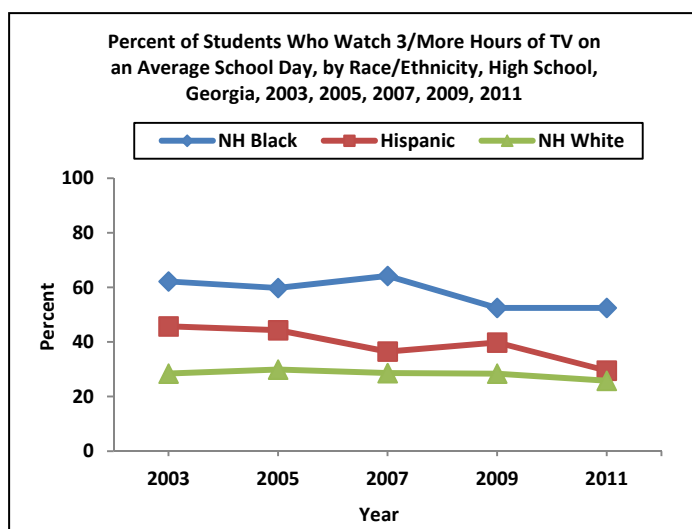
Daily Television Viewing for 3 Hours or More



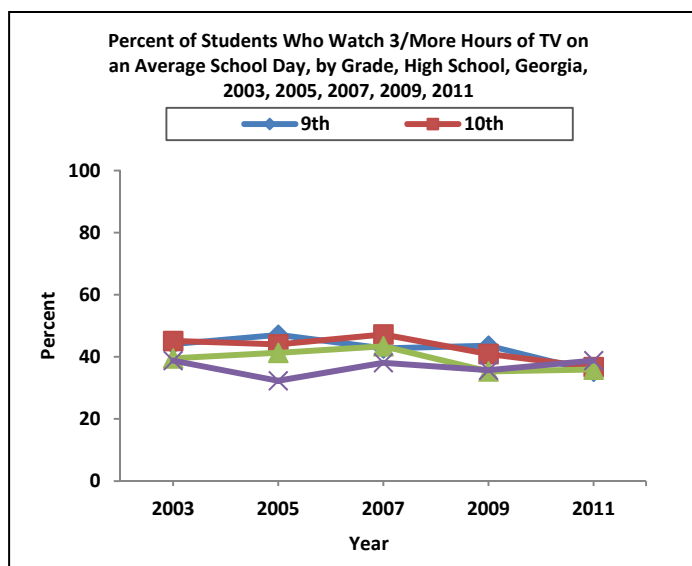
The percentage of high school students who watched three or more hours of television per day on an average school day decreased from 2003 (42%) to 2011 (37%).

National Rate (2011): 32%

Male and female students were equally likely to watch three or more hours of television on a school day.



Non-Hispanic black students were more likely than non-Hispanic whites to watch three or more hours of television on a school day.* In 2003, 2007, and 2011 non-Hispanic black students were more likely than Hispanics to watch three or more hours of television on a school day.*



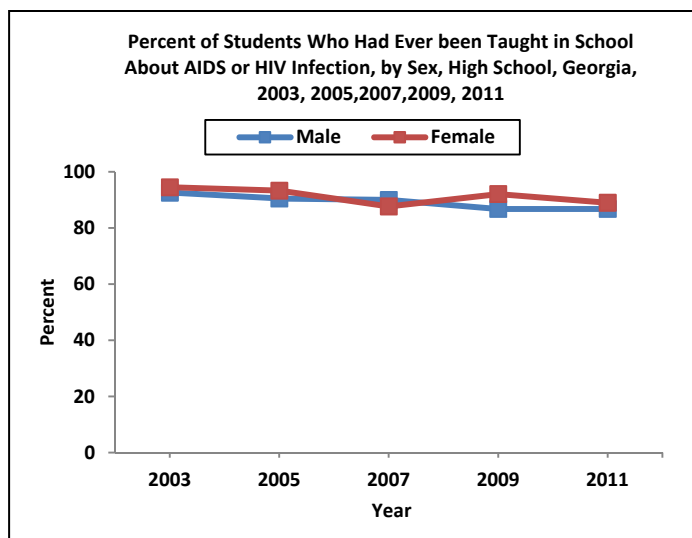
From 2003 to 2009, television viewing for more than three hours on a school day was more common among 9th and 10th graders when compared to 12th graders. In 2011, students in all grade levels were equally likely to watch three or more hours of television on a school day.

*Statistically significant at the 95% confidence level

Reproductive Health Education

This question measures the prevalence of HIV/AIDS prevention education among high school students. Even though individuals aged 15 – 24 years make up just a quarter of the sexually active population, it is estimated that nearly 50% of all sexually transmitted diseases (STDs) (representing 9.1 million cases)²⁴ and 6,610 cases of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)²⁵ are diagnosed among this group annually. Educating young people on HIV/AIDS will empower them to protect themselves from getting infected.

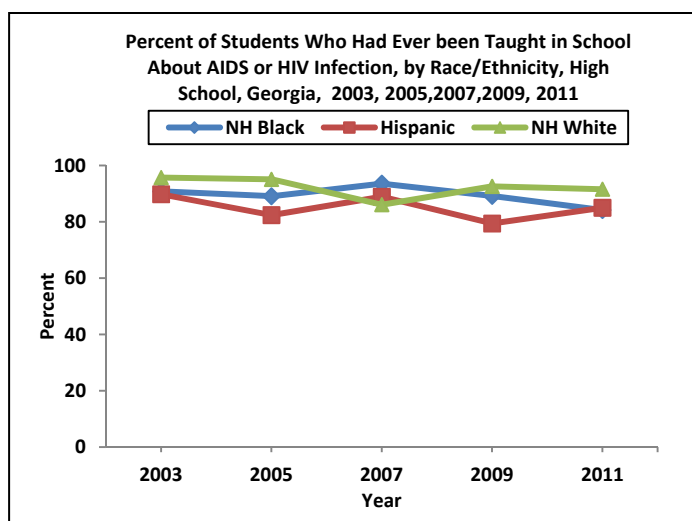
Ever Been Taught About HIV/AIDS



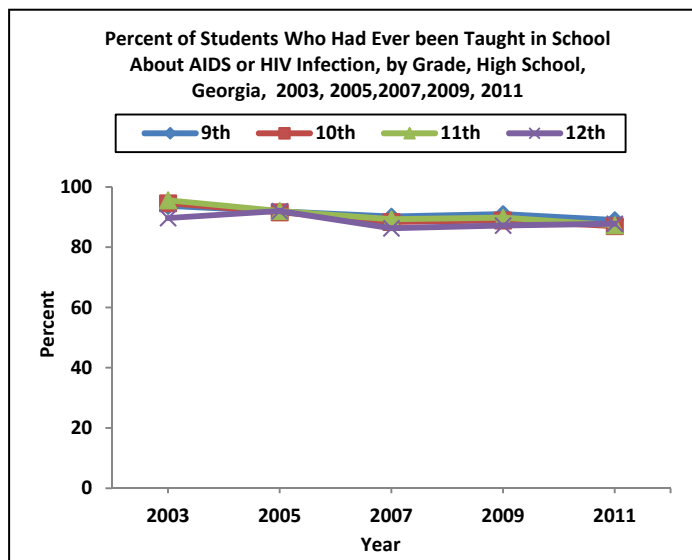
Overall, the percentage of students who had ever been taught in school about AIDS or HIV infection significantly declined from 2003 (94%) to 2011 (88%).*

National Rate (2011): 84%

Male and female students were equally likely to report that they had ever been taught in school about AIDS or HIV infection. This declined slightly among both genders over the years.



The prevalence of having ever been taught in school about AIDS or HIV infection fluctuated among students of all races and ethnicities over the survey period.



Students at all grade levels were equally likely to report that they had ever been taught in school about AIDS or HIV infection. The prevalence of having ever been taught in school about AIDS or HIV infection declined slightly among all grade levels over the years.

*Statistically significant at the 95% confidence level

APPENDICES

APPENDIX A

1. National Health Objectives and Leading Health Indicators for Healthy People 2010¹ measured by the Georgia Student Health Survey, 2003, 2005, 2007, 2009, High School

Obj. Number	Objective	2010 Target (%)	Data from 2003 GA Student Health Survey (%)	Data from 2005 GA Student Health Survey (%)	Data from 2007 GA Student Health Survey (%)	Data from 2009 GA Student Health Survey (%)
15-19	Increase use of safety belts	92	90.6*	90.4*	91.3*	90.1*
15-21	Increase the proportion of motorcyclists using helmets	79	~~	~~	~~	~~
15-38	Reduce physical fighting among adolescents	32	31.4*	33.8*	34.0*	32.3*
15-39	Reduce weapon carrying by adolescents on school property	4.9	5.0*	7.5	5.3*	6.0*
18-2	Reduce the rate of suicide attempts by adolescents	1.0	8.5	7.8	7.9	8.3
22-6	Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on >5 of the previous 7 days	35	25.4	23.7	~~	~~
22-7	Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness > 3 days per week for >20 minutes per occasion	85	59.0	61.3	~~	~~
22-9	Increase the proportion of adolescents who participate in daily school physical education	50	29.1	35.9	34.3	29.8
22-10	Increase the proportion of adolescents who spend at least 50% of school physical education class time being physically active	50	31.0	32.7	~~	~~
22-11	Increase the proportion of adolescents who view television <2 hours on a school day	75	57.6	57.6	56.9	60.9
25-11	Increase the proportion of adolescents who abstain from sexual intercourse or use condoms, if currently sexually active	95	~~	~~	~~	~~
26-6	Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol.	30	24.0	26.7	23.9	20.4
27 – 2	Reduce tobacco use by adolescents					
27 – 2a	Reduce tobacco product use (past month)	21	26.1	24.1	26.2	23.4
27 – 2b	Reduce cigarette use (past month)	16	20.9	17.2*	18.6	16.9*
27 – 2c	Reduce spit tobacco use (past month)	1	7.6	7.4	8.4	8.5
27 – 2d	Reduce cigar use (past month)	8	13.9	15.1	16.1	13.7
27 – 7	Increase tobacco use cessation attempts by adolescent smokers	84	59.4	57.3	58.0	56.3

¹U.S. Department of Health and Human Services. Healthy People 2010: Understanding and improving health (Conference Ed, in 2 vols). Washington, D.C.

*Indicates that Georgia high school students met or were within 1-2% of the Healthy People 2010 objective for that health behavior.

~~ Georgia Student Health Survey data not collected for this behavior

**2. National Health Objectives and Leading Health Indicators for Healthy People 2020²
measured by the Georgia Student Health Survey, 2011, High School**

Obj. Number	Objective	2020 Target (%)	Data from 2011 GA Student Health Survey (%)
IVP – 15	Increase use of safety belts	92.4	87.2
IVP – 22	Increase the proportion of motorcyclists using helmets	79	~~
IVP – 34	Reduce physical fighting among adolescents	28.4	33.1
IVP – 35	Reduce bullying among adolescents	17.9	19.1*
IVP – 36	Reduce weapon carrying by adolescents on school property	4.6	11.7
MHMD – 2	Reduce the suicide attempts by adolescents	1.7	10.8
MHMD – 3	Reduce the proportion of adolescents who engage in disordered eating behaviors in an attempt to control their weight	12.9	14.8*
PA 3.1	Increase the proportion of adolescents who meet current Federal physical activity guidelines for aerobic physical activity	20.2	25.2
PA-5	Increase the proportion of adolescents who participate in daily school physical education	36.6	29.8
PA-8.2.3	Increase the proportion of adolescents who viewed television, videos or played video games for no more than 2 hours on a school day	73.9	63.4
PA-8.3.3	Increase the proportion of adolescents who use a computer or play computer games outside of school (for nonschool work) for no more than 2 hours a day	82.6	72.2
SA – 1	Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol	25.5	24.3*
TU – 2	Reduce tobacco use by adolescents		
TU – 2.1	Reduce tobacco product use (past 30 days)	21.0	22.7*
TU – 2.2	Reduce cigarette use (past 30 days)	16.0	17.0*
TU – 2.3	Reduce smokeless tobacco products (past 30 days)	6.9	9.6
TU – 2.4	Reduce cigar use (past 30 days)	8.0	17.8
TU – 7	Increase smoking cessation attempts by adolescent smokers	64.0	48.6
AH – 7	Reduce the proportion of adolescents who were offered, sold, or given an illegal drug on school property	20.4	32.1
C–20	Increase the proportion of persons who participate in behaviors that reduce their exposure to harmful ultraviolet (UV) irradiation and avoid sunburn		
C–20.1	Reduce the proportion of adolescents who report sunburn (Developmental)	None Set	~~
C–20.3	Reduce the proportion of adolescents who report using artificial sources of ultraviolet light for tanning	14.0	~~
SH–3	Increase the proportion of students who get sufficient sleep	33.2	~~

² U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. Available at <http://healthypeople.gov/2020/topicsobjectives2020/pdfs/HP2020objectives.pdf>. Accessed 01/23/12.

*Indicates that Georgia high school students met or were within 1-2% of the Healthy People 2010 objective for that health behavior.

~~ Georgia Student Health Survey data not collected for this behavior

Appendix B

Methodology

The purpose of the Georgia Youth Risk Behavior Survey was to gather data on behaviors among youth related to the leading causes of mortality and morbidity.

Questionnaire Development

Two self-administered, anonymous questionnaires were developed by the Georgia Division of Public Health for the survey. One questionnaire was developed for middle school students and contained 52 items. The other questionnaire was developed for high school students, and contained 92 items. Both questionnaires were modeled after the core Youth Risk Behavior Survey (YRBS), developed by the Centers for Disease Control and Prevention (CDC). Both questionnaires covered five topics from the YRBS: 1) behaviors that result in unintentional injuries and violence; 2) tobacco use; 3) alcohol and other drug use; 4) dietary behaviors; and 5) physical activity. Additional questions about asthma were added to both questionnaires.

Additionally, the high school questionnaires asked about gambling. No questions about sexual behavior were included in either of the questionnaires.

Sampling

Sample Design

Separate middle school and high school samples were selected, with an objective of having 95% confidence limits of approximately +5% around prevalence estimates of key variables. The sampling frame consisted of all regular public schools containing students enrolled in grades 6-8 for the middle schools and 9-12 for the high schools. A two-stage cluster sample design was used to produce a representative sample of middle school students in grades 6-8 and high school students in grade 9-12. The sampling program PC-Sample was used to draw both the middle school and high school samples.

Sampling Procedures

School level – The first-stage sampling frame consisted of all public schools containing any of grades 6-8 for the middle schools and 9-12 for the high schools. Schools were selected systematically with probability proportional to school enrollment size (PPS) using a random start. The sample included 50 public middle schools and 50 public high schools.

Class level – The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each middle school and high school that participated in

the survey. All classes in a required subject or all classes meeting during a particular period of the day, depending on the school, were included in the sampling frame.

Student level – All students in the selected classes were eligible to participate in the survey. Student make-up surveys were also conducted.

Data Collection

Recruitment of Sampled Districts and Schools

During the survey years, school district and school recruitment began in mid January. Tailored letters of invitation were sent to the school districts. These letters were followed by phone calls directly to the superintendent to answer questions and obtain permission to contact the school. School packets were included with the district invitation packet and the superintendents were asked to forward these on to the principal after their approval was received. The recruitment process sometimes included the completion of special research proposals, attendance at board meetings and principal meetings, and other clearance procedures.

As soon as notification was received that a school packet had been sent to the principal, the principal was called, a contact person was assigned, classes selected, and a date for data collection was scheduled.

Classroom-level Data Collection

The Georgia Youth Risk Behavior Survey was administered between March and May each survey year by specially trained field staff. The data collectors were recruited from a variety of sources, including local and state retired teachers' associations, local universities, and job fairs. They completed an intensive training that included lectures, simulations, and group role plays and discussions. Detailed arrangements and survey schedules were set prior to each school visit.

Weighting

For both the middle school and high school data, a weight variable was calculated for each student record to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non-response. The weight used for estimation is given by:

$$W = W1 * W2 * f1 * f2 * f3$$

W1 = the inverse of the probability of selecting the school

W2 = the inverse of the probability of selecting the classroom within the school

f1 = a school-level non-response adjustment factor calculated by school size category (small, medium, large)

f2 = a student-level non-response adjustment factor calculated by class

f3 = a post stratification adjustment factor calculated by sex, grade, and race

Georgia Youth Risk Behavior Survey Response Rates (2011)

	School			Student			Overall ¹
	Selected	Participated	Response Rate (%)	Selected	Participated	Response Rate (%)	Response Rate (%)
Middle	50	45	90	2,544	2,268	89	80
High	50	42	84	2,300	1,979	86	72

Georgia Youth Risk Behavior Survey Demographic Distribution of Sample (2011)

Sex		Middle School		High School	
		n	%	n	%
Male		1,091	48.8	945	49.4
Female		1,171	51.2	1,017	50.6
Grade					
6 th		657	33.6		
7 th		875	33.4		
8 th		718	32.7		
9 th				544	30.1
10 th				554	26.0
11 th				439	21.6
12 th				405	21.7
Race/Ethnicity					
Non-Hispanic white		844	44.8	971	45.1
Non-Hispanic black		891	37.7	543	38.9
Hispanic		264	11.0	222	9.6

Statistical Significance

SUDAAN was used to compute the 95% confidence intervals, which were used to determine the differences among subgroups at the p<0.05 level. Differences between prevalence estimates were considered statistically significant if the 95% confidence intervals did not overlap.

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