



# Vermont Population Health Youth Risk Behavior Survey Behavioral Risk Factor Surveillance System

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# Introduction

- This report attempts to look at youth and adult data from both the Vermont Youth Risk Behavior and Behavioral Risk Factor Surveillance System surveys.
  - The Youth Risk Behavior Survey (YRBS) includes two surveys, one of middle and one of high school students.
  - The Behavioral Risk Factor Surveillance System survey is conducted among the non-institutionalized adult population.
  - More detailed information on both surveys can be found on the following pages.
- The YRBS and BRFSS surveys do not always word questions in the same way or even include the same topics.
  - This report focuses on the topics that are included on both surveys.
- If similar topics are included, but asked differently the data for each population are both presented, but on different slides.
  - Separate reports on both surveys can be found:
    - YRBS: <http://healthvermont.gov/research/yrbs.aspx#reports>
    - BRFSS: <http://healthvermont.gov/research/brfss/reports.aspx>

# Introduction

## **Behavioral Risk Factor Surveillance System (BRFSS)**

- Since 1990, Vermont, along with the 49 other states and three territories, has participated in the BRFSS with support from the Centers for Disease Control and Prevention (CDC).
- The BRFSS is a telephone survey conducted annually, among adult (18 or older) non-institutionalized residents. While the sample size varies from year to year, Vermont typically surveys between 6,000 and 7,000 adults each year.
- Participants are asked a uniform set of questions and the results are weighted to represent the adult population of Vermont.
  - In 2011, the BRFSS weighting methodology was changed to more accurately represent the adult population, limiting the ability to compare results from 2011 and later with those from previous years. The Vermont Department of Health recommends that these comparisons be made with caution. Differences may be due to the methodological changes, rather than changes in opinion or behavior.
- For Frequently Asked Questions, survey reports, questionnaires, and any other additional information on the Vermont BRFSS, please visit: <http://healthvermont.gov/research/brfss/brfss.aspx>
- Additional information can be found on the CDC website: <http://www.cdc.gov/brfss/>

# Introduction

## Youth Risk Behavior Survey (YRBS)

- Since 1993, Vermont, along with over 40 other states, has participated in the YRBS with support from the CDC.
- In February of odd years (e.g., 2011, 2013), Vermont conducts the YRBS.
- Prior to 2011, the YRBS surveyed Vermont students in grades 8-12. Beginning In 2011, the methodology was changed to include students in grades 6-12.
  - For all respondents, Vermont now completes two surveys. One for middle school students (grades 6-8) and one for high school students (grades 9-12).
- In 2013, over 21,000 high school students and over 14,000 middle school students participated in the YRBS.
  - The high school response rate was 76% (schools and students)
  - The middle school response rate was 84% (schools and students)
- For Frequently Asked Questions, survey reports, questionnaires, and any other additional information on the Vermont YRBS, please visit: <http://healthvermont.gov/research/yrbs.aspx>
- Additional information can be found on the CDC website: <http://www.cdc.gov/HealthyYouth/yrbs/>

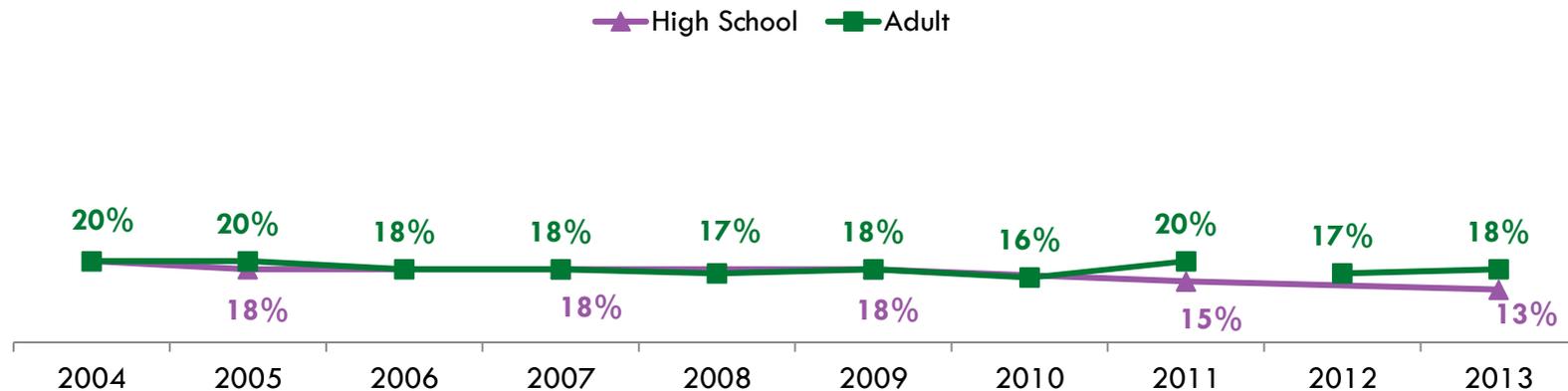


# Substance Use

# Tobacco Use - Cigarette Smoking\*

- In 2013, thirteen percent of high school students and eighteen percent of adults were current smokers.
  - Two percent of middle school students reported currently smoking.
- Youth cigarette smoking has decreased significantly in the past decade.
- Smoking prevalence among adults remains similar over time.

Percent of students and adults who currently smoke cigarettes



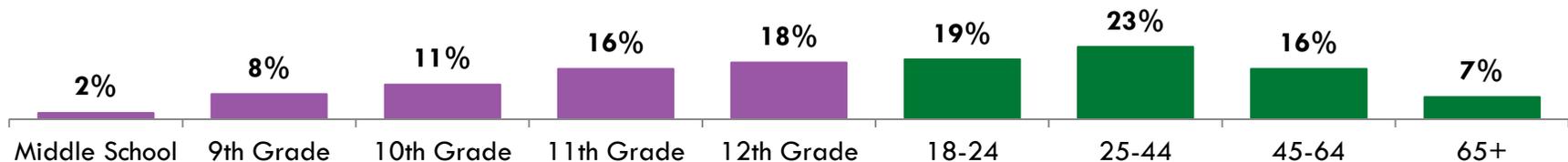
\*Youth are defined as a current smoker if they smoked at all in the last 30 days. Adults are defined as current smokers if they have smoked at least 100 cigarettes in their lifetime and currently smoke every day or some days.

Note: adult smoking prevalence data is age adjusted to the U.S. 2000 population.

# Tobacco Use - Cigarette Smoking\*

- Current smoking increases significantly by grade among high school students.
  - Students in grade 12 are twice as likely to smoke as those in grade 9.
- Smoking prevalence continues to rise into adulthood, increasing among those 18-24 and 25-44, before decreasing among those 45 and older.
  - Adults 45-64 are significantly less likely to smoke than those 25-44, while those 65 and older are significantly less likely to report smoking than any other adult age group.
- High school males are significantly more likely than females to report current smoking (15% vs. 11%).
- Adult men and women report smoking at statistically similar rates (19% vs. 16%).

**Current smoking by grade and age  
2013 YRBS and BRFSS**

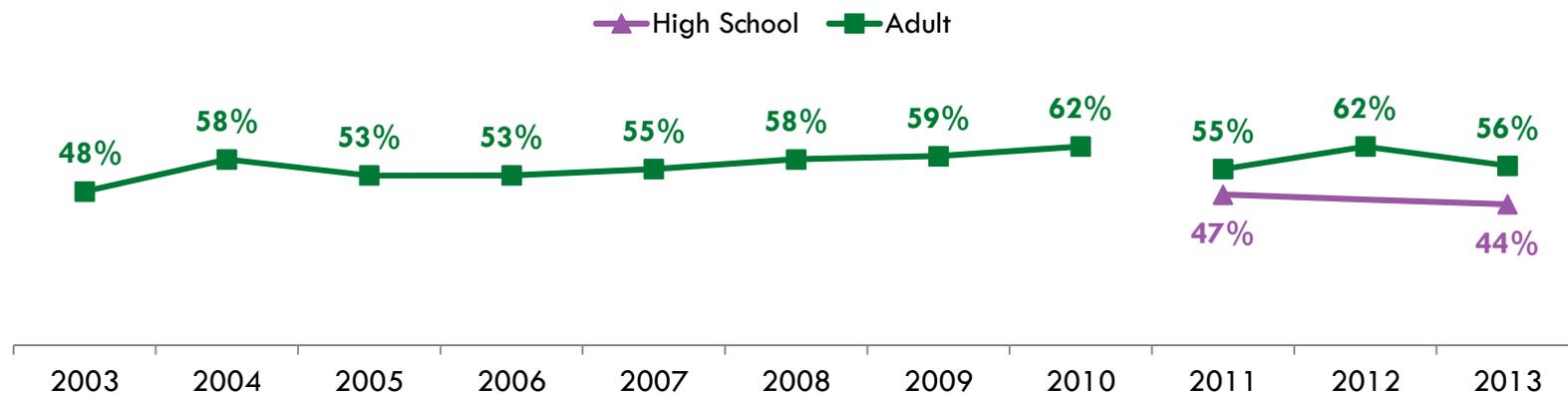


\*Youth are defined as a current smoker if they smoked at all in the last 30 days. Adults are defined as current smokers if they have smoked at least 100 cigarettes in their lifetime and currently smoke every day or some days.

# Tobacco Use – Quit Attempts

- Fewer than half of high school smokers reported attempting to stop during the previous year. Among adults, 56% said they made a quit attempt.
- Quit attempts among youth in 2013 were statistically similar to 2011.
  - The question about quit attempts on the YRBS previous to 2011 was worded differently and is not comparable.

Percent of student and adult smokers who made a quit attempt in the last year

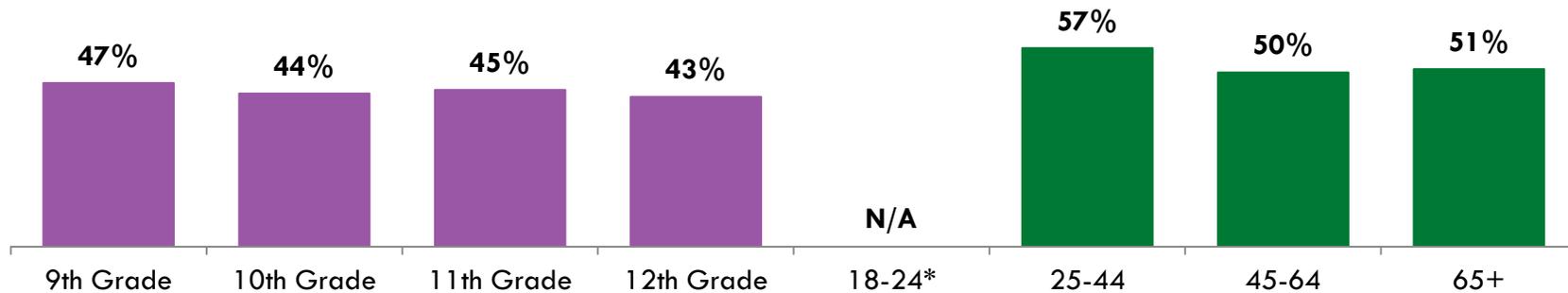


Note: quit attempt data is age adjusted to the U.S. 2000 population.

# Tobacco Use – Quit Attempts

- There are no statistically significant differences in quit attempts among youth by grade or among adults by age.
- Female youth smokers are significantly more likely than males to report trying to stop smoking (49% vs. 41%).
- Adult men and women report trying to stop at statistically similar rates (54% vs. 58%).

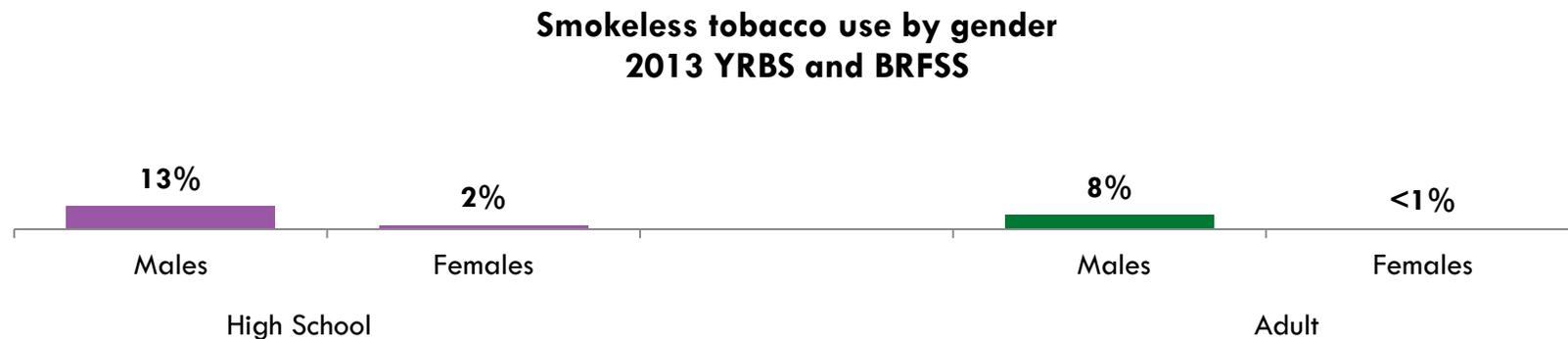
**Quit attempts by grade and age  
2013 YRBS and BRFSS**



\*The sample size for adults 18-24 years of age is too small to report.  
Note: quit attempt data is age adjusted to the U.S. 2000 population.

# Tobacco Use - Smokeless Tobacco

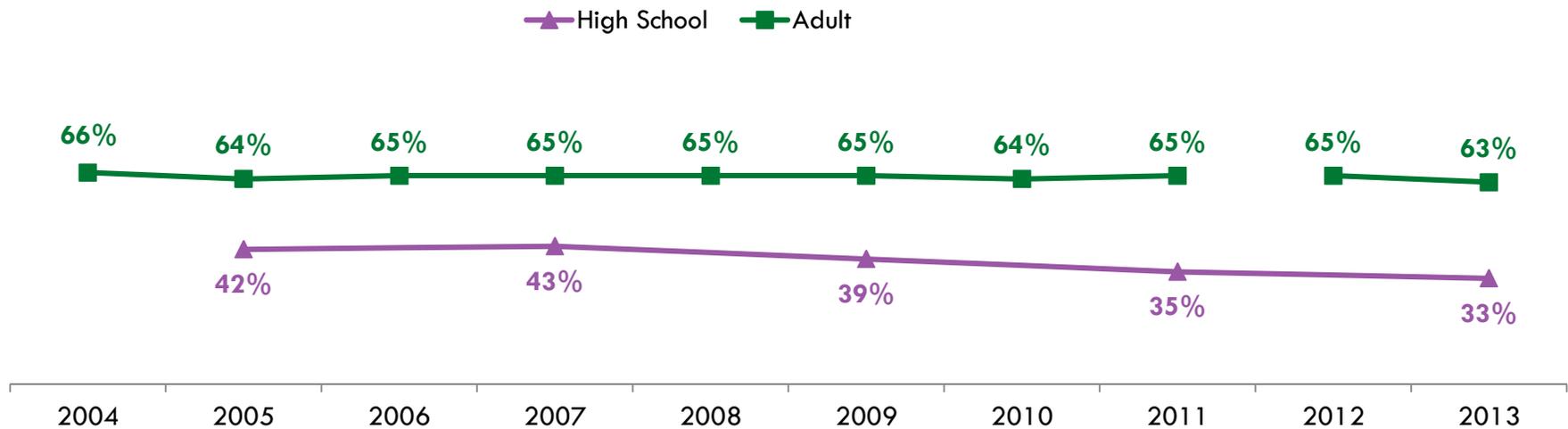
- Eight percent of high school students reported using chew, snuff, or dip in the last 30 days. Three percent of adults said they currently use smokeless tobacco on every day or on some days.
  - Smokeless tobacco use among both youth and adults in 2013 was unchanged from the previous time period, 2011 for youth and 2012 for adults.
- Use of smokeless tobacco increases significantly by grade among youth and decreases with age among adults.
  - Students in grade 9 (6%) are significantly less likely to report its use compared with those in grades 10 (8%) and 12 (9%); twelfth graders are also more likely to report use than tenth graders.
  - Adults 65 and older are least likely to report smokeless tobacco use (<1%), compared to all other age groups (3%).
- Males, both youth and adults, are significantly more likely than females to use smokeless tobacco.



# Alcohol Use - Any

- In 2013, a third of high school students and two-thirds of adults drank alcohol in the last month.
  - Seven percent of middle school students reported recent alcohol consumption.
- Youth alcohol consumption has decreased significantly since 2003.
- Consumption among adults remains similar over time.

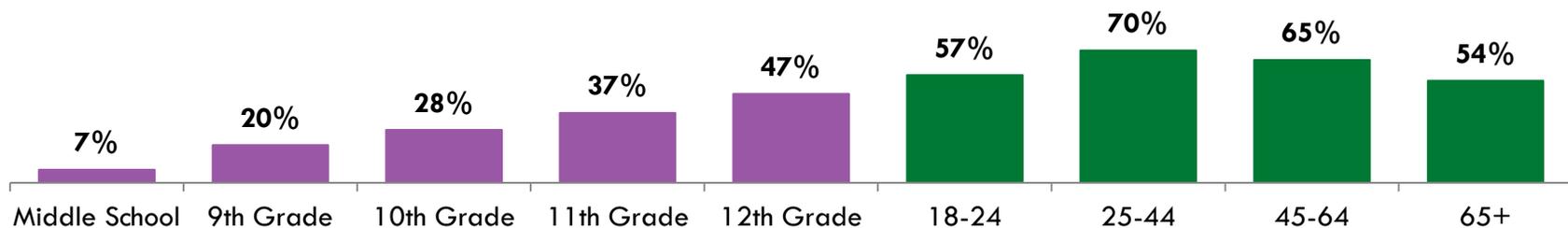
Percent of students and adults who drank any alcohol in the last month



# Alcohol Use - Any

- Among youth, alcohol consumption increases significantly by grade.
  - Students in eleventh grade are nearly twice as likely as ninth graders to have had alcohol in the last month. This increases to about two and a half times when compared with twelfth graders.
- Recent drinking of alcohol continues to increase after high school. The highest level is among adults 25-44 where seven in ten drank in the last month. Alcohol consumption then decreases among those 45-64, and is lowest among those 65 and older.
  - Adults 25-44 reported alcohol consumption at a significantly higher rate than those in all other age groups. Those 45-64 also were more likely to drink alcohol than those 65 and older.
- Male and female high school students report consuming any alcohol in the last month at similar rates (34% vs. 32%).
- Adult males are significantly more likely to report recent alcohol consumption than females (67% vs. 59%).

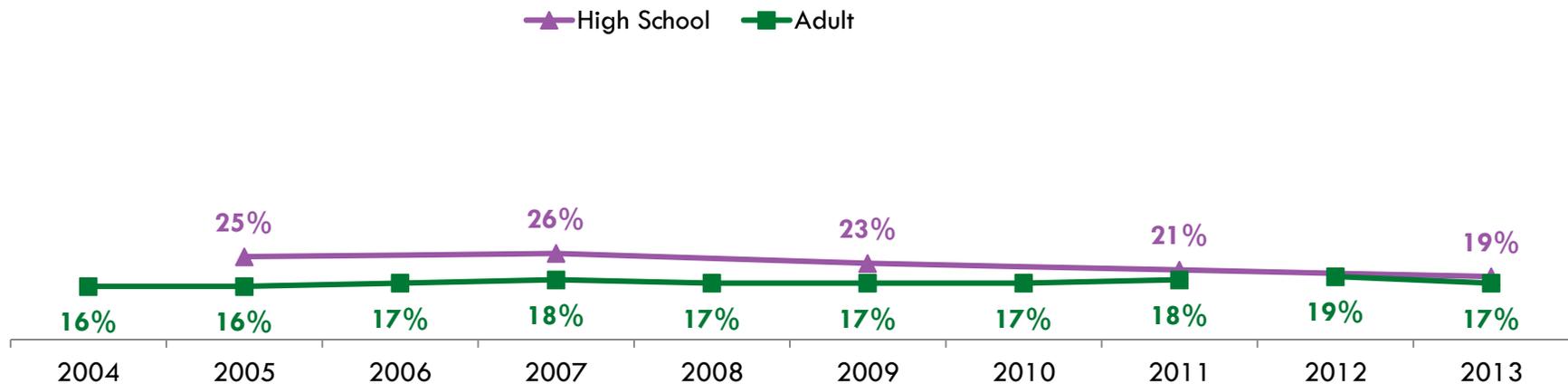
**Any alcohol consumption by grade and age  
2013 YRBS and BRFSS**



# Alcohol Use – Binge\*

- Nineteen percent of high school students and seventeen percent of adults reported binge drinking in 2013.
  - Two percent of middle school students said they binge drank in the last month.
- Binge drinking among high school students has decreased significantly since 2003.
- Among adults, binge drinking has remained similar over time.

Percent of students and adults who binge drank in the last month

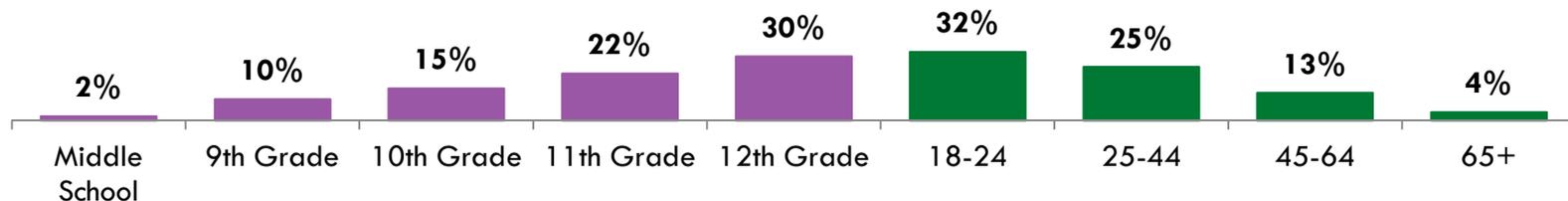


\*Binge drinking among youth is defined as five or more drinks in a row. Among adults, binge drinking is defined as five or more drinks on an occasion for men and four or more for women.

# Alcohol Use – Binge\*

- Among youth, binge drinking increases significantly by grade.
  - Students in twelfth grade are three times as likely as ninth graders and twice as likely as tenth graders to have binge drank in the last month.
- Binge drinking among adults is highest for those 18-24, where about a third participated in the behavior in the last month.
  - Binge drinking among adults 18-44 is significantly higher than those 45 and older. Adults 25-44 are also more likely to report binge drinking than those 65 and older.
- Males, both youth and adults, are more likely report binge drinking than females.
  - About two in ten (22%) male high school students binge drank, compared with 17% of females.
  - Twenty-three percent of male adults recently binge drank, compared with 12% of female adults.

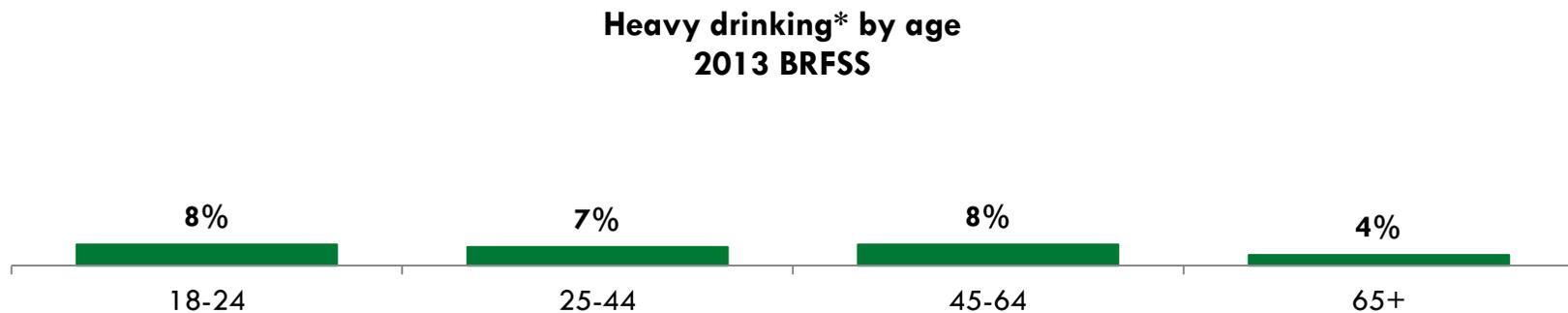
**Binge\* drinking by grade and age  
2013 YRBS and BRFSS**



\*Binge drinking among youth is defined as five or more drinks in a row. Among adults, binge drinking is defined as five or more drinks on an occasion for men and four or more for women.

# Alcohol Use – Heavy Drinking (Adults)\*

- In 2013, seven percent of adults reported heavy drinking in the last month. This rate has not changed over time.
- Adults 65 and older are the least likely to report heavy drinking in the last month (4%), significantly lower than those 45-64.
- Men and women reported heavy drinking at the same rate (7%).

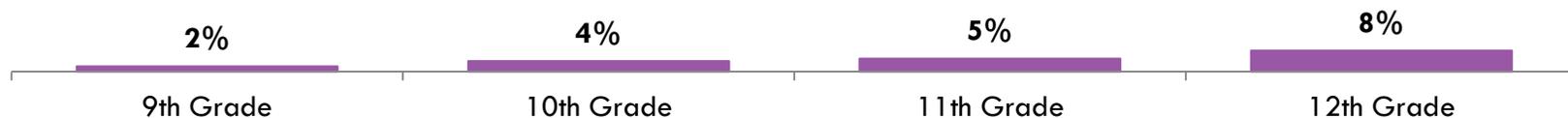


\*Heavy drinking is defined as more than two drinks per day for men and more than one drink per day for women.

# Alcohol Use – Extreme Binge Drinking (Youth)\*

- Included for the first time on the 2013 YRBS was a question about extreme binge drinking, defined as 10 or more drinks in a row. One in twenty (5%) high school students reported extreme binge drinking in the last month.
- Extreme binge drinking increased significantly by grade with two percent of ninth graders and eight percent of twelfth graders having consumed 10 or more drinks in a row during the previous month.
- Male high school students are more than three times as likely as females to have had 10 plus drinks in the last month.

**Extreme binge drinking\* by grade  
2013 YRBS**

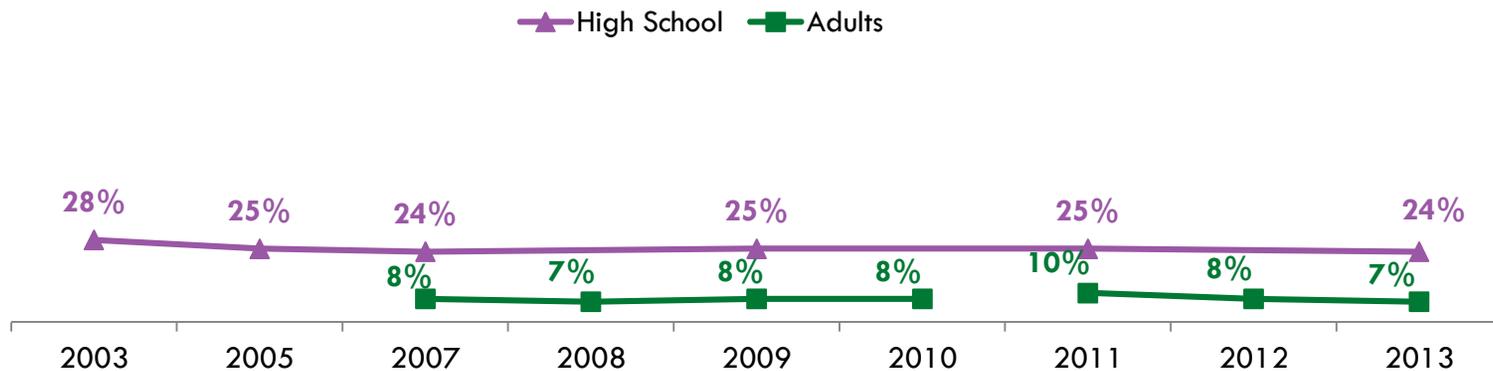


\*Extreme binge drinking is defined as 10 or more drinks in a row.

# Marijuana Use

- In 2013, a quarter of high school students reported using marijuana at least once in the last 30 days. Fewer, less than one in ten adults (7%) reported recent marijuana use.
  - Three percent of middle school students said they used marijuana in the last month.
- Marijuana use among high school students has decreased significantly since 2003.
- Since 2011, adult recent marijuana use rates have remained similar.

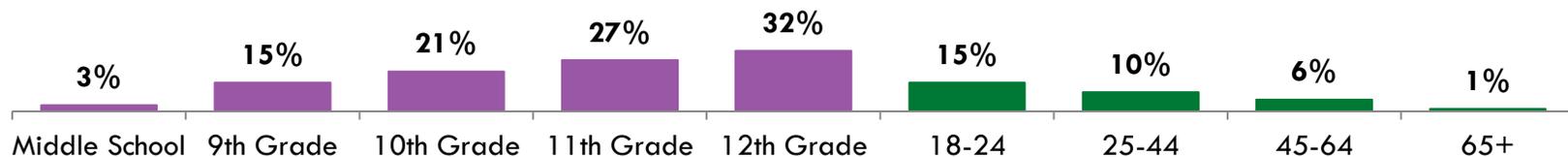
Percent of students and adults who used marijuana in the last month



# Marijuana Use

- Among youth, past 30 day use of marijuana increases significantly with grade.
  - Students in twelfth grade are twice as likely as those in ninth grade to have used marijuana in the last 30 days.
- Adult use of marijuana decreases with age.
  - All differences, except that between those 18-24 and 25-44, are statistically significant.
- Males are significantly more likely to use marijuana than females, both as high school students and adults.
  - Among high school students, 27% of males and 20% of females used marijuana in the past 30 days.
  - Marijuana was used by 10% of adult males, compared with four percent of females.

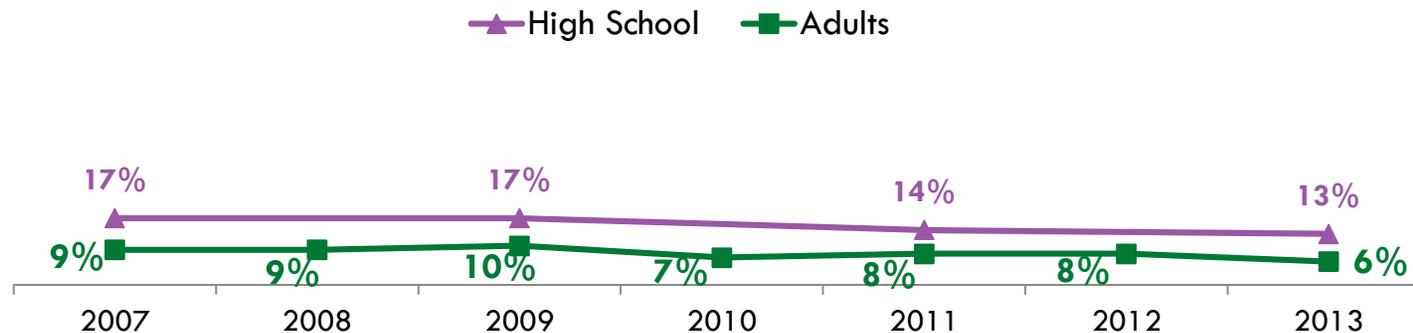
**Marijuana use in last 30 days by grade and age  
2013 YRBS and BRFSS**



# Prescription Drug Misuse\*

- Overall, in 2013, 13% of high school students reported ever taking a prescription pain reliever or stimulant not prescribed to them. About one in twenty (6%) of adults reported ever taking a prescription drug without a prescription.
  - Three percent of middle school students have ever taken a prescription drug without a doctor's prescription.
- Ever misuse of prescription drugs among youth has significantly declined since 2007, but remains statistically similar for adults.
- More recent misuse (in the last month) of a prescription pain reliever or stimulant was reported by seven percent of high school students in 2013. Recent misuse was reported by one percent of adults.

**Percent of students and adults who have ever taken a prescription drug\* not prescribed to them**



\*Note: YRBS specifies pain relievers or stimulants. The BRFSS does not specify the type of drug, only that it was prescribed.

# Prescription Drug Misuse\*

- Lifetime prescription drug misuse among youth increases significantly with grade.
  - Misuse doubles from 9<sup>th</sup> grade to 12<sup>th</sup> grade (9% vs. 18%).
- Adult ever misuse is highest among those 18-44. Prescription drug misuse among this age group is statistically higher than that among adults 45-64 and 65 and older.
- High school aged males are significantly more likely to report having misused prescription drugs than females (12% vs. 10%).
- Adult men are more likely to have misused prescription drugs than females, but the difference is not statistically significant (7% vs. 5%).

**Prescription Drug Misuse\* by Grade and Age  
2013 YRBS and BRFSS**

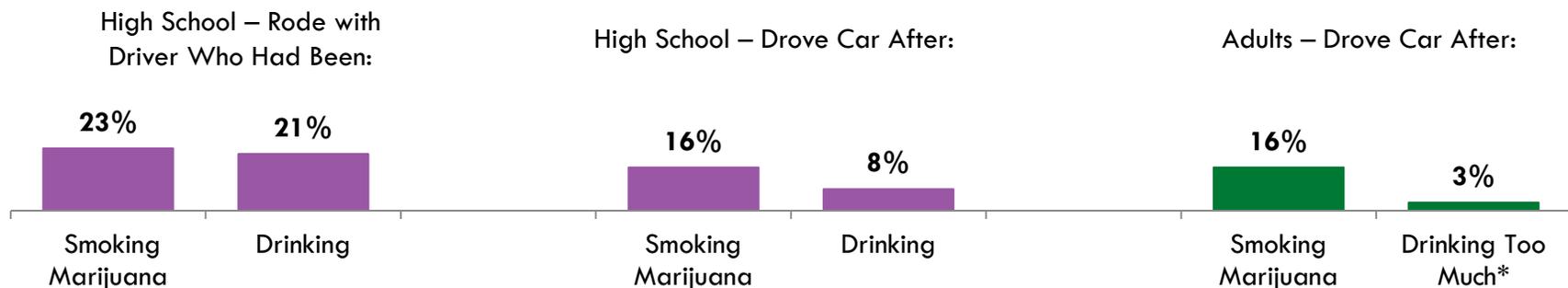


\*Note: YRBS specifies pain relievers or stimulants. The BRFSS does not specify the type of drug, only that it was prescribed.

# Impaired Driving

- About a quarter (23%) of Vermont high school students report riding with a driver who had been smoking marijuana at least once in the last month. Twenty-one percent had ridden with a driver who been drinking.
- Sixteen percent of driving high school students drove after using marijuana at least once in the last month. Half as many, eight percent, reported driving after drinking at least once in the past 30 days.
- Among adults, sixteen percent reported driving after marijuana use during the past month. Fewer, three percent, drove in the last month after drinking too much.

## Substance use and driving 2013 YRBS and 2012\*, 2013 BRFSS



\*Adult drinking and driving information is from the 2012 BRFSS.

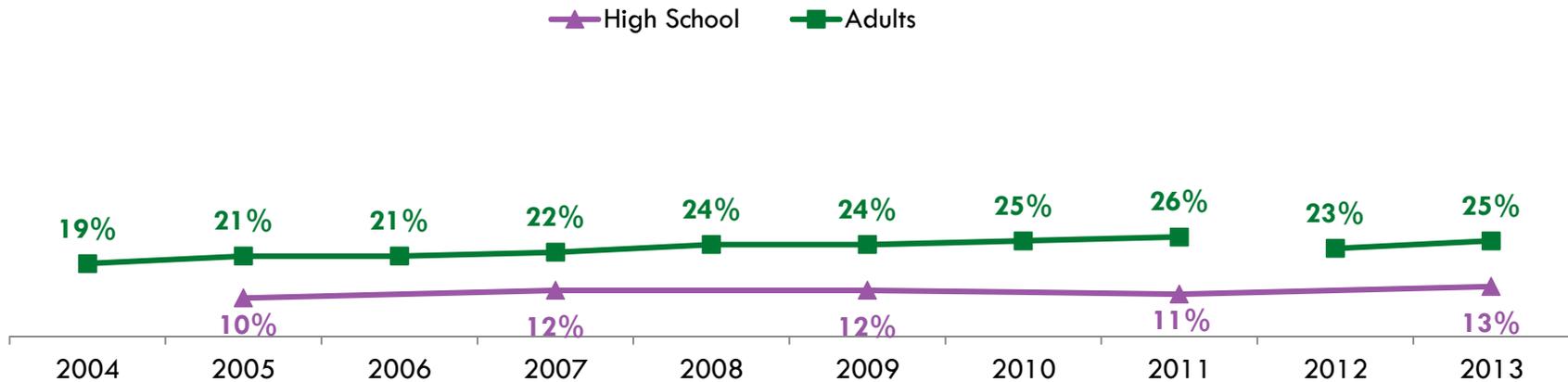


# Chronic Conditions

# Obesity\*

- The percent of high school students who are obese increased significantly from 11% in 2011 to 13% in 2013.
- Among adults<sup>#</sup>, obesity prevalence was 25% in 2013, statistically similar to the 23% reported in 2012.
- Obesity among youth has increased significantly during the last decade.

Percent of students and adults<sup>#</sup> who are obese

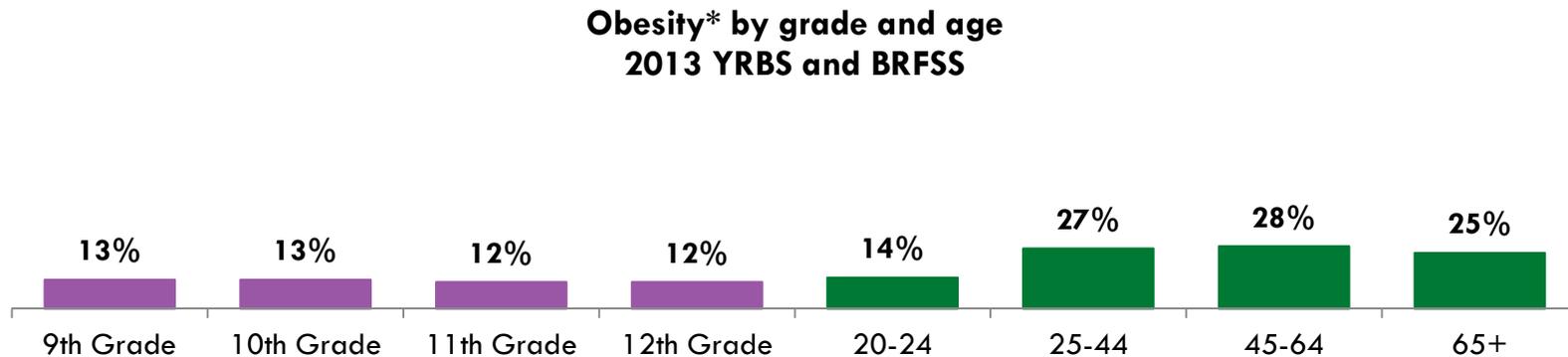


\*Note: Among youth, obesity is defined as BMI in the 95<sup>th</sup> percentile or above. Among adults, obesity is a BMI of 30 or above.

<sup>#</sup>Adult obesity prevalence is limited to adults ages 20 and older and is age adjusted to the U.S. 2000 population.

# Obesity\*

- Obesity prevalence among high school students does not vary significantly by age.
- Adults 20-24 are significantly less likely to be obese compared with those ages 25 and older#.
- High school males are significantly more likely than females to be obese (17% vs. 14%), while adult men and women report statistically similar obesity rates (26% vs. 25%).

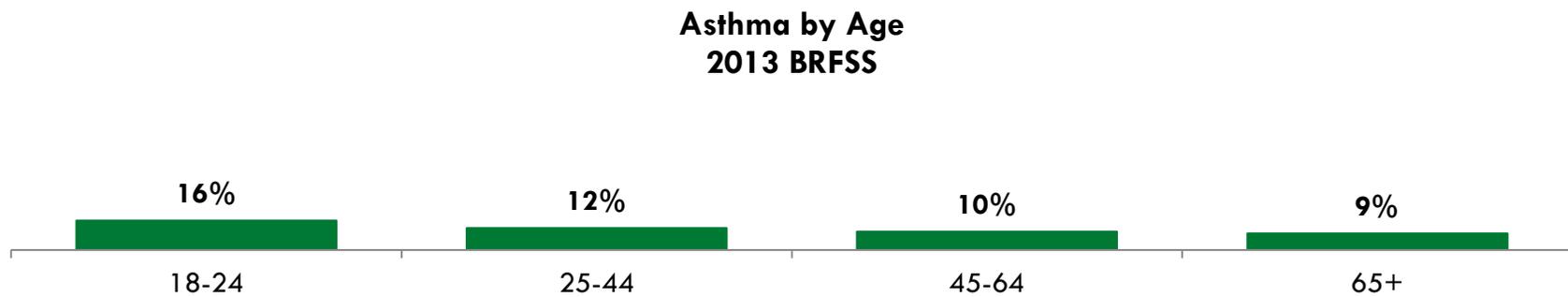


\*Note: Among youth, obesity is defined as BMI in the 95<sup>th</sup> percentile or above. Among adults, obesity is a BMI of 30 or above.

#Adult obesity prevalence is limited to adults ages 20 and older and is age adjusted to the U.S. 2000 population.

# Asthma

- One in ten (11%) Vermont adults report having current asthma in 2013.
- Prevalence of asthma among adults decreases with increasing age.
  - Adults 18-44 are significantly more likely to report current asthma than those 65 and older.
- Women are significantly more likely to report having current asthma compared to men.
- Also measured through the BRFSS is youth asthma prevalence. In 2013, 12% of youth (<18) had current asthma.



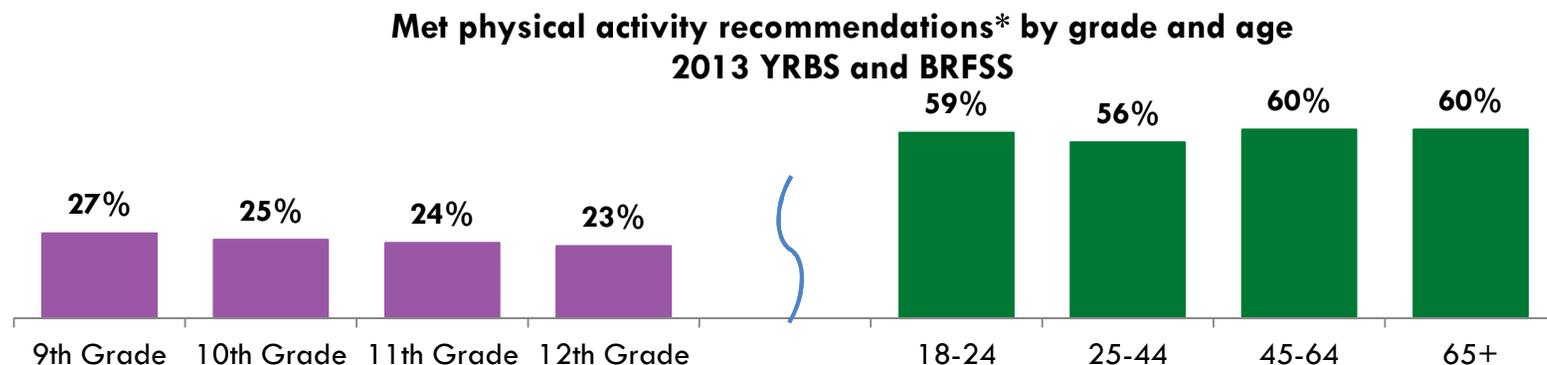


# Physical Activity & Nutrition

Vermont Department of Health

# Physical Activity Recommendations

- More than a quarter of high school (27%) students reported meeting physical activity recommendations and nearly six in ten (59%) adults reported meeting recommendations in 2013.
  - Twenty-nine percent of middle school students met the recommendations.
- Among high school students physical activity decreases with increasing grade. Ninth graders are more likely than eleventh and twelfth graders to meet recommendations. Male students are significantly more likely than females to report meeting physical activity recommendations (31% vs. 18%)
- There are no statistically significant differences in meeting physical activity recommendations among adults by age or gender.



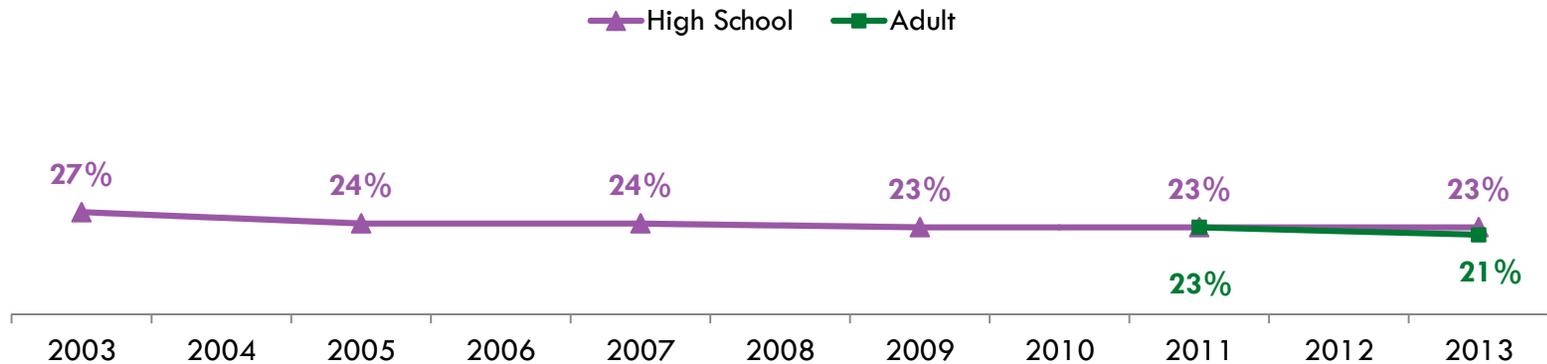
\*Physical activity recommendations for youth are defined as 60 minutes of physical activity per day. For adults they are defined as 150 minutes of moderate activity or 75 minutes of vigorous activity per week.

Note: adults physical activity recommendation data is age adjusted to the U.S. 2000 population.

# Fruit & Vegetable Consumption\*

- In 2013, about a quarter (23%) of high school students said they ate fruits and vegetables at least five times per day, while 21% of adults reported the same.
- Youth consumption of fruits and vegetables has significantly decreased in the last decade.
- Fruit and vegetable consumption among adults was statistically similar in 2011 and 2013 (23% vs. 21%). Due to changes in both the survey methodology and fruit and vegetable consumption questions additional comparisons cannot be made for the adult population.

**Ate fruits and vegetables five or more times per day\***



\*Note: youth fruit and vegetable questions refer to consumption in the last week while the adult versions refer to the last month. Adult fruit and vegetable consumption data is age adjusted to the U.S. 2000 population.

# Fruit & Vegetable Consumption\*

- Consumption of fruits and vegetables five or more times per day does not vary by grade among youth or age among adults.
- Among high school students, 24% of males and 23% of females reported eating fruits and vegetables five or more times per day. The difference is not statistically significant.
- Among adults, however, women are significantly more likely than males to report eating fruits and vegetables five or more times per day (27% vs. 15%).

**Ate fruits and vegetables five or more times per day\* by grade and age  
2013 YRBS and BRFSS**



\*Note: youth fruit and vegetable questions refer to consumption in the last week while the adult versions refer to the last month. Adult fruit and vegetable consumption data is age adjusted to the U.S. 2000 population.

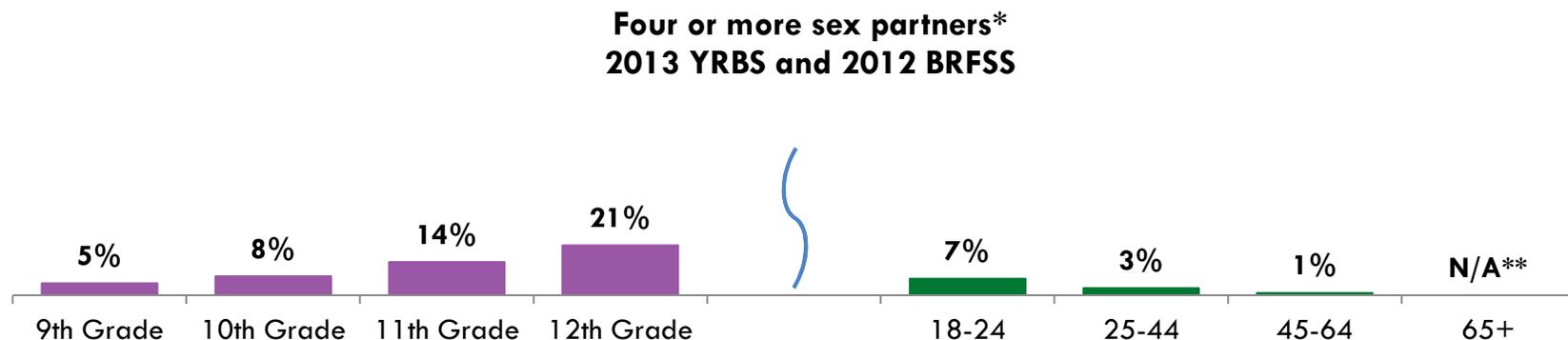


# Sexual Behavior & Condom Use

Vermont Department of Health

# Sexual Behavior

- In 2013, 12% of high school students reported having four or more sexual partners in their lifetime.
  - The percentage of high school students reporting four or more partners in their lifetime increased significantly with each grade.
  - High school males are significantly more likely than females to report having sexual intercourse with at least four partners in their lifetime.
- Among adults, three percent of those ages 18-64 said they had at least four sexual partners in the last year.
  - Those 45-64 are significantly less likely than younger adults to report four or more sexual partners in the last year.
  - Men are significantly more likely than women to report at least four sexual partners in the last year (4% vs. 1%).



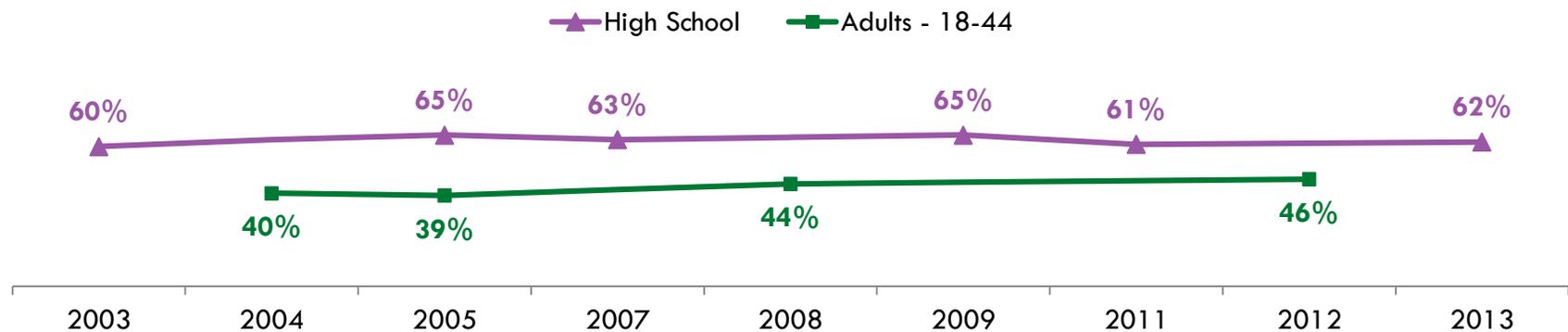
\*Note: youth question asks the number of lifetime sexual partners, while the adult question asks about partners in the last year.

\*\*Adults 65 and older were not asked about their sexual behavior.

# Condom Use

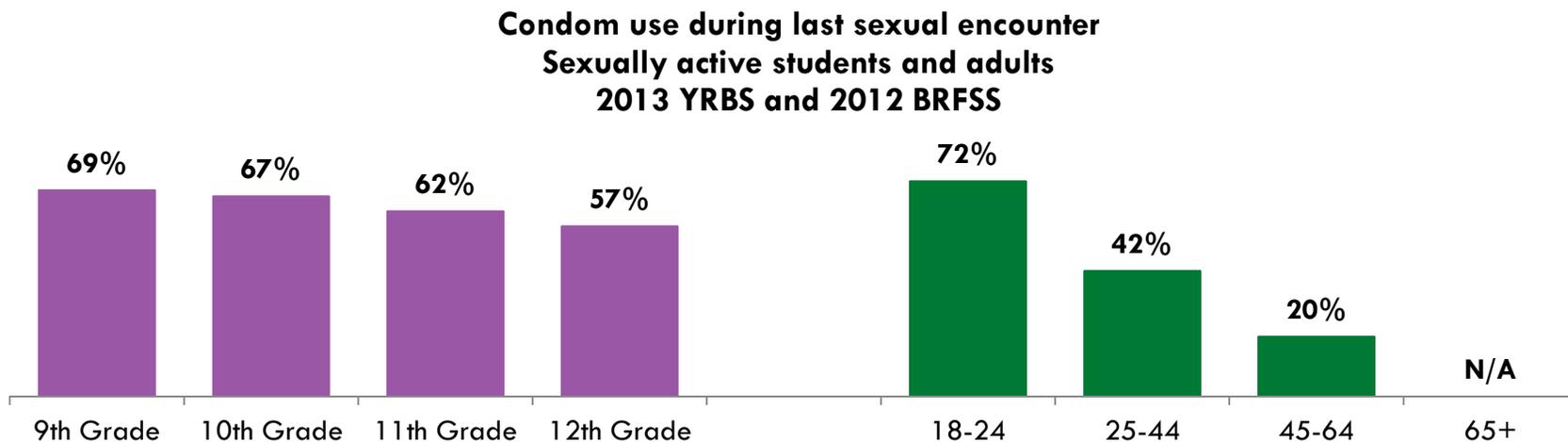
- More than six in ten (62%) sexually active high school students and 46% of adults ages 18-64 reported using a condom during their last sexual experience.
  - The proportion of sexually active adults 18-64 who reported using a condom at their last sexual encounter was significantly higher in 2012 compared with 2004 (46% vs. 40%).
  - 85% of high school students reported using any contraception at last intercourse. Condom use among youth has not changed since 2003.
  - Among youth, sexually active is defined as students who had sex in the last three months. Among adults, sexually active is defined as those who are not married and had sex with two or more people overall in the last year or had sex with at least one casual partner.

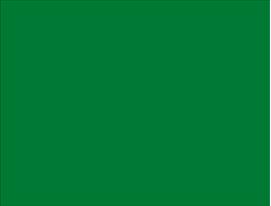
**Percent of sexually active students and adults (18-64) who used a condom at last sexual encounter**



# Condom Use

- Among sexually active high school students, use of condoms decreases with increasing grade level. Similarly, use decreases with increasing age among sexually active adults.
  - Older students, those in grades eleven and twelve, are significantly less likely to report using a condom than those in younger grades.
  - All differences by age among adults are statistically significant.
- Sexually active female students are significantly less likely to report condom use compared with males (58% vs. 66%).
- Among sexually active adults, there is no statistical difference in reported condom use by gender (58% males vs. 50% females).



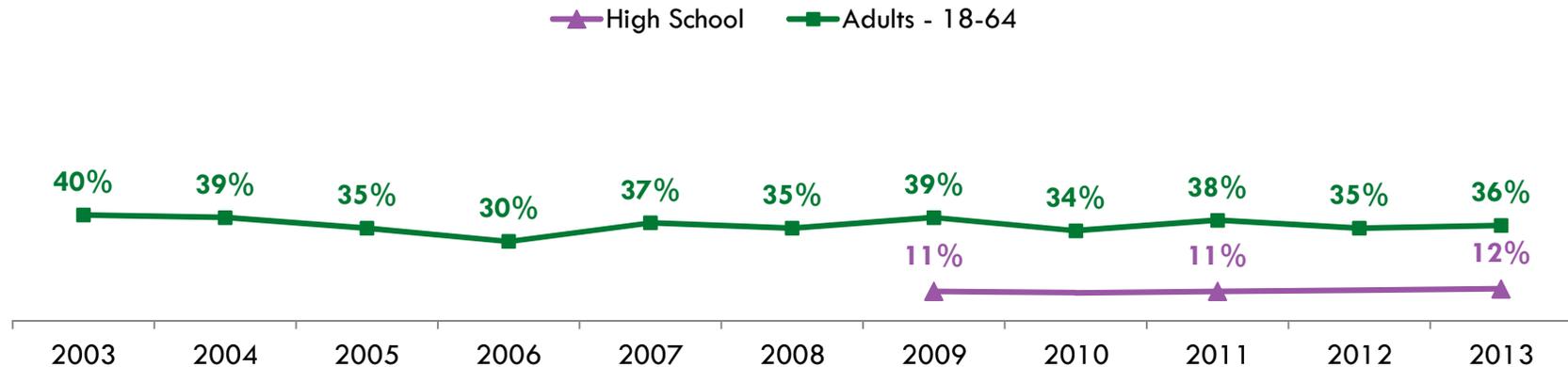


# HIV Testing

# HIV Testing – Ever\*

- In 2013, twelve percent of high school students reported they had ever been tested for HIV. Thirty-six percent of adults ages 18-64 said the same.
  - Eight percent of adults have been tested for HIV in the last year.
- Among youth, the proportion receiving HIV tests has increased since 2009.
- Ever tested for HIV rates among adults 18-64 have remained consistent over time.

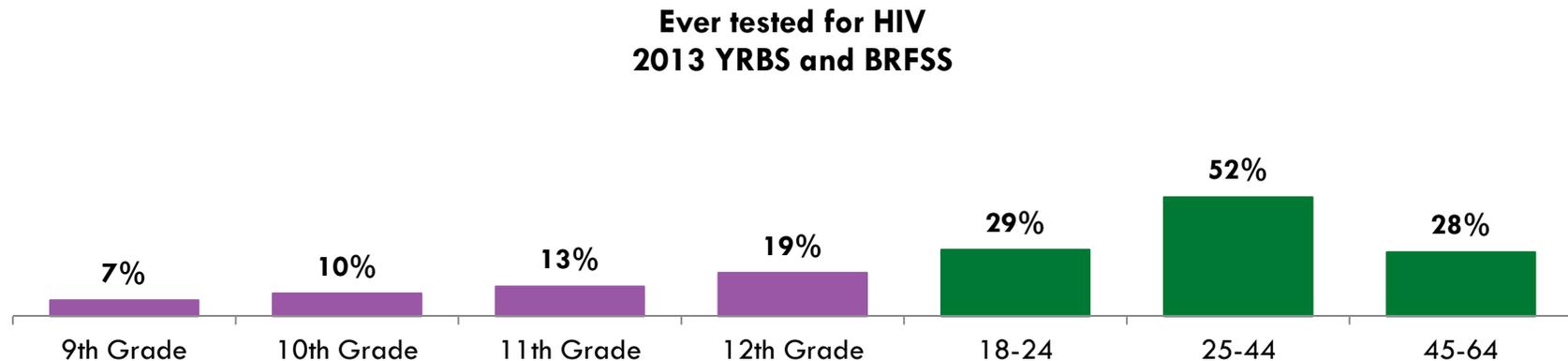
Percent of students and adults who have ever been tested for HIV



\*Note: tests done as part of blood donations are not counted.

# HIV Testing – Ever\*

- Among high school students, testing for HIV increases with grade level.
  - Older students were significantly more likely than younger ones to report ever receiving an HIV test.
- Adults 25-44 are significantly more likely to have ever been tested for HIV than those 18-24 and 45-64.
- Female high school students are more likely to report HIV tests compared with males (15% vs. 10%).
- Female adults are as likely as men to have ever been tested for HIV (31% vs. 30%).



\*Note: tests done as part of blood donations are not counted.

# Thank you



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