

# ADOLESCENT HEALTH



4/3/2015

Georgia Title V Needs Assessment



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# Adolescent Health

## TITLE V NEEDS ASSESSMENT

### INTRODUCTION

The Georgia Department of Public Health (DPH) has a commitment to improve the health, safety, well-being, and healthy development of adolescents and young adults throughout the state. This section will present a brief overview about the health status of adolescents in Georgia, with a particular focus on adolescents in middle school and high school, grades 6 through 12. A better understanding of the patterns and current status of middle and high school students in Georgia will help DPH assess and address gaps and disparities, as well as determine the issues that need the most attention. It is important to note that behavioral patterns established during these developmental stages are crucial to predicting young people's risks for developing chronic diseases in adulthood.

Despite the fact that adolescence is typically a healthy time for most, the last few decades have shed light on several important physical, emotional, and social issues that need extra attention such as:

- Substance use and abuse
- Mental health concerns such as suicidal ideation, planning and attempts
- Bullying and violence
- Obesity, physical activity and nutrition behaviors
- Risky behaviors, and
- Sexually transmitted infections

Because the leading causes of death and illness among adolescents are largely preventable, it is crucial to thoroughly examine gaps and disparities and identify the social, environmental and behavioral factors that put certain populations at risk. Additionally, it is critical to examine these gaps and disparities in increasingly growing racial and ethnic groups, to be able to develop culturally-competent interventions to effectively respond to these disparities and improve outcomes.

As such, this section will explore many of the above topics and examine how middle and high school students in Georgia compare to Healthy People (HP) 2020 objectives regarding these topics, and identify room for improvement. Data included in this report are from vital statistics, National Immunization Survey, Youth Risk Behavioral Survey, and National Survey of Children's Health. Recommendations will be included in the conclusion.

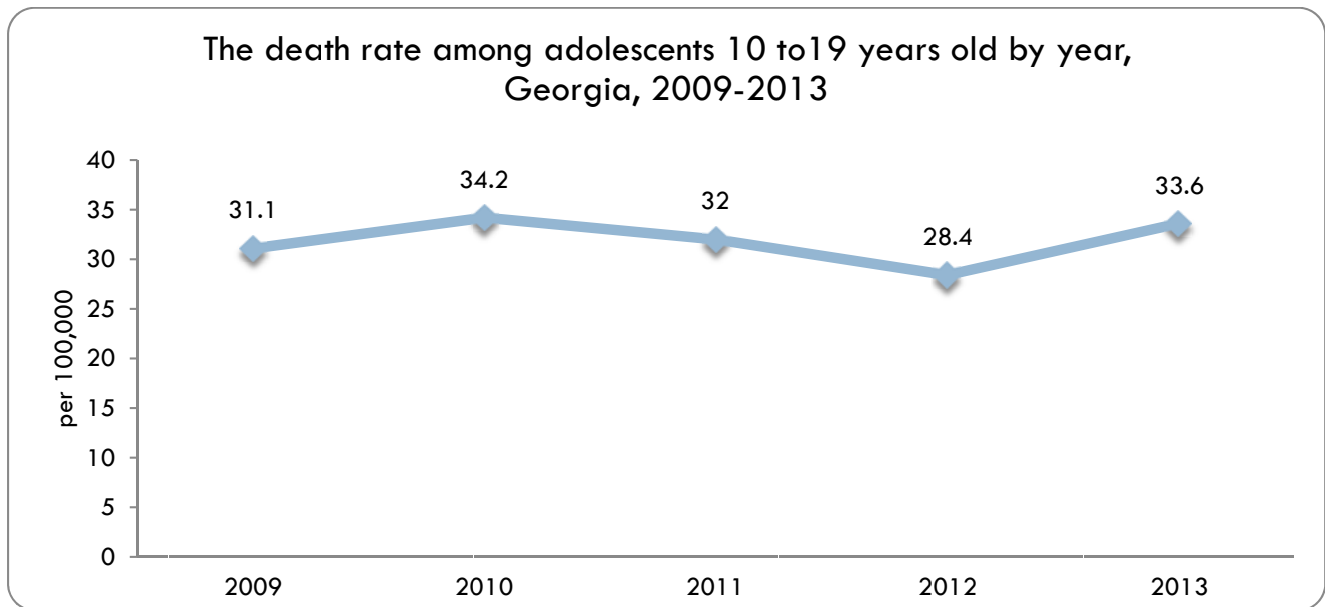
## MORTALITY

### Healthy People 2020 Goals

MICH-4.1: Reduce the rate of deaths among adolescents aged 10 to 14 years to 14.8 per 100,000

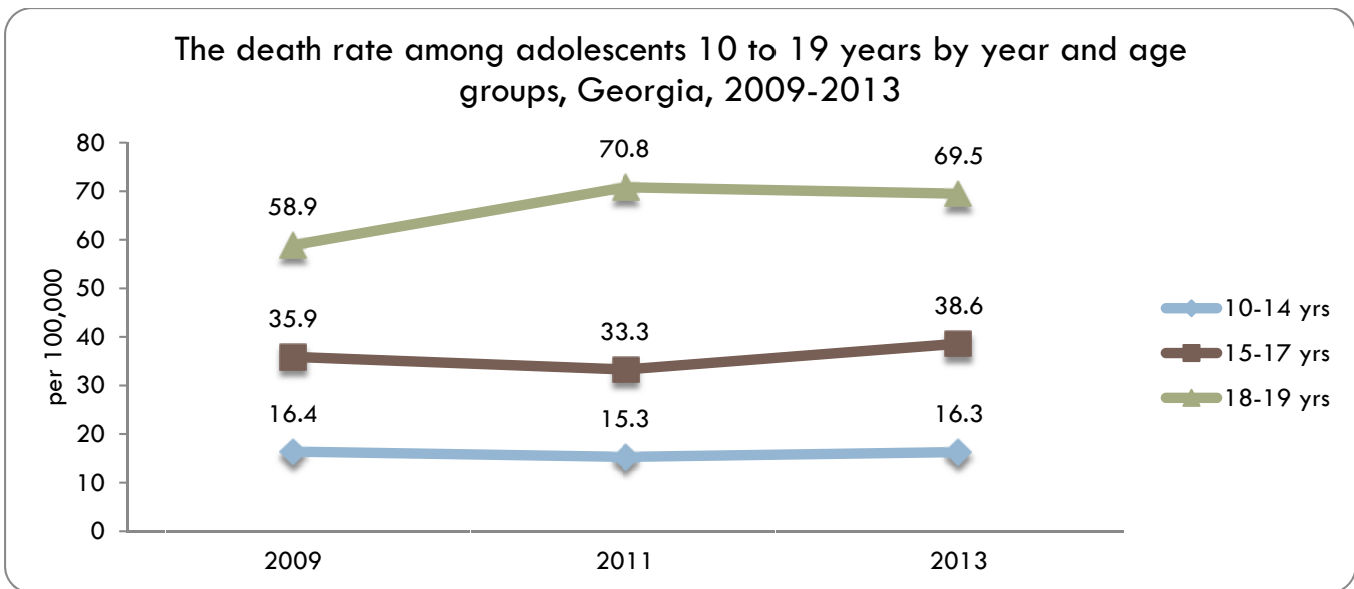
MICH-4.2: Reduce the rate of deaths among adolescents aged 15 to 19 years to 54.3 per 100,000

In 2010, the adolescent (10 to 19 years) death rate in Georgia began to decline, with the lowest rate in five years experienced in 2012. In 2013, the death rate increased to 33.6 deaths per 100,000 population, nearly negating the decreases seen since 2010. Upon analyzing the adolescent death data by age, it is evident that Georgia is not meeting the HP 2020 objective among 10 to 14 year olds. In 2013, the rate of deaths to children ages 10 to 14 years old was 16.3, nearly 10% above the target. The death rate for children 15 to 19 years old was 51.1, under the HP 2020 target. The leading causes of death for all children under the age of 19 are displayed in detail in the child health section.



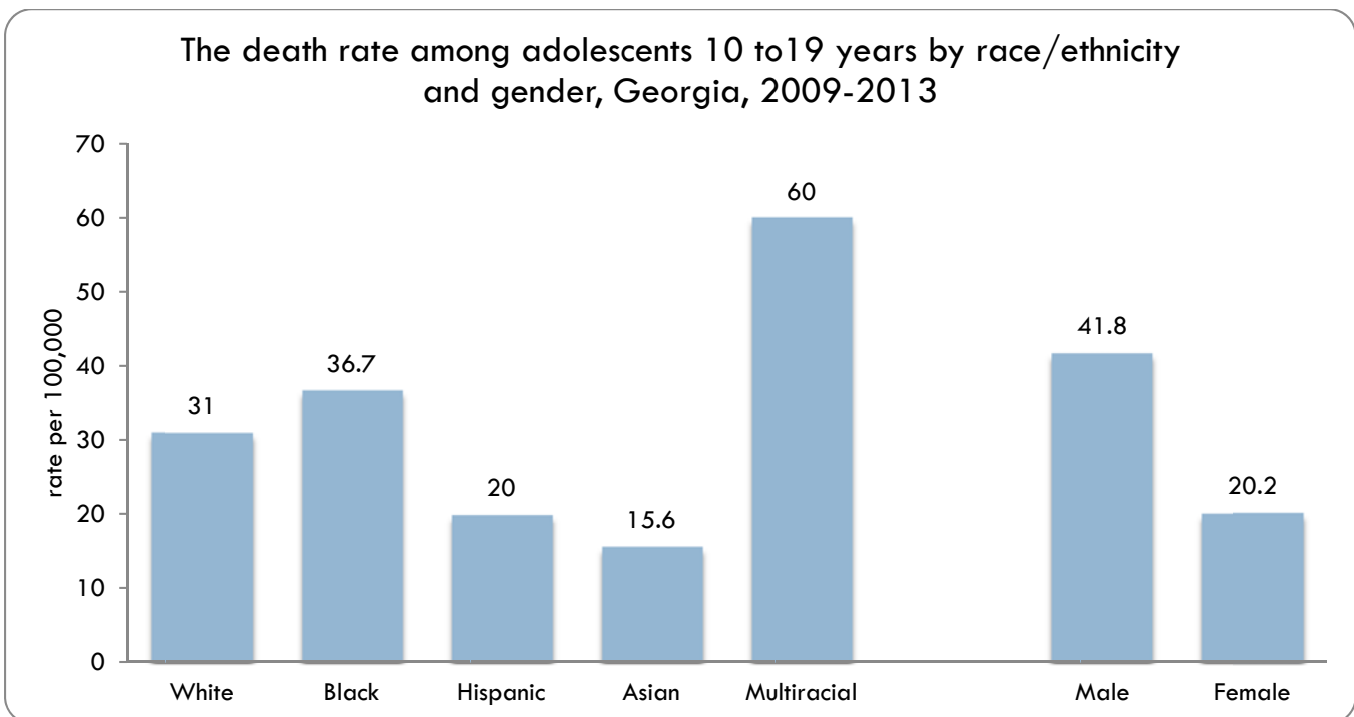
Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us)

Upon stratifying by age, as age increases so does likelihood of death, among youth aged 10 to 19. The largest rate of death occurred among youth between the ages of 18 to 19, with a death rate of 69.5 per 100,000 deaths in 2013. Furthermore, the death rate for 18 to 19 year olds is has increased from 2009, when it was at 58.9, the death rate for all other age groups has remained relatively stable across time.



Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us)

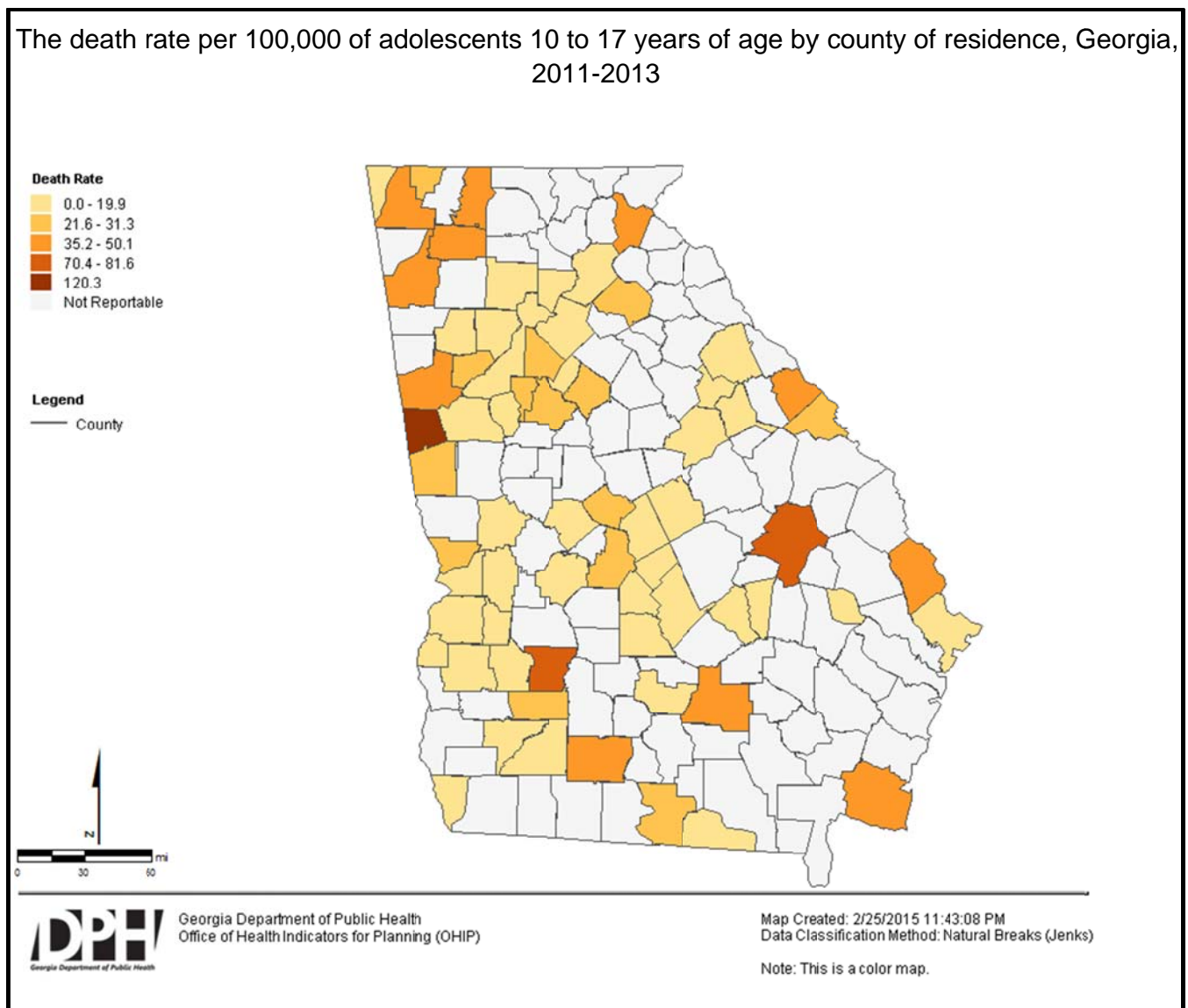
Examining the most recent data, the graph below shows that there is a significant disparity in the death rate for children between the ages of 10 to 19 who are “Multiracial” compared to all other race and ethnicity groups, with Multiracial adolescents dying 2.5 times more than the next highest racial group, Blacks. Additionally, the rate of male deaths are twice the rate of female deaths.



Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us)

Geographical disparities exist when measuring adolescent deaths in Georgia. In the 159 counties that make up Georgia, most experience very low adolescent death rates. The counties with the highest rates are in the northwest section of the state, one county that borders Alabama, and a few

counties in the southern part of the state. The metro areas experienced lower adolescent death rates than less populated rural areas.



The top ten leading causes of death among adolescents between the ages of 10 to 19 are listed below. Motor vehicle accidents are the number one leading cause of deaths for both age groups, and suicide is the number two cause of death for 10 to 14 year olds while assault (homicide) is the leading cause of death for 15 to 19 year olds. This is extremely concerning as violence toward others and oneself should be reduced.

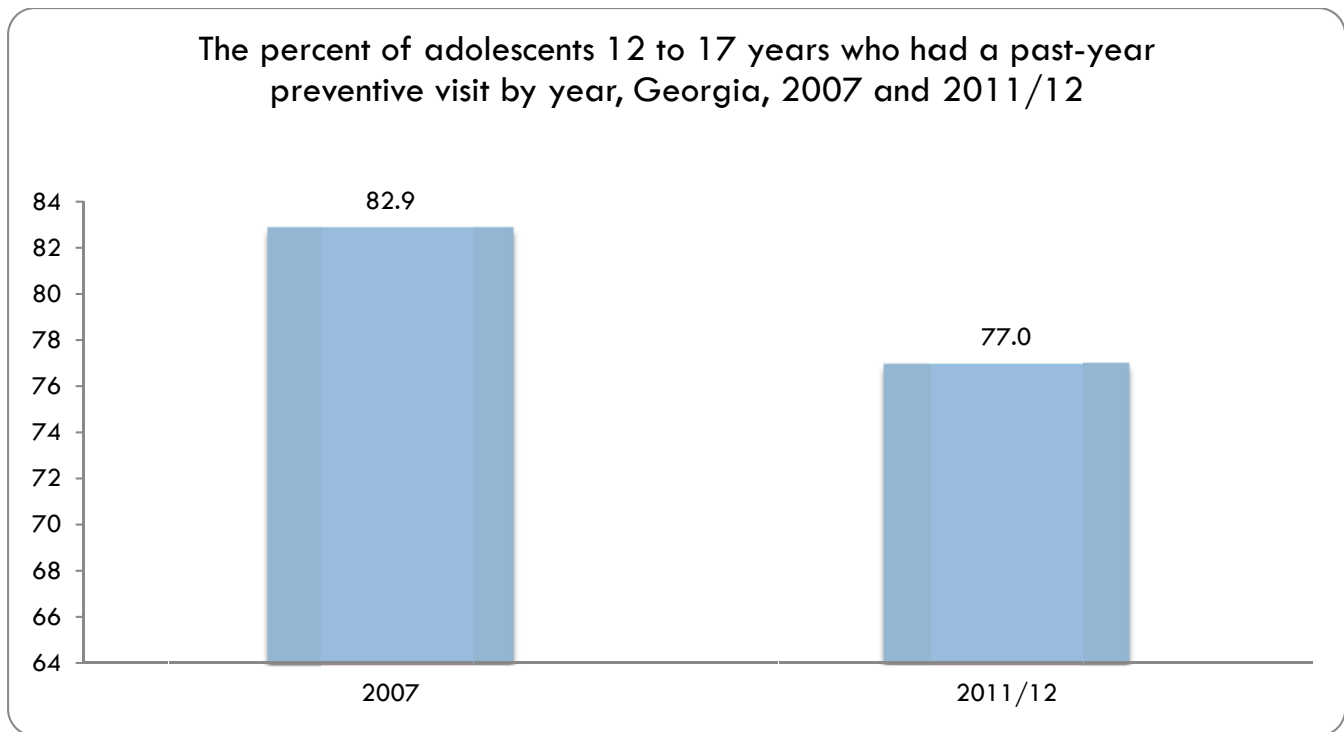
<b>The leading causes of death (rate per 1,000) among adolescents 10 to 19 years, Georgia, 2009-2013</b>		
	<b>10 to14 years</b>	<b>15 to19 years</b>
<b>1</b>	Motor Vehicle Crashes (100)	Motor Vehicle Crashes (443)
<b>2</b>	Intentional self-harm (Suicide) (47)	Assault (Homicide) (289)
<b>3</b>	All other diseases of the nervous system (46)	Intentional self-harm (Suicide) (224)
<b>4</b>	Assault (Homicide) (46)	Accidental poisoning and exposure to noxious substances (82)
<b>5</b>	Leukemia (24)	All other diseases of the nervous system (58)
<b>6</b>	Congenital malformations, deformations, and chromosomal abnormalities (22)	Accidental drowning and submersion (42)
<b>7</b>	Accidental drowning and submersion (22)	All other unintentional injuries (39)
<b>8</b>	Asthma (18)	Congenital Malformations, deformations, and chromosomal abnormalities (36)
<b>9</b>	Malignant Neoplasms of Meninges, Brain, and other parts the Central Nervous System (17)	Leukemia (23)
<b>10</b>	All other endocrine, nutritional, and metabolic diseases (15)	All other endocrine, nutritional, and metabolic diseases (21)

Source: Georgia Vital Records 2009-2013

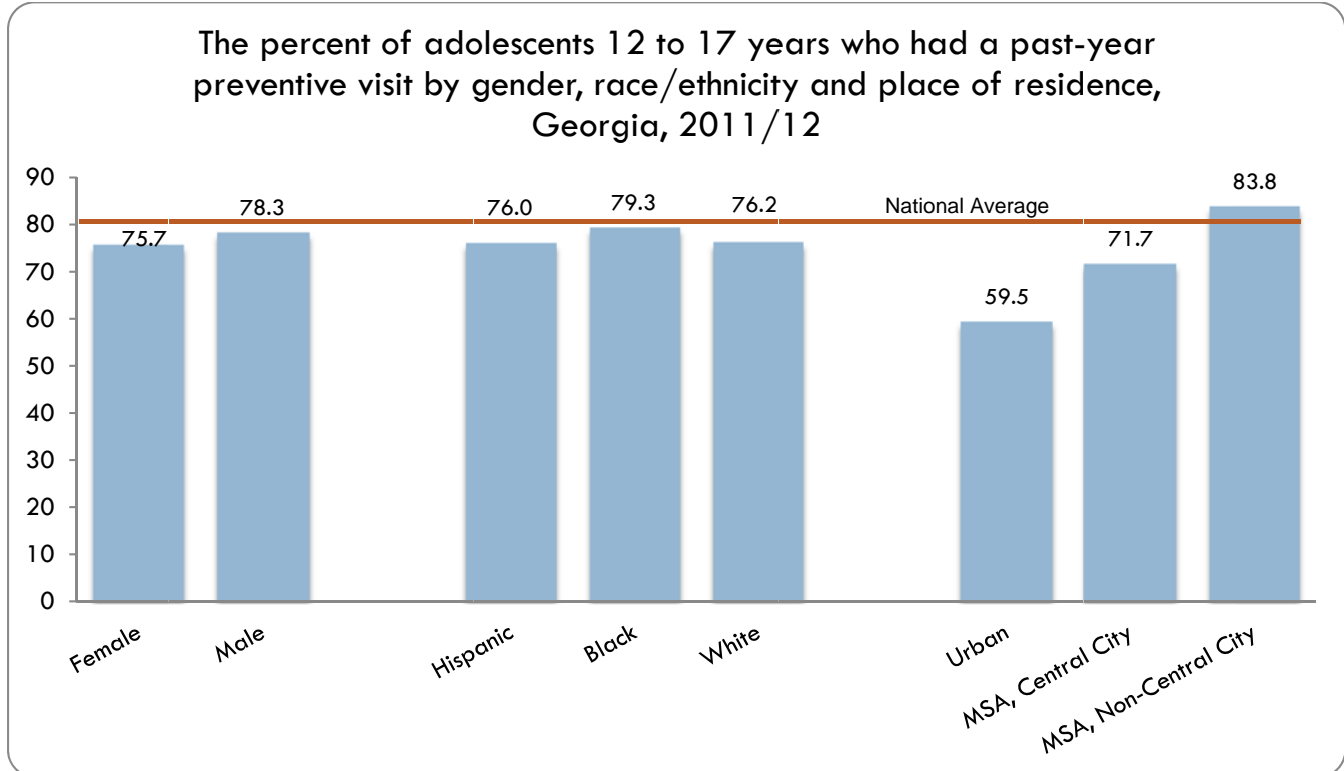
## ADOLESCENT WELL-VISIT

In 2007, the percent of adolescents 12 to 17 years who saw a doctor, nurse or other health care provider for preventive care was 82.99%. The percent decreased to 77.01% in 2011/12, well below the national average of 81.7% in 2011/12. Although the national average declined from 2007 to 2012 as well (84.2% to 81.7%), the decline was more pronounced among Georgia's adolescents.

Disparities exist when stratifying by gender, race/ethnicity and geography. Males were more likely in 2011/12 to visit a provider for a preventive visit than females. White and Hispanic adolescents were less likely than Blacks to have a well-visit. The most interesting disparity is in geographic location. Adolescents in urban locations are far less likely (59.46%) to have a well-visit than those living in a Metropolitan Statistical Area (MSA) (83.76%). Of all the groups examined, the only category exceeding the national average for 2011/12 is adolescents living in MSAs that are non-central cities.



Source: NSCH 2007, 2011/12

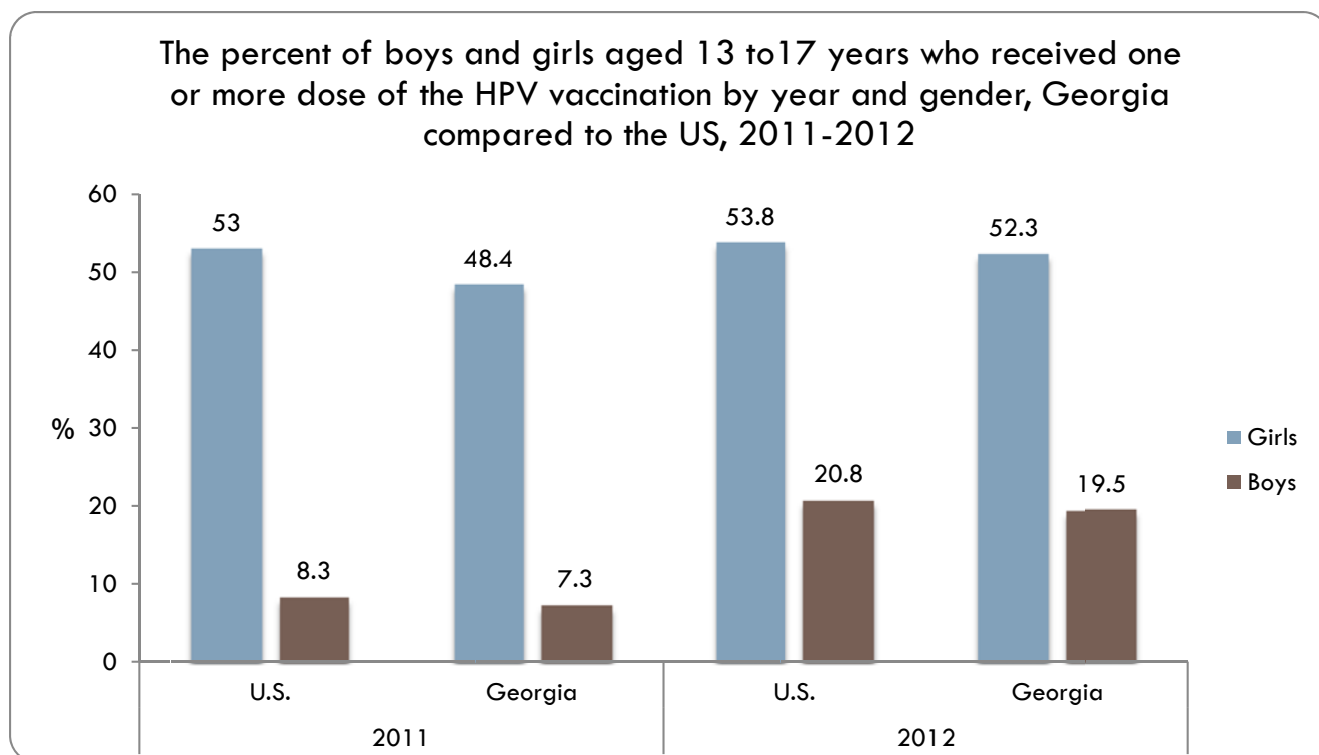


Source: NSCH 2007, 2011/12

## VACCINATIONS

### Human Papilloma Virus (HPV) Vaccine

The majority of vaccinations are completed by adolescence, but there are still few important vaccination milestones during these years that are worth assessing. The Human Papilloma Virus (HPV) vaccine has gained recent importance due to its effectiveness in preventing the spread of HPV and reducing the rate of cervical cancer. As such, HPV vaccination rates have steadily increased in both Georgia and the US. Additionally, there was a significant increase in vaccination rates for boys in both Georgia and the US from 2011 and 2012. For example, only 7.3% of boys received one or more dose of the HPV vaccine in 2011, while 19.5% - more than double – of boys received the HPV vaccine in 2012. This is a notable improvement and it is hoped that future years indicate further improvements.



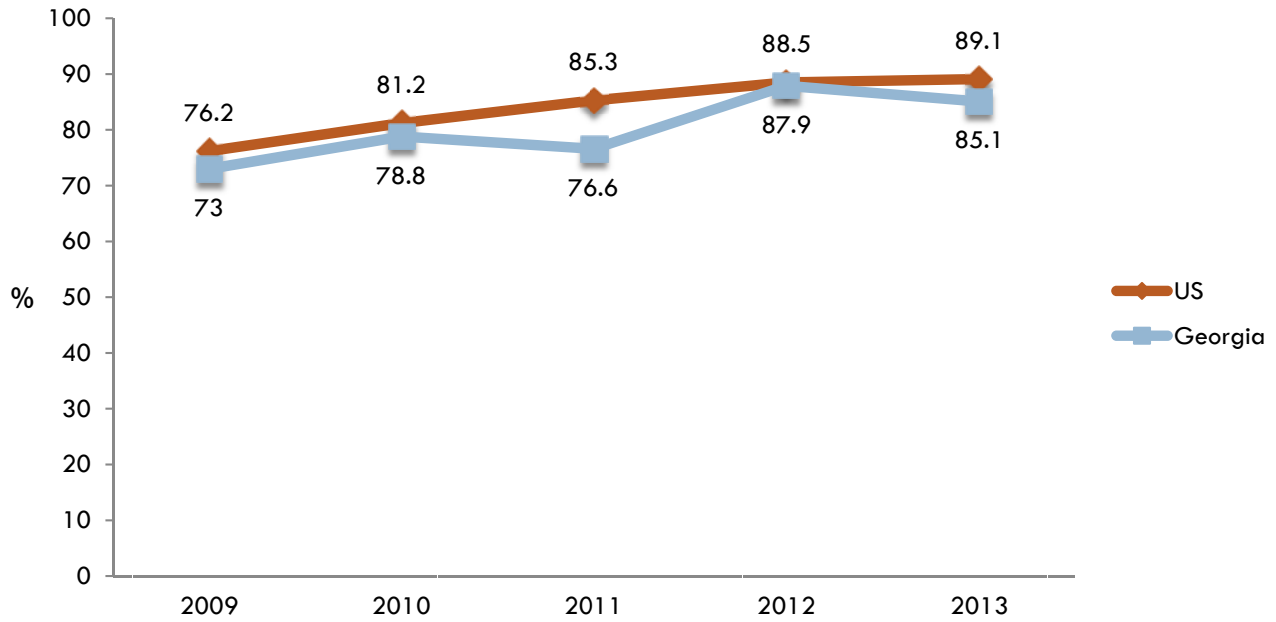
Source: National Immunization Survey-Teen, 2009–2013

### Td and Tdap Vaccines

There is also a steady increase in the percent of adolescents ages 13-17 who receive one or more doses of the Td or Tdap vaccines in both Georgia and the US from 2009 to 2013. Furthermore, the rates of vaccination in Georgia are nearly comparable to rates in the US, and most notable is the dramatic increase in Tdap vaccination rates in both Georgia and US, from 2009 compared to 2013.

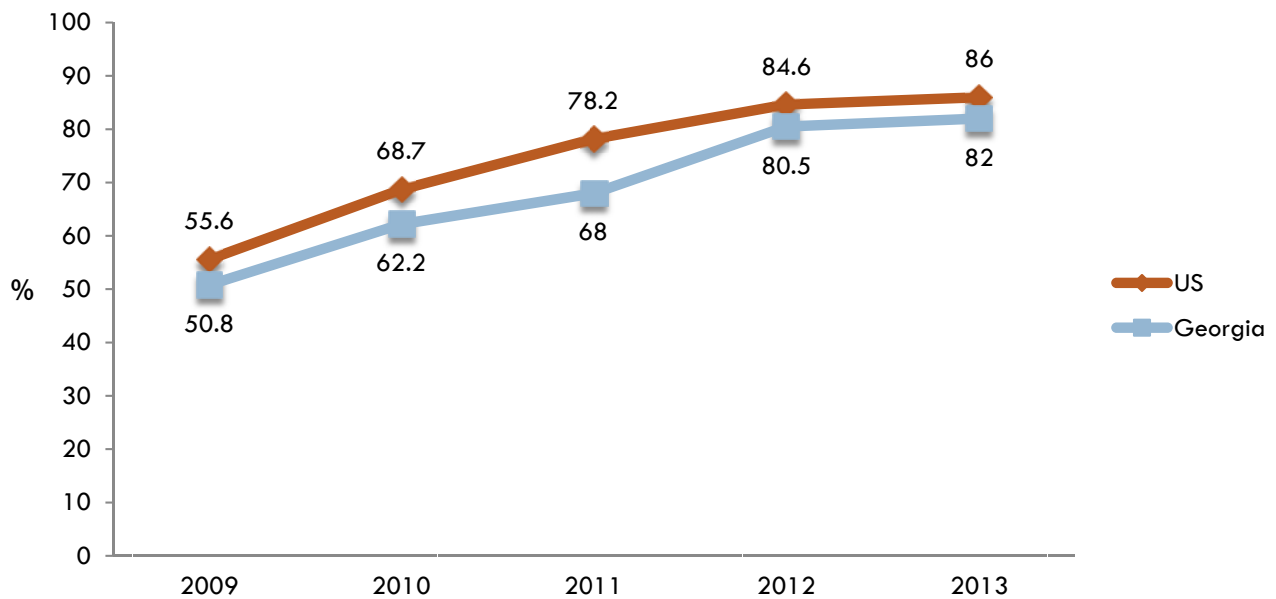


The percent of adolescents aged 13-17 who receive at least one dose of the Td vaccine by year, Georgia compared to the US, 2009-2013



Source: National Immunization Survey-Teen, 2009-2013

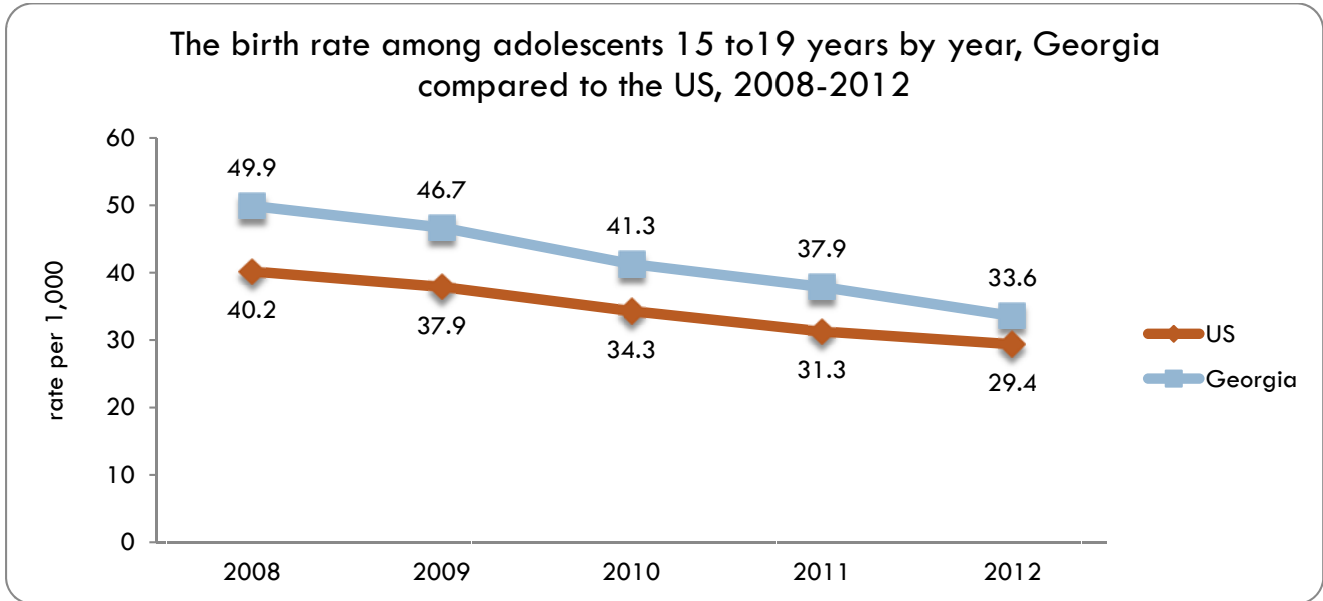
The percent of adolescents 13 to 17 years who receive at least one dose of the Tdap vaccine by year, Georgia compared to the US, 2009-2013



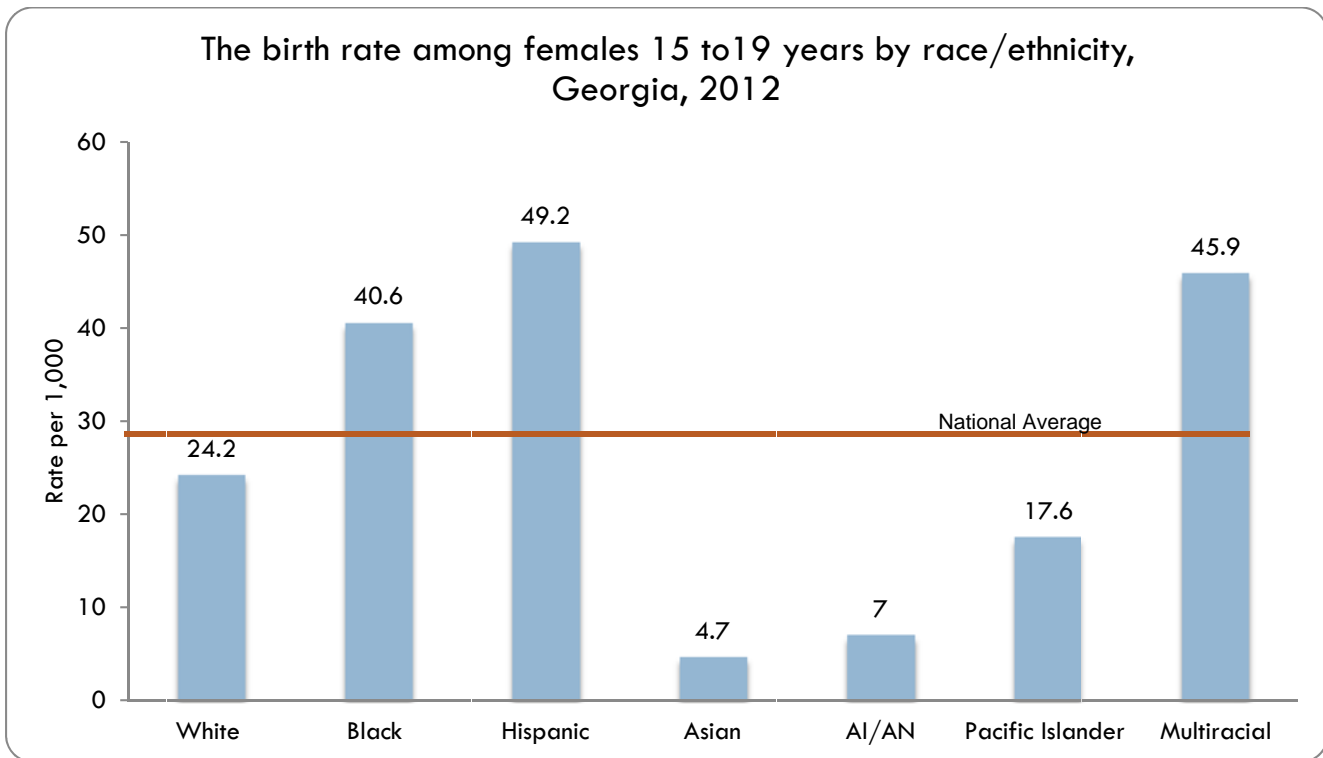
Source: National Immunization Survey-Teen, 2009-2013

## BIRTH RATE AMONG ADOLESCENTS 15 TO 19 YEARS

The birth rate among 15 to 19 year olds in Georgia has been steadily declining. In 2008, the birth rate was 49.9 while in 2012 it decreased to 33.6, a 48% decrease in just four years. The percent of repeat births among 15-19 year olds in Georgia has also been on a steady decline, with a slight increase from 19.5% in 2011 to 19.6% in 2012.

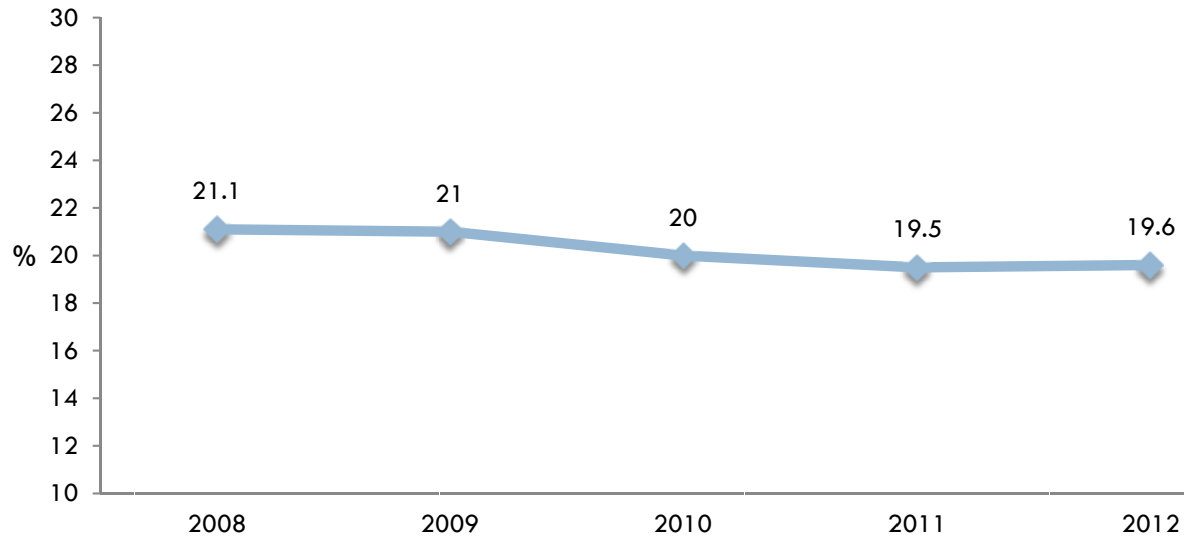


Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us) & National Center for Health Statistics



Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us) & National Center for Health Statistics

The percent of repeat births among adolescents ages 15 to 19 by year, Georgia, 2008-2012

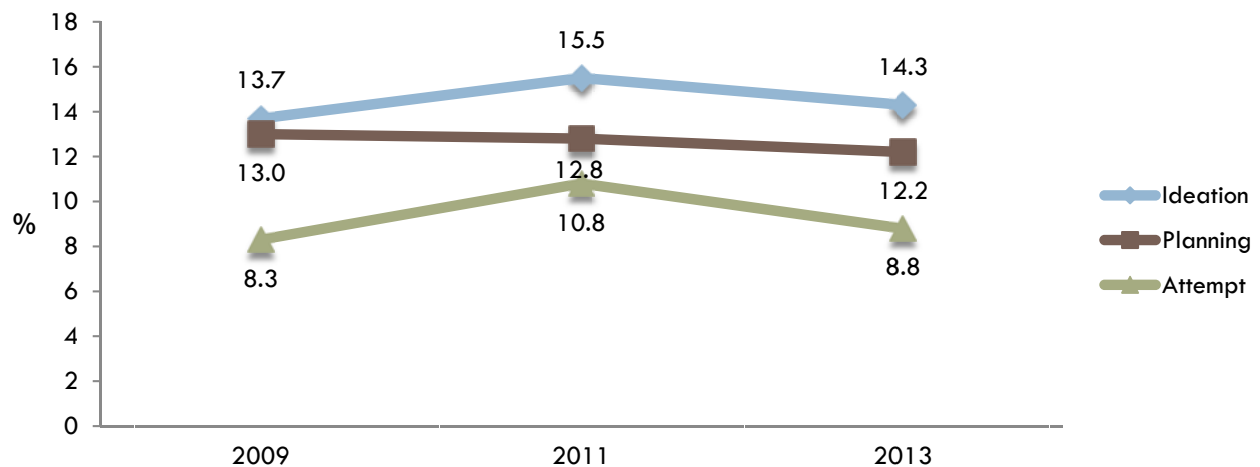


Source: OASIS oasis.state.ga.us

### SUICIDAL IDEATION, SUICIDE PLANNING AND SUICIDE ATTEMPTS AMONG MIDDLE AND HIGH SCHOOL STUDENTS

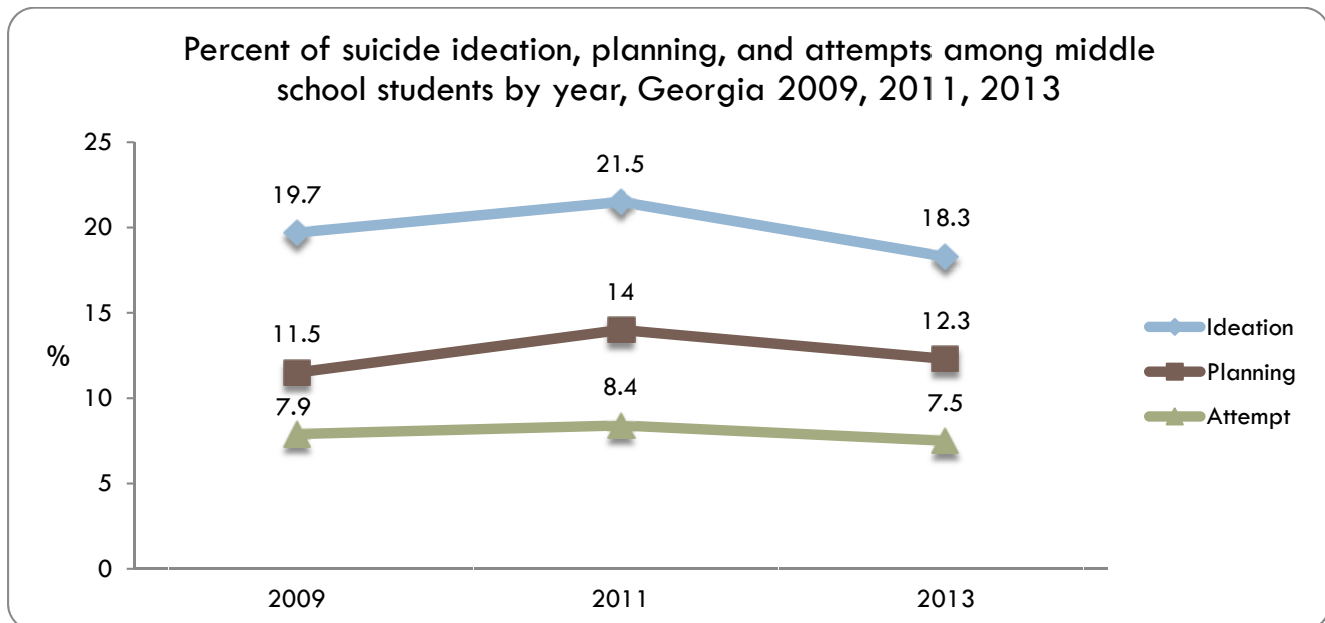
There was a slight increase in suicidal ideation, suicide planning and suicide attempts in 2013 compared to 2009, particularly in Hispanic and Black high school students.

Percent of suicide ideation, planning and attempts among high school students by year, Georgia, 2009, 2011, 2013



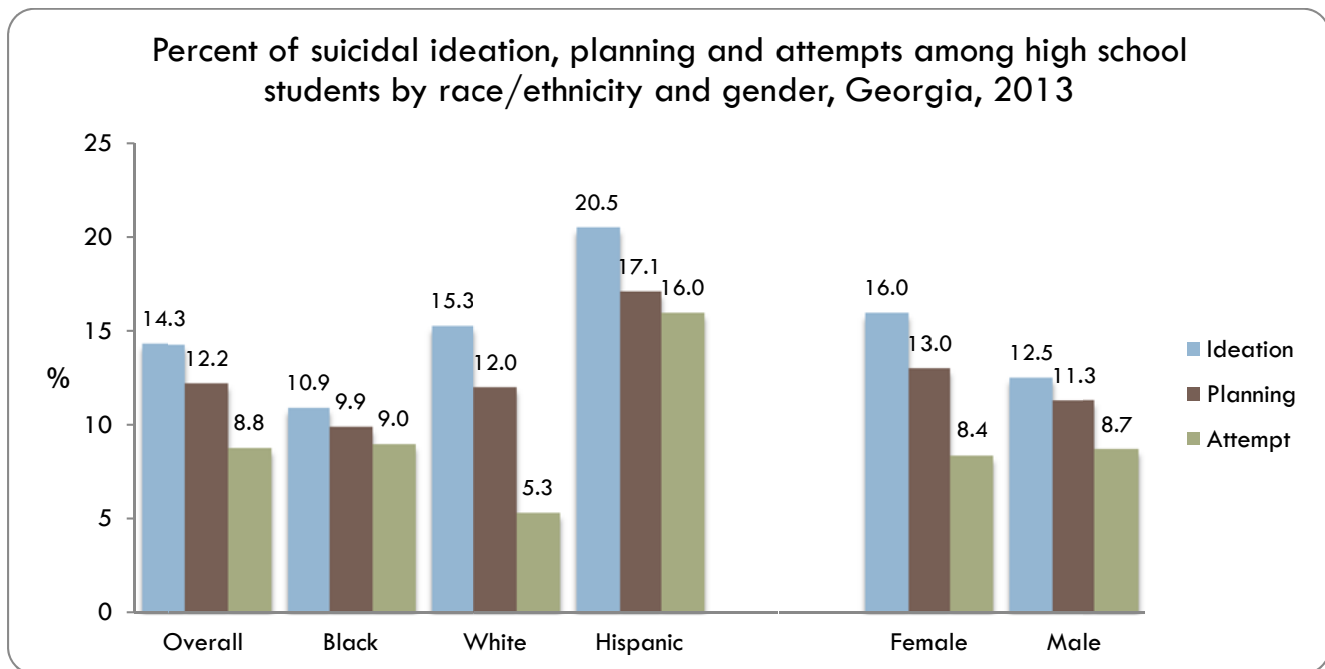
Source: YRBS 2009, 2011, 2013

Female middle school students were 45% more likely to have suicidal ideation than their male peers in 2013.



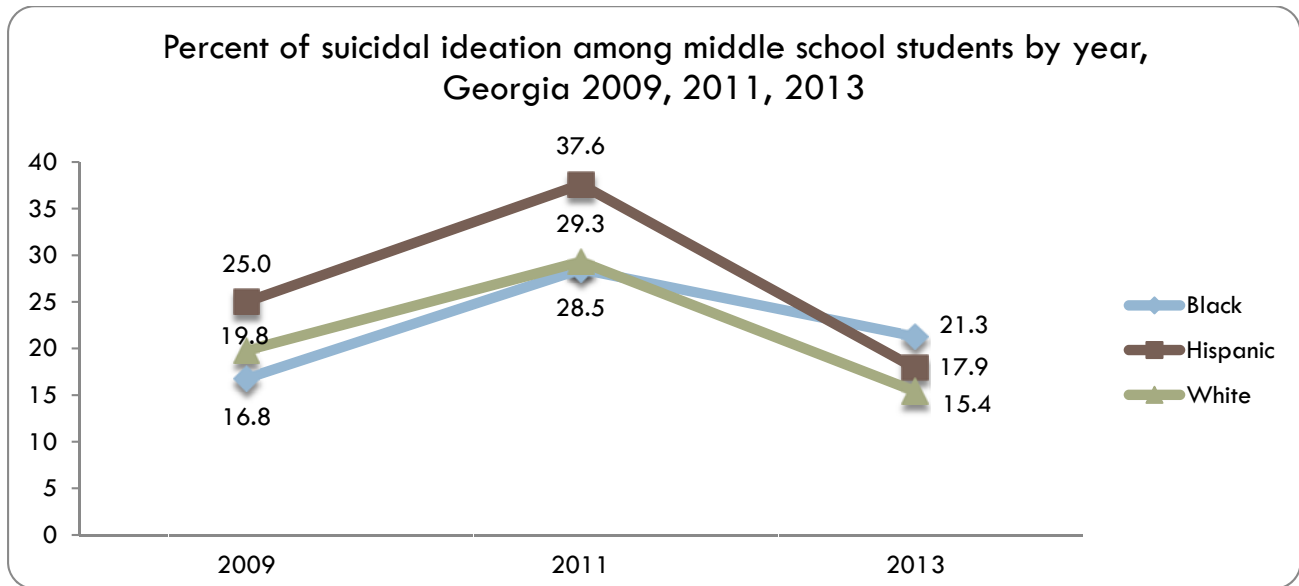
Source: YRBS 2009, 2011, 2013

In 2013, greater than 20% of Hispanic high school students reported having had suicidal ideations in the previous twelve months. These rates were greater than those reported among White and Black high school students. Female high school students had greater rates of ideation (16%) and planning (13%), compared to male high school students (12.5% and 11.3% respectively). The data shows that the rate of attempted suicide increased to nearly 16% in 2013 from 13.8% in 2009 for Hispanic high school students and from 7% to 9% for Black high school students.

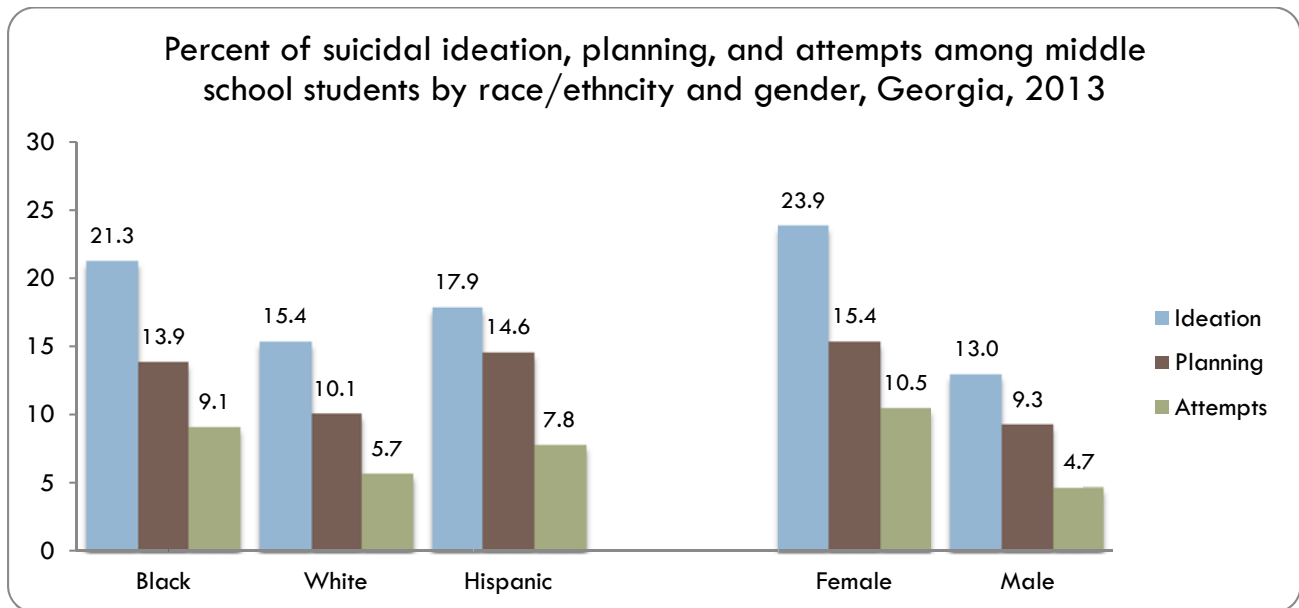


Source: YRBS 2013

There is a similar, but more exaggerated pattern among Black and Hispanic middle school students. For example, suicidal ideation among Black middle school students peaked in 2011, increasing from 16.8% in 2009 to 28.5% in 2011 and dropping to 21.3% in 2013.



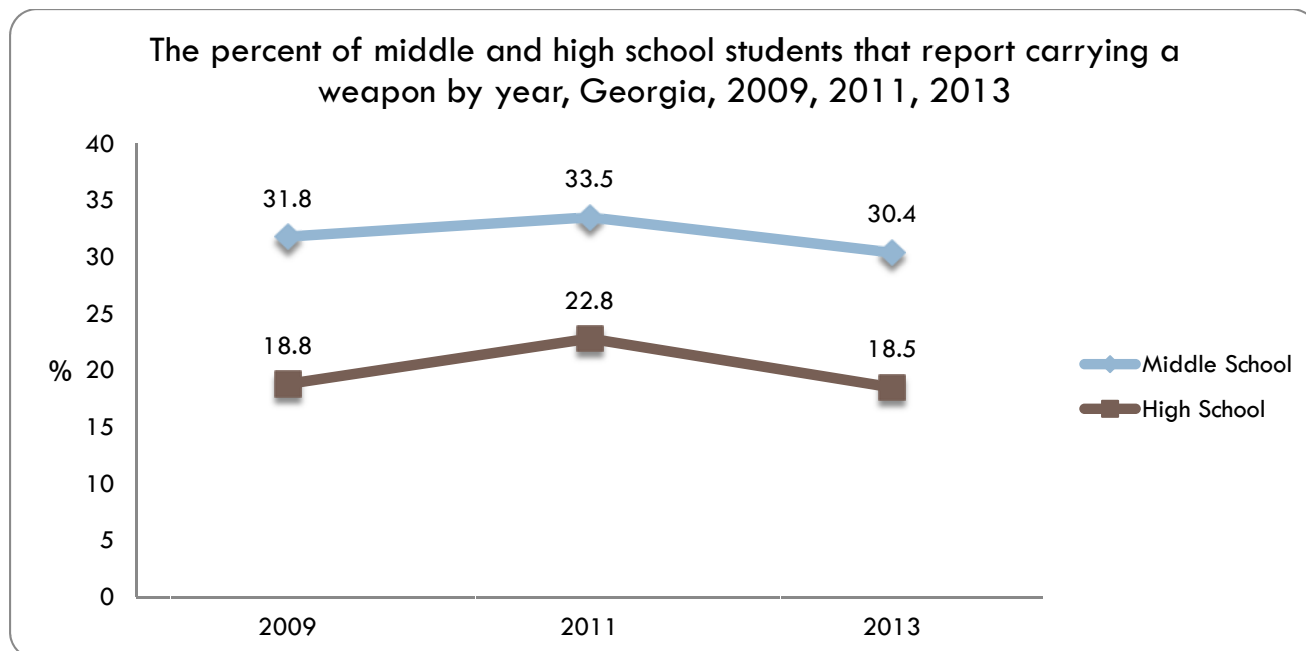
Source: YRBS 2009, 2011, 2013



Source: YRBS 2013

## BULLYING AND VIOLENCE

On average, 20% of high school students reported carrying a weapon such as a gun, knife or club on one or more of the past 30 days, with disproportionately more White and Hispanic high school students carrying a weapon when compared to Blacks. The percentage of males carrying a weapon (30.2%) is nearly 5 times higher than females who carry a weapon (6.4%) in 2013.



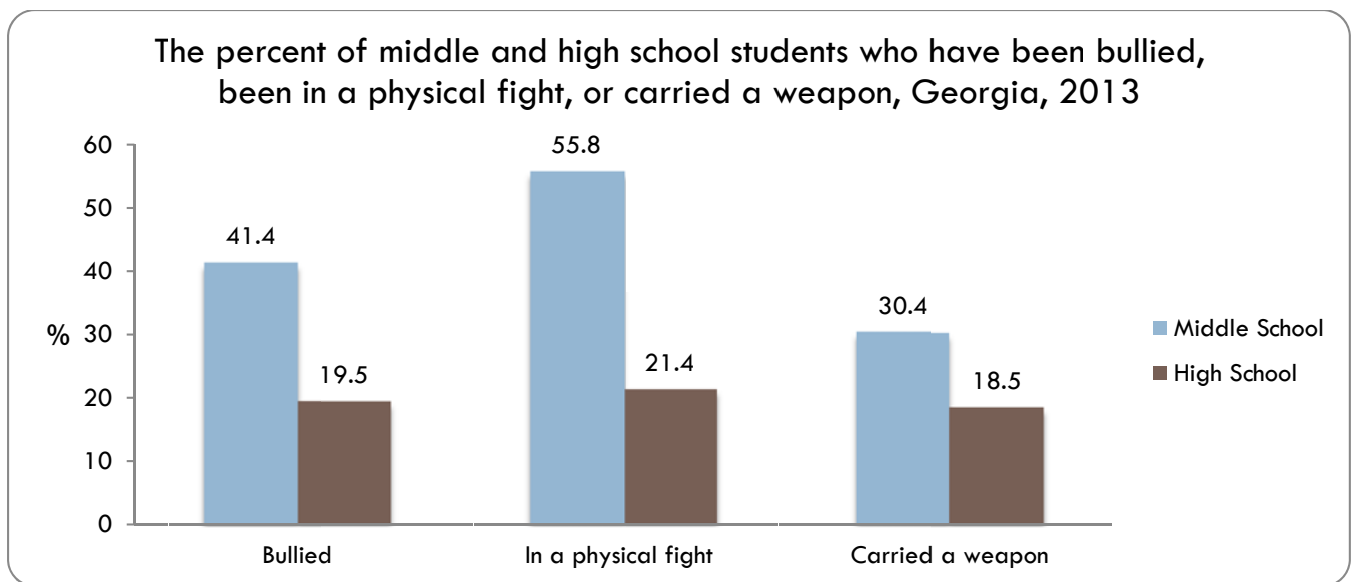
Source: YRBS 2009, 2011, 2013

### Healthy People 2020 Goals

IVP-34: Reduce physical fighting among students in grades 9 through 12 to 28.4%

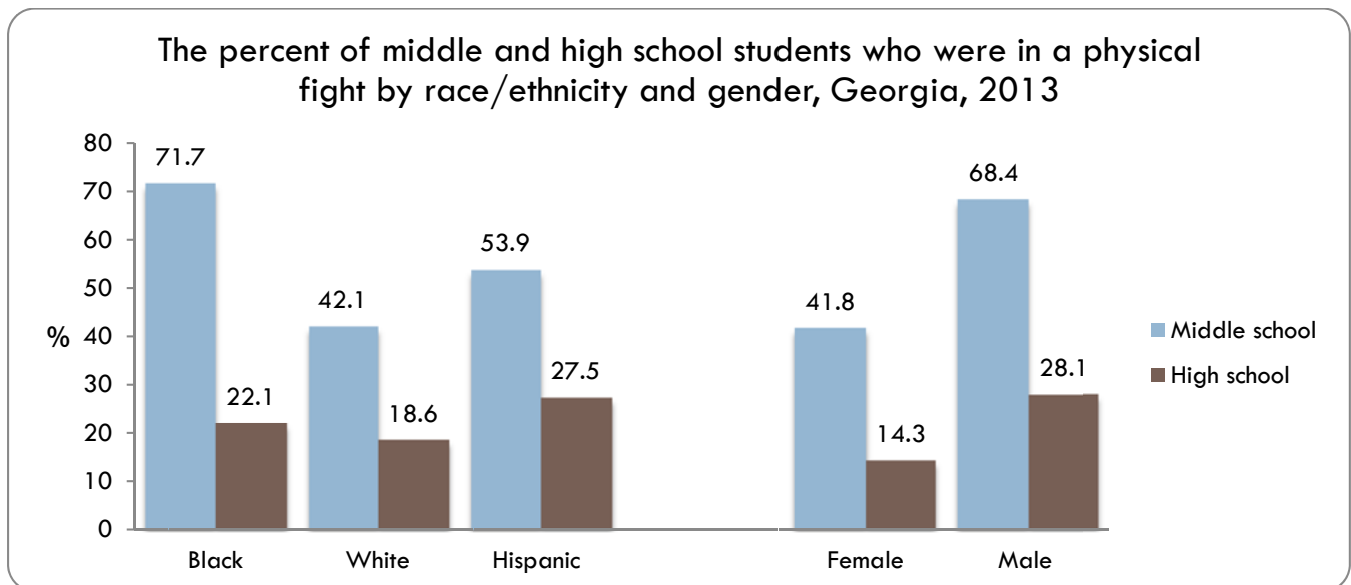
IVP-35: Reduce bullying on school property among students in grades 9 through 12 to 17.9%

Based on the most recent available data for Georgia, approximately 21.4% of high school students reported being in a physical fight one or more times in the last 12 months compared to 55.8% of middle school students. The Healthy People 2020 target for high school students is 28.4%. Notably, Georgia high school students have met this overall target by managing a 10% decrease in reports of being in a physical fight from 2009 to 2013. Middle school students were also more likely to be bullied (41.5% compared to 19.5%) and more likely to have carried a weapon (30.4% compared to 18.5%) when compared to high school students. The Healthy People 2020 target for high school students being bullied on school property is 17.9%. As of 2013, Georgia's high school students have not yet met this target.



Source: YRBS 2013

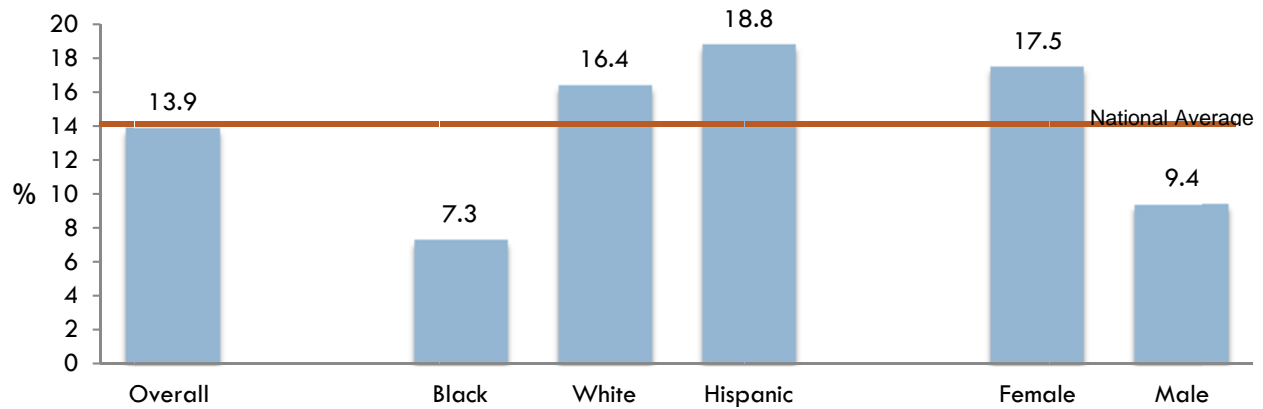
There are further disparities by race in the middle school group, with 71.7% of Black middle school students getting into a physical fight compared to 42.1% of White middle school students. The Healthy People 2020 target for high school students is 28.4%. As of 2013, all races and genders were under this target.



Source: YRBS 2013

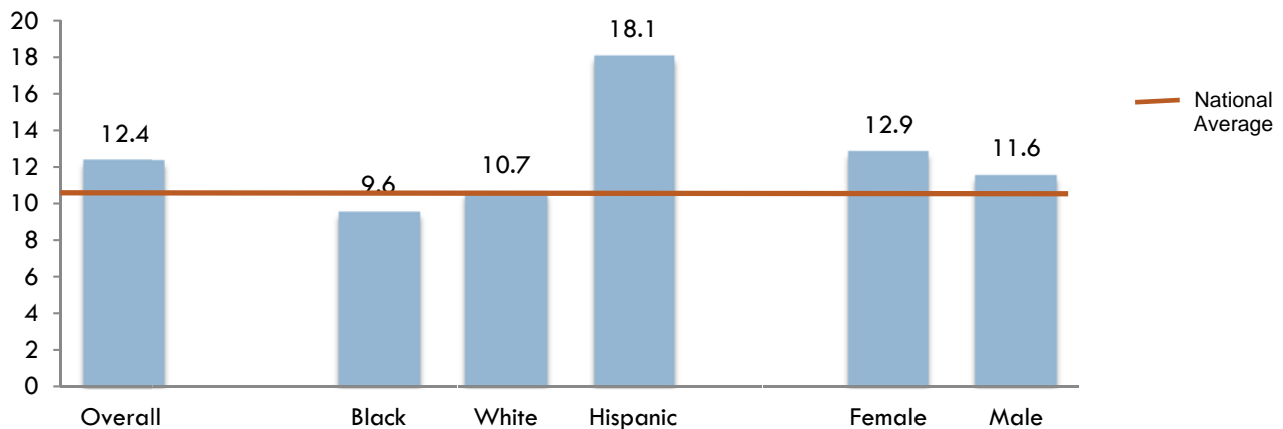
Certain questions were asked solely of high school students, like instances of electronic bullying and having experienced dating violence. The data revealed interesting disparities by both race and gender. Hispanic high school students had the highest rates of both experiencing electronic bullying and dating violence (18.8% and 18.1%, respectively), compared to their Black (7.3% and 9.6%) and White peers (16.4% and 10.7%). Similarly, female high school students reported a significantly higher rate of both electronic bullying (17.5%) and dating violence (12.9%), compared to male high school students (9.4% and 11.4% respectively).

The percent of high school students reporting having been electronically bullied by race/ethnicity and gender, Georgia, 2013



Source: YRBS 2013

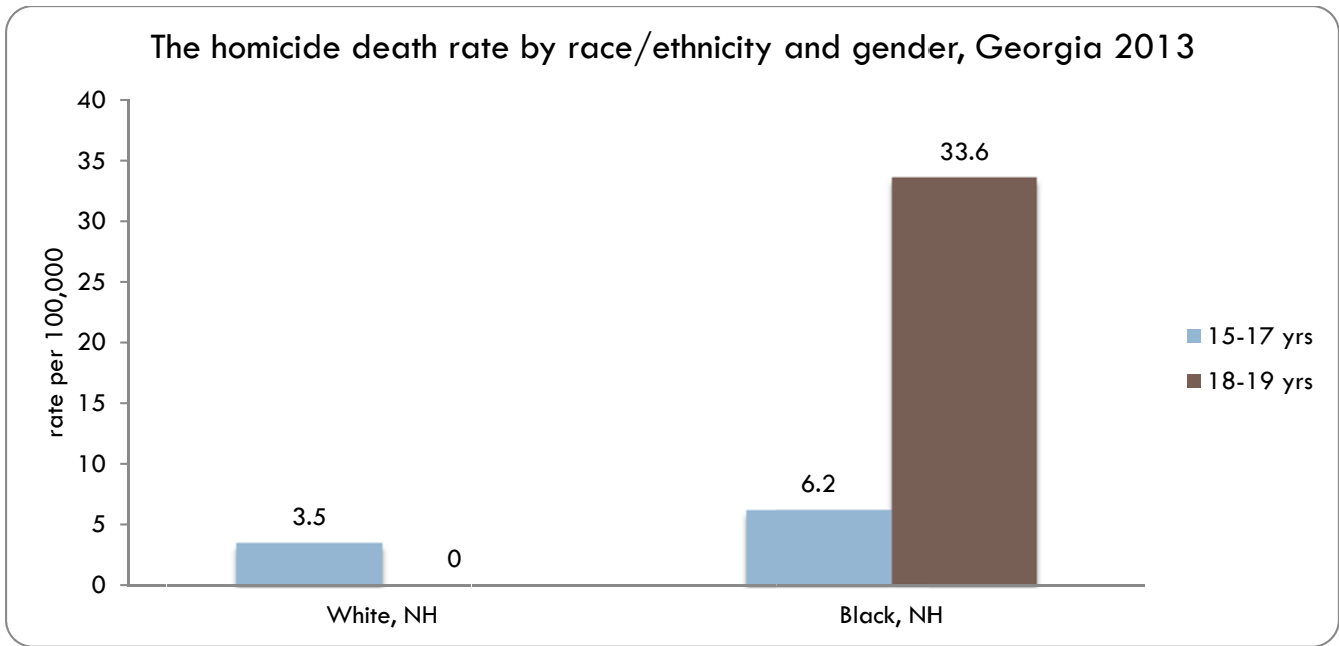
The percent of high school students reporting having experienced physical dating violence by race/ethnicity and gender, Georgia, 2013



Source: YRBS 2013

Significant disparities are present when homicide data are stratified by race/ethnicity. The homicide death rate per 100,000 is 0 across all race/ethnicities, except among White and Black non-Hispanics. This is a significant racial disparity that must be addressed and analyzed in-depth.

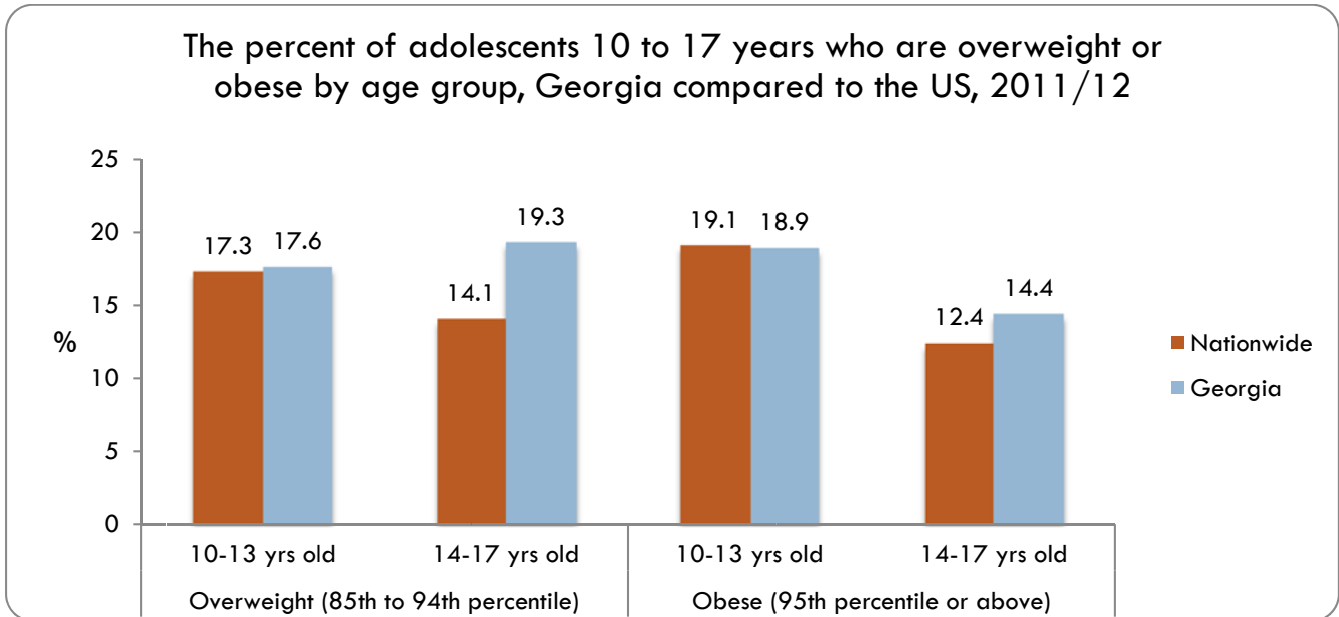




Source: OASIS oasis.state.ga.us

## OVERWEIGHT AND OBESITY

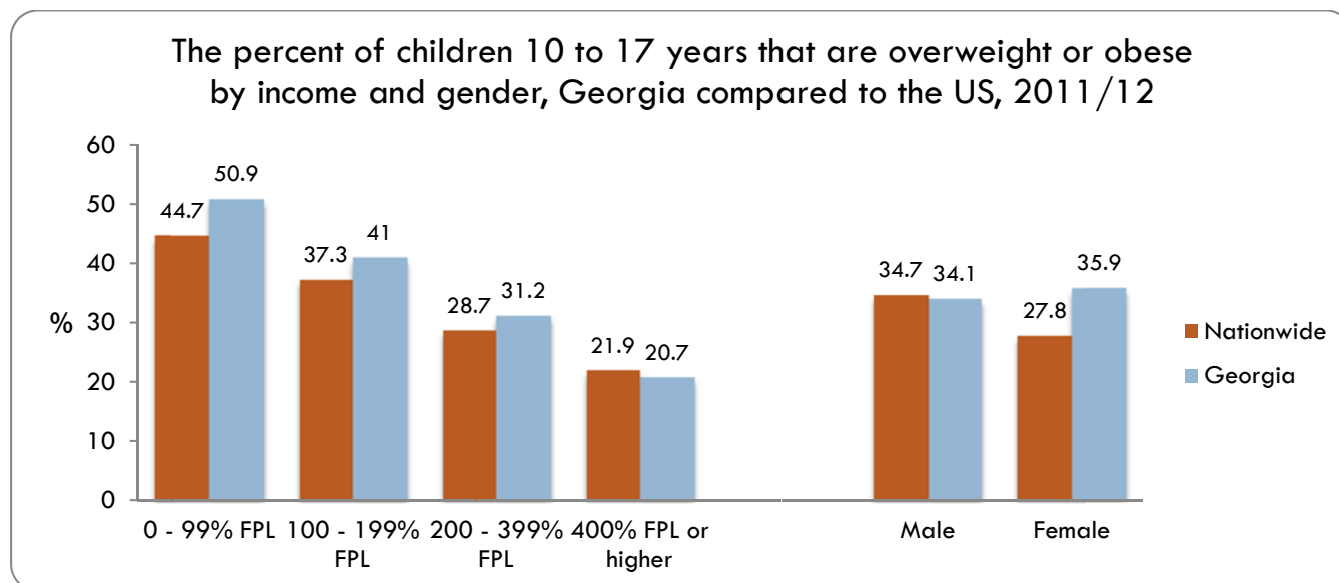
In 2011/12, a little over 19% of 14 to 17 year olds in Georgia were overweight and 14.4% considered obese. Both of these rates are higher than the national average, at 14.1% and 12.4% respectively.



Source: NSCH 2011/12

When stratified by gender and income, we see disparities in females in Georgia compared to nationwide, as well as higher rates of overweight and obesity in the children from the lowest income bracket. Specifically, 35.9% of female children 10 to 17 years of age were overweight or

obese in Georgia, compared to only 27.8% of their peers nationwide. Likewise, 50.9% of children in the 0-99% FPL income bracket were overweight or obese in Georgia, nearly 2.5 times the rate (20.7%) of children in the highest income bracket, 400% FPL or higher.



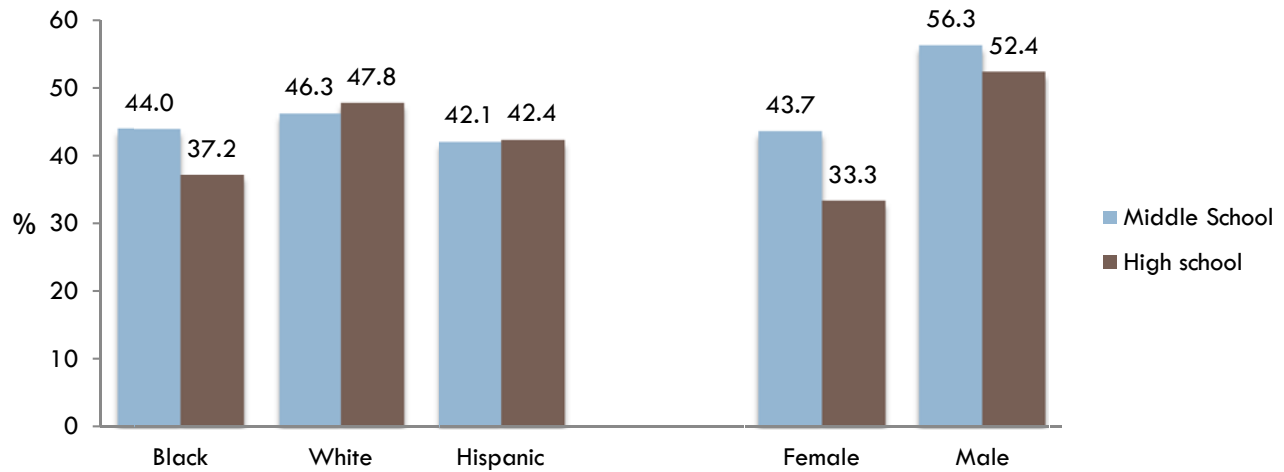
Source: NSCH 2011/12

## PHYSICAL ACTIVITY

In 2013, more than 35% of Georgia's middle and high school students were physically active for 60 minutes a day for five days a week. There is an overall decrease in physical activity among males and Black high school students. However, there was a 37% increase in physical activity among Hispanic high school students, from 30.9% in 2009 to 42.4% in 2013. Despite this increase, only 42.7% of Georgia's high school students are physically active five days out of the week, compared to 47.3% of high school students throughout the US.

The percent of male middle and high school students participating in 60 minutes of physical activity on five of seven days in a week was significantly greater among male middle and high school students than among female middle and high school students.

The percent of middle and high school students who are physically active for 60 minutes a day on five of seven days by race/ethnicity and gender, Georgia, 2013



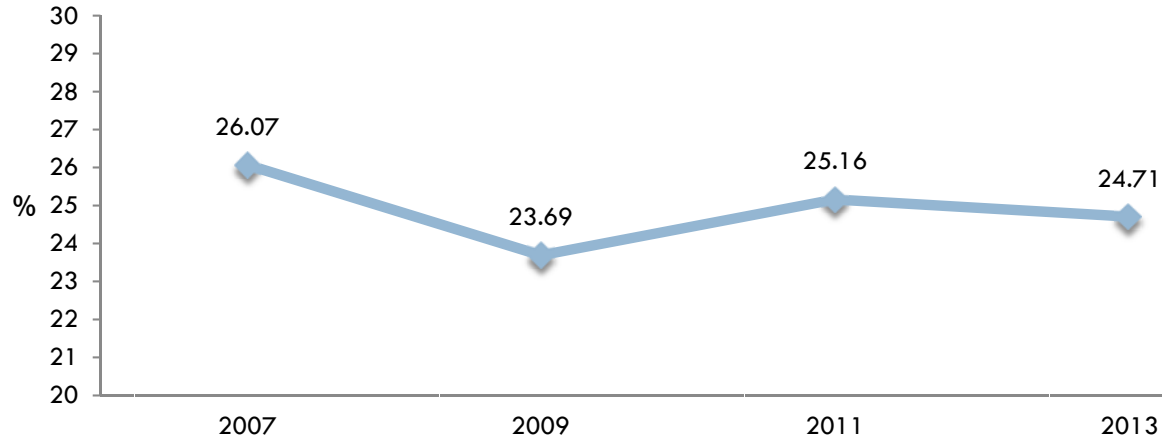
Source: YRBS 2013

### Healthy People 2020 Goal

PA-3.1: Increase the proportion of adolescents who were physically active for a total of at least 60 minutes per day on seven of the past seven days to 31.6%

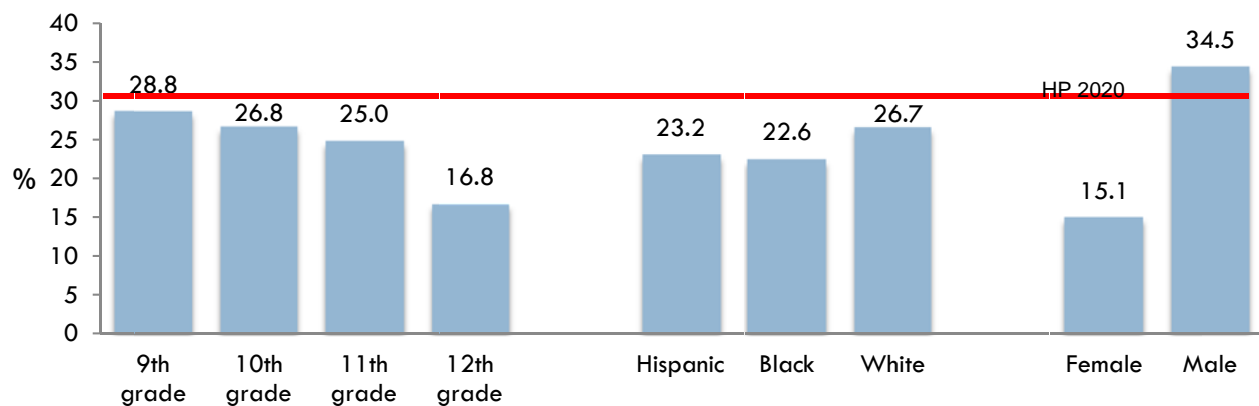
There has been an overall decline in the percent of high school students who are physically active every day of the week since 2007. In 2013, 24.71% of students performed 60 minutes of physical activity per day, below the Healthy People 2020 target. Students in grades 9 through 11 are more likely to be physically active than 12<sup>th</sup> grade students. Male students are the only group achieving the recommended amount of physical activity per week, and are twice as likely to be physically active than their female counterparts.

The percent of high school students who are physically active for 60 minutes a day every day of the week by year, Georgia, 2007-2013



Source: YRBS 2007-2013

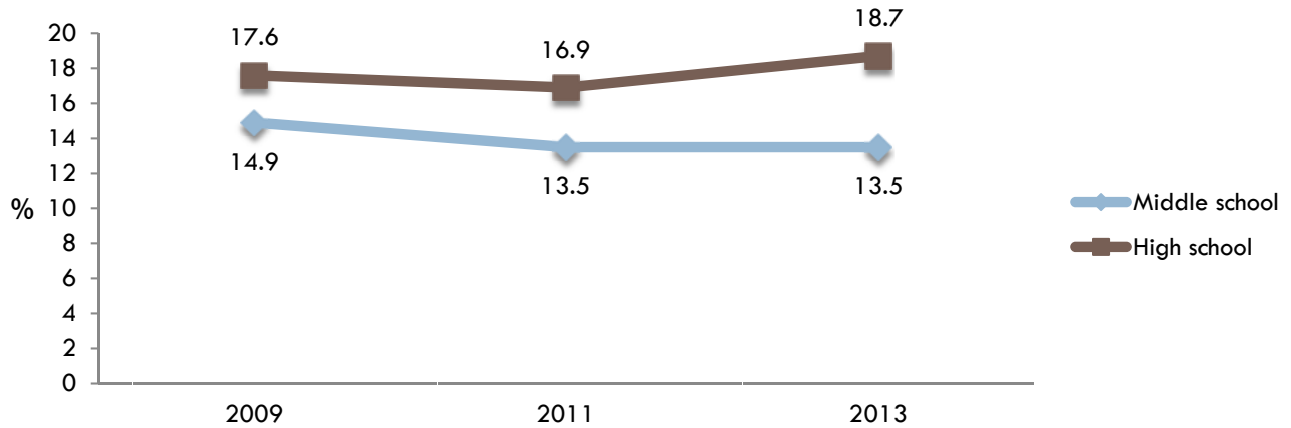
The percent of high school students who are physically active for 60 minutes a day every day of the week by grade, race/ethnicity and gender, Georgia, 2013



Source: YRBS 2007-2013

When looking at the percent of middle and high school students who were physically active on 0 days in the past week, we notice an increase from 2009 to 2013 in the high school group, with the rate going up from 17.6% in 2009 to 18.7% in 2013, and a decrease among middle school students.

The percent of middle and high school students who were physically active for 60 minutes on 0 days in the last seven days by year, Georgia, 2009, 2011, 2013

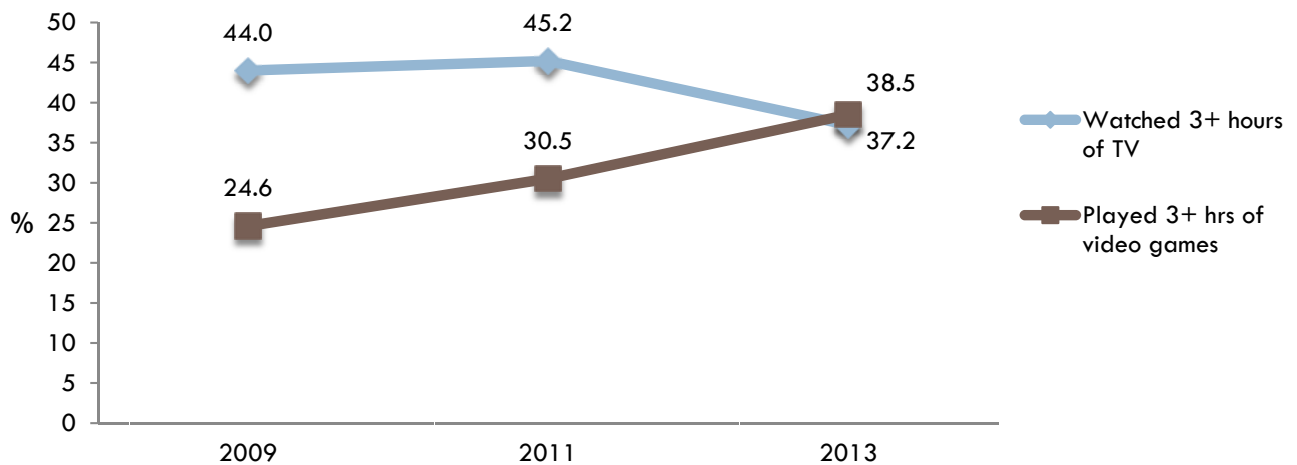


Source: YRBS 2009, 2011, 2013

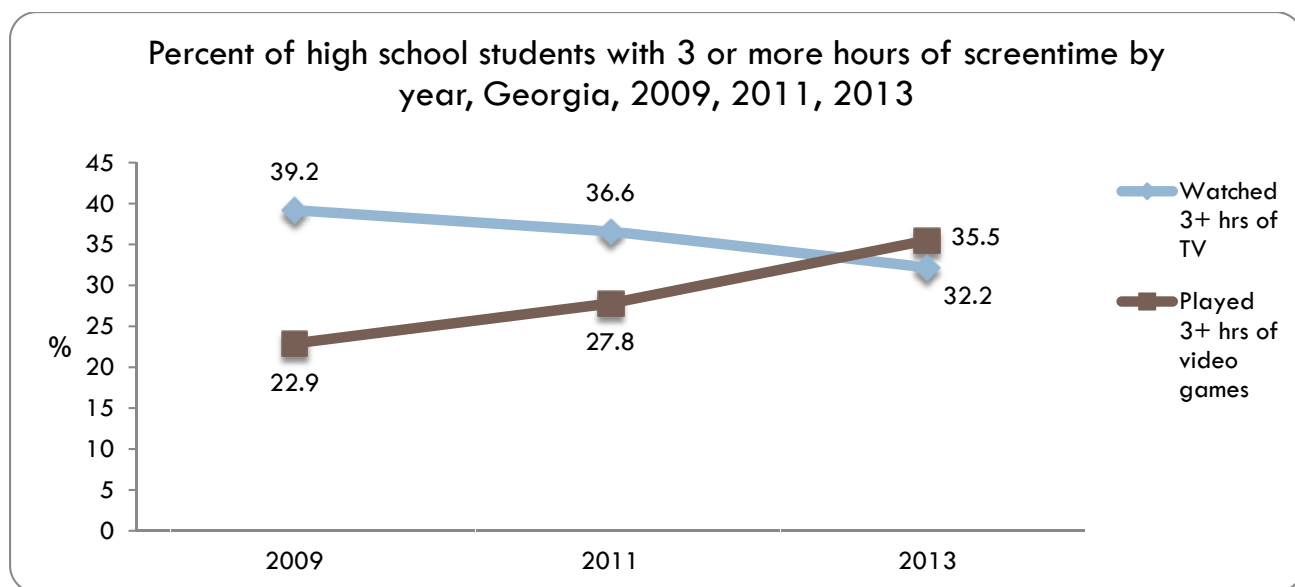
### SCREEN TIME

During the same period of time that we are noting a decrease in overall physical activity among middle and high school students in Georgia, we also note a significant increase in the percentage of middle and high school students reporting screen time of more than 3 hours a day, in particular with respect to video and computer games. There was an increase in screen time that occurred in all racial and ethnic groups as well as across genders from 2009 to 2013.

Percent of middle school students with 3 or more hours of screentime by year, Georgia 2009, 2011, 2013



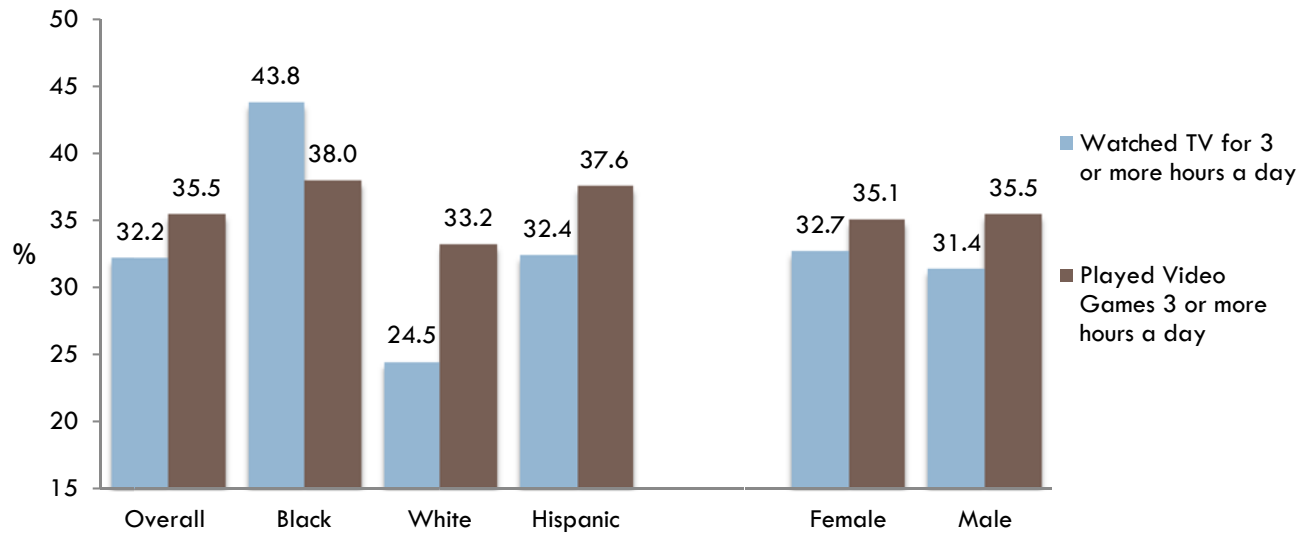
Source: YRBS 2009, 2011, 2013



Source: YRBS 2009, 2011, 2013

More than 30% of both middle and high school students watch three or more hours of television per day across all race/ethnicity and genders, and more than 35% of students reported more than three hours of playing computer or video games. In 2009, these numbers were well under 25%, with less than 17% of Hispanic high school students reporting 3 or more hours of screen time. In 2013, the percentage of Black (43.8%) and Hispanic (32.4%) students reporting 3 or more hours of screen time was significantly higher than the percentage of White high school students (24.5%). Fewer than 25% of White students reported watching 3 or more hours of TV. However, the percentage of students playing 3 or more hours of video games was comparable throughout race and gender, with over 33% of all high school students reporting 3 or more hours of video game use. While the variation in television viewing by gender was limited, a greater percent of male high school students reported three or more hours of computer screen time daily. Similar patterns are evident in the middle school group. In 2009, 29.9% of Black middle school students reported three or more hours of video game use compared to 45.9% of Black middle school students in 2013 (graph not shown). This is a significant increase in screen time in both Black middle and high school students and is an important area for public health professionals to focus on.

The percent of high school students reporting 3 or more hours of screen time by race/ethnicity & gender, Georgia, 2013

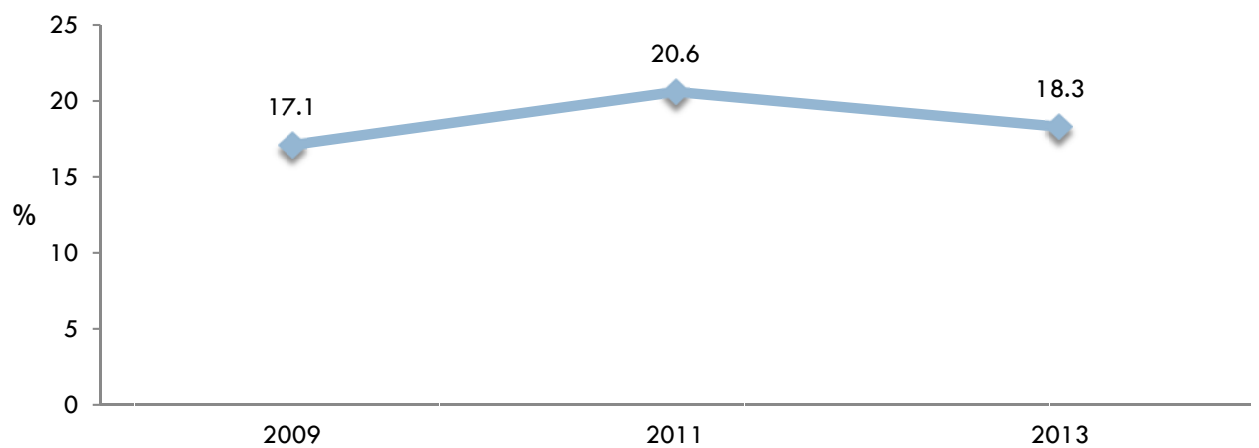


## NUTRITION

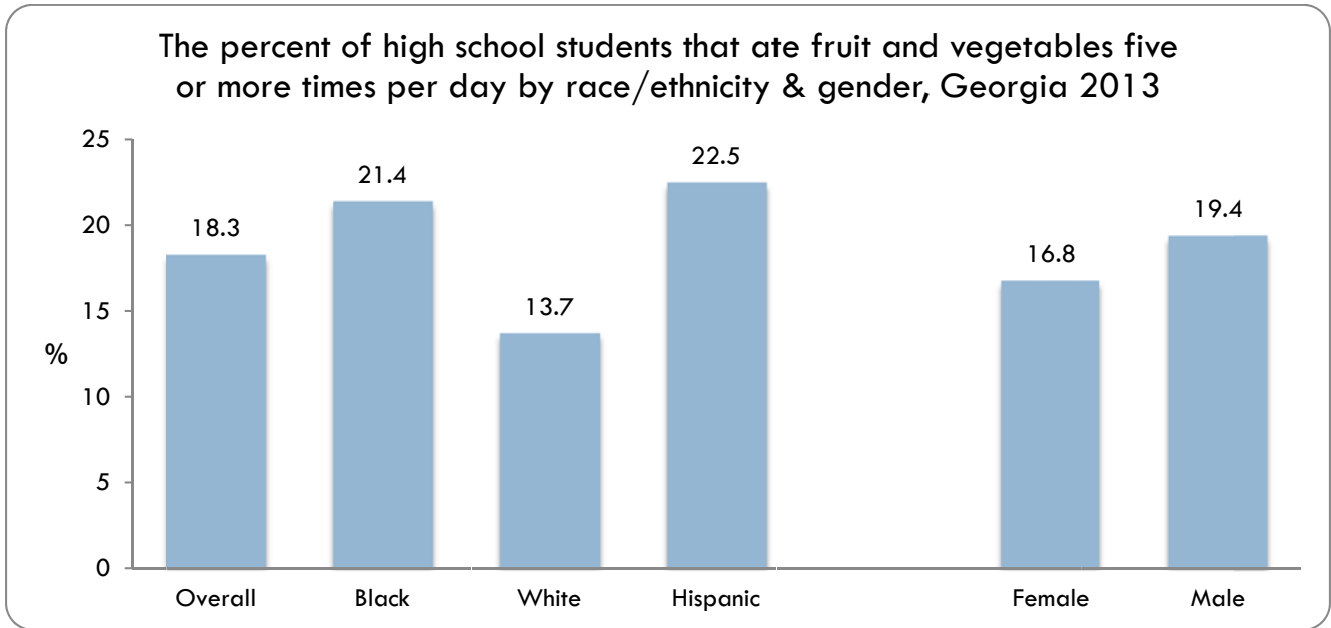
### Fruit and Vegetable Consumption

In 2013, less than 20% of high school students reported consuming five or more servings of fruits or vegetables daily. Analysis by race/ethnicity revealed that Black and Hispanic students were more likely to consume five or more servings of fruits and vegetables (21.4% and 22.5% respectively) compared to only 13.7% of White high school students.

The percent of high school students that ate fruit and vegetables five or more times per day, Georgia 2009, 2011, 2013



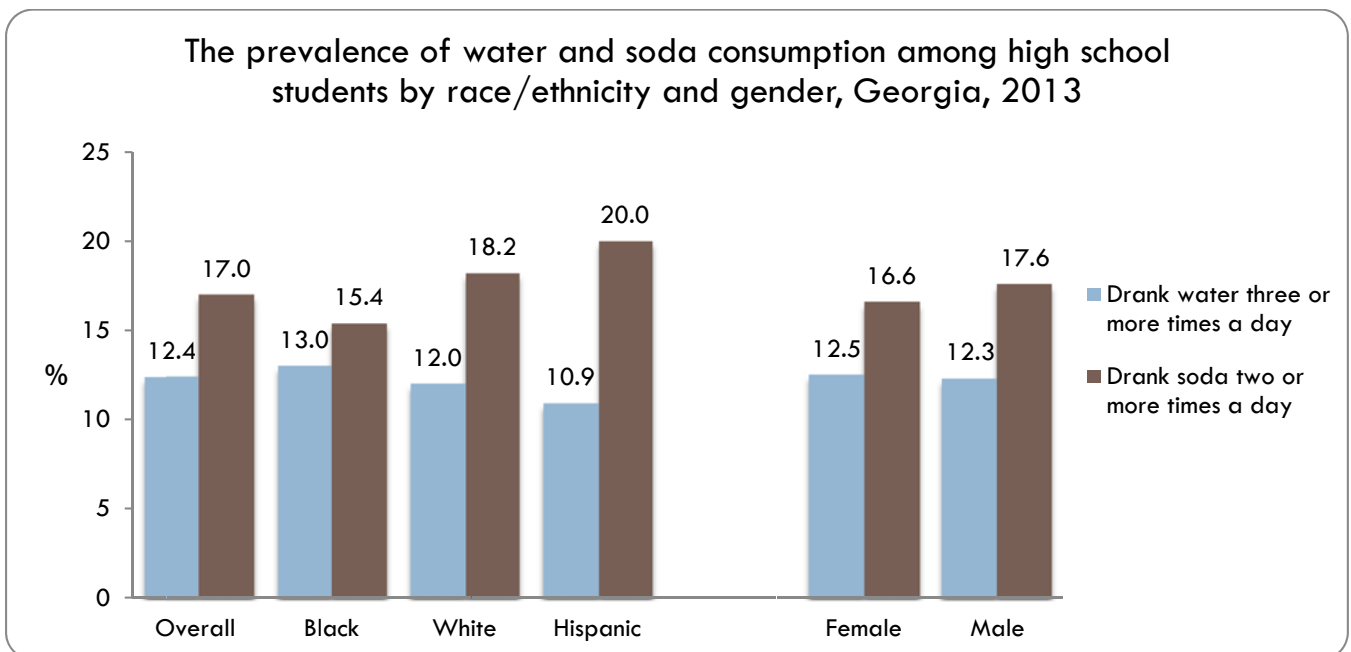
Source: YRBS 2009, 2011, 2013



Source: YRBS, 2013

Additionally, the percentage of students who reported drinking three or more glasses of water a day was less than 15% across all races/ethnicities and genders, with little variation. When comparing water consumption to soda consumption, the percentage of students consuming two or more sodas a day was over 15% in all groups, with 20% of Hispanic high school students reporting two or more sodas a day.

### Water and Soda Consumption

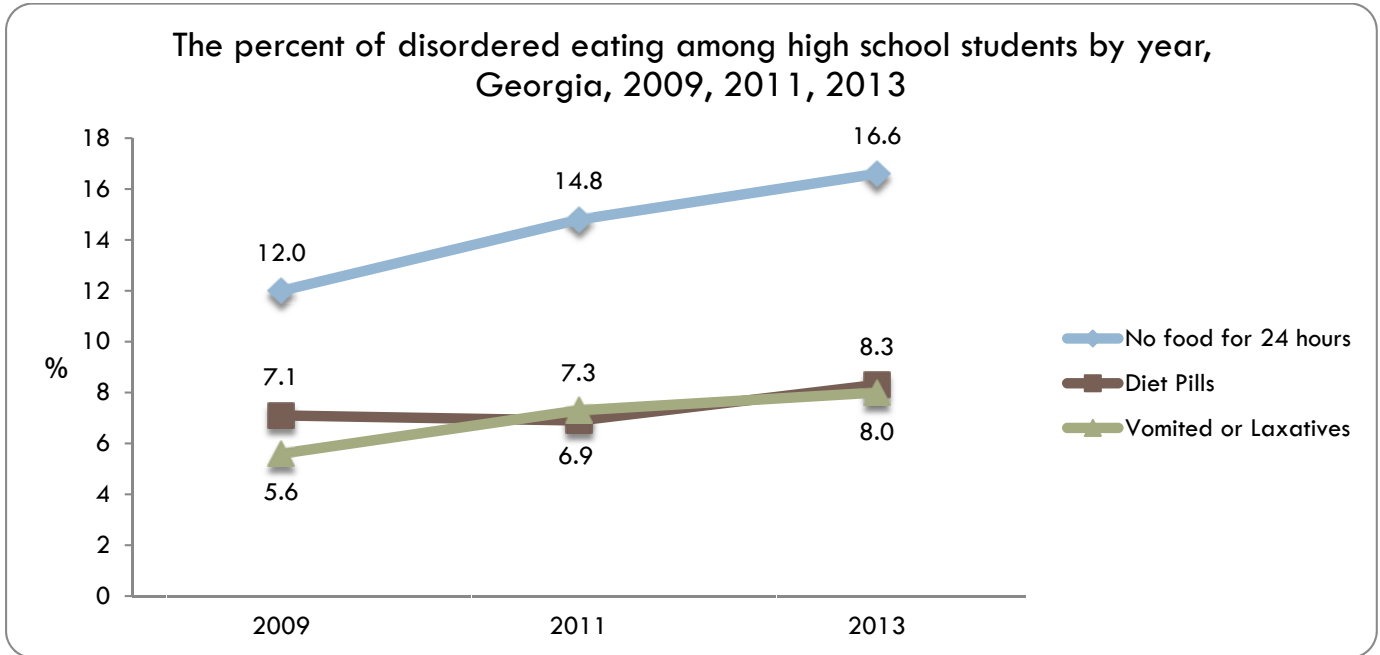


Source: YRBS 2013

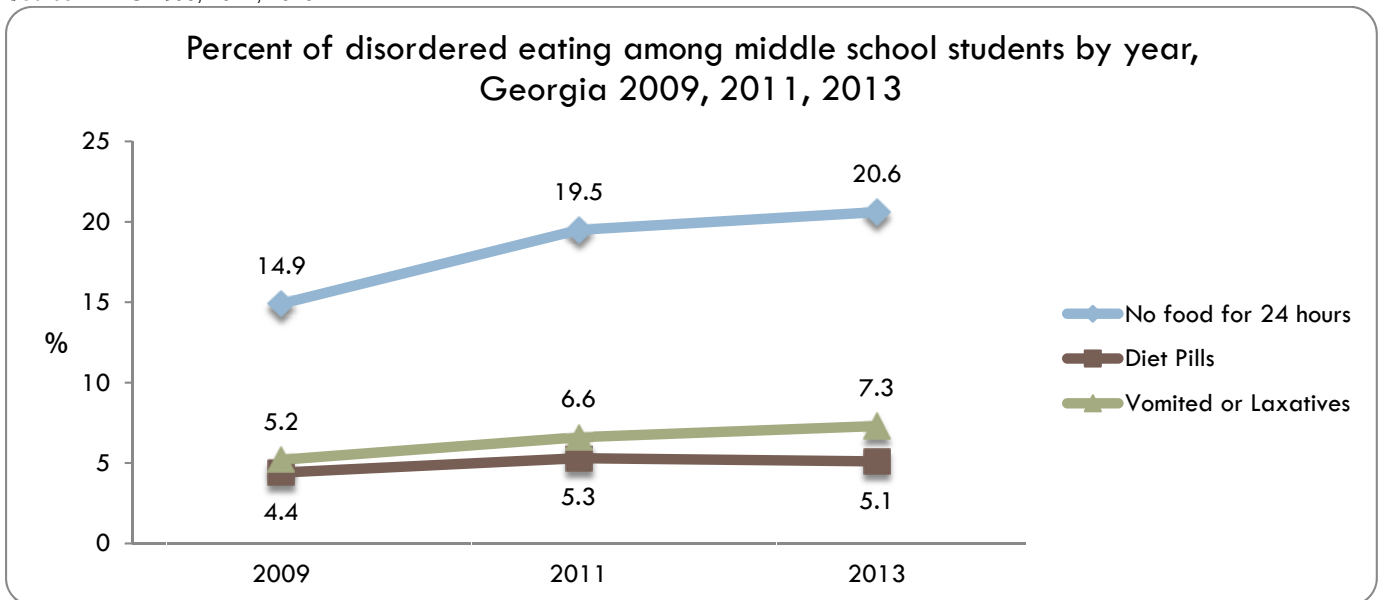


## DISORDERED EATING BEHAVIORS

There are a number of disordered eating behaviors that Georgia middle and high school students were asked about. Not surprisingly, the percentage of females reporting any type of disordered eating – diet pills, vomiting, or abstaining from food for 24 hours – was consistently higher than their male peers. Moreover, abstaining from food for 24 hours to lose weight was more common than vomiting or taking diet pills. It is also important to note that the prevalence of disordered eating among both middle school and high school students has increased from 2009 to 2013, with the most dramatic increase in high school students reporting vomiting or taking laxatives to lose weight, a 43% increase from 2009 to 2013.

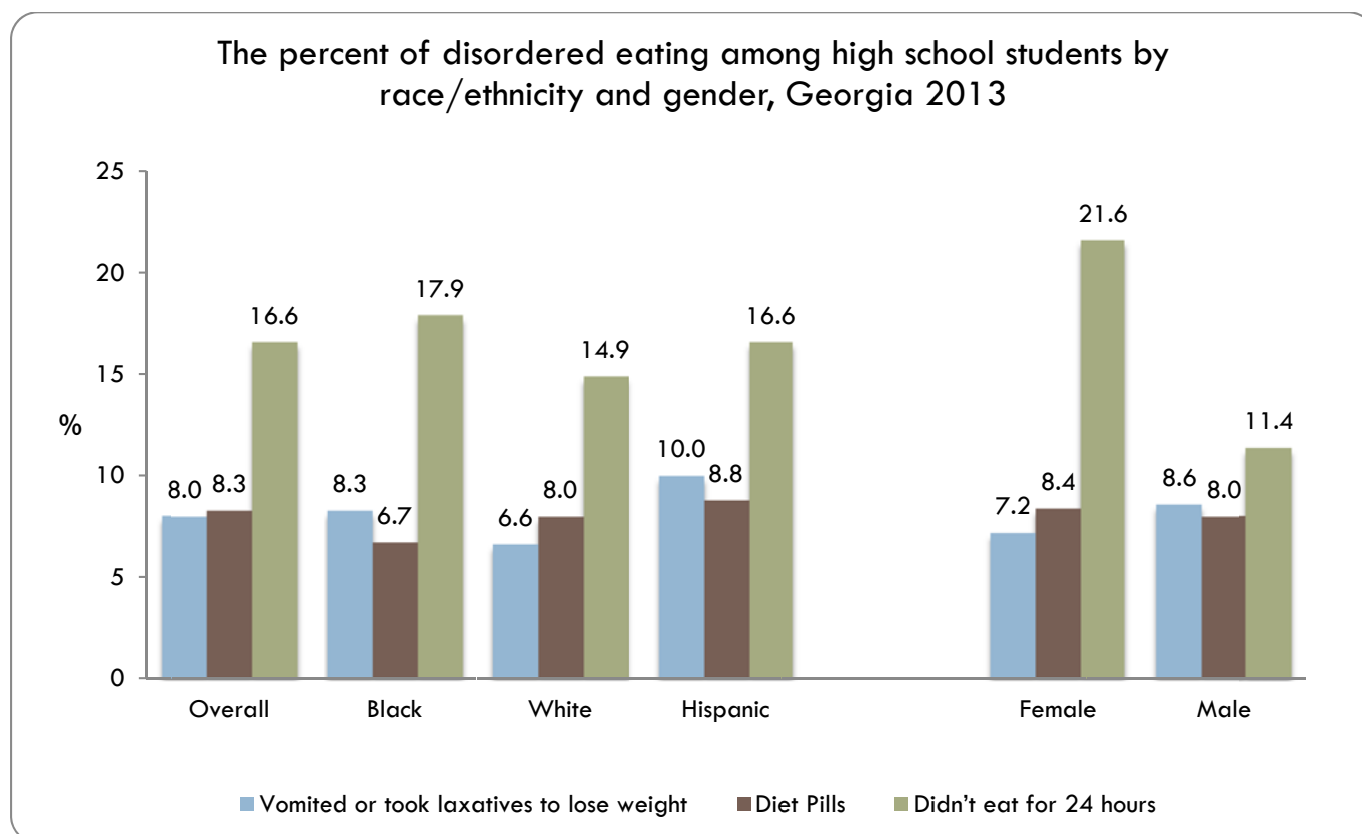


Source: YRBS 2009, 2011, 2013



Source: YRBS 2009, 2011, 2013

Upon stratifying the data by race/ethnicity and gender, one can see that in 2013, female high school students had a dramatically higher percentage of not eating for 24 hours (21.6%) compared to only 11.4% of their male peers. Additionally, not eating for 24 hours was the most popular method of disordered eating across all race/ethnicity and gender.



Source: YRBS 2009, 2011, 2013

## SUBSTANCE USE

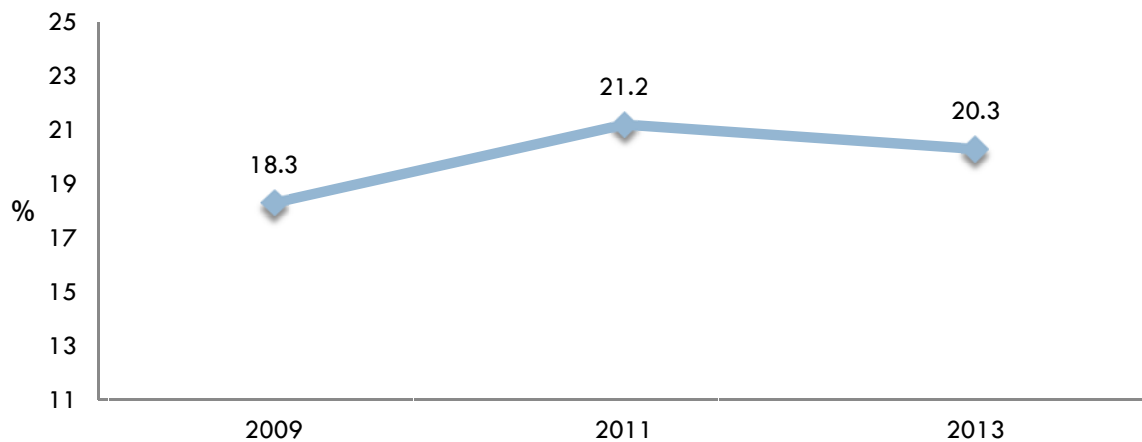
### Marijuana

#### Healthy People 2020 Goal

SA-13.2: Reduce the proportion of adolescents in grades 9 through 12 reporting use of marijuana during the past 30 days to 6%

Adolescents in Georgia fail to meet this objective when considering marijuana use alone. Nearly 1 in 5 Georgia high school students reported marijuana use in the past thirty days. This average rate was more than 3 times greater than the Healthy People 2020 objective for current marijuana use. While the percentage has decreased during the most recent year of available data, it has not decreased to the five year low, recorded in 2009.

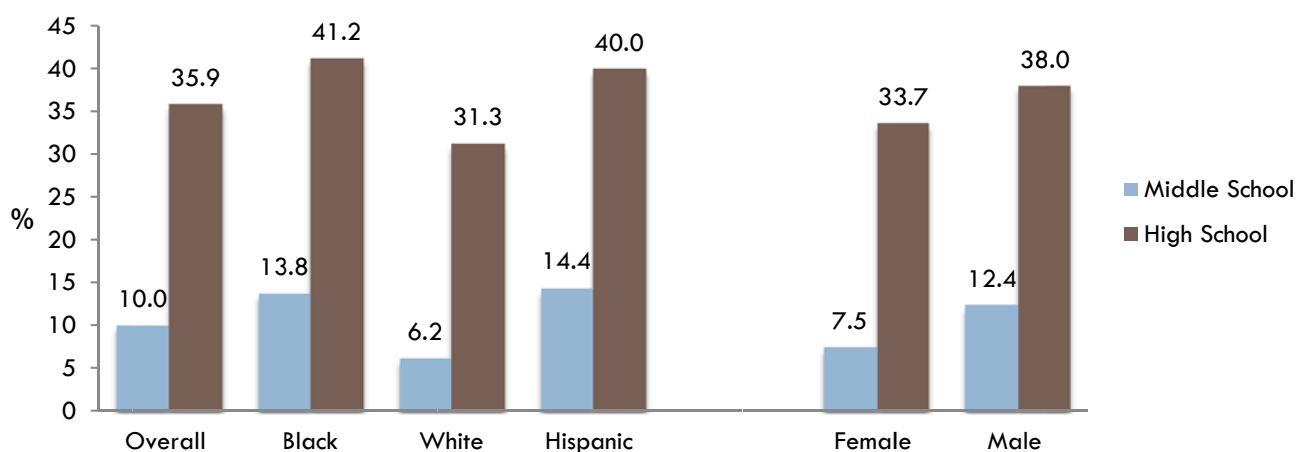
The percent of high school students who report using marijuana in the past 30 days by year, Georgia 2009, 2011, 2013



Source: YRBS 2009, 2011, 2013

The prevalence of marijuana use was greater for Hispanic and Black middle and high school students than among White middle and high school students. While the percentage of high school males reporting marijuana use has stayed relatively stable, the percentage of high school females reporting marijuana use has increased. As such, current marijuana use was similar between both male and female high school students in 2013. The average rate of lifetime marijuana use (marijuana use once or more in their life) for 2009, 2011 and 2013 ranged from 35% to 37% for high school students and between 8% and 10% for middle school students. Among White high school students, 31.3% reported lifetime marijuana use as did 41.2% of Black high school students compared to 13.8% of Black middle school students and 6.2% of White middle school students. Lifetime marijuana use was greater among male high school students than female high school students.

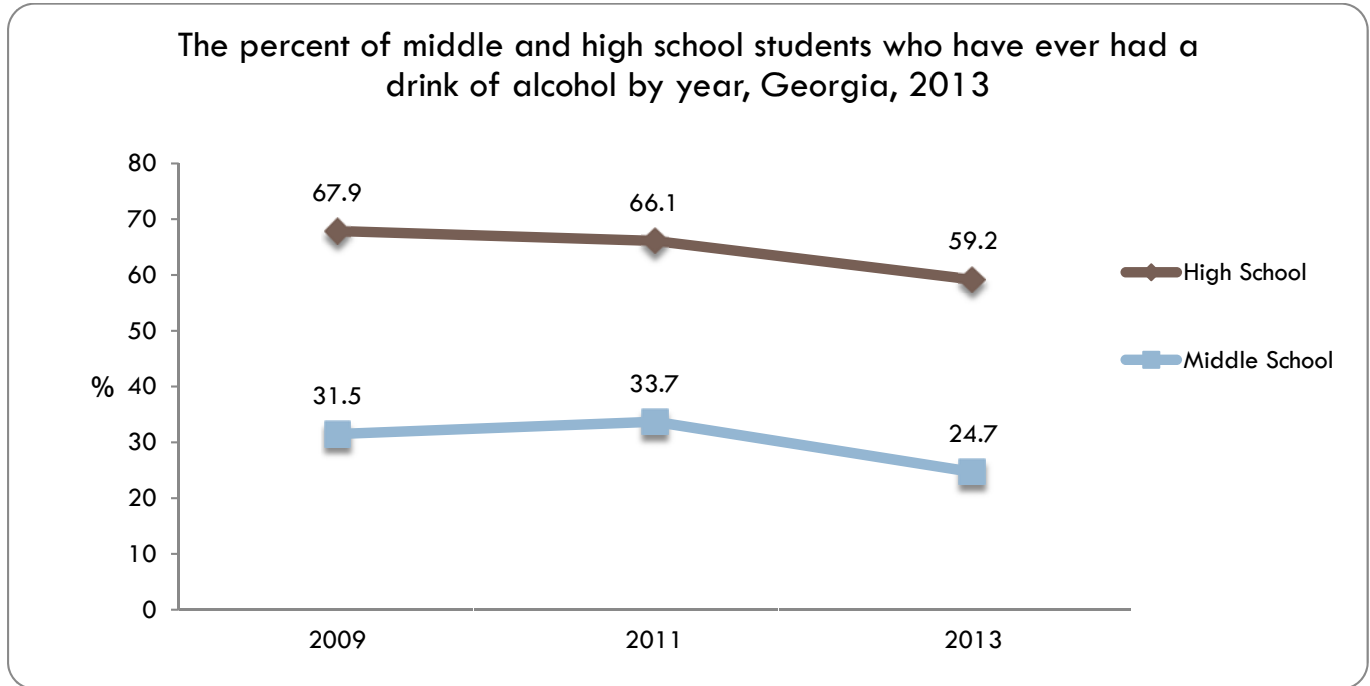
The percent of middle and high school students who have ever used marijuana by race/ethnicity and gender, Georgia, 2013



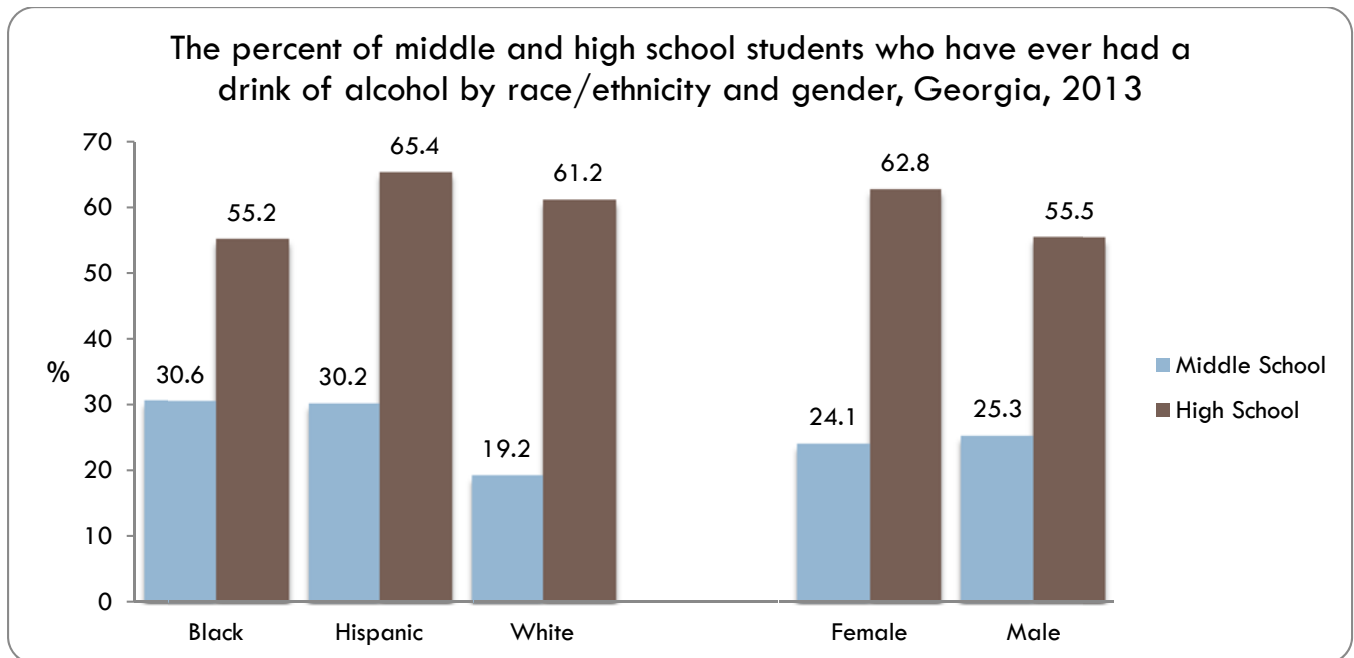
Source: YRBS 2013

## Alcohol

While marijuana use is on the rise among high school students in Georgia, alcohol use among high school students is on the decline, with 67.9% of high school students reporting lifetime use in 2009 compared to 59.2% in 2013. A similar pattern is present among middle school students, with 31.5% of middle school students reporting lifetime alcohol use in 2009 compared to 24.7% in 2013.



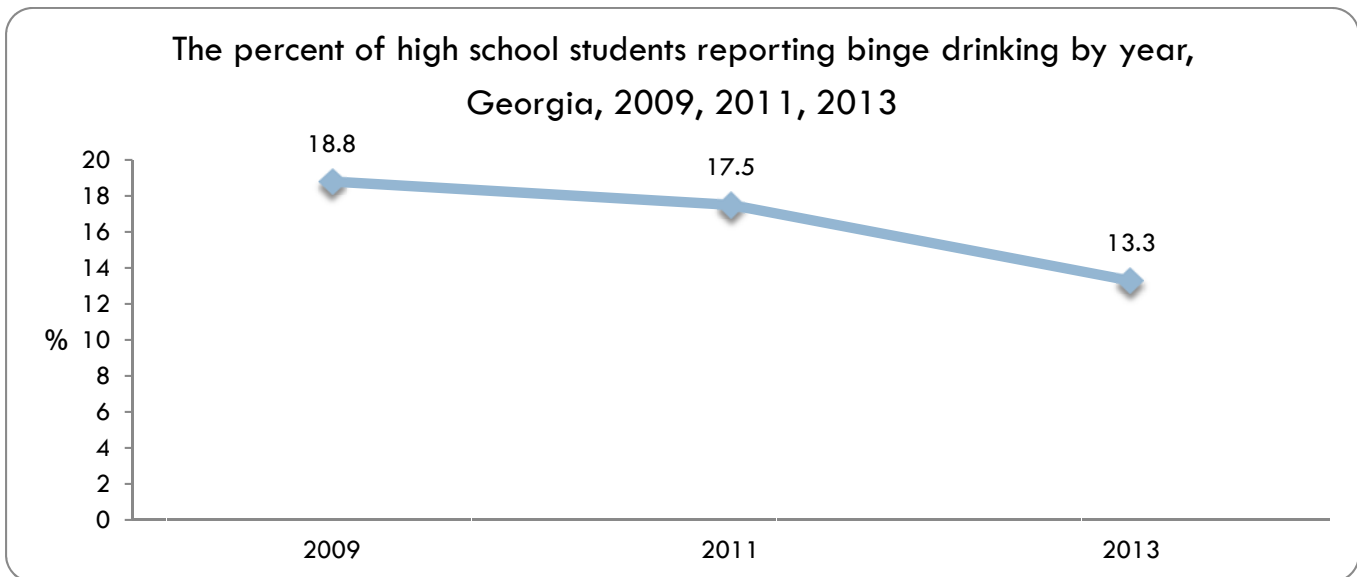
Source: YRBS 2013



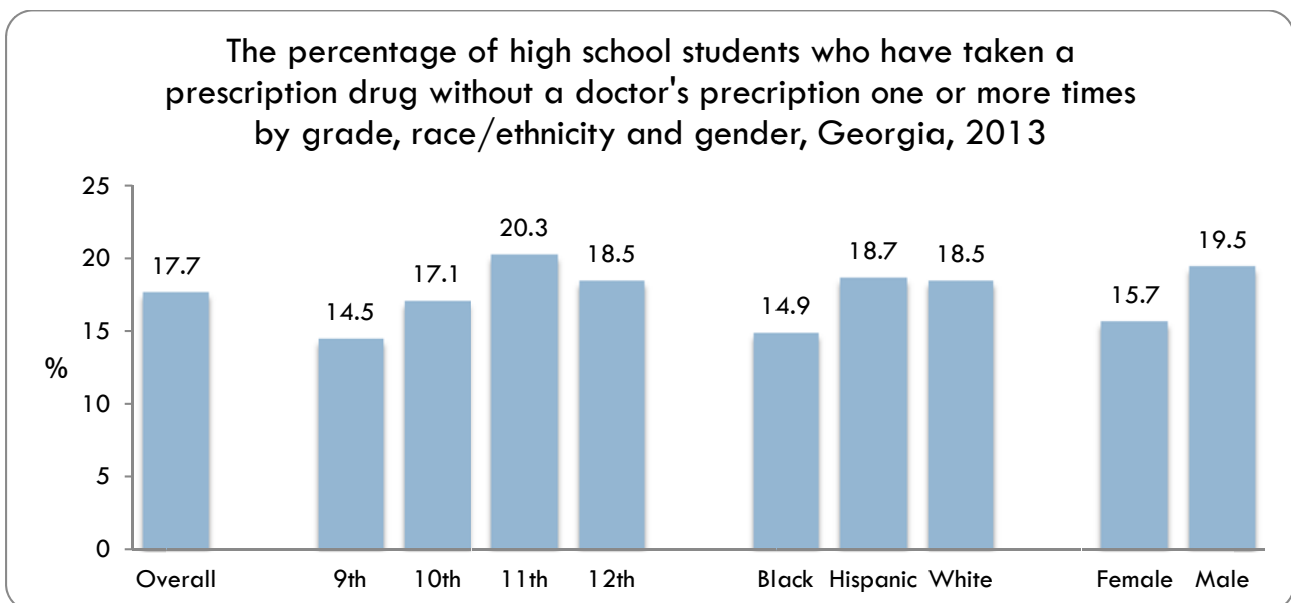
Source: YRBS 2013

In 2013, across all high school seniors in Georgia, approximately 29.2% have never used alcohol. Lifetime alcohol use prevalence exceeded 55% among both male and female high school students and high school students of all racial/ethnic groups. 30% of Black and Hispanic middle school children have had alcohol compared to only 19.2% of White middle school students.

Approximately 13% of Georgia's high school students reported binge drinking (five or more drinks in a row) in the last 30 days in 2013. More than 17.4% of White and 15.8% of Hispanic high school students reported binge drinking compared to less than 7.9% among Black high school students. The prevalence of binge drinking was only one percentage point greater among male high school students compared to female high school students. The average binge drinking prevalence decreased over the five-year data period from 18.8% to 13.3%.



Source: YRBS 2009, 2011, 2013



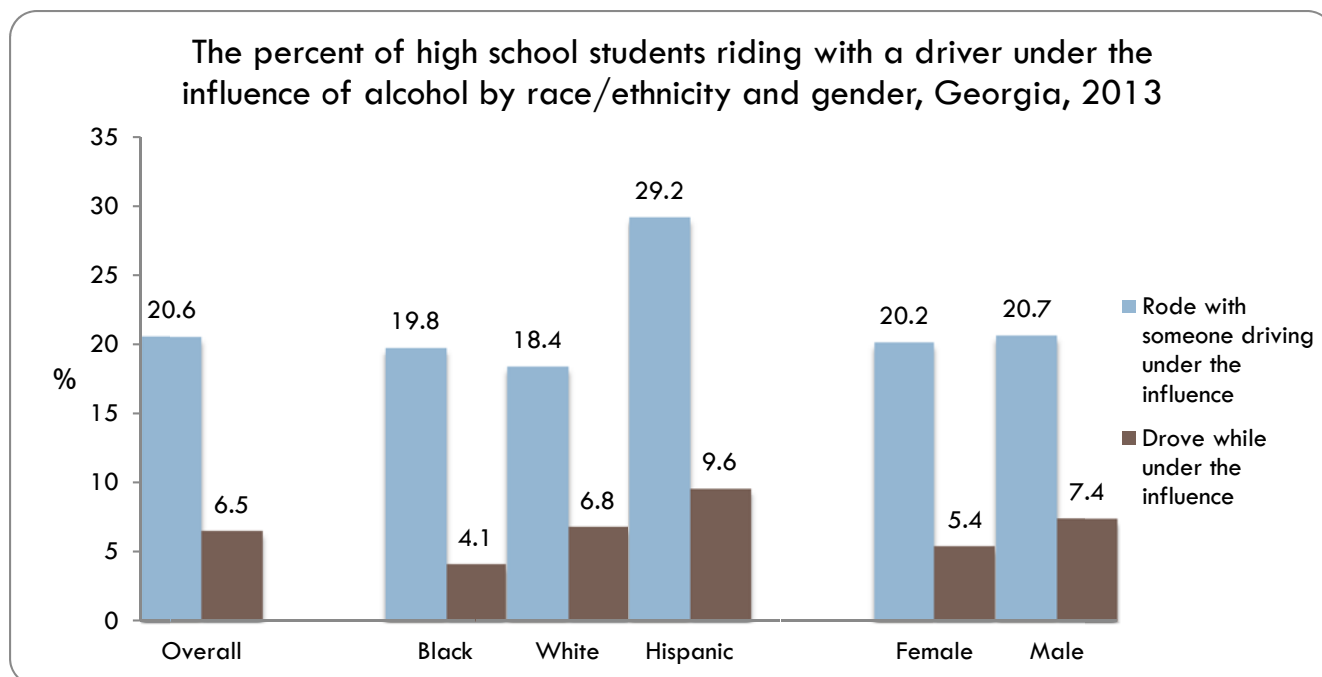
Source: YRBS 2013

## RISKY BEHAVIORS WHILE IN VEHICLES

### Healthy People 2020

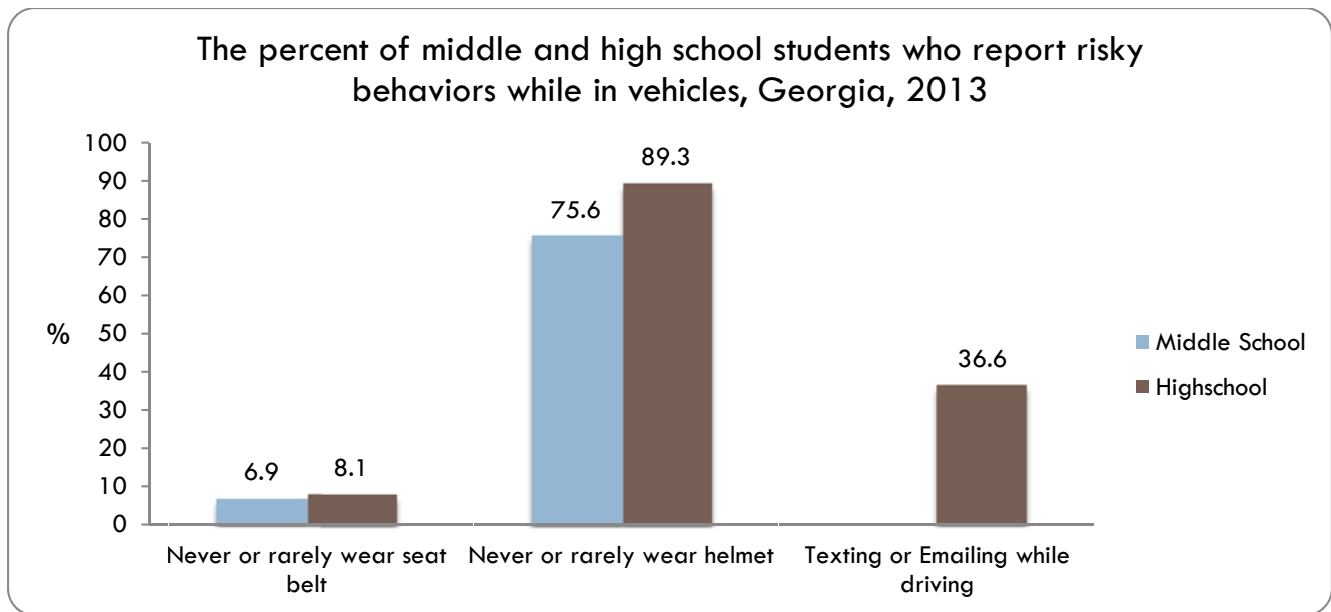
SA-1: Reduce the proportion of adolescents in grades 9 through 12 who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol to 25.5%

Georgia middle school and high school students reported a number of risky behaviors. As such, nearly 20% of black students and 18% of white students reported having ridden in a car driven by someone who had been drinking alcohol compared to nearly 30% of Hispanic students. About 21% of middle school students reported having driven in a car with a driver under the influence of alcohol in 2013. The Healthy People 2020 target, to reduce this percentage to 25.5 percent among high school students, was achieved by all except Hispanic students. This pattern is also present when examining the percentage of students who report driving a car when they had been drinking alcohol. Fewer Black students (4.1%) and White students (6.8%) reported driving a car when they had been drinking compared to 9.6% of Hispanic students.



Source: YRBS 2013

Less than 7% of middle school students and 9% of high school students reported either never or rarely using their seat belt. The percent of male high school students who either never or rarely used their seat belts was nearly double that of female high school students in 2009 (12.6% of males vs 6.9% of females), but has dramatically improved by 2013 (8.9% of males vs 7.2% of females).

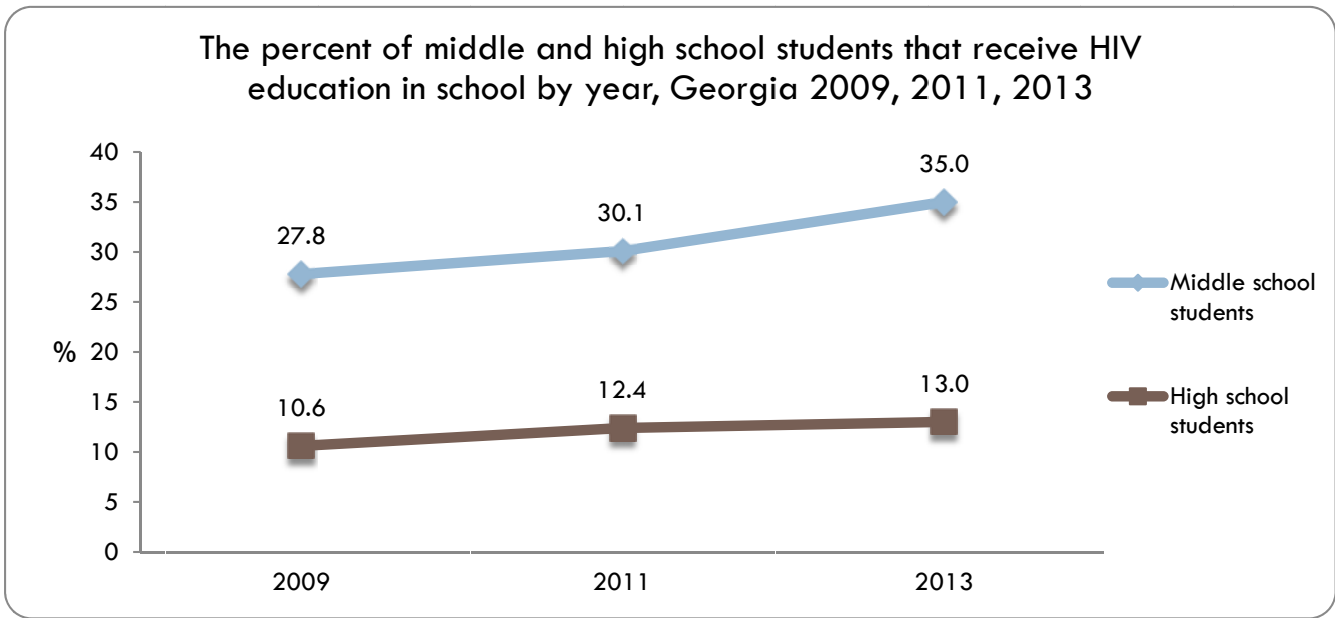


Source: YRBS 2013

It is clear from the graph above that risky behaviors increase as adolescents get older. For example, 75.6% of middle school students reported never or rarely wearing a helmet, compared to 89.3% of high school students. In 2013, the percent of non-helmet usage exceeded 90% among Black high school students and male high school students. For high school students who are able to drive, texting while driving is at an average of 36.6%, with White students (40%) reporting this behavior more than black students (26%).

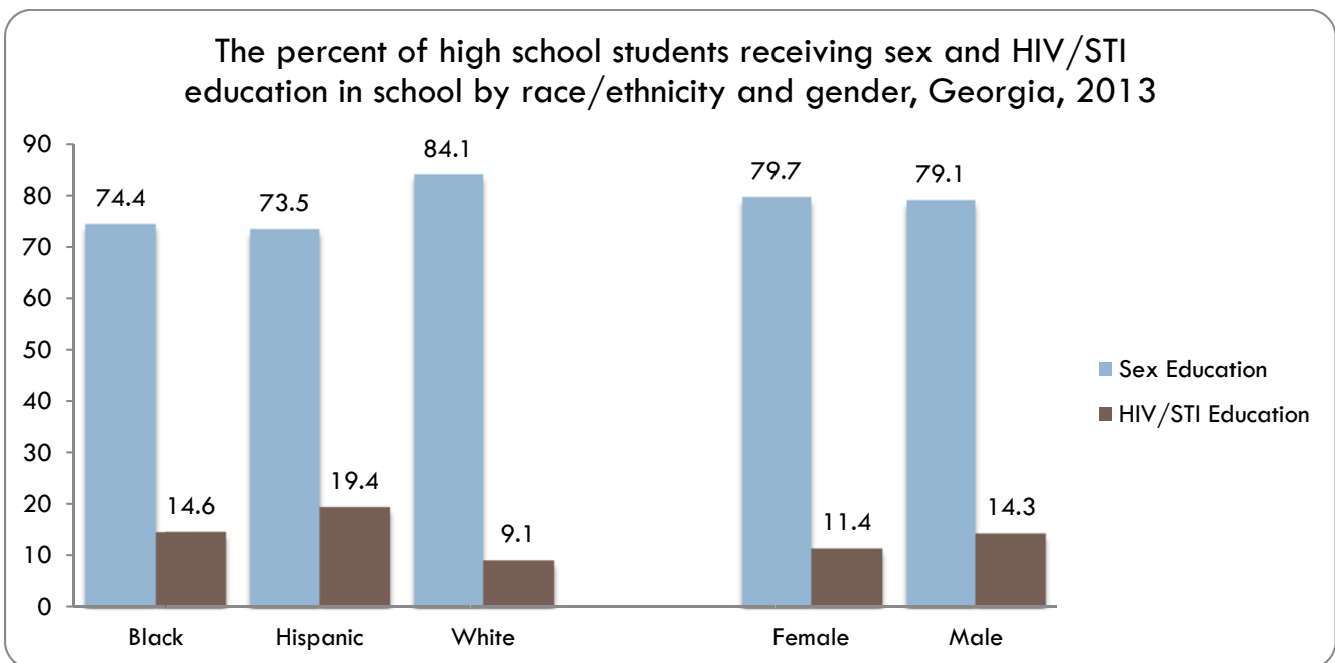
## SEX EDUCATION

The percent of middle and high school students that receive Human Immunodeficiency Virus (HIV) education in school has steadily increased from 2009 to 2013. As such, 35% of middle school students and 13% of high school students report having HIV education in school in 2013, compared to only 27.8% and 10.6% respectively, in 2009.



Source: YRBS 2009, 2011, 2013

However, when these numbers are compared to high school students who receive sex education, the numbers are a little surprising. While over 70% of Georgia high school students have received sex education in school, an average of only 12% of Georgia students received HIV/Sexually Transmitted Infection (STI) education. Most notably, 19.4% of Hispanic students report receiving HIV/STI education in school compared to only 9.1% of White high school students. It may be effective to consider combining sexuality and HIV education.



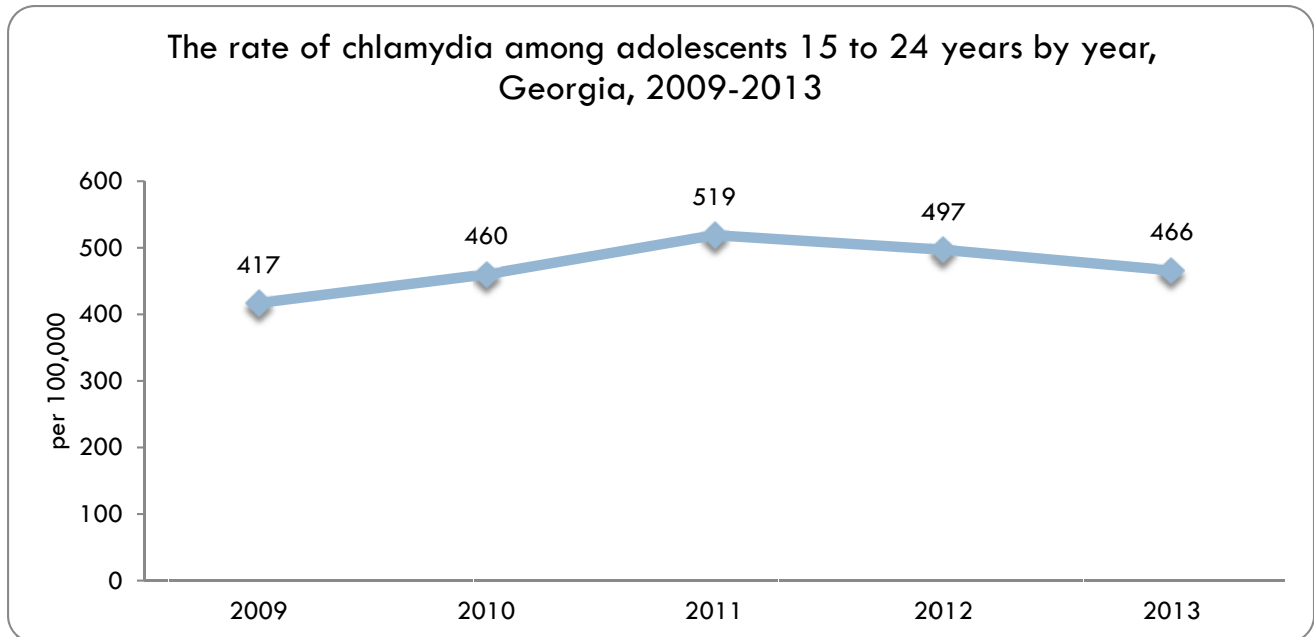
Source: YRBS 2013



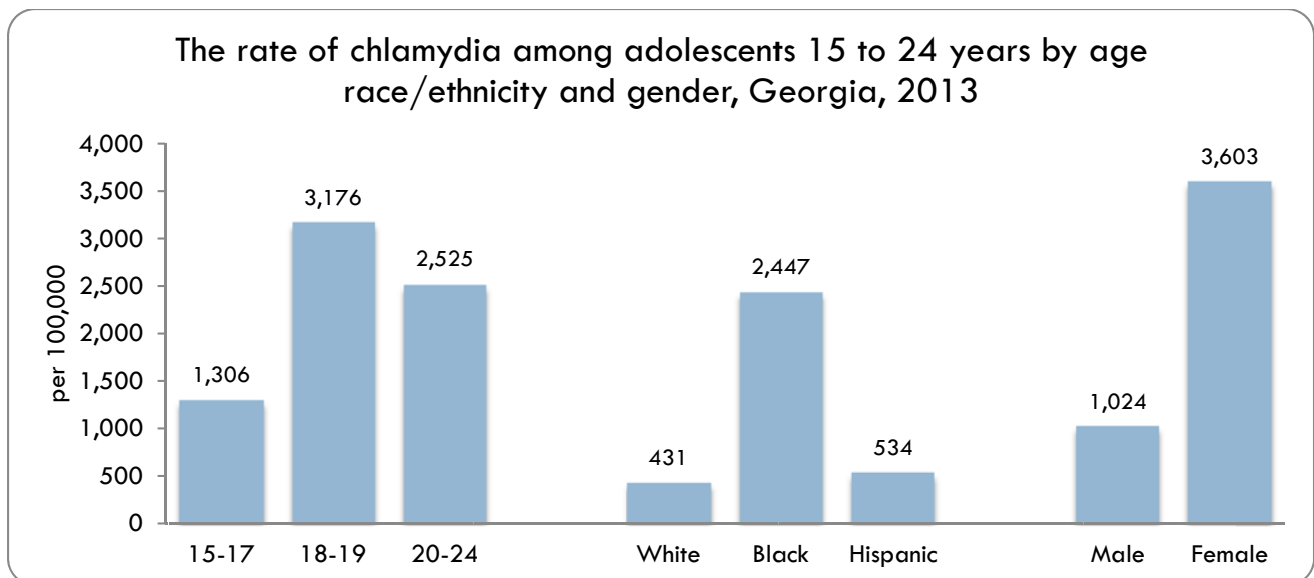
## SEXUALLY TRANSMITTED INFECTIONS (STI)

### Chlamydia

The rate of chlamydia among adolescents ages 15 to 14 has increased since 2009, but decreased since the five year peak of 518.9 per 100,000 in 2011. The highest rates of chlamydia are among 18 to 19 year olds. Blacks and females have far higher rates of chlamydia than males and adolescents of other races.



Source: OASIS oasis.state.ga.us

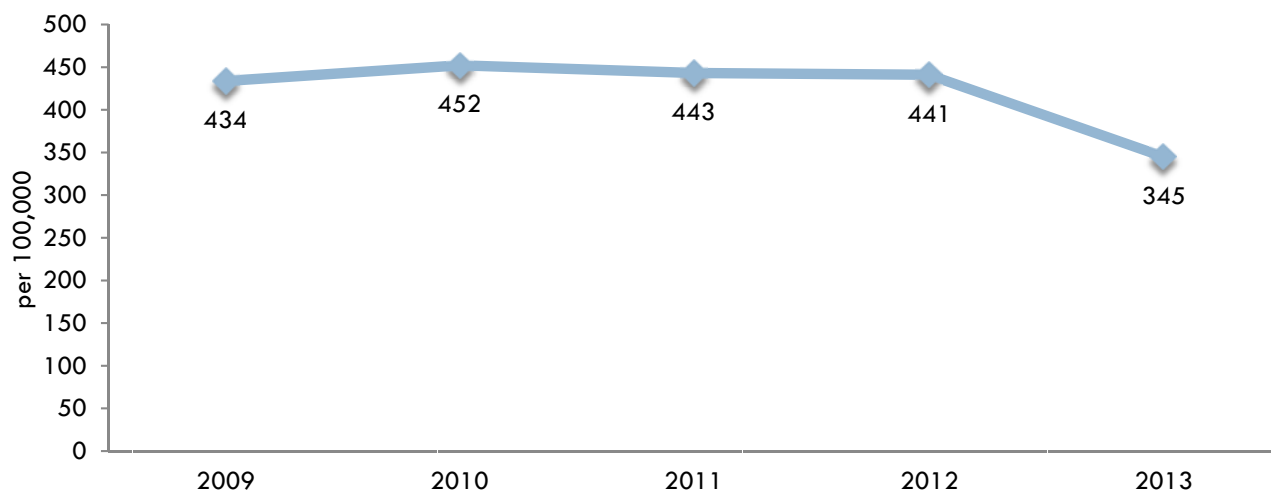


Source: OASIS oasis.state.ga.us

## Gonorrhea

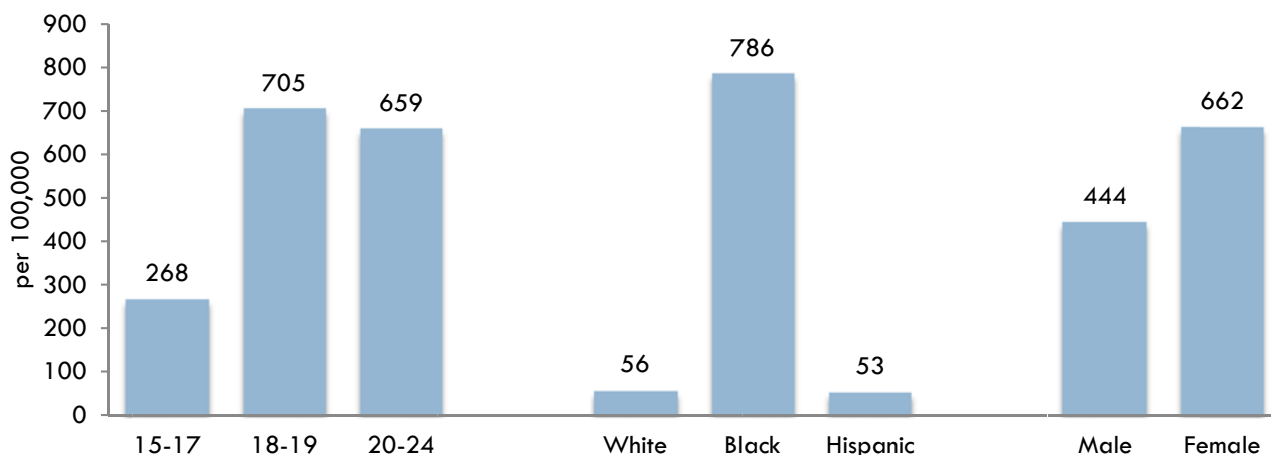
The overall rate of gonorrhea among adolescents is lower than the rate of chlamydia in 2013 (466.2 compared to 345.2 respectively). However, similar disparities exist when the data is stratified by age group, race/ethnicity and gender. The highest rates of gonorrhea are also among 18 to 19 year olds (267.8) and lowest among the 15 to 17 age group (705.2). Female adolescents also have higher rates of gonorrhea than male adolescents. However, the most prominent disparity is seen among different races and ethnicities. Blacks are disproportionately affected gonorrhea than White and Hispanic adolescents.

The rate of gonorrhea among adolescents 15 to 24 years by year, Georgia, 2009-2013



Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us)

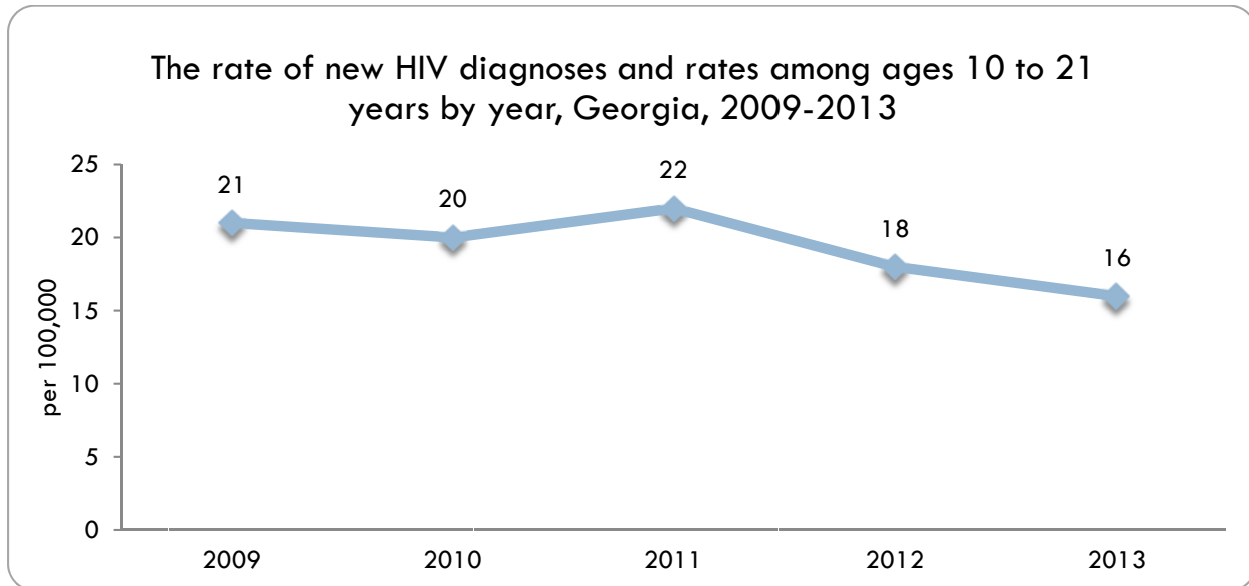
The rate of gonorrhea among adolescents 15 to 24 years by age race/ethnicity and gender, Georgia, 2013



Source: OASIS [oasis.state.ga.us](http://oasis.state.ga.us)

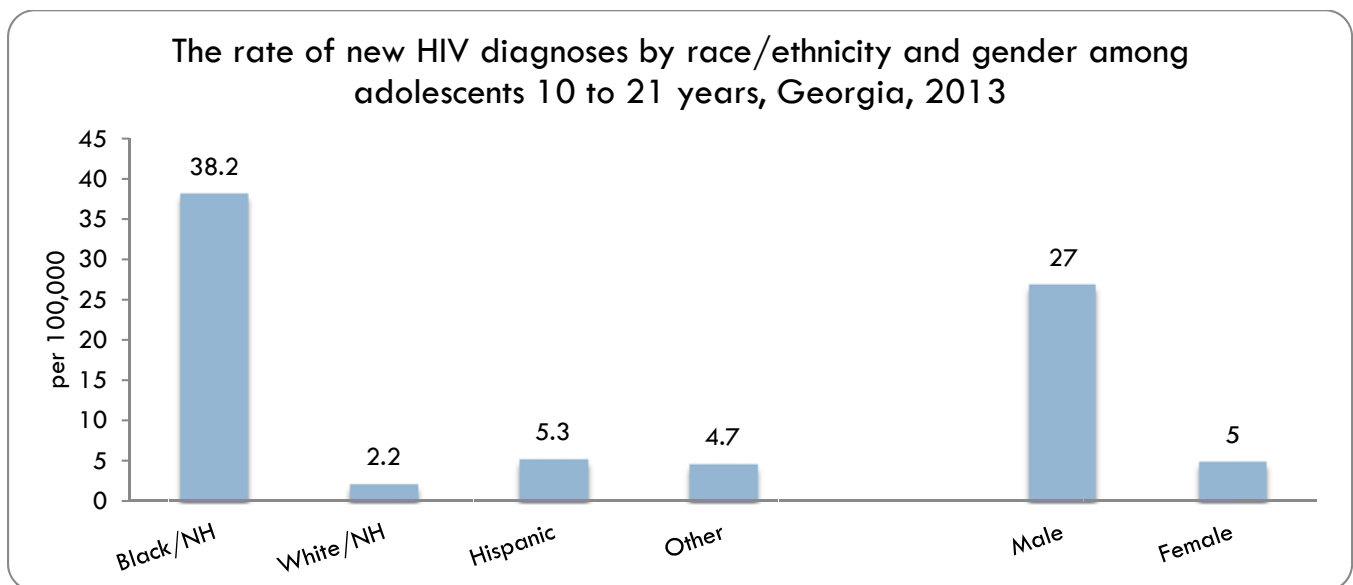
## Human immunodeficiency Virus (HIV)

The rate of new HIV diagnoses among adolescents aged 10 to 21 years has been steadily declining since 2011. As such, in 2009 the rate of new HIV diagnoses was 21 per 100,000 while in 2013, it reduced to 16 per 100,000.



Source: Georgia HIV Surveillance Program 2009-2013

When stratified by race/ethnicity and gender, the highest number of new cases are in Black and Male children, with 38 per 100,000 new diagnoses in Black adolescents compared to 2 per 100,000 in White children and 27 in male children compared to only 5 per 100,000 cases in female children.



Source: Georgia HIV Surveillance Program 2009-2013

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## CONCLUSION

This report has explored the health status of Georgia's adolescents, including comparisons with the Healthy People 2020 objectives. Upon stratifying by race, ethnicity, gender, and year, there are many important conclusions. Georgia has shown improvements in certain areas of health and declines in others.

There are several areas where Georgia has either seen improvement or has maintained positive health rates. Georgia is a leader in vaccination rates. The percent of adolescents receiving one or more doses of HPV, Td, and Tdap vaccines has been steadily increasing over the years. Georgia has also experienced declines in both the adolescent birth rate as well as repeat teen births over the years.

There are several areas where Georgia has to improve to meet the Healthy People 2020 objective among adolescents, and in particular the 18 to 19 year old age group. We suggest that the state priorities for improving adolescent health be the following:

- Adolescent substance abuse
- Suicidal ideation, planning, and attempt
- Student violence
- Physical activity among Black and male high school students
- STIs among Black and female adolescents

Because many of the leading causes of death, injury and illness are largely preventable, it is crucial for the state health department to pay special attention to these areas of concern. This report revealed that Georgia high school students were not meeting the Healthy People 2020 objective for substance abuse, specifically marijuana use. Georgia high school students report current marijuana use at three times the Healthy People 2020 objective. Furthermore, marijuana use has been on the rise from 2009-2013, instead of on the decline.

Analysis of suicidal ideation, planning and attempts by race/ethnicity and gender revealed that the percentage is increasing, particularly among Black and Hispanic high school students. The rate in Georgia is five times higher than the Healthy People 2020 target of reducing suicide attempts to 1.7 per 100.

The prevalence of high school students that report carrying a weapon is disconcerting. There has been no significant improvement since 2009. As the rate of violence and homicide rises among adolescents, it is crucial to actively work to greatly reduce the number of high school students carrying a weapon.

As such, we recommend the following:

- Focus should be on reducing adolescent substance abuse, suicidal ideation, planning, and attempts, and student violence.
- A significant focus should be placed on improving adolescent mental health services, support, resources and programming. Research indicates students that receive adequate mental health services and support are less likely to abuse substances, resort to suicide or engage in physical violence. We recommend adopting evidence-based programs and

school-based interventions to achieve these reductions. Because of the sheer number of hours students spend in a school setting, it would be appropriate to consider integrating services and programs during and after school.

- We recommend examining how the neighborhood and built environment may influence why physical activity is decreasing among Black and male high school students. If the decrease is a function of neighborhood safety or access to adequate areas for outdoor play and activity, these aspects can be an area of focus to encourage more physical activity.