

2015



HEALTHY KIDS
COLORADO SURVEY

Prepared for the Colorado Department of Education,
Colorado Department of Human Services, and Colorado
Department of Public Health & Environment by the
University of Colorado Anschutz Community
Epidemiology & Program Evaluation Group.

Executive Summary

Introduction

The Healthy Kids Colorado Survey (HKCS) is an essential tool that state and local communities use to better understand the health of middle and high school students so we can help them make healthy choices.

The HKCS collects anonymous, self-reported information from Colorado middle and high school students every other year. In 2015, the state departments of health, education and human services jointly surveyed about 17,000 randomly selected students from more than 157 middle schools and high schools. This report presents results from 2015 Healthy Kids Colorado Survey.

The State launched the survey in 2013 as a unified effort to meet the needs of multiple agencies and organizations for youth health data and state and regional results. The State administered HKCS in the fall of 2015 and will be repeated in odd-numbered years, with the next survey in 2017.

The data include weight, nutrition, physical activity, suicide, bullying, mental health, tobacco, alcohol, marijuana, drugs, sexual health (high school only), school and community engagement, access to trusted adults, and many more topics. The data also reflect student attitudes and perceptions that address health behaviors and the influences that can support a student's healthy choices.

This report highlights select measures. However, there are numerous additional measures within each topic area and questions outside these topic areas as well. There are more than 160 high school questions across two survey modules. Multiple topic area reports will be released between through the administration of the 2017 survey.

Results include data about healthy behaviors for high school students, with comparison by demographic characteristics (sex, race/ethnicity, sexual orientation, and gender identity).

The survey advisory committee, consisting of local public health departments, school districts, and community organizations, determined it was important to include a question on gender identity on the 2015 survey instrument. This is the first year that the survey results will include the health outcomes of transgender students compared to cisgender students. Cisgender refers to a person who is not transgender or a person



whose sex at birth aligns with the gender they know themselves to be on the inside. Results below may not show transgender data if the sample size was too small.

These results do not reflect middle school data because the sample size is much smaller compared to the high school sample, so comparisons between race and ethnicity data is often not shown due to the small number of responses within each identity group. The middle school survey also does not include questions about sexual orientation or gender identity.

The Colorado Department of Public Health and Environment (CDPHE), Colorado Department of Education (CDE) and Colorado Department of Human Services (CDHS) support the HKCS. The Community, Epidemiology & Program Evaluation Group at the University of Colorado Anschutz Medical Campus administers the survey. The survey incorporates the Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Surveillance System.¹ HKCS results represent Colorado's middle and high school populations statewide as well as regional estimates for each of the twenty-one health statistics regions for high school. School and district level results are provided to the respective school or district.

Public and private organizations including schools, parents and youth across Colorado use this survey's state and regional health data to identify trends and enhance school- and community-based programs that improve the health and well-being of young people.

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

Survey Participants and Response Rates

Students from a random sample of selected schools and randomly selected classrooms within those schools complete the surveys. Data is aggregated to maintain anonymity and in order to protect student confidentiality we don't release estimates that are 0%, 100%, or if fewer than 30 students answer the question at all, or if fewer than three responded "Yes" to the question. Results are weighted to represent student enrollment in all Colorado public middle and high schools. 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 discrepancies in grade, sex and ethnicity between 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 15,970 randomly selected high school students from 127 high schools, and 997 randomly selected middle school students from 30 middle schools participated in the 2015 state sample. There was an overall response rate of 46.5 percent for high schools and 48.1 percent for middle schools. An additional 26 high schools and 69 middle schools opted in to the administration for a total of more than 40,000 participating students. The remainder of this report presents estimates for those schools and students comprising the high school state sample.

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

Methods

Each topic area notes the prevalence, or the proportion of students reporting a behavior. We evaluated differences between groups using Rao-Scott chi-squared tests and logistic regression for complex survey design. The reference group is a group to which an individual or another group is compared. For example, when reporting on sexual orientation, heterosexual is the reference group. For gender identity, cisgender is the reference group. For race/ethnicity, all race/ethnic groups white students are the reference group. This analysis is done to find the probability that there is a statistically significant difference between the health outcomes of the reference group with other groups. When the statistical probability or P-value is less than or equal to .01, this indicates that the results are significant meaning they are accurate with 99% or more confidence. Statistically significant results are noted by an asterisk. Differences between state and national estimates are determined by non-overlapping confidence intervals.

Demographics

Overall, 49 percent of the high school students surveyed are male, 51 percent are female, 2.2 percent identify as transgender, and 9 percent self-identify as lesbian, gay or bisexual (LGB; Table 1) and 2.2 percent self-identify as transgender, and 1.5% are questioning their gender identity. High school students are 56 percent white, 24 percent Hispanic/Latino, 11 percent multiracial, 5 percent African-American, 3 percent Asian, 1 percent American Indian/Alaskan Native, and <1 percent Native Hawaiian/Pacific Islander. The number of Native Hawaiian/Pacific Islander respondents is low and are, therefore, not presented with the race/ethnicity data in this report.

Table 1. Demographics of the (weighted) Colorado students, HKCS 2015.

Race/Ethnicity	Percent
African American/Black	4.9
American Indian/ Alaskan Native	.8
Asian	3.4
Hispanic/Latino	24.1
Multiracial	11
Native Hawaiian/Pacific Islander	.2
White	55.6

Sex	Percent
Female	51.4
Male	48.6

Gender Identity	Percent
Cisgender (non-transgender)	96.2
Transgender	2.2
Questioning	1.6

Sexual Orientation	Percent
Bisexual	7.2
Gay/Lesbian	2.2
Heterosexual/Straight	86.2
Unsure	4.4

Results

* Indicates there is a statistically significant difference between populations

Weight, Nutrition, and Physical Activity

Colorado students are aligned with the national average when it comes to weight, nutrition and physical activity. HKCS measures a variety of indicators related to weight, nutrition and physical activity. The figures below outline students categorized as obese, who ate breakfast daily and participated in daily physical activity. Students are categorized as obese based on body mass index (BMI)² at the time of the survey.

Colorado students are less likely to be obese compared to those nationally. The CDC recommends at least 60 minutes of physical activity daily (7 days a week). Within Colorado, males are more likely than their female counterparts to be obese; however, males are more likely to both eat breakfast and be physically active daily (Figure 1).

Students questioning their gender identity are more likely to be obese compared to cisgender students. Students self-identifying as lesbian, gay, bisexual or transgender (LGBT) are less likely to eat breakfast. LGB students along with those who are not sure are less likely to have daily physical activity compared to heterosexual students.

² Body mass index is calculated from self-reported height and weight (kg/m²). BMI values are compared with sex- and age-specific references data and obese is defined as a BMI \geq 95th percentile and overweight is \geq 85th and < 95th percentile for age and sex.

Obesity rates vary by race/ethnicity ranging from 33 percent of American Indian/Alaska Natives to 6.7 percent for Asians (Figure 1c). African American/Black, Hispanic/Latino, and multiracial students are less likely to eat breakfast compared to white students.

Figure 1a. Weight, Nutrition and Physical Activity, High School 2015

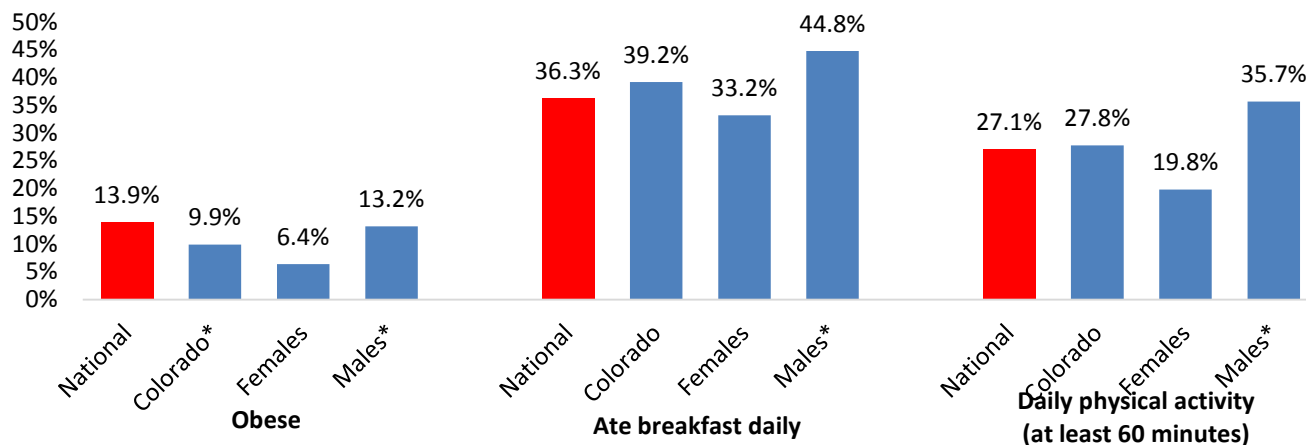


Figure 1b. Weight, Nutrition and Physical Activity, High School 2015

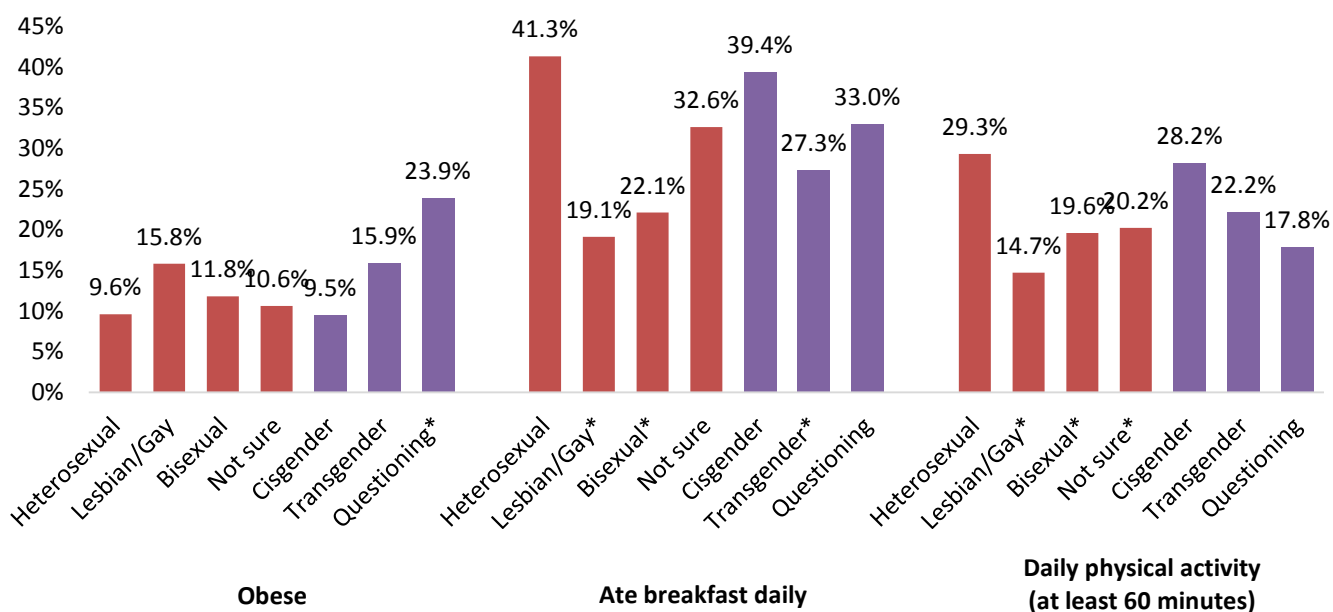
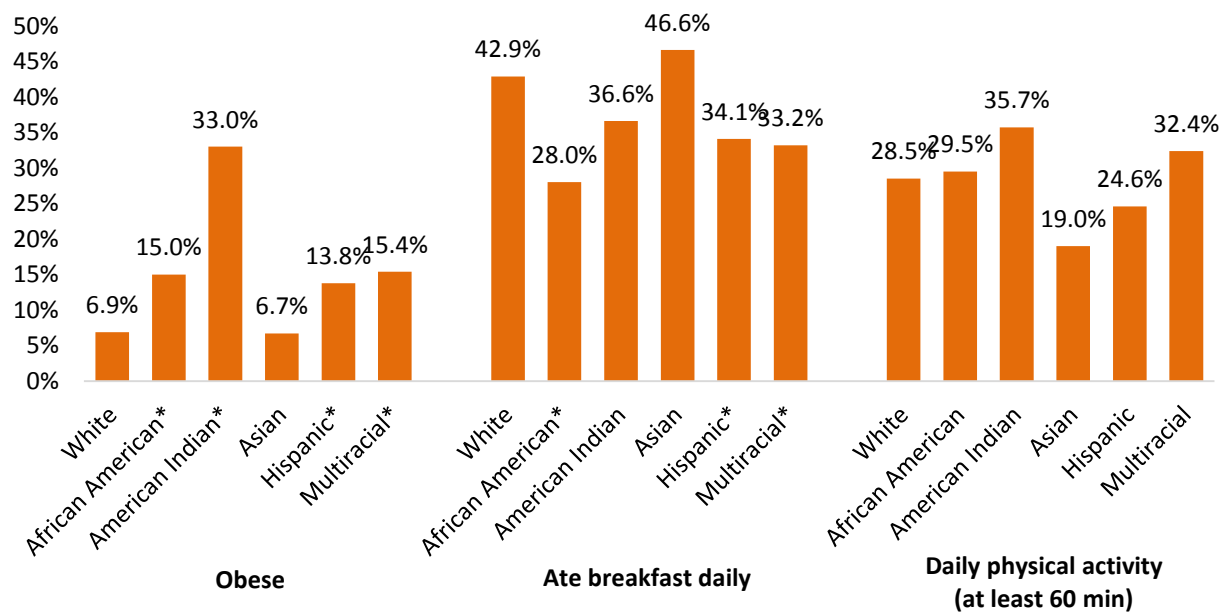


Figure 1c. Weight, Nutrition and Physical Activity, High School 2015



Tobacco Use

Youth tobacco usage rates continue to decline, and have reached a new all-time low. However, use of electronic smoking devices usage has skyrocketed. The use of electronic vapor products in the past 30 days is higher than cigarette, cigar, or smokeless tobacco products (Figure 2a). Colorado has a lower level of smokeless tobacco products compared to the national average. Males are more likely than females to use cigars or smokeless tobacco products in the past 30 days.

LGBT high school students use most tobacco products at higher rates. Transgender students have the highest prevalence rate of all four tobacco use indicators (Table 2b). Asians have lower rates of cigar and electronic vapor products than white students. Hispanic/Latino students have lower rates of smokeless tobacco products, African American/Black students have lower rates of electronic vapor products and multiracial students have higher rates of cigarette use compared to white students.



Figure 2a. Tobacco Use, High School 2015

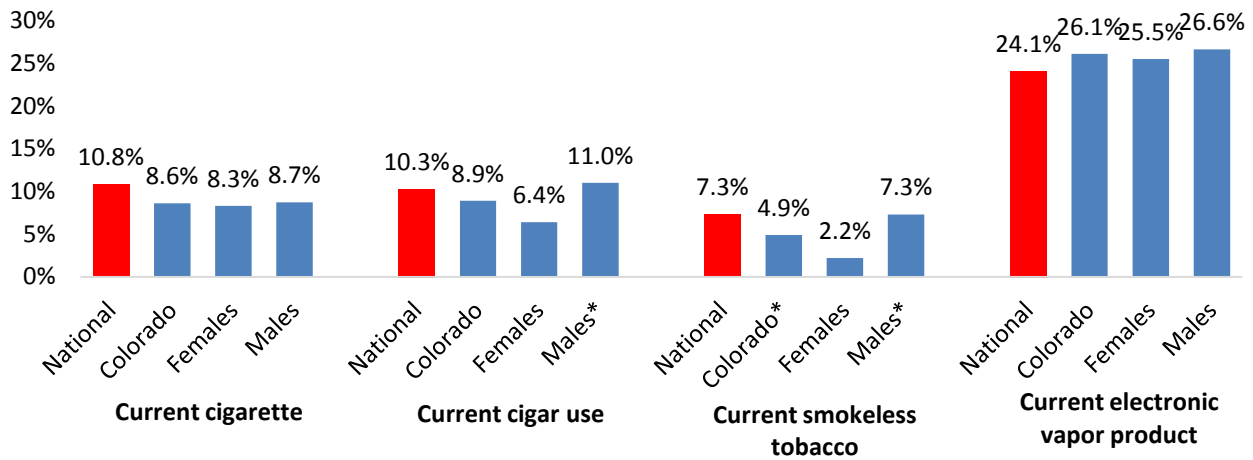


Figure 2b. Tobacco Use, High School 2015

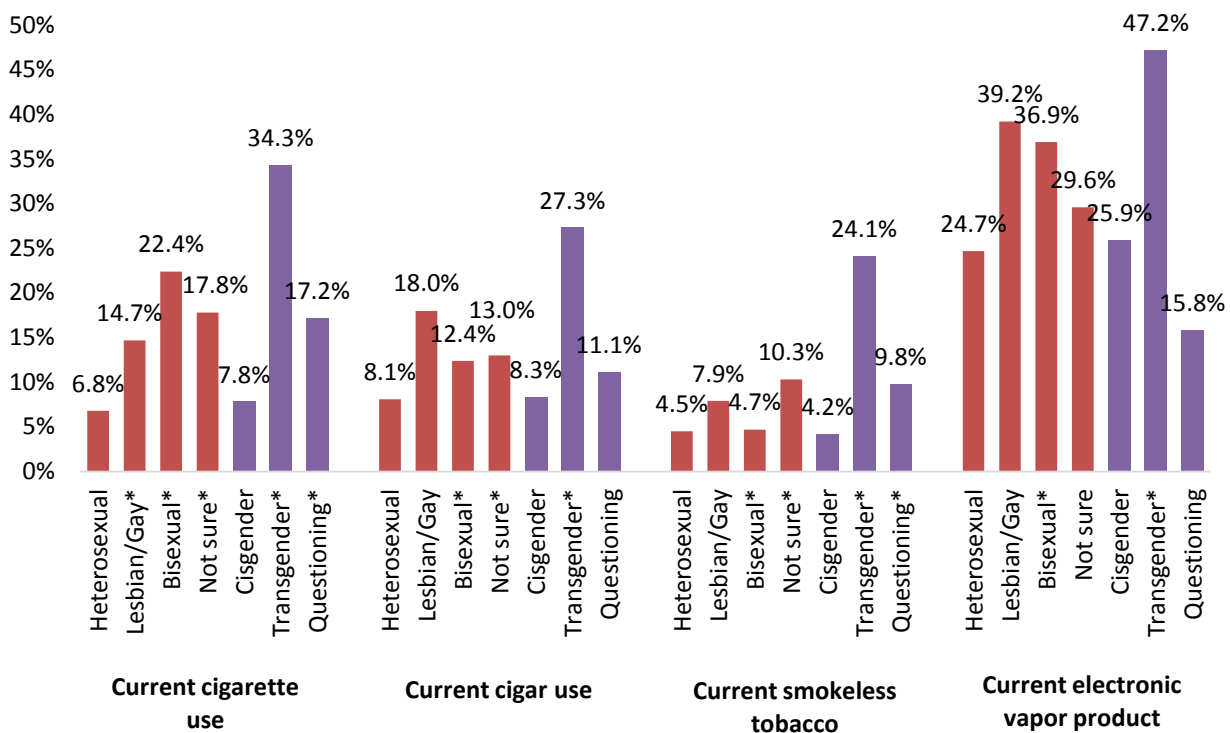
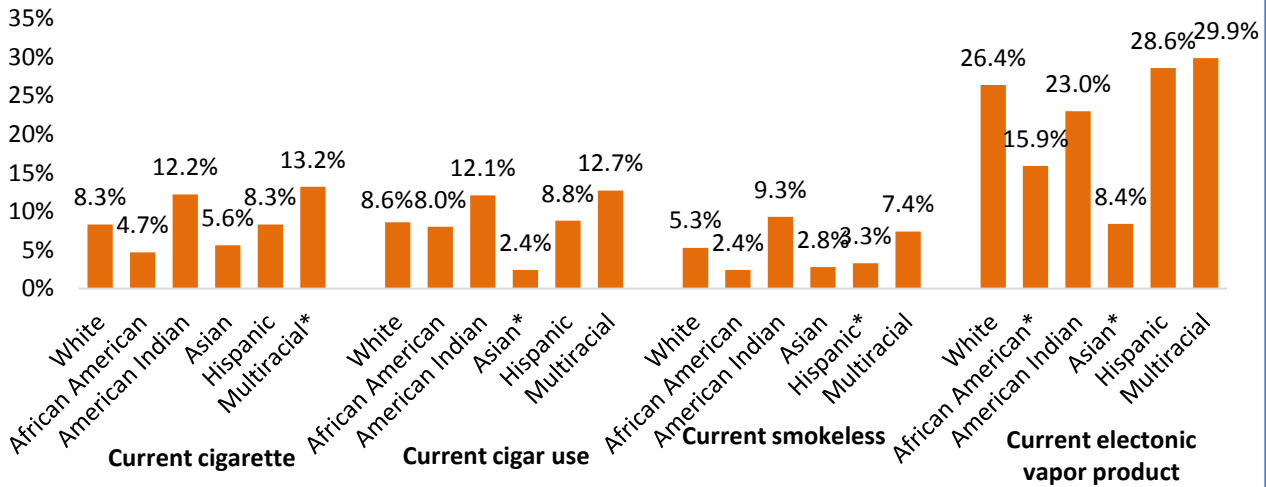


Figure 2c. Tobacco Use, High School 2015



Alcohol Use

Compared to other substances, students in Colorado are most likely to drink alcohol. Colorado does not significantly differ from the national average for alcohol use. Males are less likely than females to have drank alcohol in the past 30 days (Figure 3a). A majority of students say alcohol is easy or sort of easy to get. LGBT students are more likely to have drank alcohol in the past 30 days compared to heterosexual and cisgender students. In general, white students drink alcohol at higher rates compared to other race/ethnicity and report easier access to alcohol if they wanted it (Figure 3c).



Figure 3a. Alcohol Use, High School 2015

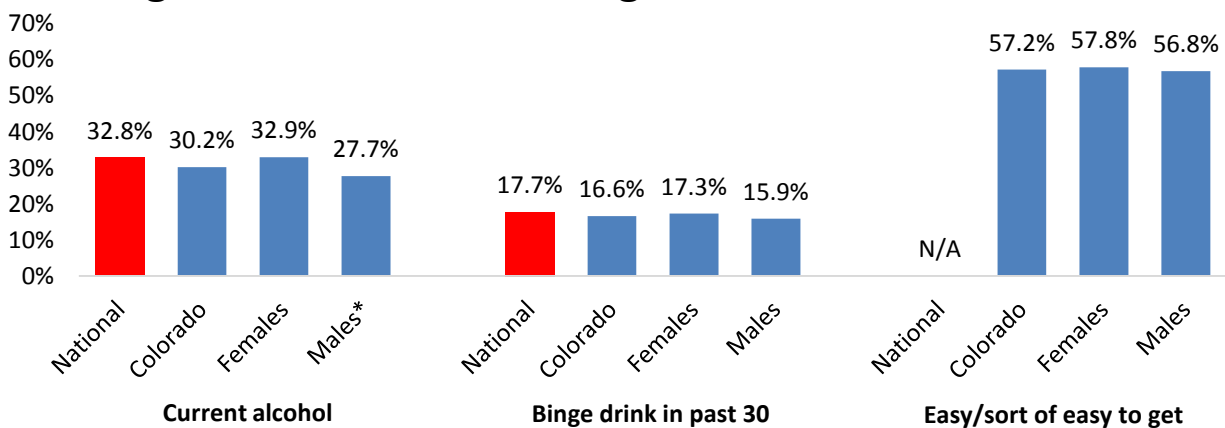


Figure 3b. Alcohol Use, High School 2015

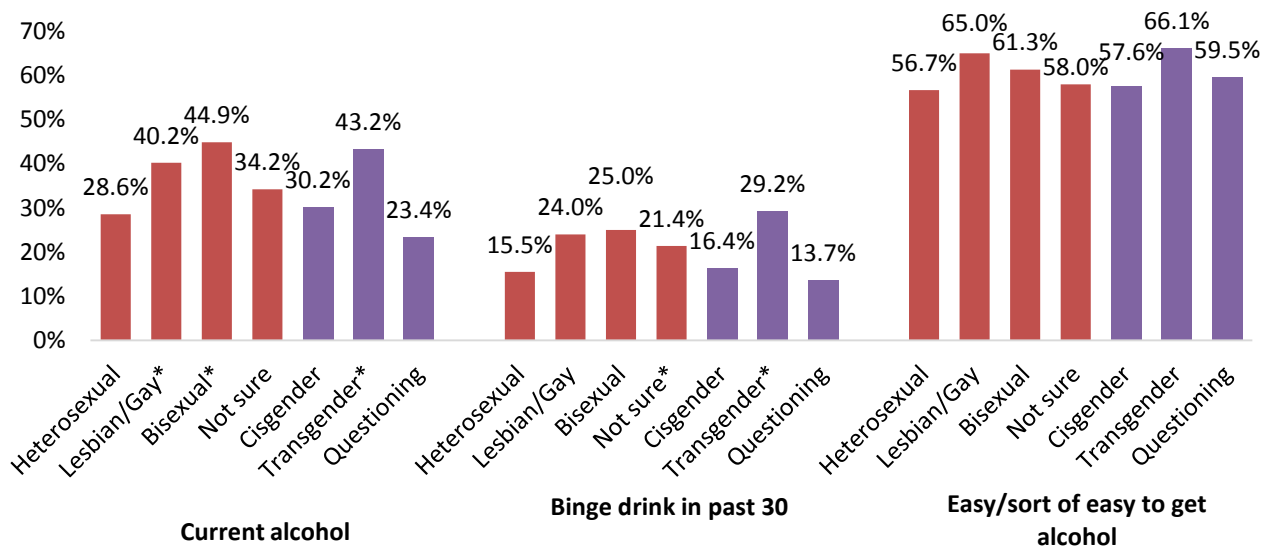
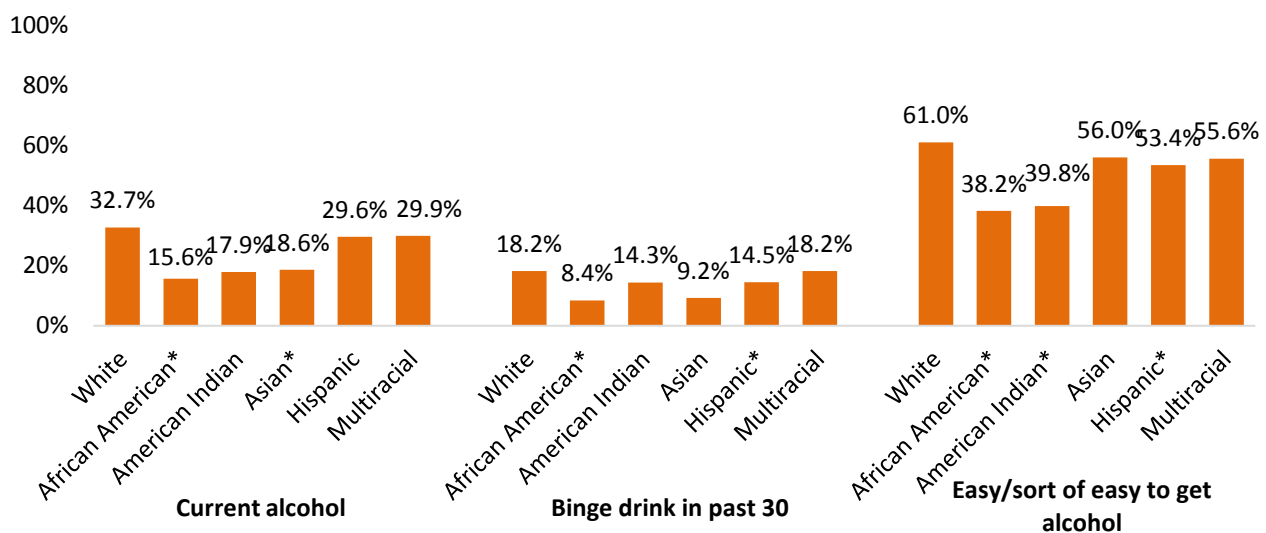


Figure 3c. Alcohol Use, High School 2015



Marijuana Use

Four out of five Colorado high school students have not used marijuana in the last 30 days, a rate that remains relatively unchanged since 2013. Colorado does not significantly differ from the national average in lifetime or current marijuana use (Figure 4a). Also, there are not significant differences by sex (Figure 4a). Bisexual students report higher rates of ever and current marijuana use compared to heterosexual students, and easier access to marijuana (Figure 4b). Asian, Hispanic/Latino and multiracial students report lower rates of ever or current marijuana use compared to whites (Figure 4c).

Figure 4a. Marijuana Use, High School 2015

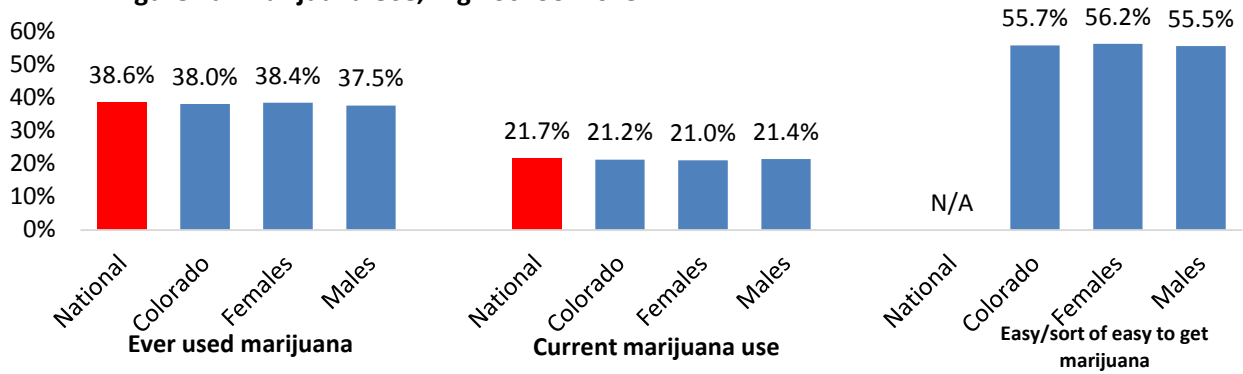


Figure 4b. Marijuana Use, High School 2015

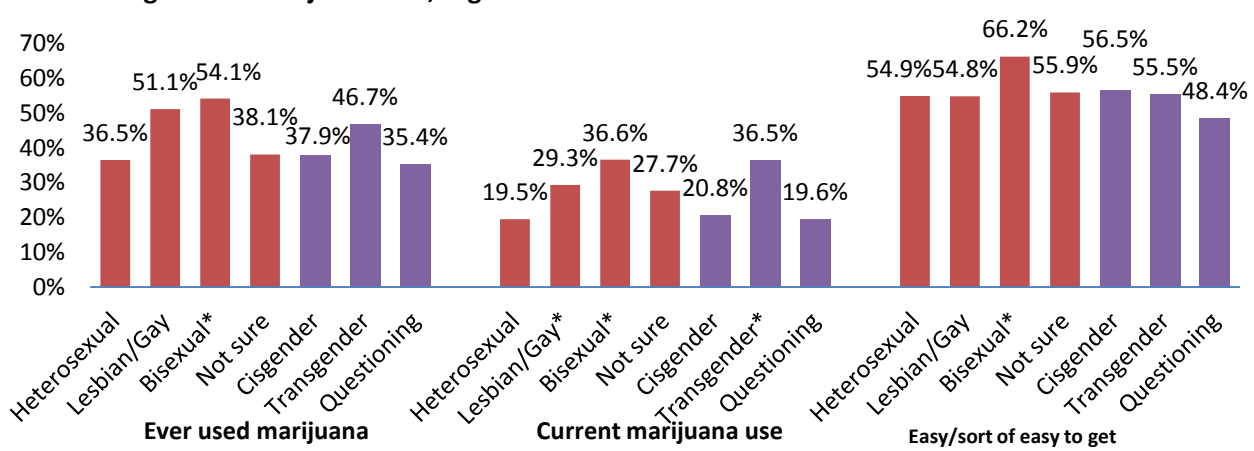
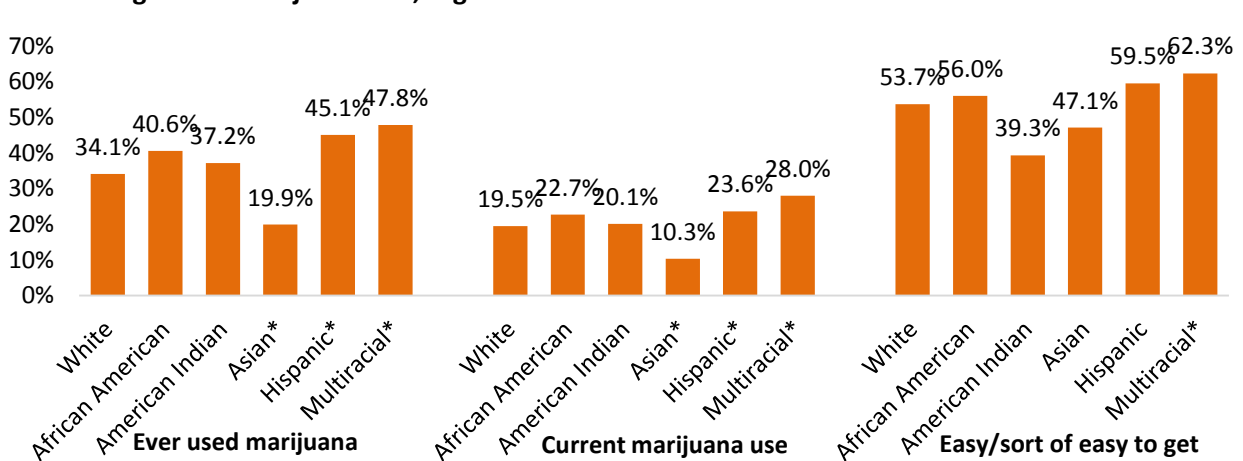


Figure 4c. Marijuana Use, High School 2015



Other Substance Use

Among other illicit drugs, Colorado students are most likely to use prescription drugs without a doctor's prescription. Colorado does not significantly differ from the nation on these indicators. Males are more likely than females to have ever used ecstasy. Across other illicit substances there are substantial differences by sexual orientation and gender identity, with transgender students having particularly high rates (Figure 5b). As a general pattern, those identifying as multiracial were more likely than whites to have ever used illicit drugs. American Indians did not have a statistically significant difference in substance use rates.

Figure 5a. Lifetime use of other Drugs, High School 2015

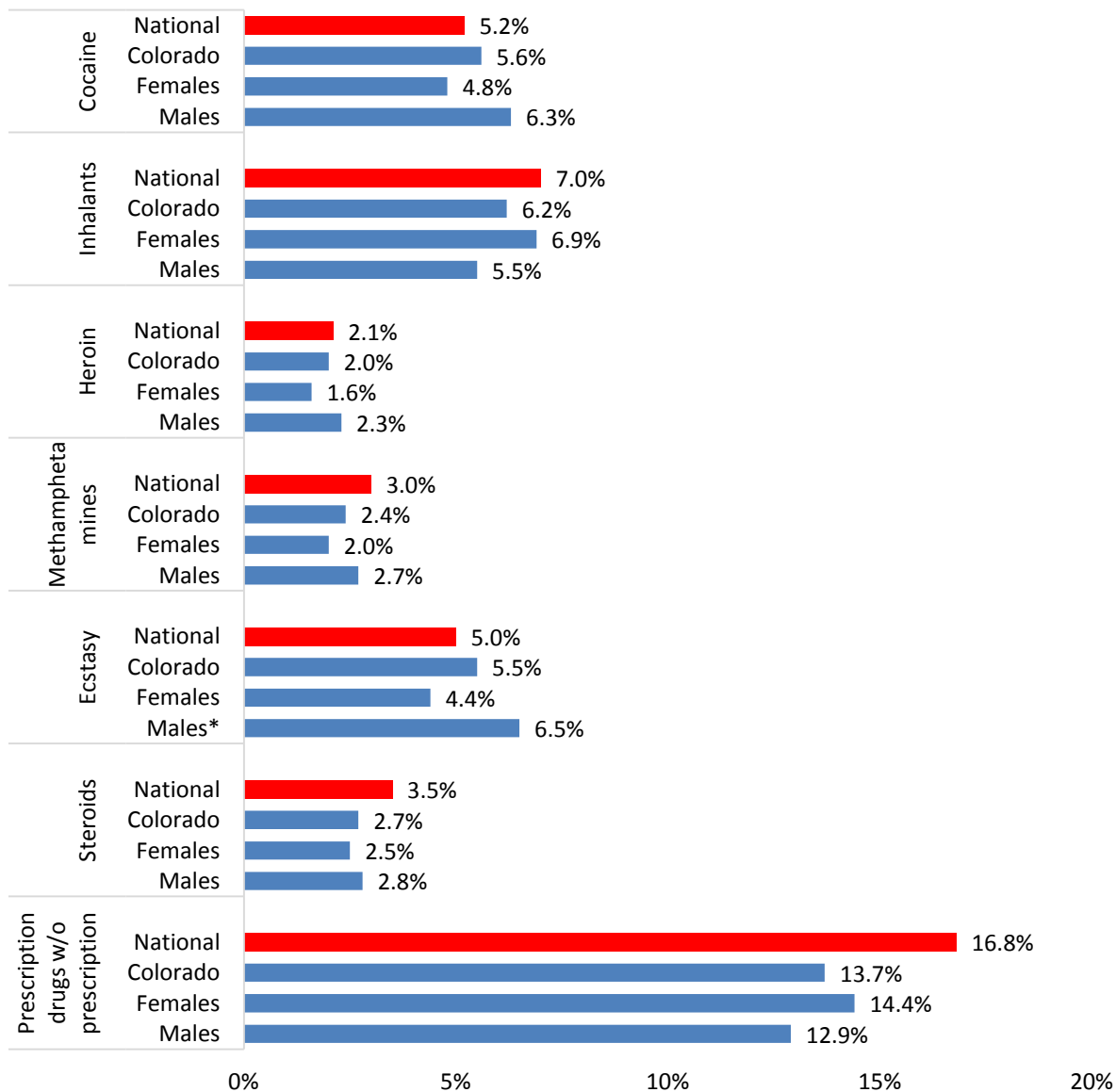


Figure 5b. Lifetime use of other Drugs, High School 2015

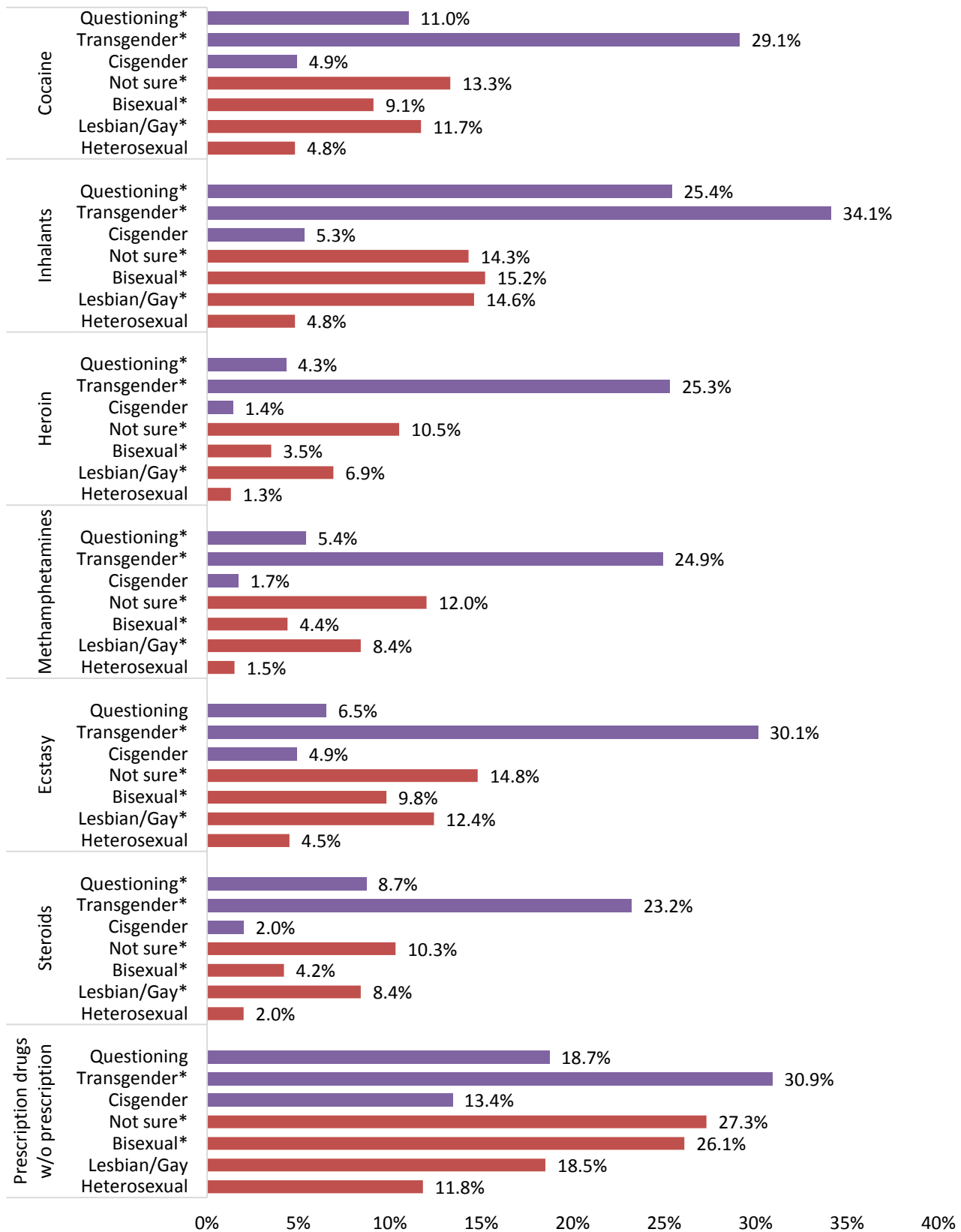
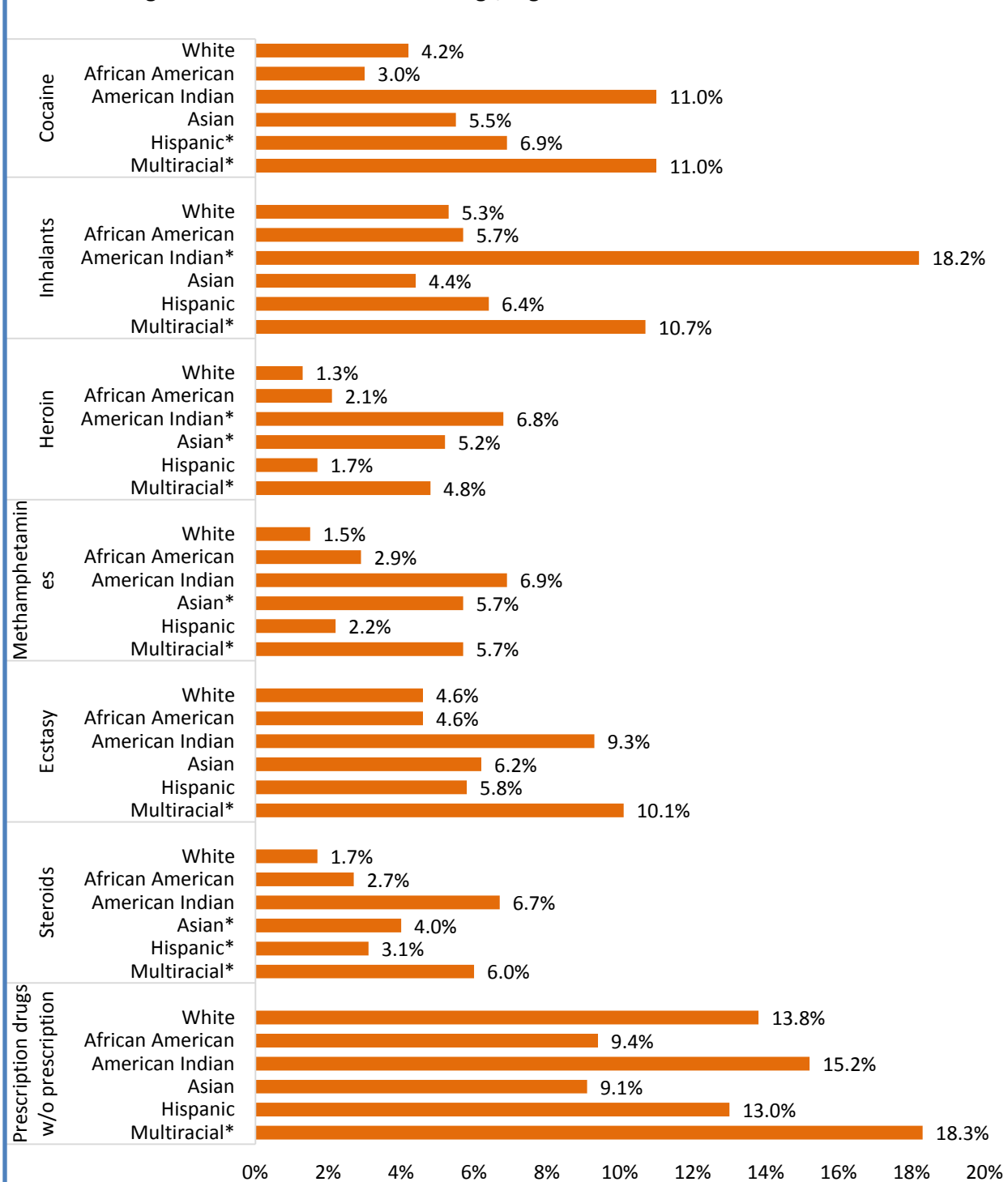
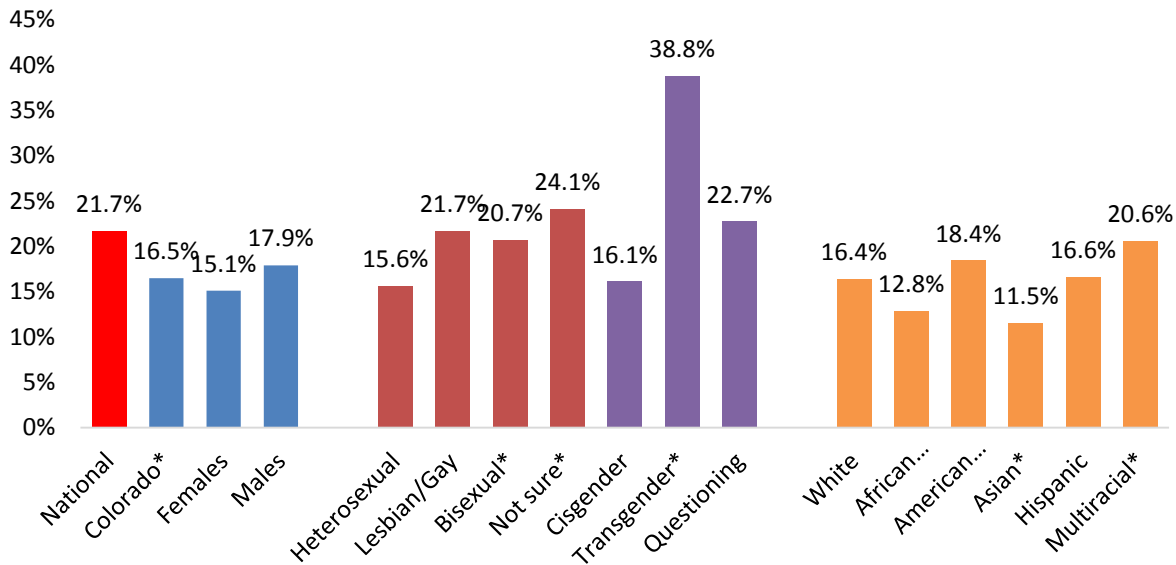


Figure 5c. Lifetime use of other Drugs, High School 2015



Colorado high school students are less likely than the national average to have been offered drugs on school property in the past 12 months. Students identifying as bisexual or not sure (compared to heterosexual) and those identifying as transgender (compared to cisgender) were more likely to have been offered drugs. American Indian/Alaska Native and multiracial students reported a higher rate of having been offered drugs on school property in the past 12 months than white students. Asian students, compared to white students, had a lower rate of being offered drugs on school property (Figure 6).

Figure 6. Offered Drugs on School Property in Past 12 Months, High School 2015



Bullying, Personal Safety and Violence

LGBT students experience the highest rates of bullying, threats to personal safety and violence. Females are more likely than males to report having been bullied on school property and bullied electronically (through e-mail, text, chat rooms, messaging applications, or websites) in the past 12 months (Figure 7a). There were large inequities in the prevalence of having been bullied by sexual orientation and gender identity compared to heterosexual or cisgender students.

LGBT students report higher rates for almost every bullying indicator, with transgender students reporting the highest rates of bullying, more than double that of cisgender students. Hispanic/Latino students report lower levels of having been bullied at school and electronically than white students. African American/Black students also reported lower prevalence of having been bullied electronically or because of perceived sexual orientation than white students. Multiracial students reported a higher prevalence of having been bullied because of perceived sexual orientation than white students (Figure 7c).



Figure 7a. Bullying, High School 2015

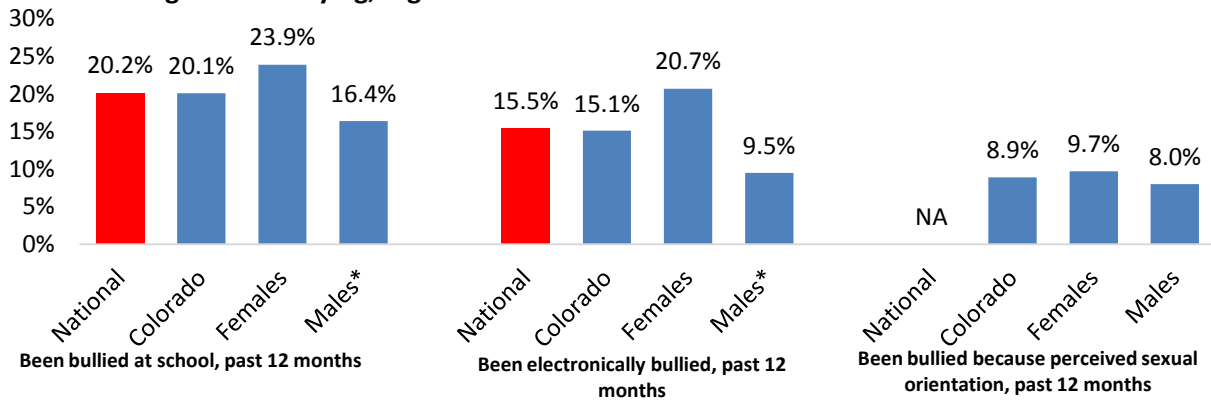


Figure 7b. Bullying, High School 2015

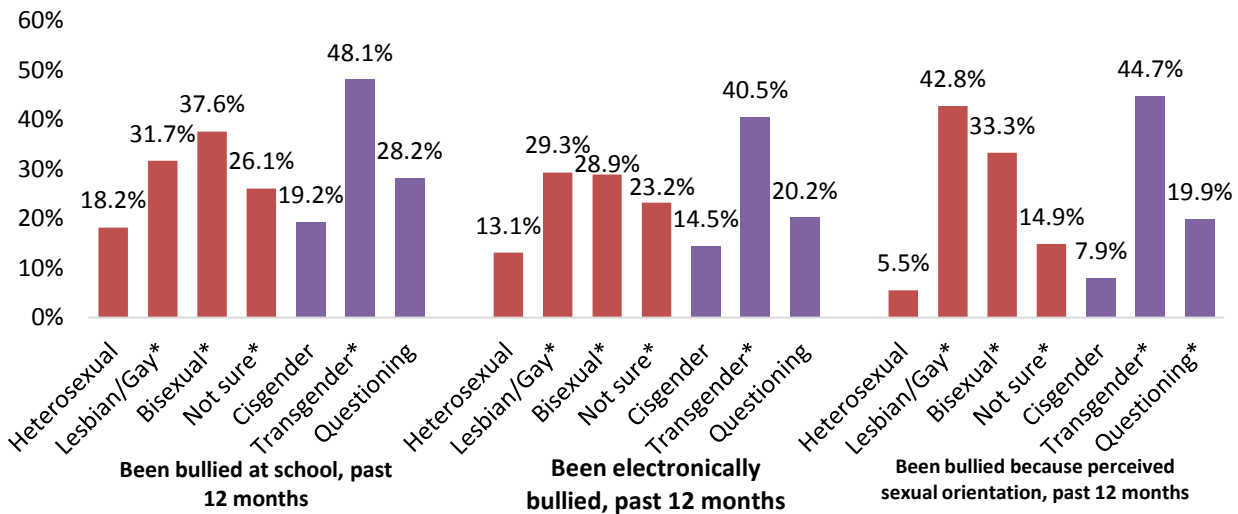
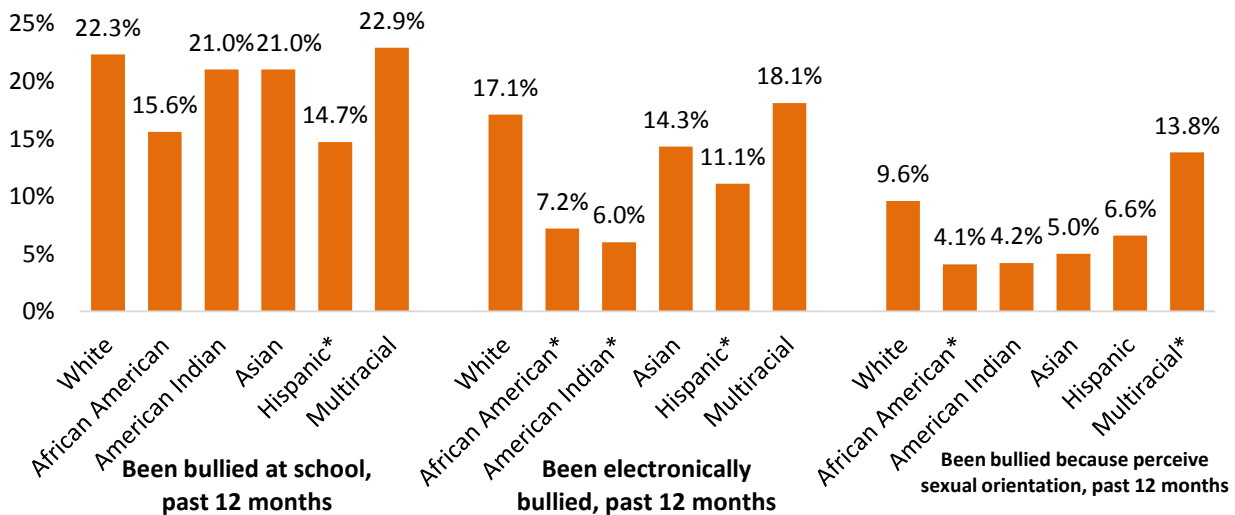


Figure 7c. Bullying, High School 2015



Colorado does not significantly differ from the nation in personal safety and violence indicators. Males are more likely than females to have been in a fight or been threatened or injured with a weapon (Figure 8a). Students identifying as LGB, or not sure and those identifying as transgender or questioning their gender identity had significantly higher rates of one or more indicators of violence or personal safety. For example, about one in three transgender students reported having been in a fight in the past 12 months, been threatened or injured on school property in the past 12 months, and missed school because they felt unsafe in the past 30 days compared to white students.



Multiracial students were more likely than white students to report having been in a fight in the past 12 months, been threatened or injured on school property in the past 12 months, and missed school because they felt unsafe in the past 30 days compared to white students. African American/Black, American Indian, and Hispanic/Latino students were more likely to report having been in a physical fight in the past 12 months compared to white students.

Figure 8a. Personal Safety and Violence, High School 2015

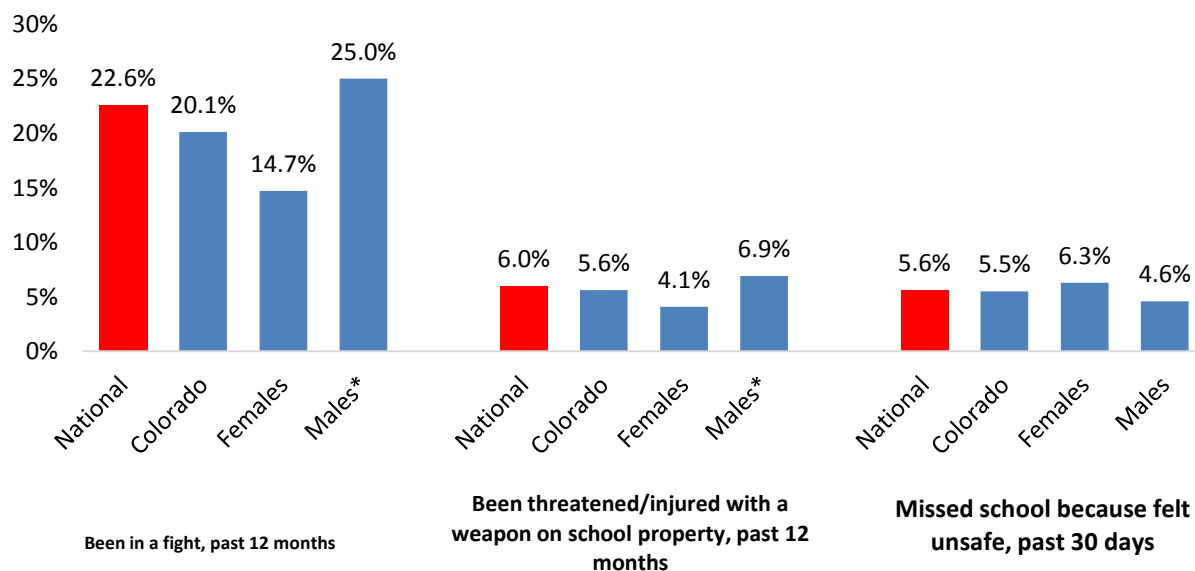


Figure 8b. Personal Safety and Violence, High School 2015

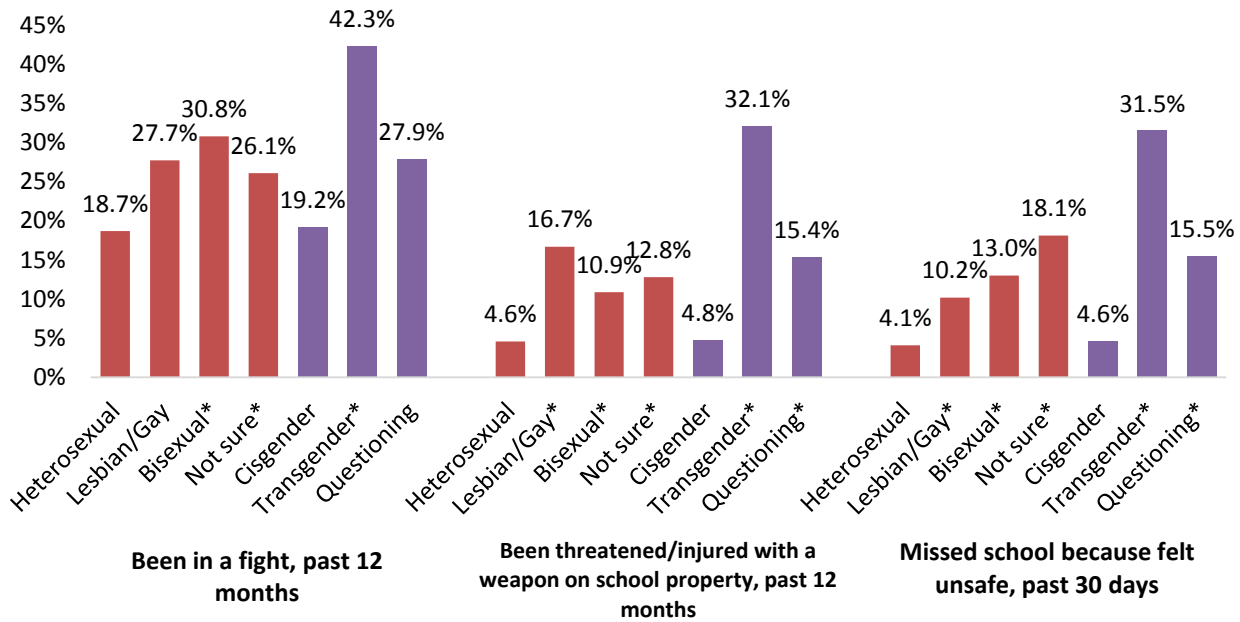
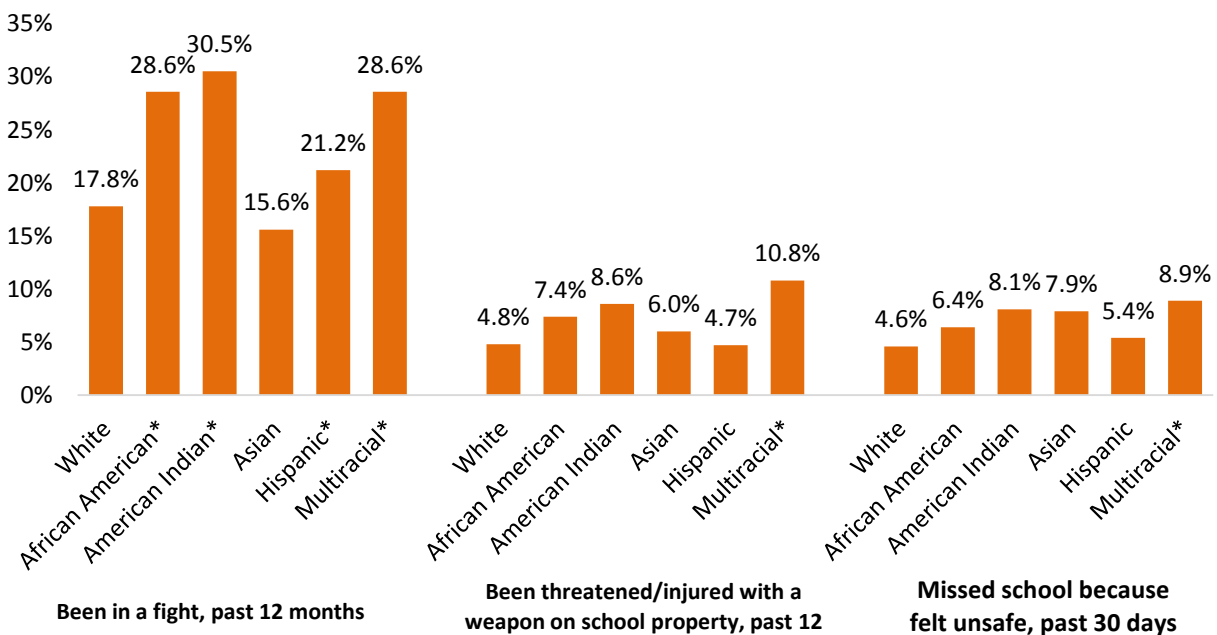


Figure 8c. Personal Safety and Violence, High School 2015



Mental Health

Colorado students experience depression and suicide at a similar rate to the rest of the nation. Approximately twice as many females as males reported having been sad, considered suicide or attempted suicide in the past 12 months. There were also dramatic differences by sexual orientation and gender identity with LGBT students reporting higher rates of all three mental health indicators (Figure 9b). Multiracial students reported higher rates of all three mental health indicators compared to white students. African American/Black students had lower rates of having considered suicide as compared to white students (Figure 9c).



Figure 9a. Mental Health and Suicide, High School 2015

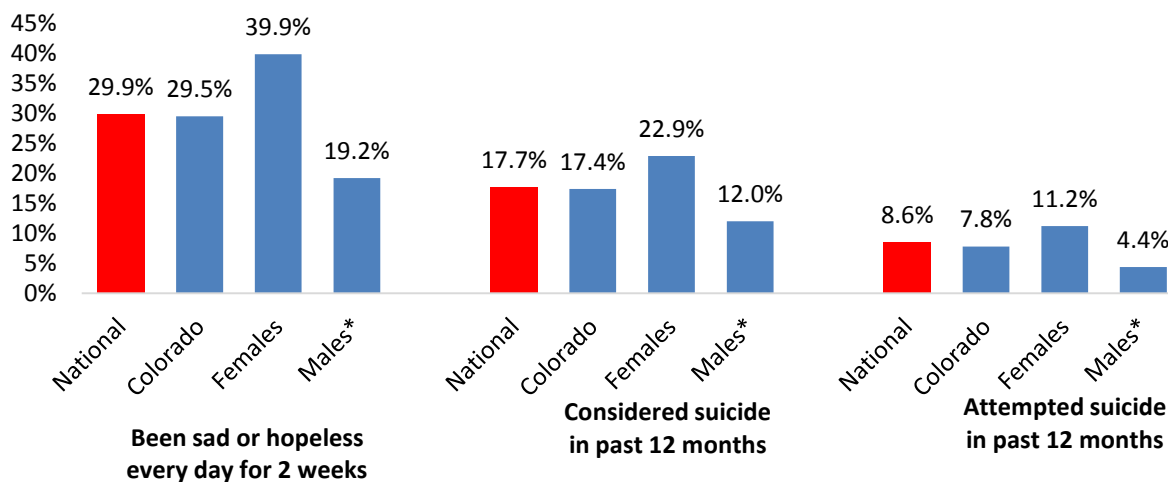


Figure 9b. Mental Health and Suicide, High School 2015

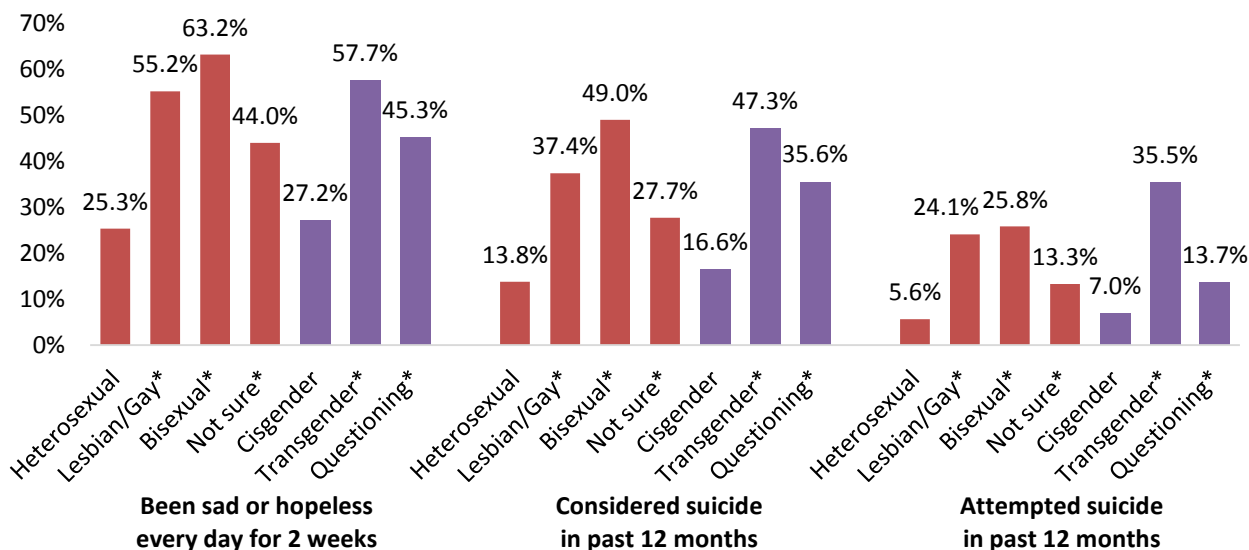
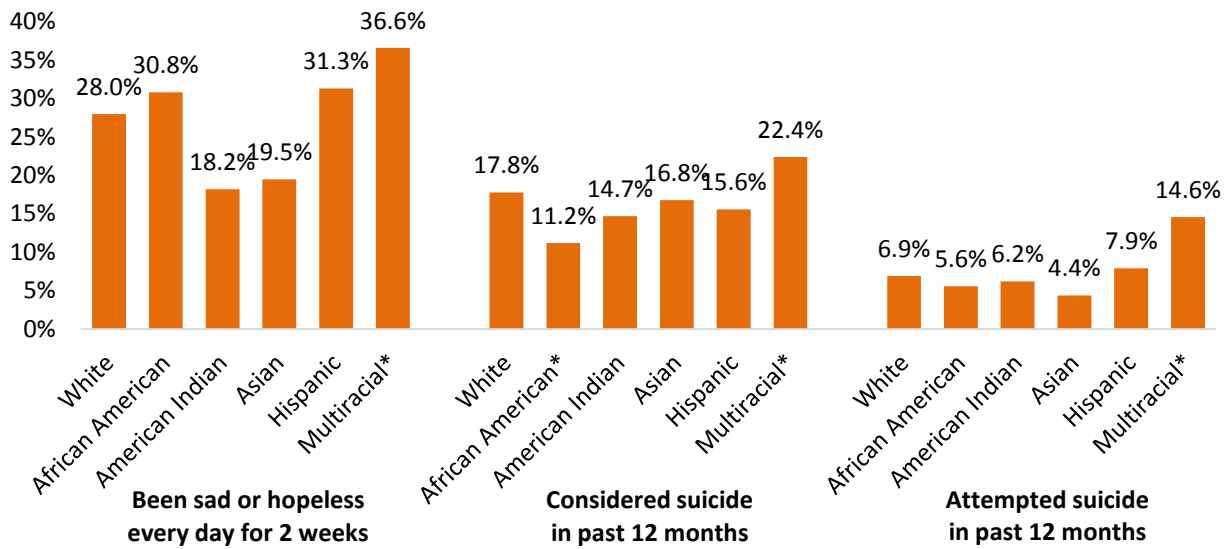


Figure 9c. Mental Health and Suicide, High School 2015



Sexual Health

Colorado students are significantly less likely to be sexually active than the nation (as defined by having had sex in the past three months). Males were more likely than females to have ever had sex (Figure 10a). LGBT students were more likely to have ever had sex and not use birth control the last time they had sex. Bisexual students were more likely than heterosexual students to be sexual active and students questioning their gender identity were more likely than cisgender students to not use birth control the last time they had sex. For the three sexual health indicators, Asian students are less likely than white students to have ever had sex or be sexually active but more likely to not use birth control the last time they had sex compared to white students. Hispanic/Latino students were more likely than white students to have ever had sex and not use a birth control the last time they had sex. Multiracial students were more likely than white students to have ever had sex (Figure 10c).

Figure 10a. Sexual health, High School 2015

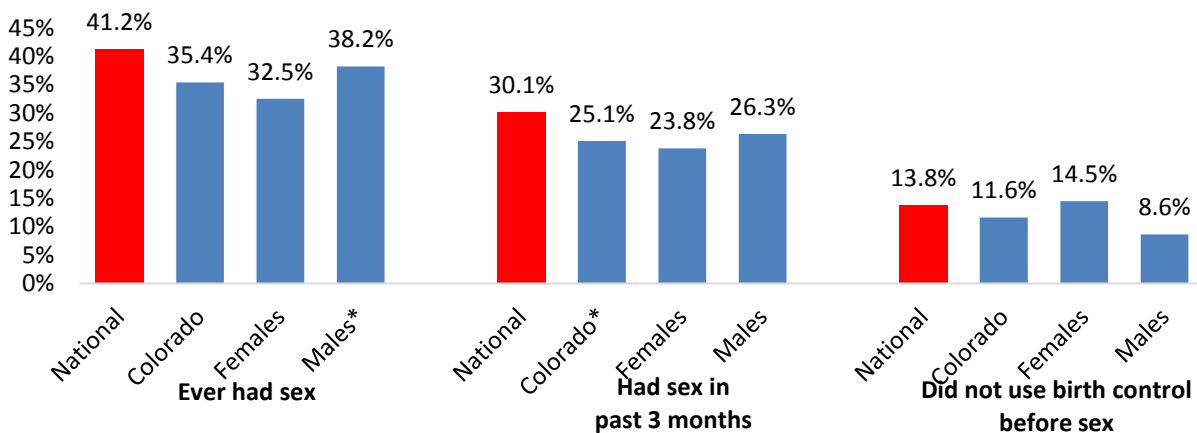


Figure 10b. Sexual health, High School 2015

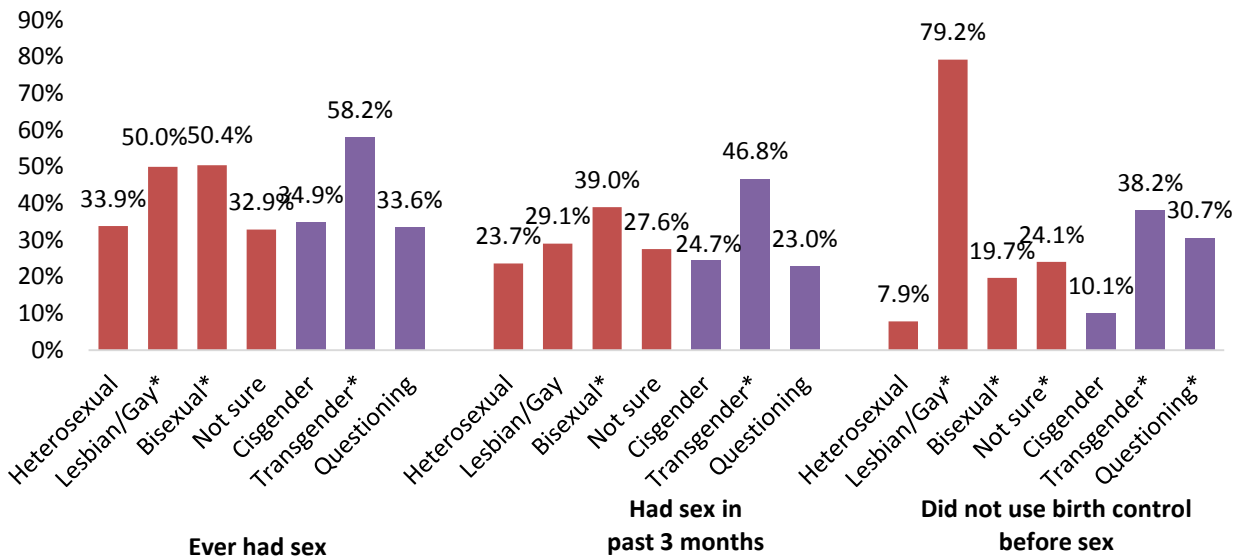
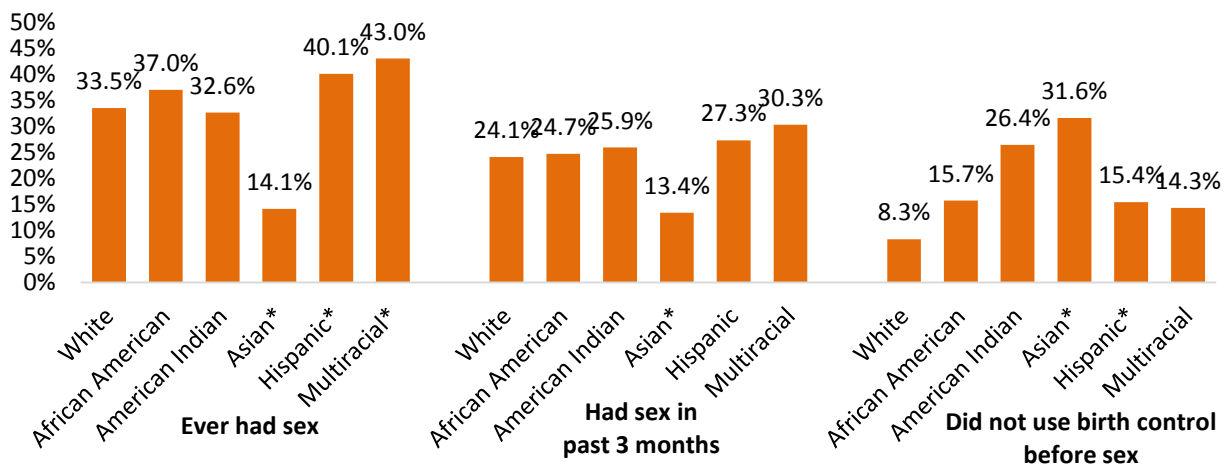


Figure 10c. Sexual health, High School 2015



School Engagement

High school students are less likely to engage in risky behaviors if they have a trusted adult in their lives. The HKCS includes a number of questions related to school engagement and climate as well as relationships with parents, teachers, and other trusted adults. These questions are not collected on a national level.

The majority of high school students agree or strongly agree that teachers care about them and encourage them and a majority participated in extracurricular activities at school (Figure 11a). Less than one in four students has skipped a whole day of school in the past four weeks. Bisexual students are less likely than heterosexual students to agree that teacher care and encourage them, less likely to participate in extracurricular activities, and more likely to have skipped school. Transgender students were more likely than cisgender students to have skipped a day of school in the past four weeks (Figure 11c).



Figure 11a. Youth Engagement in School, High School 2015

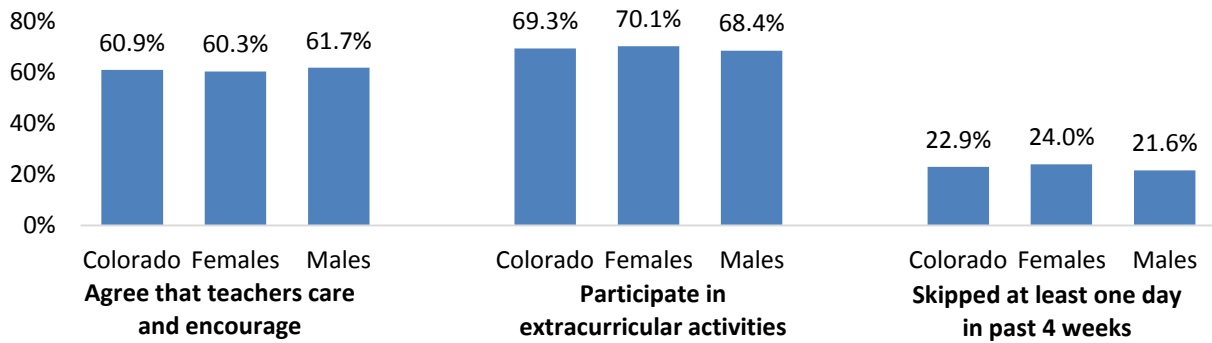


Figure 11b. Youth Engagement in School, High School 2015

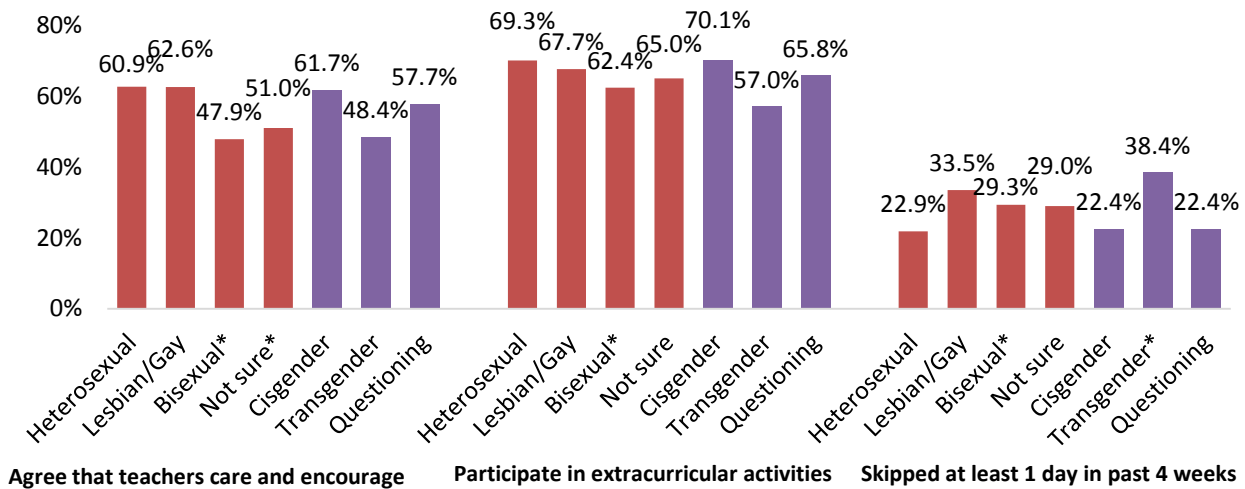
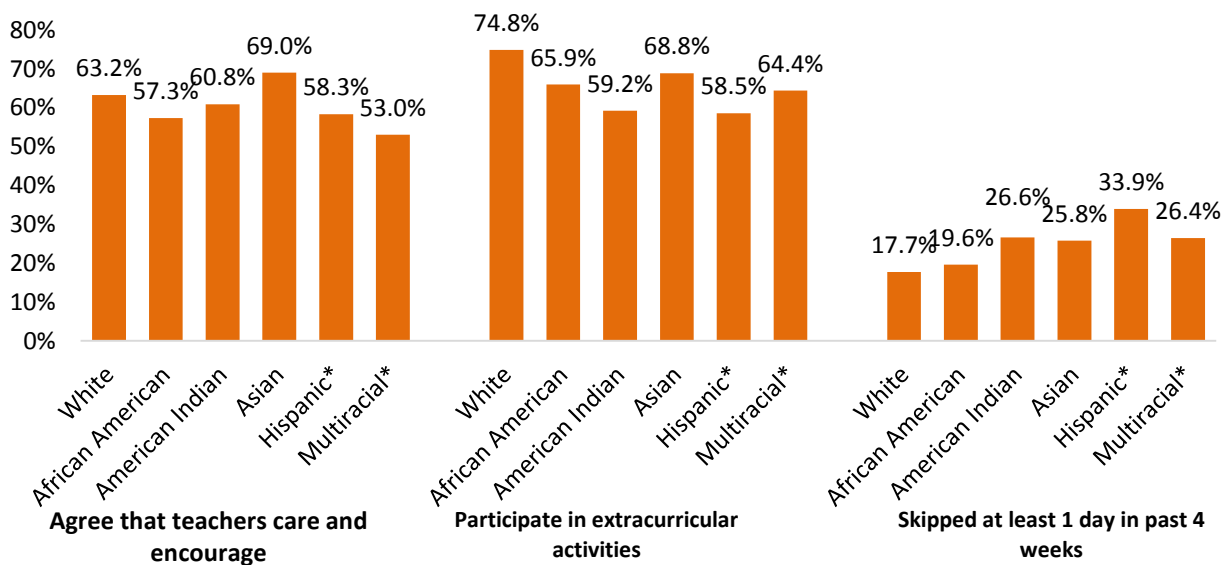


Figure 11c. Youth Engagement in School, High School 2015



Putting Data into Action

Despite the fact that Colorado is seeing positive impacts on the overall health and well-being of young people, health equity plays an increasingly important role. This means ensuring that all young people in Colorado - including young people of color, lesbian, gay, bisexual, transgender, queer, and questioning young people and those living in poverty and/or experiencing homelessness - have access to caring supportive adults, safe neighborhoods and high-quality schools, inclusive community resources, culturally responsive physical and mental health providers and healthy foods.

The Healthy Kids Colorado Survey data can be used to assess the health of young people in local communities across Colorado. It can be used to:

- Identify trends and changes in healthy behaviors over time.
- Build community partnerships to collaboratively address community health issues, overcome barriers and measure success.
- Assess student health needs and school climate.
- Determine gaps in health services for young people in a specific school, district, region, or statewide.
- Justify the use and measure the effectiveness of evidence-based interventions or promising health programs that improve health outcomes.
- Secure program funding for schools, community organizations, and local public health agencies.
- Improve health equity among all young people.

The Healthy Kids Colorado Survey is one important tool for decision-makers, communities, families and youth that supports communities all across Colorado through providing a lens into their ongoing needs and allowing Colorado to encourage the growth of the healthiest youth in the nation.

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

Email questions to:

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