



Healthy Kids Colorado Survey 2013 Results from the first unified effort

EXECUTIVE SUMMARY





INTRODUCTION

The Healthy Kids Colorado Survey (HKCS) collects self-reported health information from Colorado middle and high school students. A unified version of the survey was launched in 2013 that addresses multiple needs for youth health data and provides both state- and region-level results. The unified HKCS was administered in fall 2013 and will be repeated in odd-numbered years, with the next administration in fall 2015.

The HKCS is supported by the Colorado Department of Public Health and Environment (CDPHE), Colorado Department of Education (CDE), and Colorado Department of Human Services (CDHS). The University of Colorado Denver (UCD) implements the HKCS. The survey includes the Centers for Disease Control and Prevention's Youth Risk Behavior Surveillance System (YRBSS)¹ and collects anonymous student information on multiple health topics, as well as student attitudes and perceptions that address prevention and risk and protective behaviors. Topics include weight, nutrition, physical activity, suicide, bullying, mental health, tobacco, alcohol, marijuana, drugs, sexual health (high school only), other health topics and youth engagement in school and their community.

The HKCS results represent Colorado's middle and high school populations both statewide and for twenty-one health statistics regions. School and district level results



are provided to the respective school or district and are unavailable for public release without the school or district's permission.

Schools, local public health agencies, community partners, researchers, state agencies, foundations and students use the HKCS results to assess the status of youth health and behaviors. The primary use is to identify health priorities in order to better implement school- and community-based strategies to improve and maintain the health of youth across Colorado.

¹Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS), <http://www.cdc.gov/HealthyYouth/yrbss/index.htm>.

This report presents high school results from 2013, comparing the HKCS with the national YRBSS and comparisons within Colorado of male vs. female, self-identified gay/lesbian/bisexual (GLB) vs. heterosexual, and across race/ethnic categories with Whites as the reference group.

CONTENTS

- 1 Methods
 - Participants and Response Rates
 - Demographics
- 2 Results ● ● ● ● ● ● ● ● ● ●
- 13 Next Steps

Results, by topic

- 2 Weight, Nutrition and Physical Activity
- 3 Tobacco Use
- 4 Alcohol Use
- 5 Marijuana Use
- 6 Other Substance Use
- 8 Bullying, Personal Safety and Violence
- 10 Mental Health
- 11 Sexual Health
- 12 Youth Engagement in School



METHODS

Prevalence, or the proportion of students reporting a behavior, is presented for select indicators within each of nine topic areas.

Differences between groups are evaluated using Rao-Scott chi-squared tests and logistic regression for complex survey design. P-values less than 1% (p<0.01) are considered significant and are noted by an asterisk.



PARTICIPANTS AND RESPONSE RATES

Surveys were completed by students from a random sample of selected schools and randomly selected classrooms within those schools. Results are weighted to represent student enrollment in all Colorado public middle and high schools. The HKCS and other sample-based surveys use weights to account for the fact that information is obtained from a sample and used to represent the larger population. The weights account for sampling design, school and student nonparticipation and nonresponse, and overall

adjustments in grade, sex, and ethnicity that match the sample and the population.

Overall response rate (RR) is the product of the school participation rate and the student response rate.

A total of 224 randomly selected schools and 40,206 randomly selected students participated in the 2013 HKCS. Overall response rates were 63% for middle schools, 58% for high schools, and 24% for alternative high schools.

Overall response rate (RR)

$$RR = \frac{\text{number of participating schools}}{\text{number of selected schools}} \times \frac{\text{number of completed student surveys}}{\text{number of students enrolled in selected classes}}$$

DEMOGRAPHICS

Overall, 51.0% of the high school students are male, 49.0% are female, and 5.7% self-identify as GLB (Table 1). High school students are 57.0% White, 28.9% Hispanic, 5.1% multiple race/ethnicity, 4.7% African-American, 3.3% Asian, 0.8% American Indian/Alaskan Native, and 0.2% Native Hawaiian/Pacific Islander. The number of Native Hawaiian/Pacific Islander respondents is low and are, therefore, not presented with the racial/ethnic data in this report.

Table 1: Demographics of survey participants

Gender	Percent (%)
male	51.0%
female	49.0%

Sexual orientation status*	Percent (%)
Heterosexual	94.3%
GLB	5.7%

Race/ethnicity	Percent (%)
White	57.0%
African-American	4.7%
American-Indian/ Alaskan Native	0.8%
Asian	3.3%
Hispanic**	28.9%
Native Hawaiian/ Pacific Islander	0.2%
Multiple race/ ethnicity	5.1%

*16.3% of students are missing sexual orientation status or responded "not sure"; these students are excluded from sexual orientation analyses.

**Hispanic includes students who reported white as race and hispanic as ethnicity.



RESULTS

* Indicates there is a statistically significant difference between populations.

Weight, Nutrition and Physical Activity

A variety of indicators related to weight, nutrition and physical activity are measured through the HKCS. The figures below show the prevalence of students who are overweight or obese, who ate breakfast daily and participated in daily physical activity. Colorado high school students are less likely to be obese/overweight compared to the nation and are slightly more likely to eat breakfast on all of the past 7 days (Figure 1a). The Centers for Disease Control and Prevention recommends at least 60 minutes of physical activity daily (7 days a week). Colorado is similar to the national regarding this objective. Within Colorado, males are more likely than their female counterparts to be overweight/obese but are

healthier in that they are more likely to both eat breakfast and be physically active daily. Students self-identifying as GLB are more likely to be overweight/obese and less likely to eat breakfast and be physically active daily compared to their heterosexual counterparts. Prevalence of overweight/obesity varies by race/ethnicity, ranging from one-third of African-Americans to 14.1% of Asians (Figure 1b). Asians are the least likely to report being physically active on a daily basis.

Figure 1a: Weight, Nutrition and Physical Activity, High School 2013

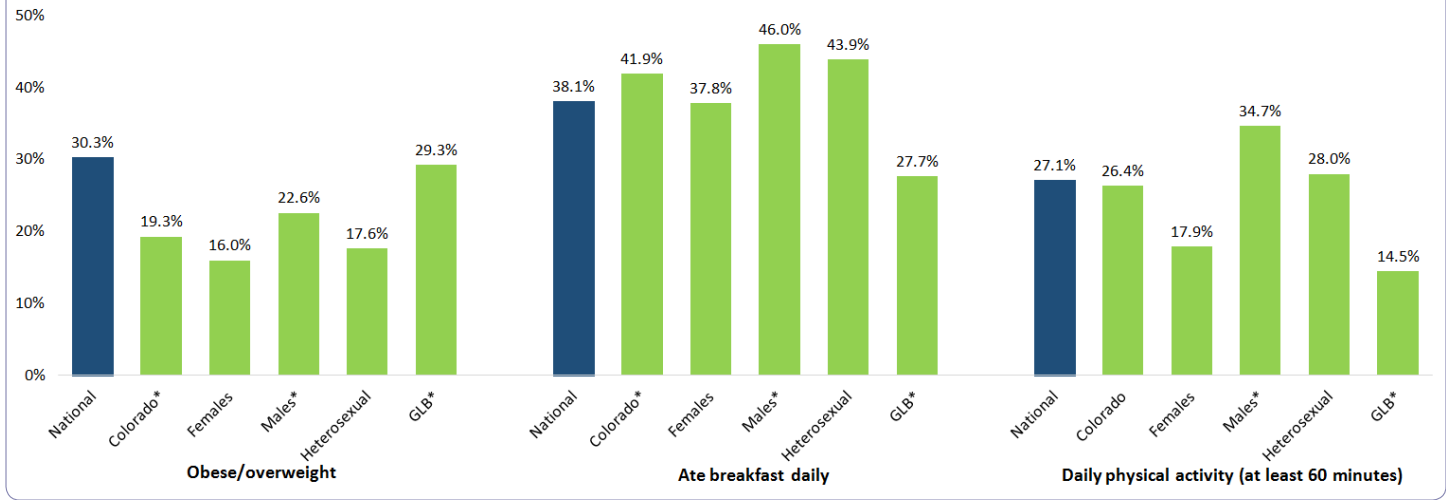
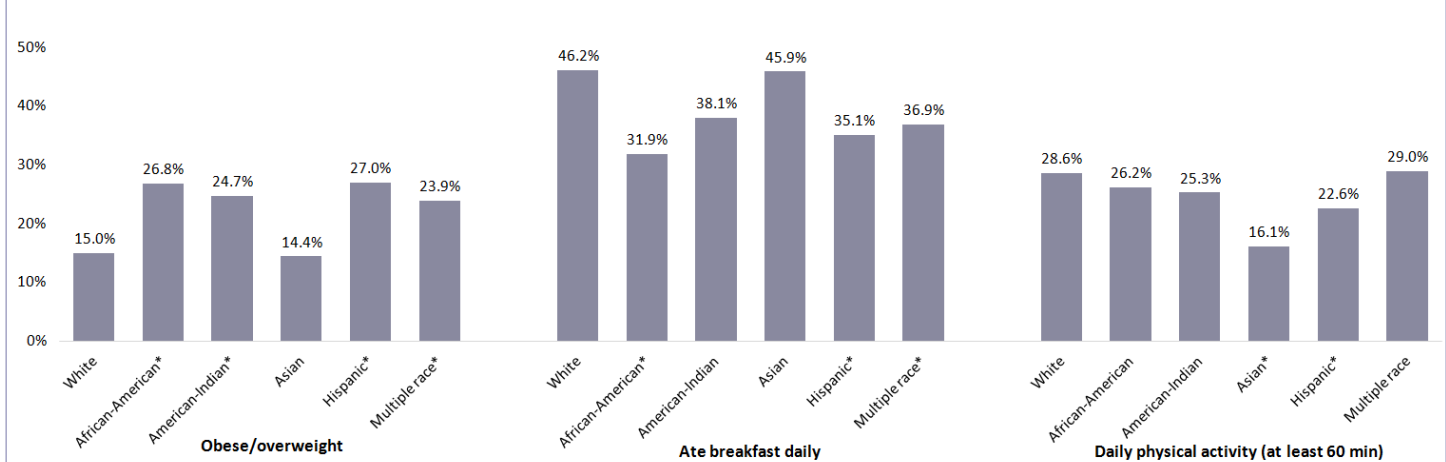


Figure 1b: Weight, Nutrition and Physical Activity, High School 2013





Tobacco Use

Colorado prevalence estimates related to tobacco are lower than national rates for lifetime use and current use (within the past 30 days) of cigarettes (Figure 2a). Males and youth identifying as GLB are more likely than females and heterosexuals, respectively, to smoke cigarettes and to start smoking at an early age. Colorado also included a question regarding use of other tobacco products, which reveal high use of electronic cigarettes, 15.1%, for which there is no national YRBSS comparison. Males are more likely than females to report use of electronic cigarettes. Almost 1 out of 3 youth identifying as GLB and 1 out of 4 American Indians report having used e-cigs (Figure 2b).



Figure 2a: Tobacco Use, High School 2013

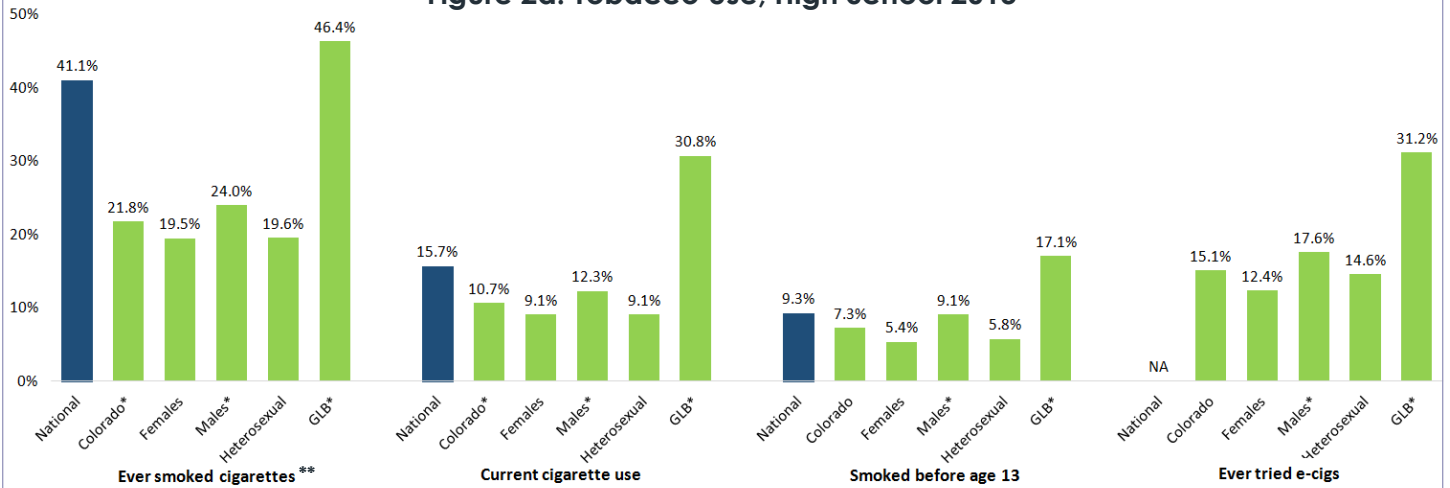
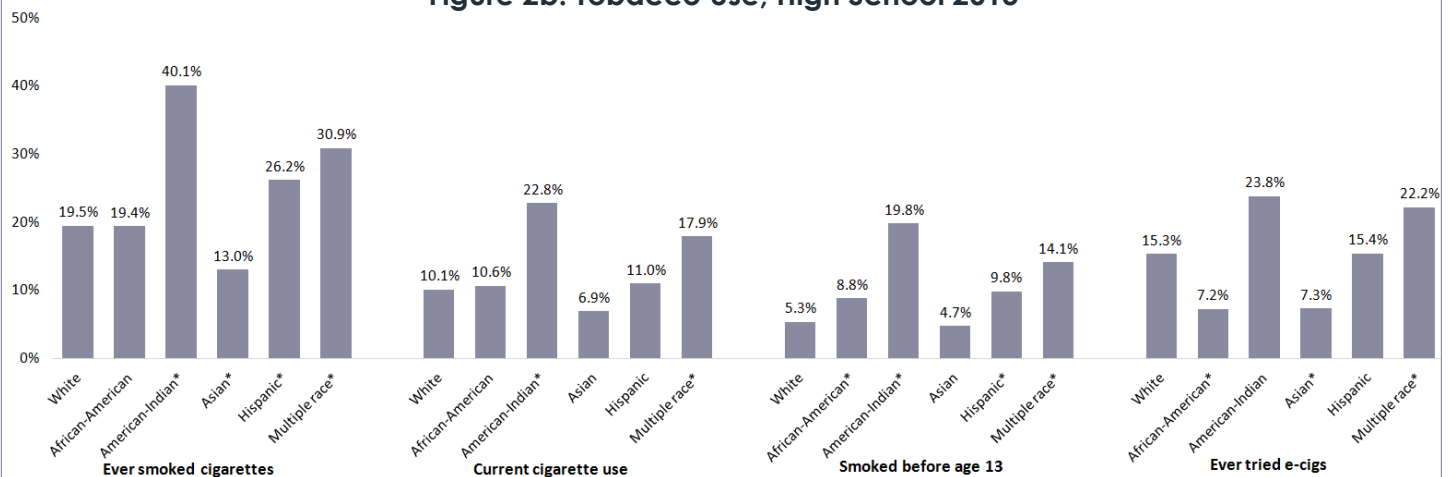


Figure 2b: Tobacco Use, High School 2013



**National data collected with a different survey question than Healthy Kids Colorado Survey (HKCS).



Alcohol Use

Colorado prevalence estimates related to alcohol use are lower than national rates for lifetime use (60.1% versus 66.2%), as well as current (within the past 30 days) use, and recent binge drinking (within the past 30 days) (Figure 3a). Colorado is similar to the nation regarding drinking alcohol before the age of 13 years. Males and females are similar in regards to these alcohol measures, with the exception of drinking before age 13 in which males are more likely. Youth identifying as GLB are much more likely to have higher prevalence estimates for all of these measures and 79.5% have ever tried alcohol (results not shown in figure). In general, Asian students have lower prevalence estimates for alcohol measures compared to Whites, and Hispanic and Multiple race have higher estimates (Figure 3b).



Figure 3a: Alcohol Use, High School 2013

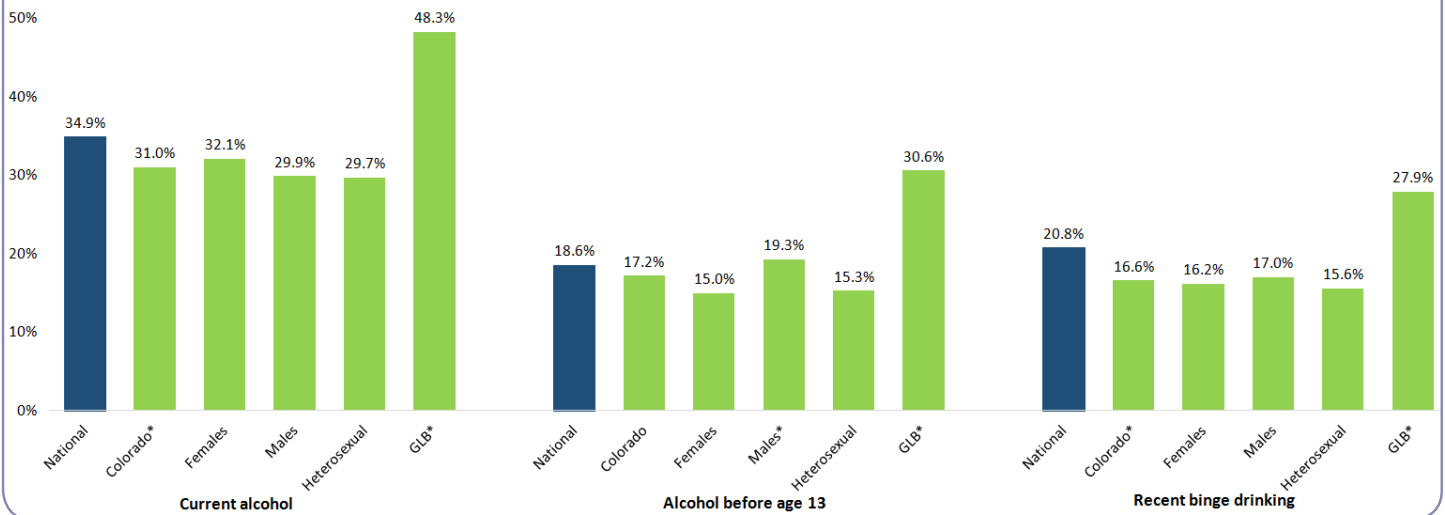
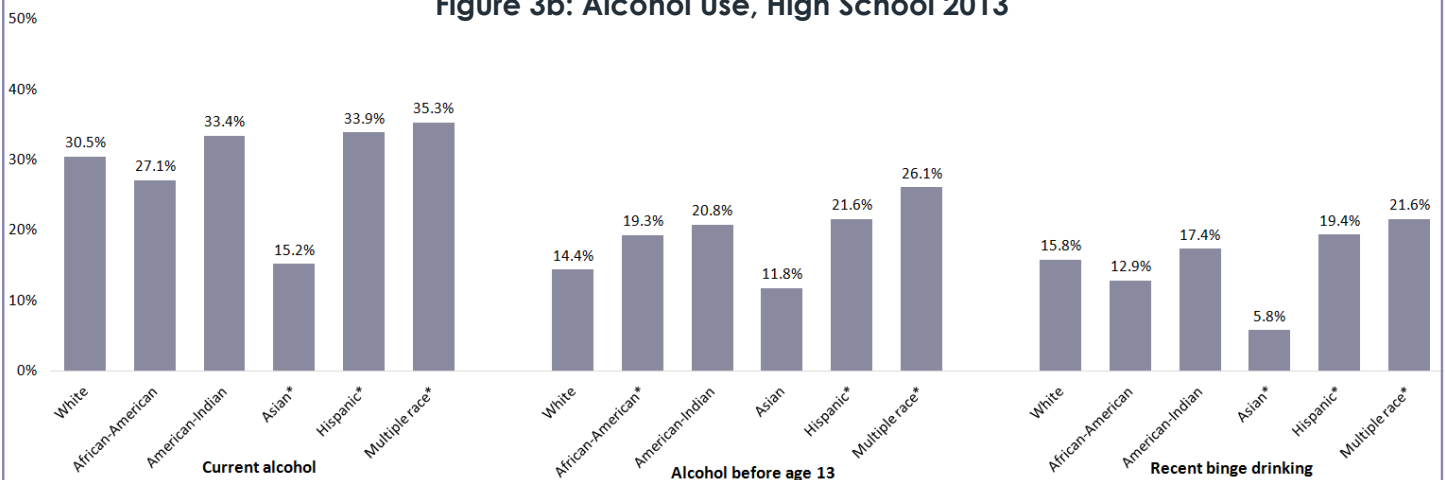


Figure 3b: Alcohol Use, High School 2013





Marijuana Use

Compared to the nation, Colorado high school students report similar lifetime marijuana use and having tried marijuana before age 13, and have lower rates for current (within the past 30 days) use (Figure 4a). Within Colorado, males report high rates of current marijuana use and using marijuana at an early age and youth identifying as GLB report much higher rates for all three marijuana measures. Asian students report lower rates of marijuana use than Whites and all other race/ethnic groups report higher estimates (Figure 4b).



Figure 4a: Marijuana Use, High School 2013

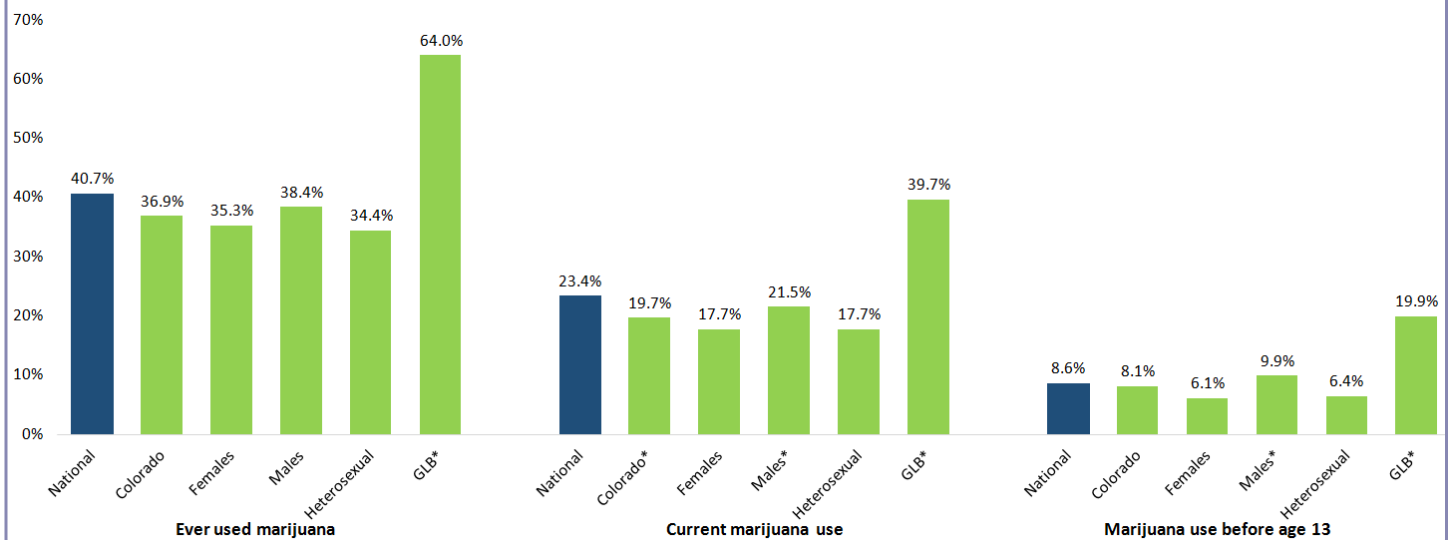
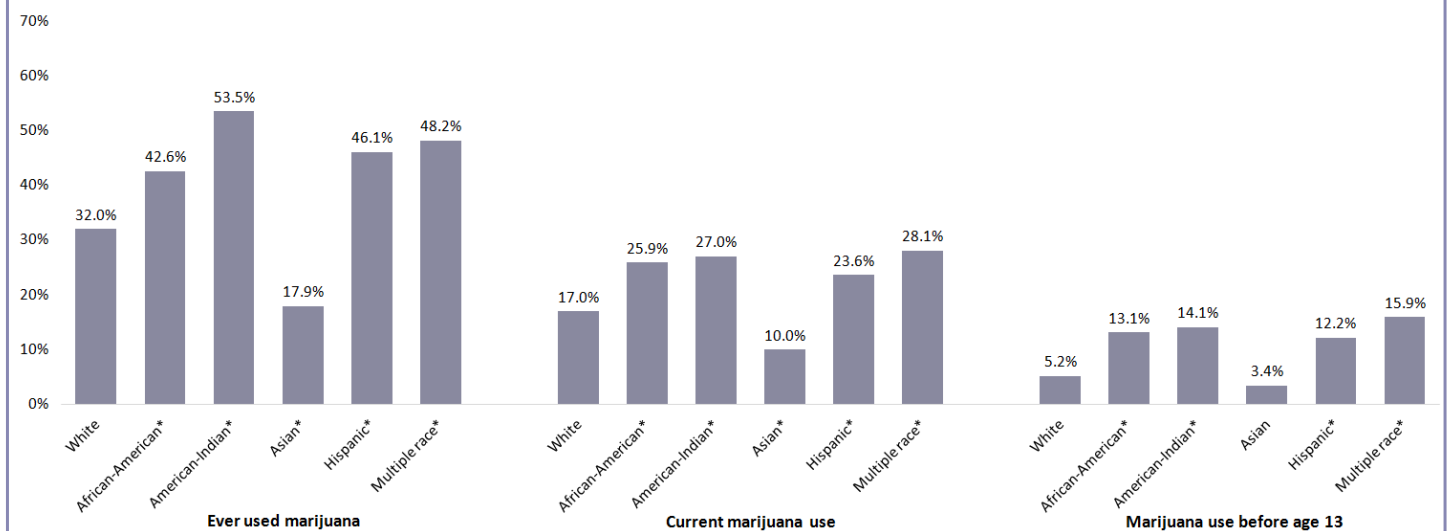


Figure 4b: Marijuana Use, High School 2013





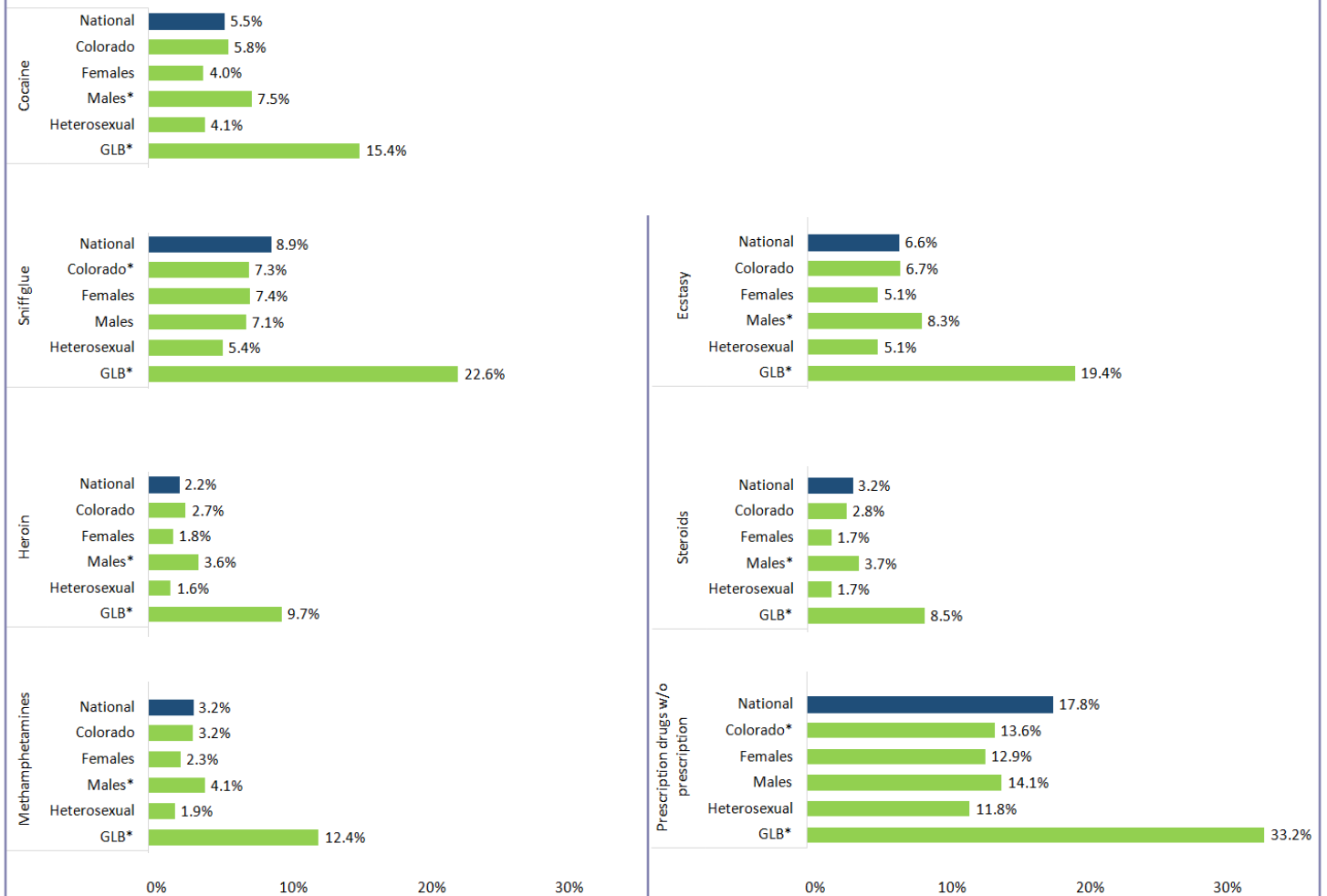
Other Substance Use

For the most part, lifetime use of other illegal substances is similar between Colorado and national high school students (Figure 5a). These measures that are similar include cocaine, heroin, methamphetamines, ecstasy, and steroids.

Colorado does have significantly lower rates of sniffing glue and use of prescription drugs without a doctor prescription. In general, males have slightly higher rates of drug use compared to females and GLB have much higher rates, and American-Indian students and students reporting multiple race have higher rates (Figure 5b).



Figure 5a: Lifetime Use of Other Drugs, High School 2013





Other Substance Use

Compared to national data, Colorado has lower rates of students being offered drugs on school property in the past 12 months (Figure 6a). Males, youth identifying as GLB, American-Indian, Hispanic, and students reporting multiple

race report higher rates, with 1 out of 4 youth identifying as GLB having been offered drugs on school property in the past 12 months (Figures 6a and 6b).

Figure 5b: Lifetime Use of Other Drugs, High School 2013

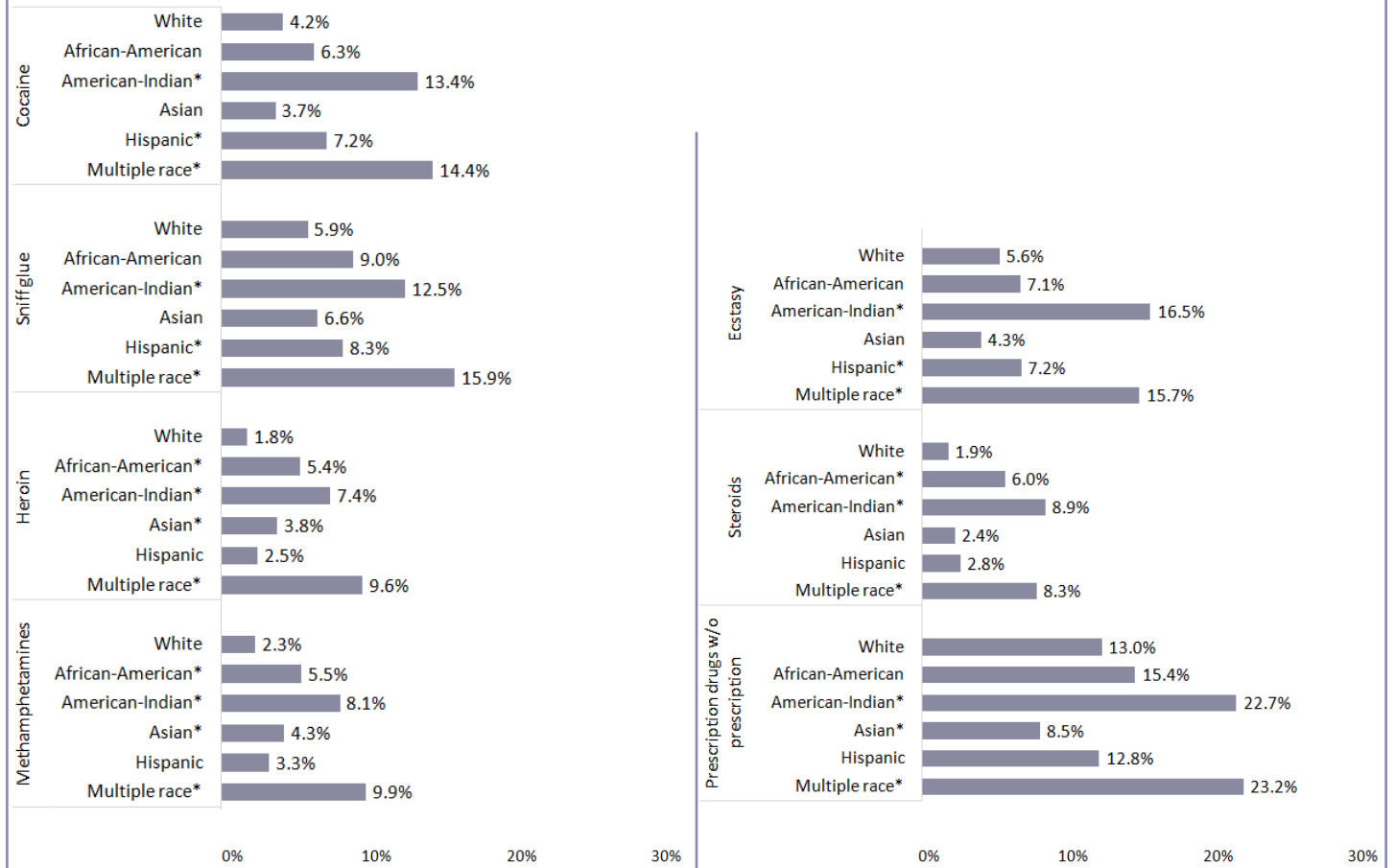


Figure 6a: Offered Drugs on School Property in Past 12 months, High School 2013

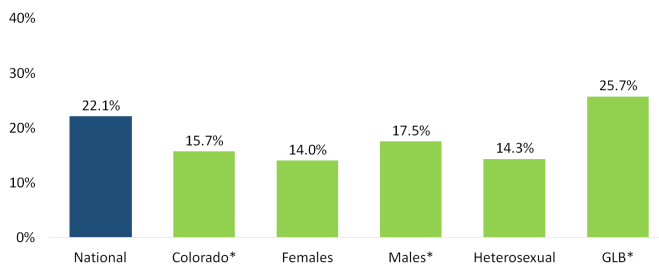
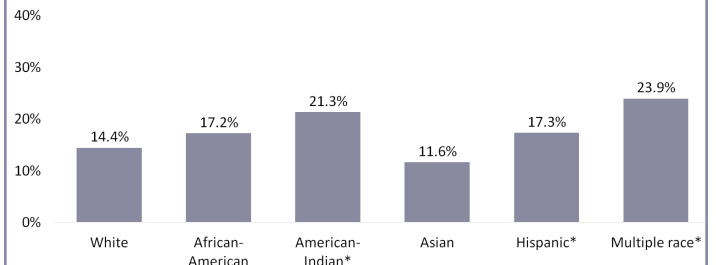


Figure 6b: Offered Drugs on School Property in Past 12 months, High School 2013





Bullying, Personal Safety and Violence

Rates of being bullied on school property and bullied electronically in the past 12 months are similar between Colorado high school students and the nation (Figure 7a). Females and youth identifying as GLB report higher rates of being bullied on school property and bullied electronically. Almost 1 out of 10 of Colorado high school student report being bullied (in past 12 months) because someone thought they were gay, lesbian or bisexual, for which there is no 2013 YRBSS national comparison. Almost half of youth identifying as GLB have been bullied because someone thought they were gay, lesbian, or bisexual. There is variation of bullying by race/ethnicity for all selected measures (Figure 7b).



Figure 7a: Bullying, High School 2013

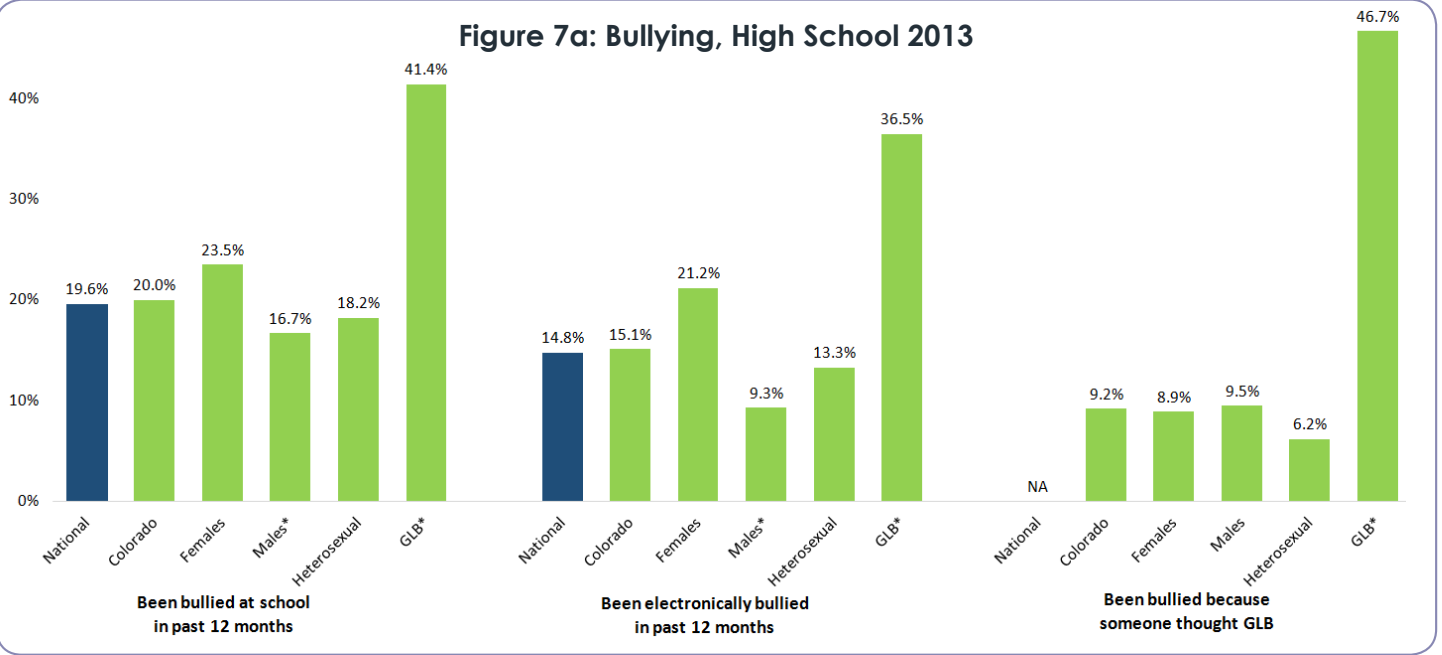
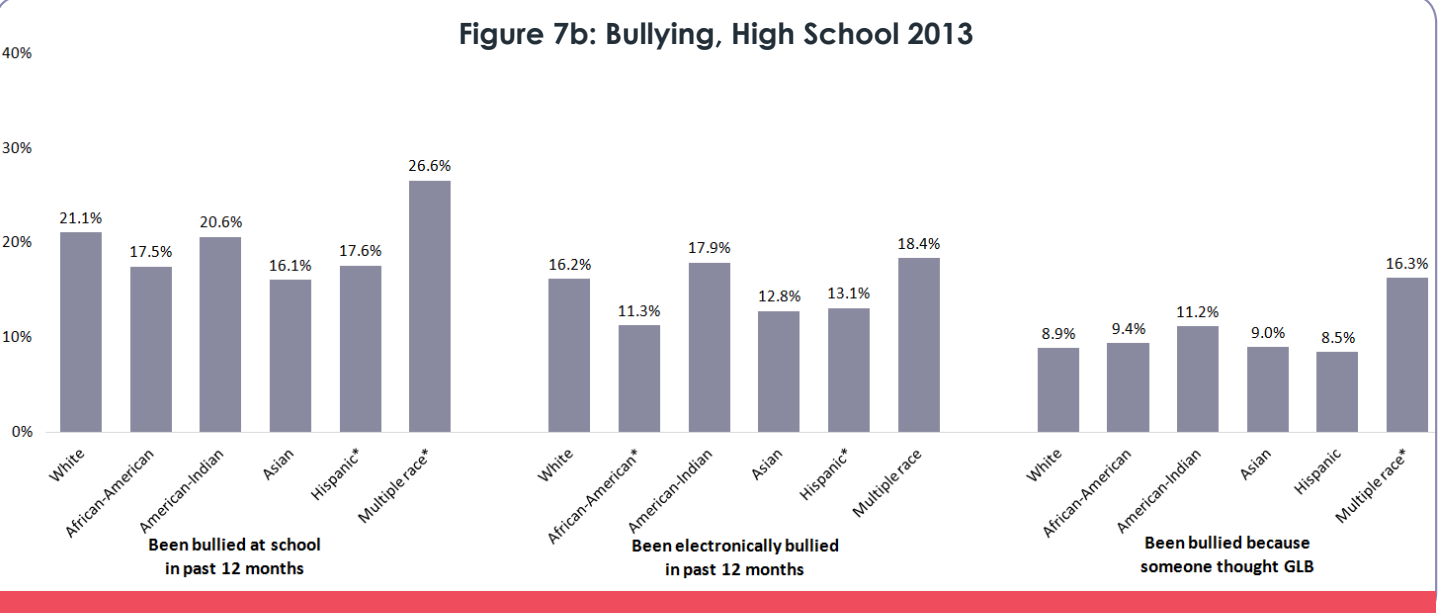


Figure 7b: Bullying, High School 2013





Bullying, Personal Safety and Violence

Colorado high school students are less likely to report being in a fight and being threatened or injured with a weapon in the past 12 months, and to miss school in the past 30 days because they felt unsafe (Figure 8a). Males are more likely than females to have been in a fight or been threatened or injured with a weapon, but less likely to miss school because they felt unsafe. More than 1 out of 3 youth identifying as GLB, African-American race, American Indian race, and multiple race have been in a fight in the past 12 months (Figure 8b).



Figure 8a: Personal Safety and Violence, High School 2013

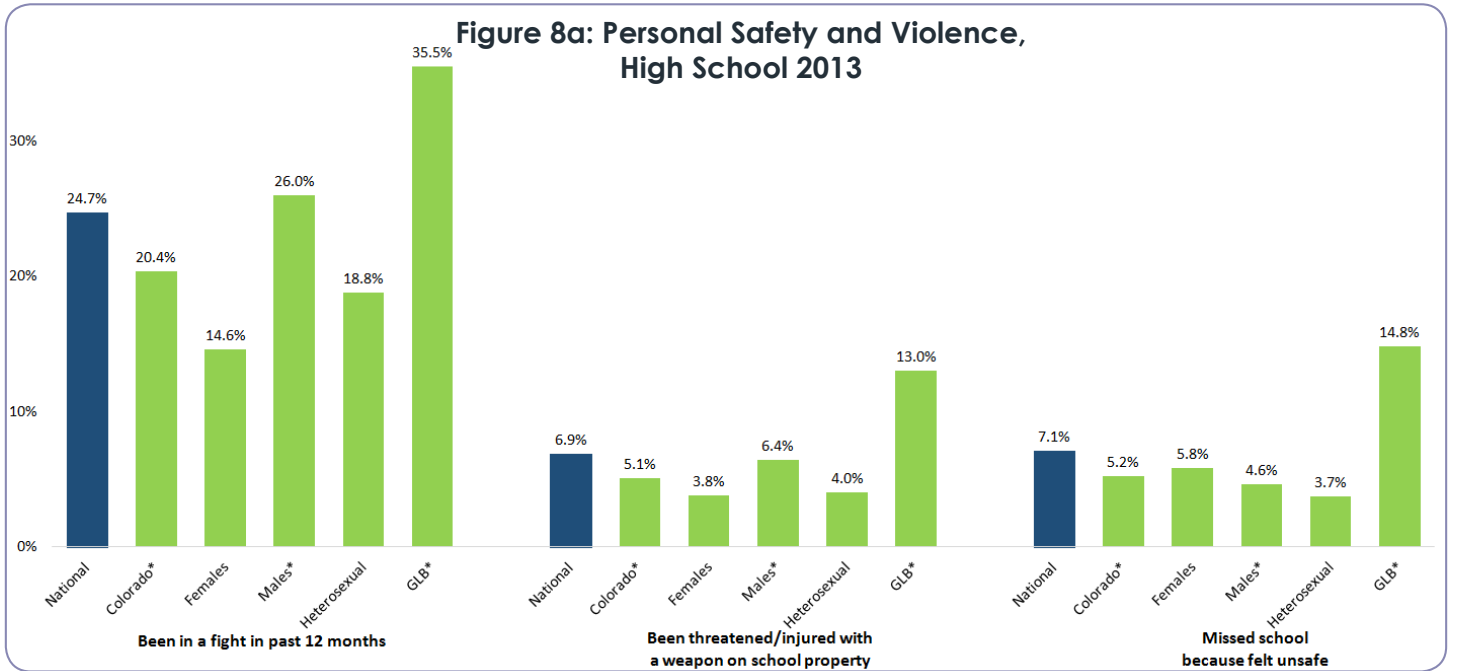
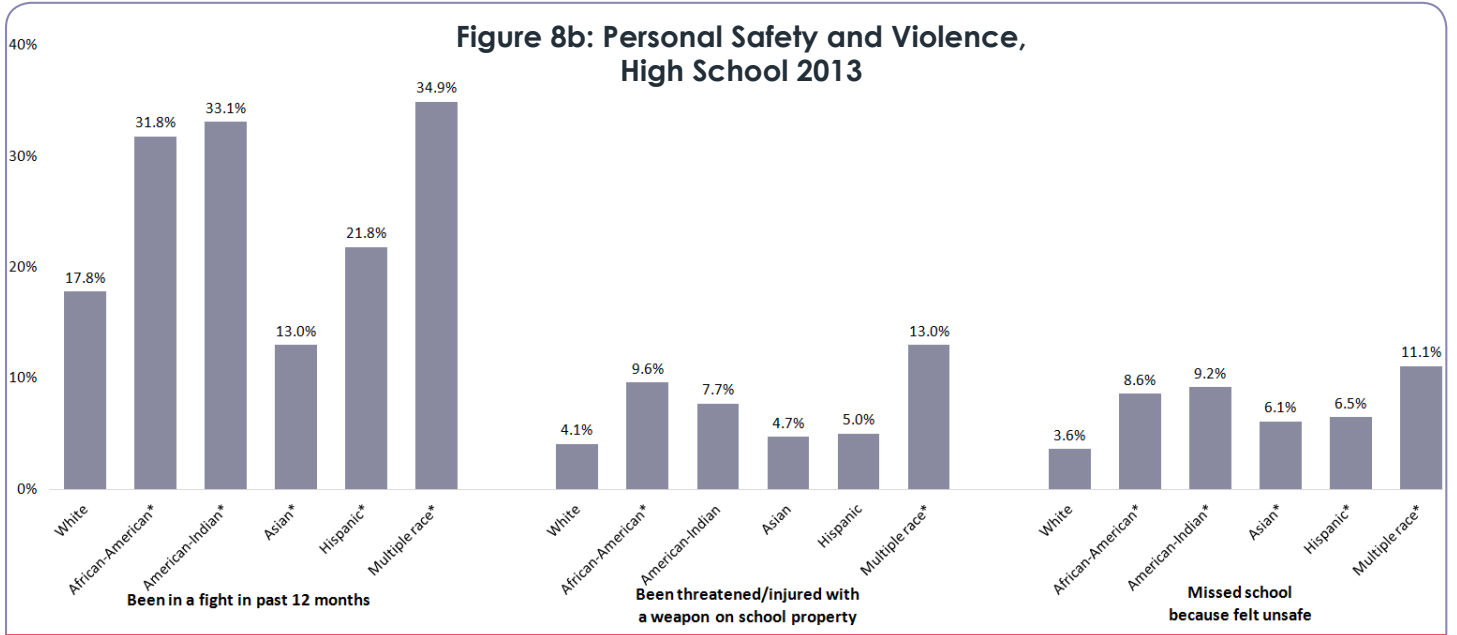


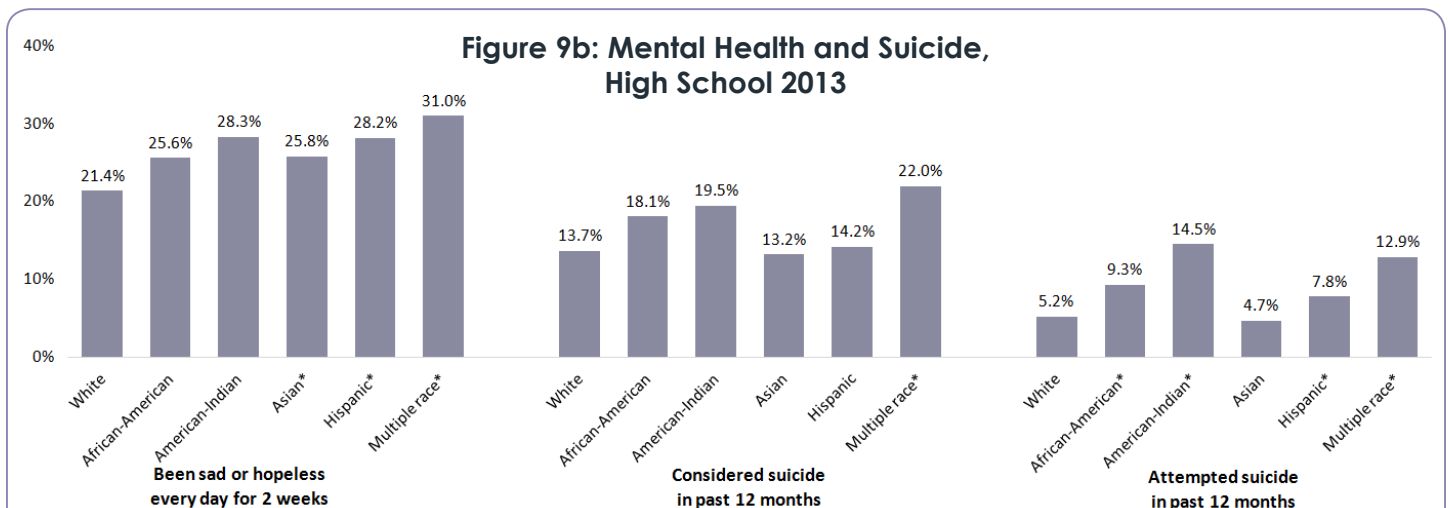
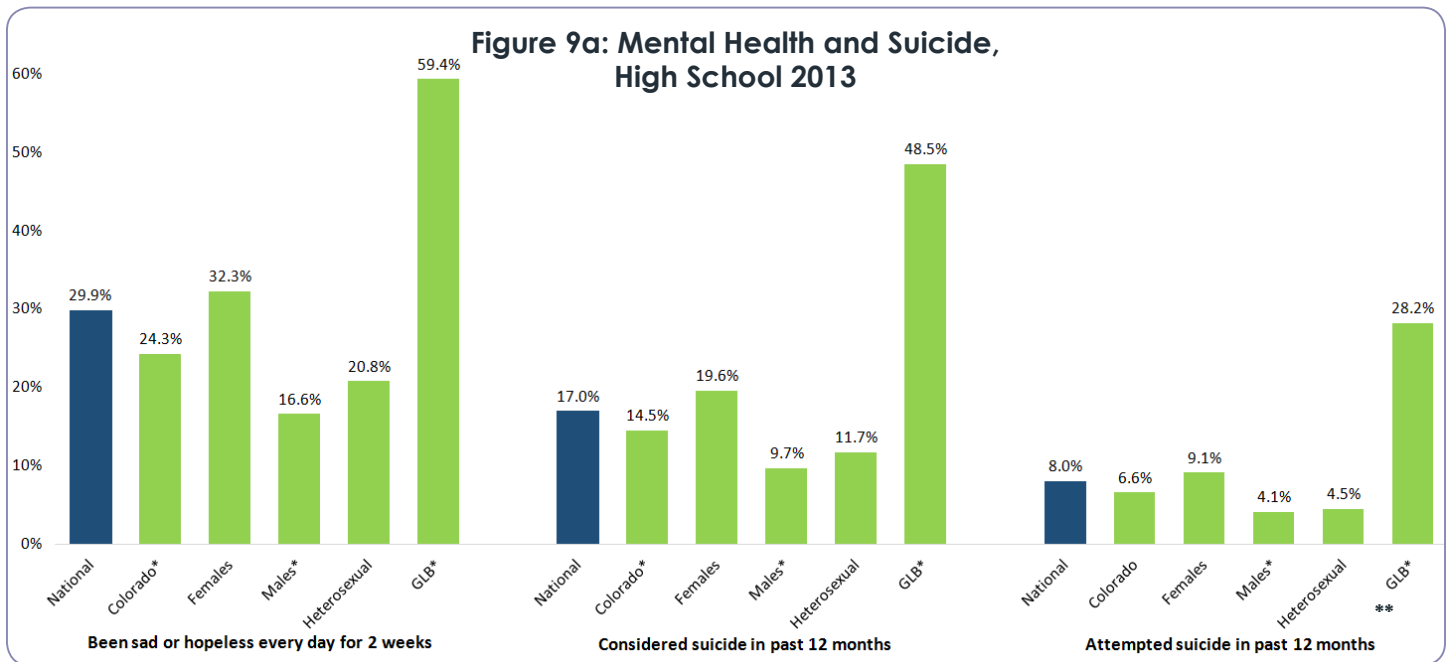
Figure 8b: Personal Safety and Violence, High School 2013





Mental Health

One out of 4 high school students report being sad or hopeless almost every day for 2 weeks in a row in the past 12 months, which is lower than the national rate (Figure 9a). Fewer students in Colorado have considered suicide in the past 12 months, however, Colorado rates of attempting suicide and those attempts resulting in an injury are similar to the nation. Rates of a suicide attempt resulting in an injury are 2.3% for Colorado and 2.7% for the nation (results not shown in figure). Females report higher rates of sadness and hopelessness, as well as considering or attempting suicide. Youth identifying as GLB have rates that are 3 or more times higher than heterosexuals with half reporting they have considered suicide. American Indian students report the highest rate of attempted suicide (Figure 9b).



**National data edited differently than Healthy Kids Colorado Survey (HKCS).



Sexual Health

Colorado high school students are less likely than national students to report ever having had sex and having sex within the 3 months prior to completing the HKCS survey (Figure 10a). Males are more likely than females to have ever had sex and less likely to have ever been forced to have sex. Youth identifying as GLB have higher prevalence rates for all selected sexual health measures and more than 1 out of

4 report having ever been forced to have sex. For these select sexual health measures, Asian students have lower prevalence estimates compared to Whites and most other race/ethnic groups have higher estimates (Figure 10b).

Figure 10a: Sexual Health, High School 2013

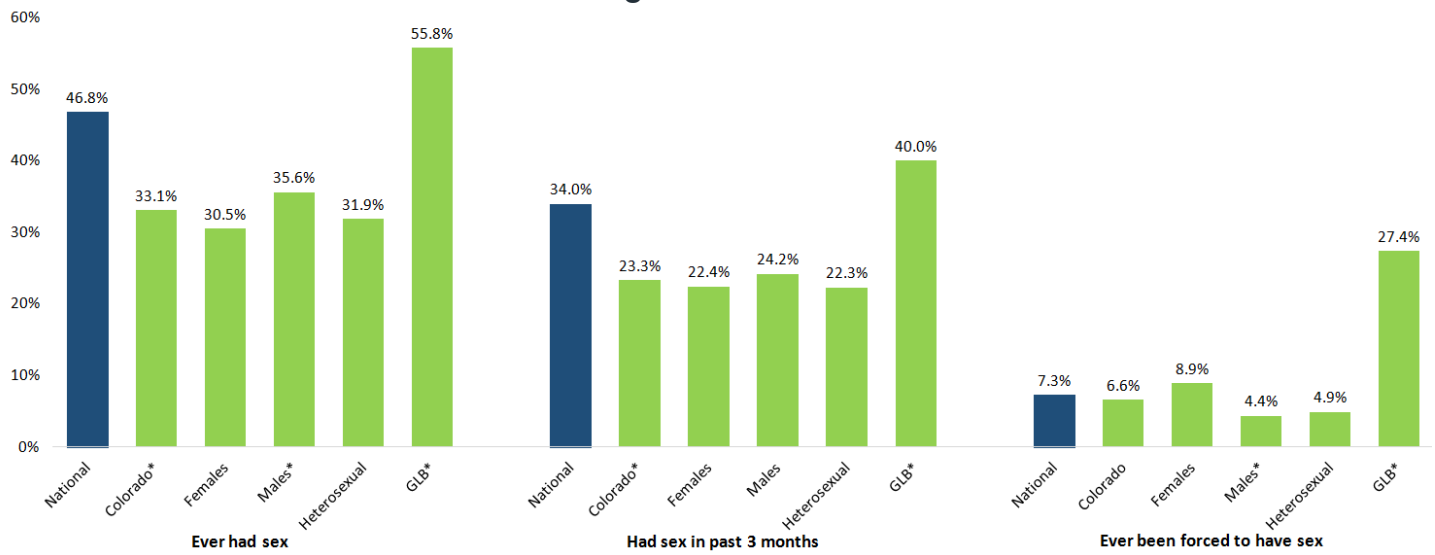
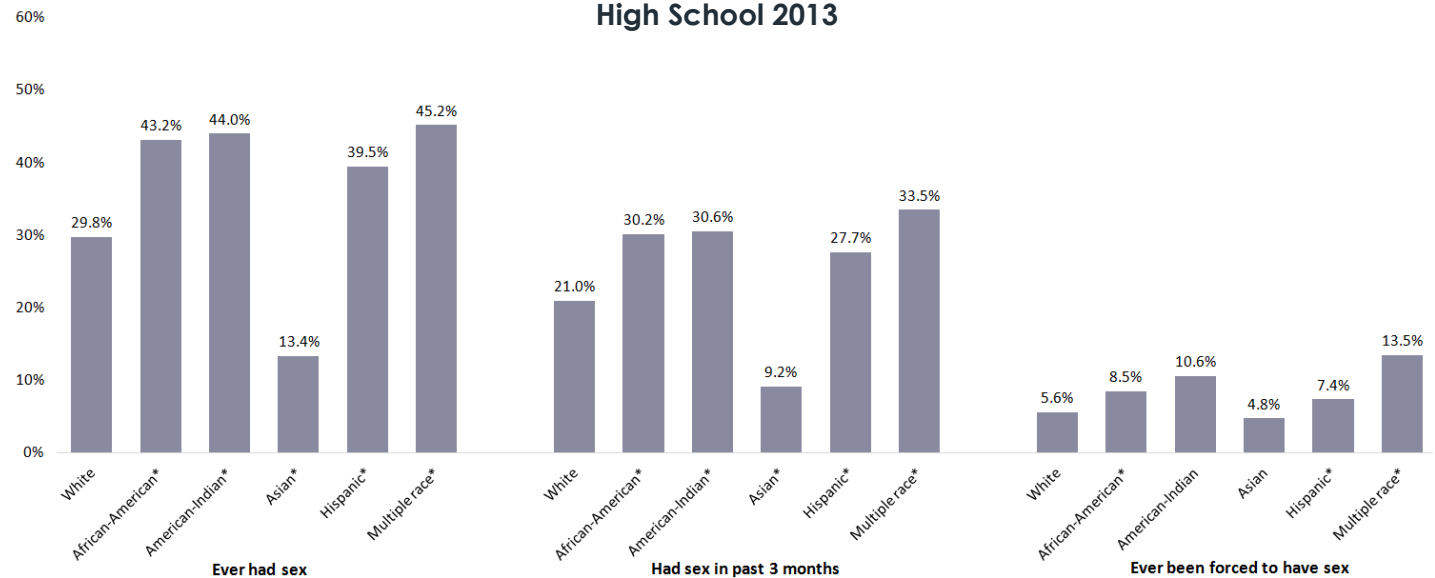


Figure 10b: Sexual Health, High School 2013





Youth Engagement in School

The HKCS includes a number of questions related to youth engagement in school and the community. Many of these questions can be associated with health indicators to provide more information on protective and risk factors that may influence youth behaviors. These questions are not collected on a national level. Within Colorado, there are some differences on these measures across sub-populations.

Seven out of 10 Colorado students reported that school work is meaningful and important. Youth identifying as GLB are less likely to find school work meaningful and also less likely to participate in extracurricular activities. The majority of Colorado youth reported that they have someone to talk to or go to for help (in or out of school), however, GLB and non-white students are less likely.

Figure 11a: Youth Engagement in School, High School 2013

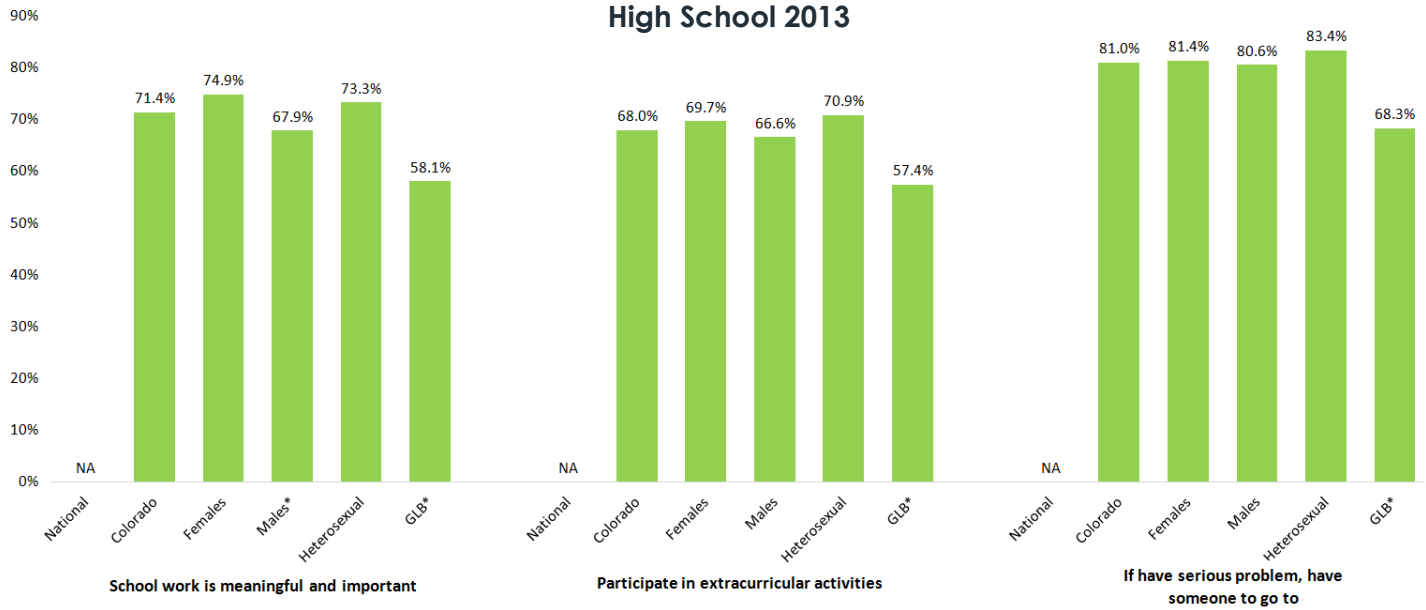
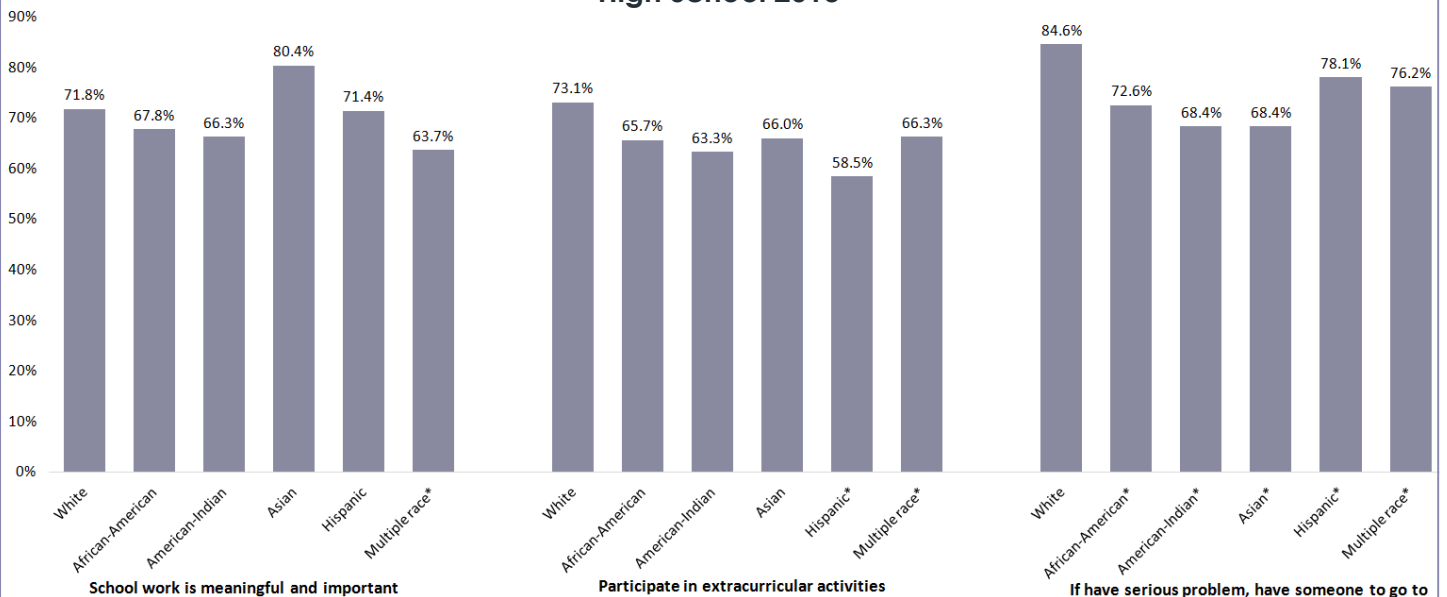


Figure 11b: Youth Engagement in School, High School 2013





NEXT STEPS

Colorado high school students generally fare better compared to high school students nationally, however, there are still areas that need improvement, particularly for youth identifying as GLB and minority students.

Middle school, alternative school and trend data are not included in this report but are available for most of these topic areas (with the exception of sexual health questions for middle schools). This report highlights nine survey topic areas, however, there are numerous additional measures within each topic area and questions outside these topic areas. There were over 160 high school questions across two survey modules and over 70 middle school questions.

Additional data for both high school and middle school will be available in summary tables with confidence intervals from the Colorado Department of Public Health and Environment's Colorado Health and Environment Data Branch (see last page). Results from previous administrations of the CDC's Youth Risk Behavior Survey are also available and additional analysis and comparisons of 2013 HKCS survey results will be available via a data request form. Region-specific reports and topic-specific reports will be available in fall 2013.

The next HKCS administration occurs in fall 2015. The state will continue to survey in randomly selected schools to obtain and share state and regional data. The state also plans to offer the HKCS to any interested middle or high school and provide the school with a free report containing their results compared to the state. This opportunity will allow schools access to their own data and use it to address health issues impacting student learning.

The 2013 HKCS greatly expanded the student health and behavior information available to all Coloradans working to improve youth health. This data will help inform communities, schools, families and students about issues that are present among youth and measure changes over time.



The value of the HKCS data will continue to grow as the state and regions measure health and behaviors every two years and address emerging health topics through future surveys. The unified HKCS was very successful, thanks to tremendous collaboration from hundreds of schools and thousands of students. We look forward to deepening the collaboration by learning from schools and communities on how to increase the value and use of the HKCS.



HEALTHYKIDS COLORADOSURVEY



To learn more about the survey effort, visit:

www.healthykidscolo.org

To access tables of results, topic-specific reports,
and survey methodology information, visit:

www.chd.dphe.state.co.us

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