Youth Substance Use

Tobacco, E-Cigarette/Vape, Alcohol, Opioid and Marijuana Use
Washington State Healthy Youth Survey, 2018

Contents

Introduction

This report summarizes indicators from the Washington State Healthy Youth Survey (HYS) related to tobacco, e-cigarette/vape, alcohol and marijuana use. The results of the HYS are used across the state and most results are available online at www.AskHYS.net. This report focuses on describing trends and discussing interpretations and limitations of questions to complement the analyses available online. Figures showing select subpopulation estimates of certain indicators are included in the appendix.

Highlights

- Overall, substance use is down and declining among Washington State youth with two notable exceptions: e-cigarettes/vaping and marijuana use.

- E-cigarette use increased dramatically among 8th, 10th and 12th grade students between 2016 and 2018.

- Marijuana use has been stable and highly prevalent since 2002.

- There was a significant increase in the prevalence of students using nicotine in their e-cigarettes in 2018.

- Beginning in 2014, more 10th grade students reported cigarettes were very hard to get than reported marijuana was very hard to get.

- As of 2018, the prevalence of perceiving great risk of harm from regular marijuana use is significantly lower than that of e-cigarette use.

- There is a persistent and often dramatic disparity in substance use and related risk factors among students who identify as lesbian, gay, bisexual or questioning (LGBQ).

Past 30-day cigarette smoking trends

On the Healthy Youth Survey, cigarette smoking in the past 30 days is assessed by asking youth, "During the past 30 days, on how many days did you: Smoke cigarettes?" Any response other than "0 days" is counted as past 30-day use and "0 days" is counted as no past 30-day use.

Overall, 6th and 8th grade cigarette smoking has been declining in Washington State since 2002 while 10th grade cigarette smoking has been declining since 2008 and 12th grade cigarette smoking has been declining since 2010. See figure A.1 in the appendix for how smoking varies by subpopulations in 2018.

Figure 1. Past 30-day cigarette smoking by grade, HYS, 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
6th grade	2.2	2.0	1.9	1.4	1.7	1.2	1.1	0.5	1.0
8th grade	9.1	7.8	6.4	7.3	6.6	5.1	4.0	3.1	2.7
10th grade	15.0	13.0	14.9	14.4	12.7	9.5	7.9	6.3	5.0
12th grade	22.7	19.7	20.0	20.0	19.6	15.6	13.0	11.0	8.0
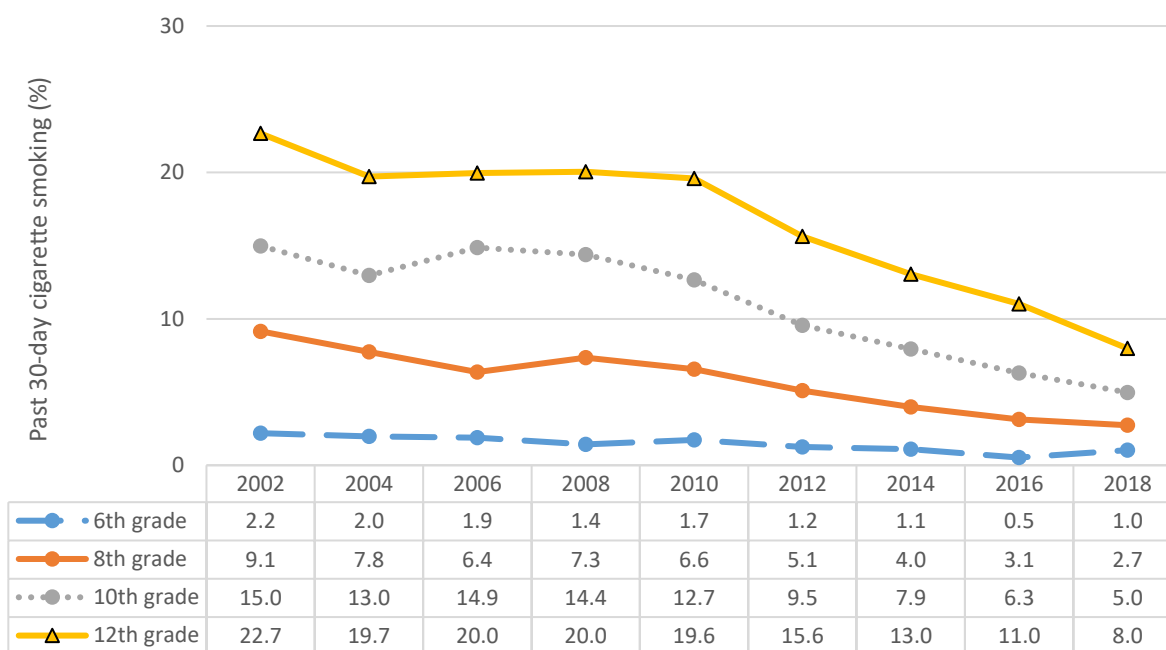
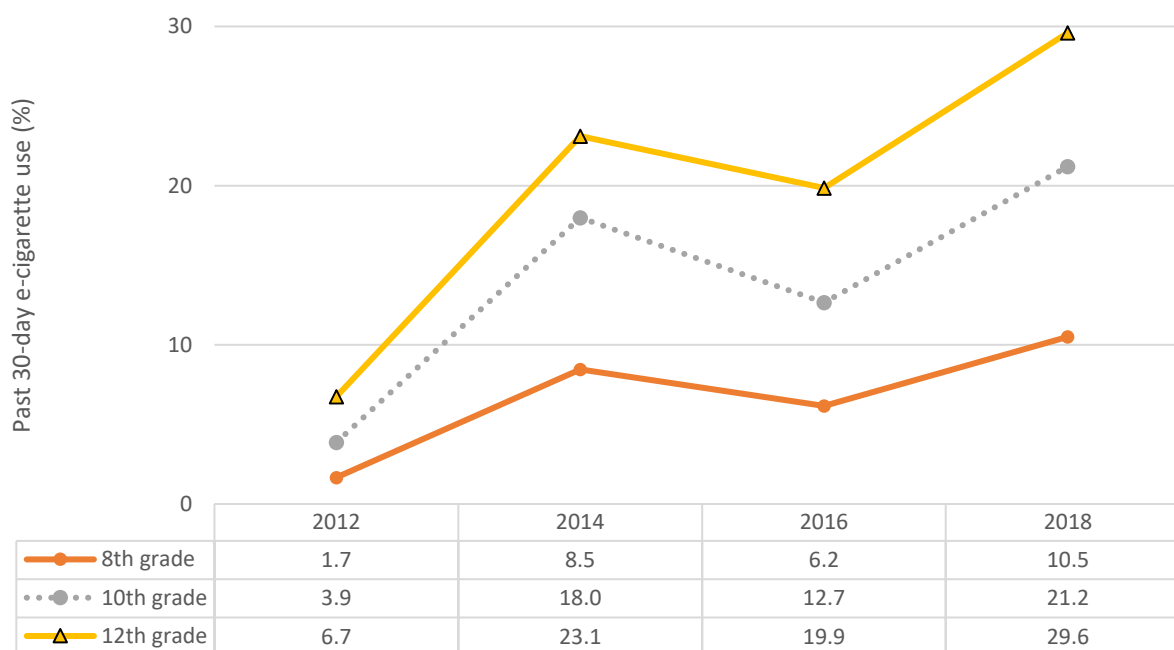- 6th grade past 30-day smoking decreased by about 0.1 percentage points per year between 2002 and 2018.

- 8th grade past 30-day smoking decreased by about 0.4 percentage points per year between 2002 and 2018.

- 10th grade past 30-day smoking decreased by about 0.9 percentage points per year between 2008 and 2018.

- 12th grade past 30-day smoking decreased by about 1.3 percentage points per year between 2010 and 2018.

Past 30-day e-cigarette use trends

E-cigarette/vape use in the past 30 days has been assessed four times on the HYS and has been asked three different ways. In 2012 the question asked, "During the past 30 days, on how many days did you: Use electronic cigarettes or e-cigs?" In 2014, the question read, "During the past 30 days, on how many days did you: Use an electronic cigarette, also called e-cigs, or vape pens?" and in 2016 and 2018 the language was the same as in 2014, but the response options were expanded to include more day ranges (e.g., 3-5 days or 6-9 days instead of 3-9 days). Care should be taken when interpreting data from 2012 because it is not known what change, if any, is attributable to the change in question language. For the following analysis, any response other than "0 days" is counted as past 30-day use and "0 days" is counted as no past 30-day use.

There are insufficient time points to assess linear trends, but all the time points below within each grade (i.e., 8th grade 2012 vs. 2014 or 10th grade 2012 vs. 2016) are significantly different from each other. All grades had a significant increase in e-cigarette/vape prevalence between 2012 and 2014, a significant decrease in e-cigarette/vape prevalence between 2014 and 2016 and a significant increase between 2016 and 2018. The increase between 2016 and 2018 mirrors national trends and has been attributed to the rapid rise in popularity of JUUL e-cigarettes.[1] See figure A.2 in the appendix to see how e-cigarette use varies by subpopulation in 2018.

Figure 2. Past 30-day e-cigarette/vape use by grade, HYS, 2012-2018

	2012	2014	2016	2018
8th grade	1.7	8.5	6.2	10.5
10th grade	3.9	18.0	12.7	21.2
12th grade	6.7	23.1	19.9	29.6

---

[1] 1: King BA, Gammon DG, Marynak KL, Rogers T. Electronic Cigarette Sales in the United States, 2013-2017. JAMA. 2018 Oct 2;320(13):1379-1380. doi: 10.1001/jama.2018.10488. PubMed PMID: 30285167; PubMed Central PMCID: PMC6233837.

Past 30 day cigar smoking trends

Cigar use in the past 30 days has been assessed on the HYS since 2002 with the following question: During the past 30 days, on how many days did you: Smoke cigars, cigarillos, or little cigars? 0 days, 1–2 days, 3–9 days, 10–29 days, or All 30 days. As with cigarette smoking, students who indicated they smoked cigars on one to thirty of the past thirty days are coded as being past 30-day cigar smokers.
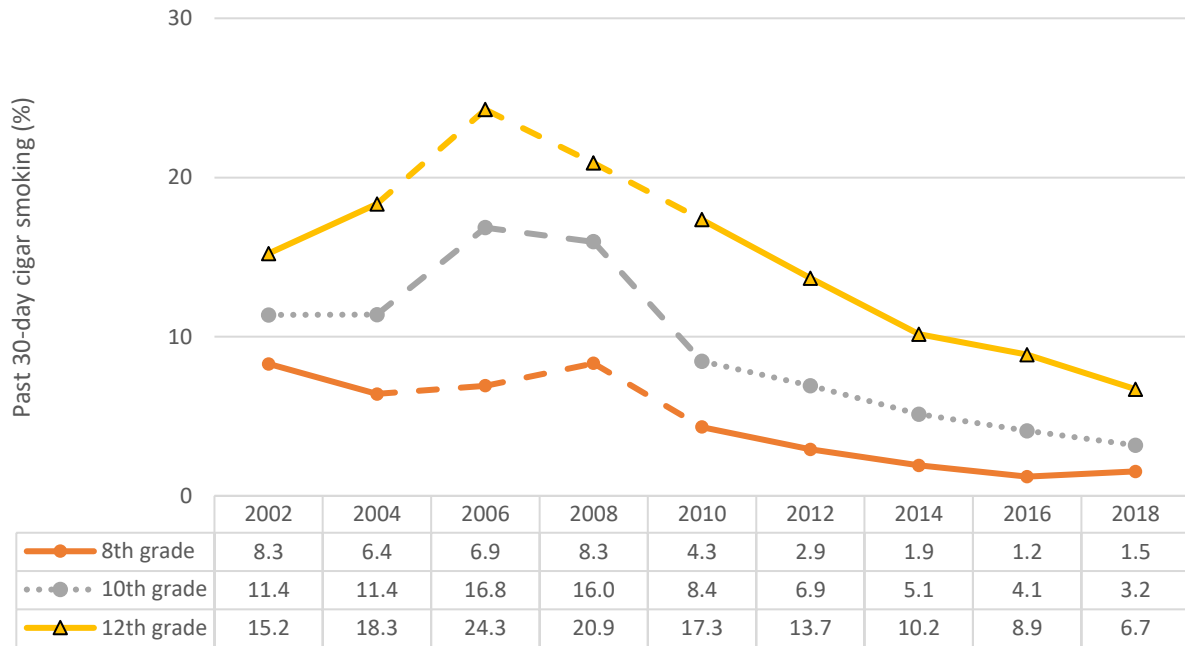
In 2006 and 2008, the cigar use question was moved to an optional tear-off page at the end of the survey. The tear-off page also included questions about dating violence and sex education. The 2008 HYS Bias Analysis[2] reports 15-30 percent of schools removed the tear-off section, but goes on to find that responses were not biased by differences between schools that did and did not include the tear-off. The tear-off was at the end of the survey, so non-completion may also be a source of bias in 2006 and 2008. Students who completed the survey had higher prevalence rates of better grades, feeling safe at school and, among 8th graders, not smoking. Knowing this, one would expect to see lower rates of cigar smoking in these years, but the below figure indicates the opposite: the highest prevalence rates of cigar smoking among 10th and 12th grade students are seen in 2006 and 2008. Also, the increase in 2006 and 2008 does not align with results from the National Youth Risk Behavior Survey, which finds cigar smoking in the past 30 days among U.S. high school students (grades 9-12) hovered between 13 to 15 percent between 2003 and 2011. HYS cigar use estimates from 2006 and 2008 should be interpreted with caution. These estimates are highlighted in the following figure with dashed lines.

Between 2010 and 2018 there were significant decreases in cigar smoking among 8th, 10th and 12th grade students. Among 8th grade students, past 30-day cigar use declined from 4.3 percent (95% CI: 3.6-5.1%) in 2010 to 1.5 percent (95% CI: 1.2-2.0%) in 2018. Among 10th grade students, past 30-day cigar use declined from 8.4 percent (95% CI: 7.2-9.8%) in 2010 to 3.2 percent (95% CI: 2.5-4.0%) in 2018. Among 12th grade students, past 30-day cigar use declined from 17.3 percent (95% CI: 15.0-20.0%) in 2010 to 6.7 percent (95% CI: 5.7-7.9%) in 2018. See figure A.3 in the appendix to see how cigar smoking varies by subpopulation in 2018.

---

[2] http://www.askhys.net/Docs/2008HYSBiasAnalysis.pdf

Figure 3. Past 30-day cigar smoking among by grade, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
8th grade	8.3	6.4	6.9	8.3	4.3	2.9	1.9	1.2	1.5
10th grade	11.4	11.4	16.8	16.0	8.4	6.9	5.1	4.1	3.2
12th grade	15.2	18.3	24.3	20.9	17.3	13.7	10.2	8.9	6.7

Past 30 day smokeless tobacco use trends

Smokeless tobacco use has been assessed on the survey since 2002 using the following question: During the past 30 days, on how many days did you: Use chewing tobacco, snuff, or dip? None, 1–2 days, 3–5 days, 6–9 days, 10–29 days, All 30 days. Again, students who indicate they used smokeless tobacco on one to thirty of the past thirty days are coded as past 30-day smokeless tobacco users.

The prevalence of smokeless tobacco use in the past 30 days among 8th grade students declined by 0.1 percentage points each year between 2002 and 2018. The prevalence declined by 0.4 percentage points each year between 2008 and 2018 among 10th grade students. Among 12th grade students, the prevalence of using smokeless tobacco in the past 30 days declined by 0.6 percentage points each year between 2010 and 2018. See figure A.4 in the appendix to see how smokeless tobacco use varies by subpopulation in 2018.

Figure 4. Past 30-day smokeless tobacco use by grade, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
8th grade	2.7	2.8	2.8	3.4	3.0	2.6	1.3	1.6	1.4
10th grade	4.8	4.9	6.4	6.7	6.2	4.6	3.7	3.0	2.4
12th grade	7.5	7.6	8.9	8.6	8.9	7.6	5.1	5.5	3.7

Past 30-day hookah use

The question assessing hookah use was asked in 2008, 2012, 2014, 2016 and 2018. The question reads, "During the past 30 days, on how many days did you: Smoke tobacco or flavored tobacco in a hookah, even just a puff?" The response options are 0 days, 1-2 days, 3-9 days, 10-29 days or all 30 days. Those who stated they had used a hookah on any of the past 30 days are coded as having used hookah in the past 30 days.

There was a significant drop in hookah use in 2016. In 2008, 2012 and 2014, 10th grade hookah use was between 9 and 10 percent. In 2016, it was cut in half to 4.9% (95% CI: 4.0-6.0%). There were similar reductions in 8th and 12th grade hookah use between 2014 and 2016. This decline continues in 2018. See figure A.5 in the appendix to see how hookah smoking varies by subpopulation in 2018.

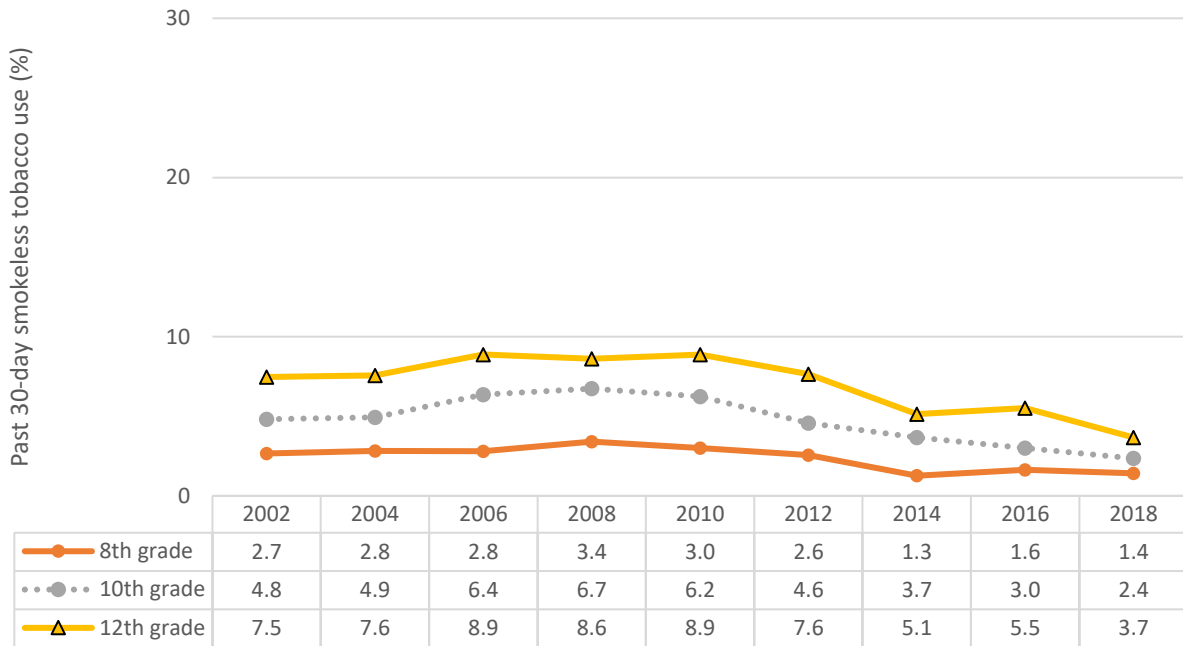**Figure 5. Past 30-day hookah use by grade, HYS 2008-2018**

	2008	2010	2012	2014	2016	2018
8th grade	6.1		4.1	4.7	2.4	1.9
10th grade	10.0		8.9	10.0	4.9	3.2
12th grade	13.1		16.7	14.8	7.0	4.4
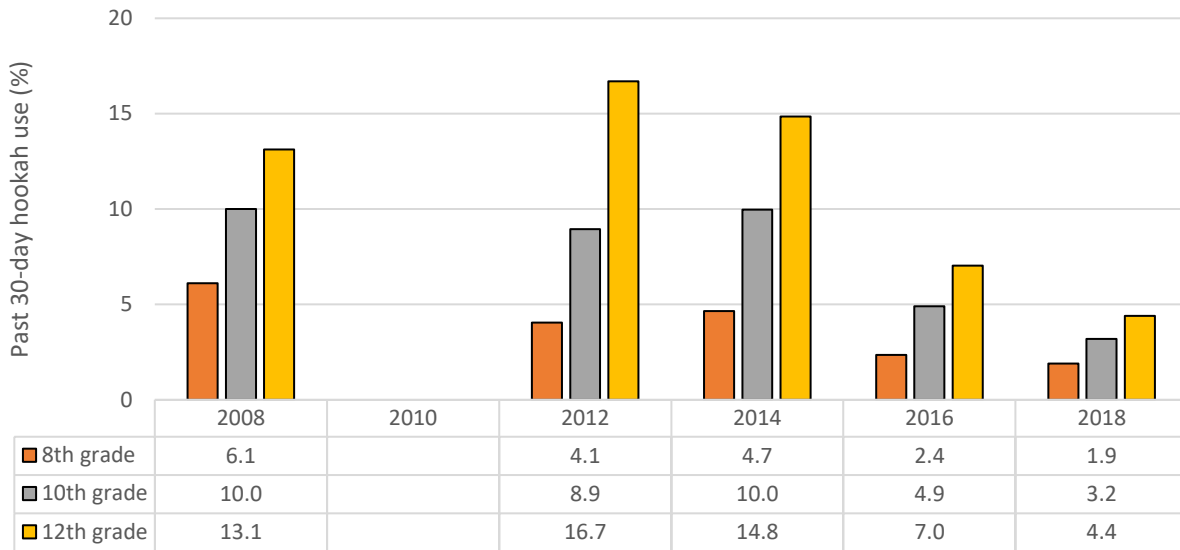
Past 30-day marijuana use trends

Past 30-day marijuana use has been assessed on the HYS since 2002. The question reads, "During the past 30 days, on how many days did you: Use marijuana or hashish (grass, hash, pot)?" In 2016 the response options were expanded to include more ranges (e.g., 10-19 days, 20-29 days and All 30 days instead of 10 or more days). Any response other than "0 days" is counted as past 30-day use and "0 days" is counted as no past 30-day use.

There were no significant increasing or decreasing trends in marijuana use prevalence among 6th, 8th or 10th grade students between 2002 and 2018. Between 2002 and 2018 the prevalence of past 30-day marijuana use increased among 12th grade students by about 0.3 percentage points per year. This finding appears to primarily be driven by an increase between 2004 and 2010. Rates between 2010 and 2018 have been relatively stable. See figure A.6 in the appendix to see how marijuana use varies by subpopulation in 2018.

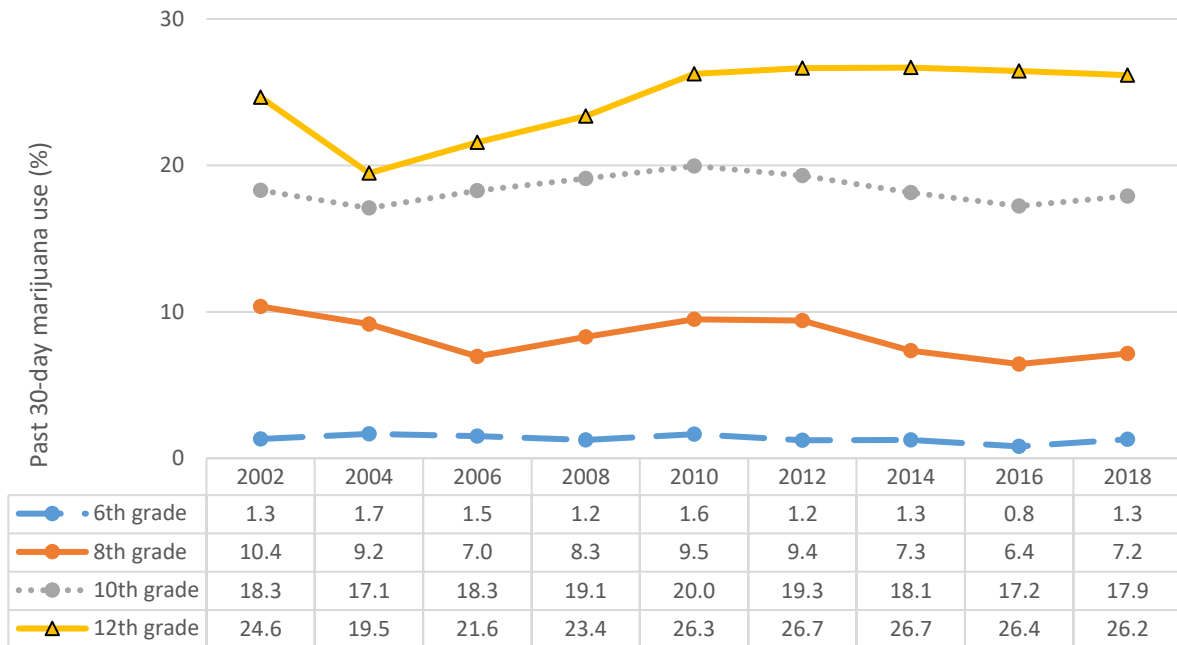**Figure 6. Past 30-day marijuana use by grade, HYS, 2002-2018**

	2002	2004	2006	2008	2010	2012	2014	2016	2018
6th grade	1.3	1.7	1.5	1.2	1.6	1.2	1.3	0.8	1.3
8th grade	10.4	9.2	7.0	8.3	9.5	9.4	7.3	6.4	7.2
10th grade	18.3	17.1	18.3	19.1	20.0	19.3	18.1	17.2	17.9
12th grade	24.6	19.5	21.6	23.4	26.3	26.7	26.7	26.4	26.2

Trends in marijuana use on 6 or more days in the past 30 days

The question assessing marijuana use on 6 or more days in the past 30 days is the same as the question used to assess any past 30-day use, but is coded differently. Responses between 0 days and 5 days are coded as having not used marijuana on 6 or more of the past 30 days and responses of 6 or more days are counted as using marijuana on 6 or more of the past 30 days. This indicator reflects more regular marijuana use by adolescents by screening out less frequent reports of marijuana use.

There were no significant increasing or decreasing linear trends among 8th or 10th grade students, but the prevalence of having used marijuana on 6 or more of the past 30 days among 12th grade students increased by 0.2 percentage points per year between 2002 and 2018. See figure A.7 in the appendix to see how regular marijuana use varies by subpopulation in 2018.

Figure 7. Marijuana use on 6 or more of the past 30 days by grade, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
8th grade	3.6	2.9	2.6	3.2	3.3	3.6	3.0	2.6	2.6
10th grade	8.2	6.4	7.9	8.0	8.4	8.6	7.8	7.7	7.1
12th grade	11.7	8.6	9.4	10.9	12.5	12.6	12.9	13.6	12.2
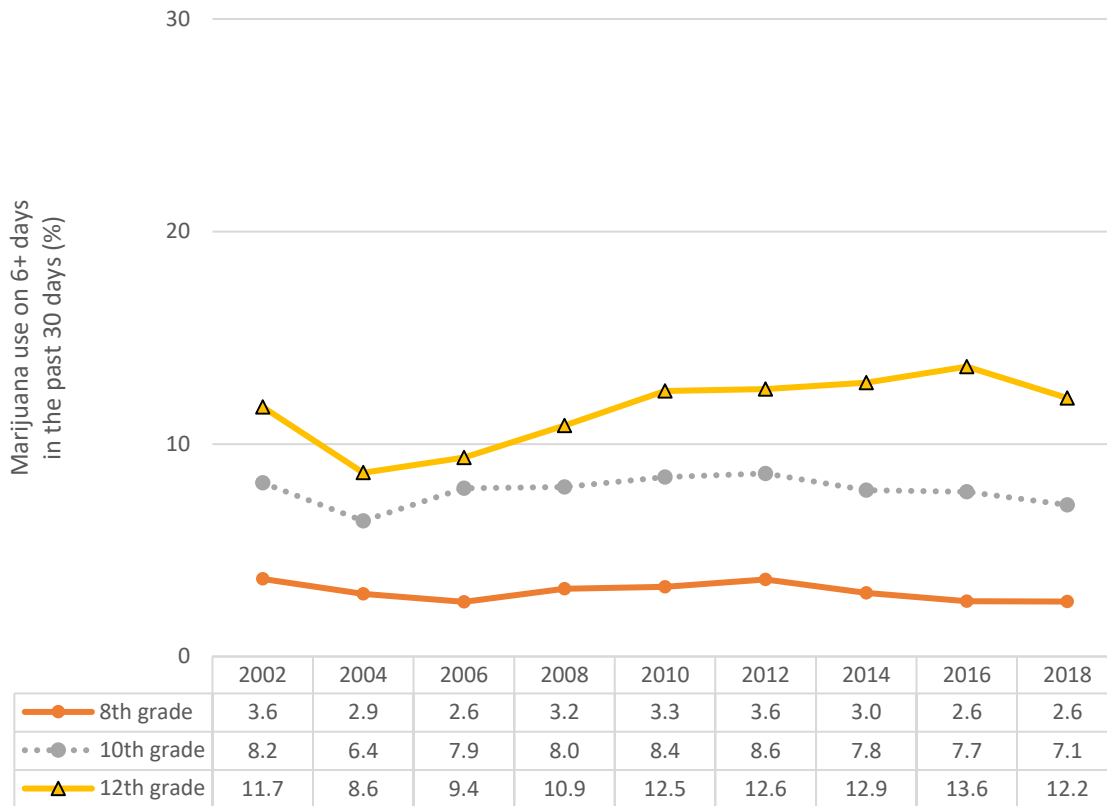
Past 30-day alcohol use trends

Past 30-day alcohol use has been assessed on the HYS since 2002. The question reads, "During the past 30 days, on how many days did you: Drink a glass, can or bottle of alcohol (beer, wine, wine coolers, hard liquor)?" The response options are 0 days, 1-2 days, 3-5 days, 6-9 days and 10 or more days.

Among 6th grade students, the prevalence of alcohol use declined by 0.2 percentage points per year between 2002 and 2018. Among 8th grade students, the prevalence of alcohol use declined by 0.7 percentage points per year between 2002 and 2018. Among 10th grade students, the prevalence of alcohol use declined by 1.3 percentage points per year between 2006 and 2018. Among 12th grade students, the prevalence of alcohol use declined by 1.5 percentage points per year between 2010 and 2018. See figure A.8 in the appendix to see how past 30-day alcohol use varies by subpopulation in 2018.

Figure 8. Past 30-day alcohol use by grade, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
6th grade	3.8	4.4	4.3	3.5	3.8	2.5	2.1	1.8	2.4
8th grade	17.8	18.0	15.4	16.1	14.4	11.9	8.1	7.6	8.4
10th grade	29.3	32.6	32.8	31.7	27.6	23.3	20.6	20.3	18.5
12th grade	42.8	42.6	42.1	40.8	40.0	36.1	32.9	32.0	27.9
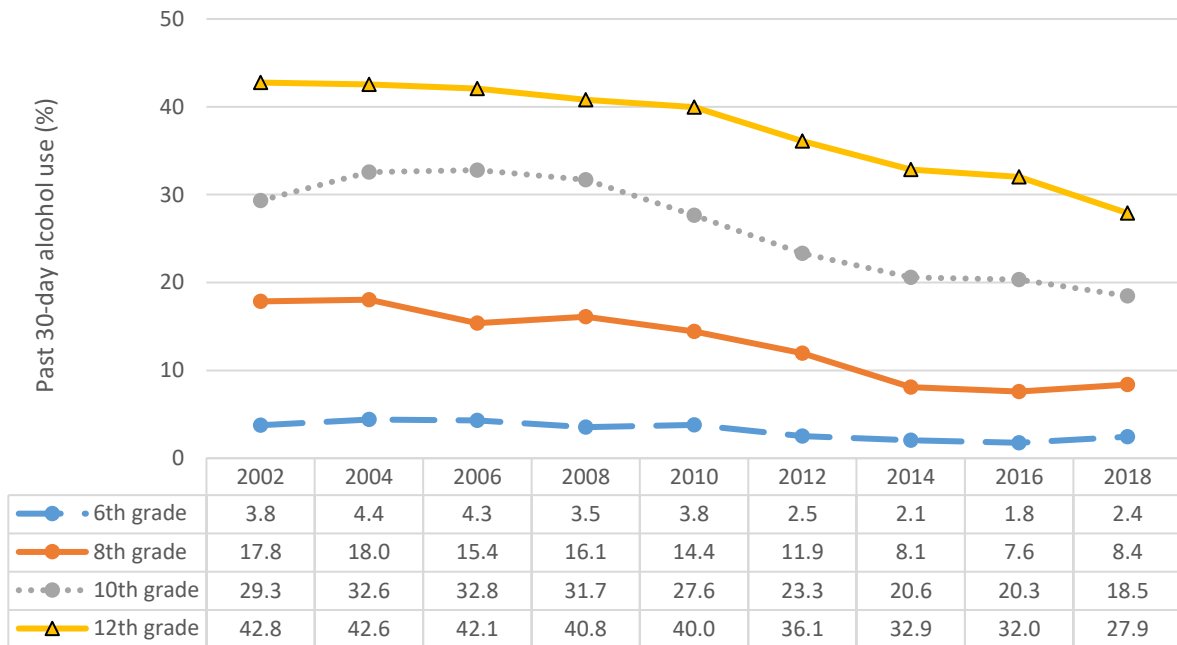
Past 30-day opioid use trends

Opioids include a family of drugs that act on opioid receptors, including pharmaceutical drugs such as OxyContin or street drugs such as heroin. Opioids are highly addictive and can be lethal if a sufficient quantity is used. Because there are so many opioid drugs that are both legal and illegal it is difficult to comprehensively assess all opioid use on a school-based survey. To gauge opioid use the following question about pain killer use *to get high* has been asked since 2006 (the final response option of 10 or more days was added in 2008). "During the past 30 days, on how many days did you: Use a pain killer **TO GET HIGH**, like Vicodin, OxyContin (sometimes called Oxy or OC) or Percocet (sometimes called Percs)?" Response options are 0 days, 1-2 days, 3-5 days, 6-9 days and 10 or more days. A response of 0 days is counted as not having used opioids in the past 30 days while any other response is coded as having used opioids in the past 30 days. While this does not capture all forms of opioid use, such as heroin or over-the-counter cough syrup abuse, it does serve as a rough indicator of opioid use. See figure A.9 in the appendix to see how past 30-day opioid use varies by subpopulation in 2018.

Figure 9. Past 30-day opioid use by grade, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
8th grade			3.6	4.3	4.3	3.2	2.3	2.1	2.4
10th grade			10.0	9.5	8.3	6.0	4.6	4.4	3.6
12th grade			11.6	12.0	7.9	7.5	5.6	5.4	3.8
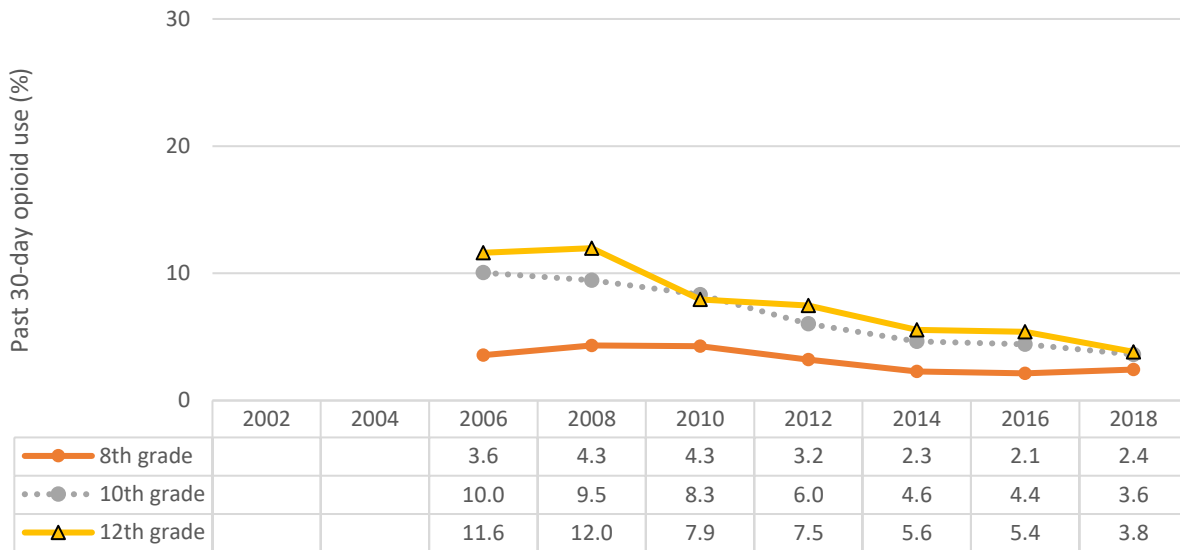
As indicated by this question, opioid use among adolescents has been declining since 2006. Opioid use declined by about 0.2 percentage points per year among 8th grade students, 0.5 percentage points per year among 10th grade students and 0.6 percentage points per year among 12th grade students between 2006 and 2018.

Combinations of substance use

There is always interest in combinations of substance use, but the number of possible combinations prohibits a comprehensive analysis. There are, for instance, 120 possible combinations of two or more substances from a total of seven. Using both "OR" (smoked cigarettes OR used marijuana) and "AND" (smoked cigarettes AND used marijuana) logic, separately, doubles this to 240 possible combination *for each grade* evaluated. Allowing both "OR" and "AND" logic in the same measure further increases the possibilities. To keep this analysis manageable, we first limited the variables under consideration to 10th grade past 30-day use of the eight products covered in this report: cigarettes, cigars, smokeless tobacco, hookah, alcohol, e-cigarette, opioids and marijuana. Next, we limited the combinations of interest to those identified by subject matter experts at the Department of Health.

For each combination we present a trend line and prevalence estimates among 10th grade students. Each indicator described in terms of "OR" and "AND" logic. We use "|" as shorthand for "OR" and "&" as shorthand for "AND." So, the "Marijuana|e-cigarettes" indicator represents the prevalence of 10th grade students who used marijuana OR e-cigarettes in the past 30 days while the "Marijuana&e-cigarettes" indicator represents the prevalence of 10th grade students who used marijuana AND e-cigarettes in the past 30 days. Some measures combine both "OR" and "AND" logic, in which case "OR" combinations are evaluated first, as indicated by parentheses. For instance, the "(Cigarette|cigar|hookah)&e-cigarette" measure indicates the percent of 10th grade students who used any combustible tobacco product AND also used e-cigarettes in the past 30 days. If any of the variables in a combination indicator are missing, the combination measure is set to missing. For "OR" combinations, if all the variables are negative, the combination measure is negative and if any of the variables are affirmative, the combination measure is affirmative. For "AND" combinations, if all variables are affirmative, the combination measure is
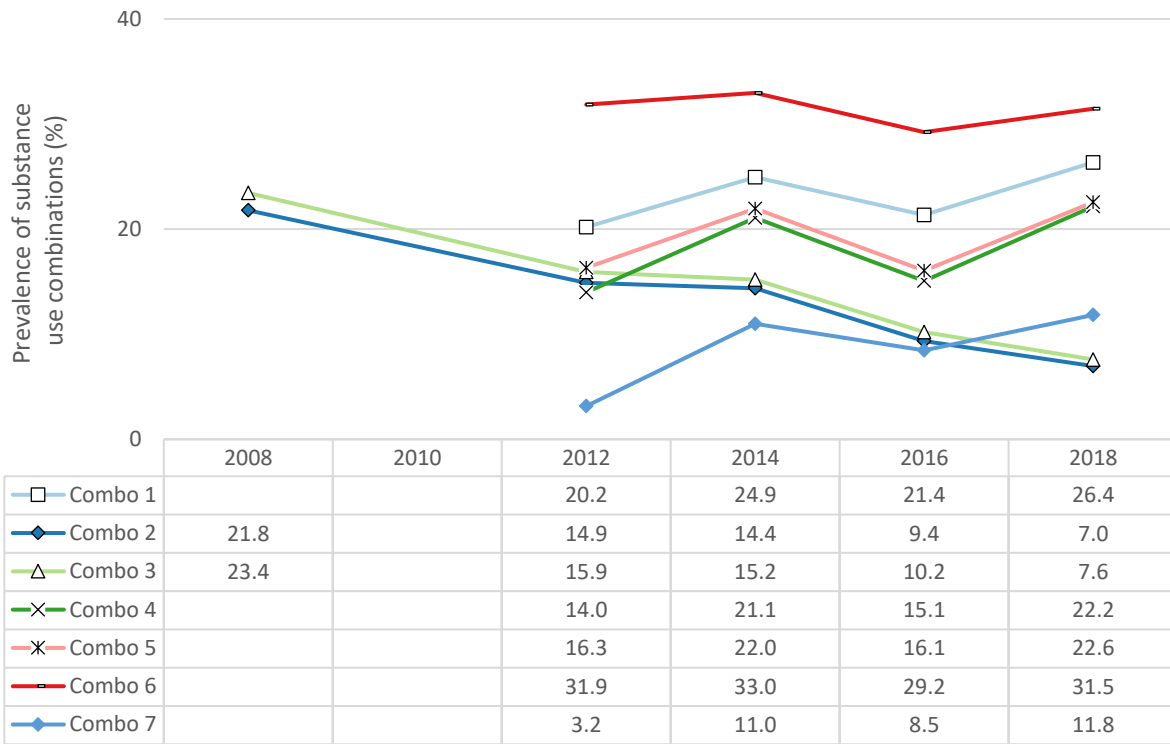
affirmative and if any of the variables are negative the combination measure is negative. Because all measures include e-cigarettes or hookah use, which were first asked in 2012 and 2008, respectively, historical estimates are limited to 2008 or 2012. Hookah was also not asked about in 2010, so, combinations including hookah use are missing a 2010 estimate.

Table 1. Combination measures

Interpretation	Combination logic	Chart label
Marijuana or e-cigarette use	Marijuana|e-cigarette	Combo 1
Any combustible tobacco use	Cigarette|cigar|hookah	Combo 2
Any tobacco use	Cigarette|cigar|smokeless|hookah	Combo 3
Any other tobacco product use	Cigar|e-cigarette|smokeless|hookah	Combo 4
Any tobacco or e-cigarette use	Cigarette|cigar|smokeless|hookah|e-cigarette	Combo 5
Any substance use (except opioid)	Alcohol|cigarette|cigar|e-cigarette|smokeless|hookah|marijuana	Combo 6
E-cigarette and alcohol use	E-cigarette&alcohol	Combo 7
Cigarette smoking and e-cigarette use	Cigarette&e-cigarette	Combo 8
E-cigarette and marijuana use	E-cigarette&marijuana	Combo 9
Any combustible tobacco use and e-cigarette use	(Cigarette|cigar|hookah)&e-cigarette	Combo 10
Any tobacco use and alcohol use	(Cigarette|cigar|smokeless|hookah)&alcohol	Combo 11
Any tobacco use and marijuana use	(Cigarette|cigar|smokeless|hookah)&marijuana	Combo 12
Any tobacco use and e-cigarette and alcohol use	(Cigarette|cigar|smokeless|hookah)&alcohol&e-cigarette	Combo 13
Any tobacco use and e-cigarette and marijuana use	(Cigarette|cigar|smokeless|hookah)&e-cigarette&marijuana	Combo 14

In general, the influence of highly prevalent substances, such as e-cigarette and alcohol use, is apparent in the combination measures (see figures 10 and 11). Combinations that exclusively use "OR" logic tend to have increasingly higher prevalence rates as more substances are added, but also tend to follow the pattern of the most prevalent substance included in the combination. Combinations that include "AND" logic have lower prevalence rates than their least prevalent constituent indicator. Some of the lowest rates among the combinations, for instance, is for Combination 8, which is the prevalence of smoking cigarettes AND using e-cigarettes among 10th grade students.

Figure 10. Combinations of past 30-day substance use among 10ᵗʰ grade students, HYS 2008-2018

	2008	2010	2012	2014	2016	2018
Combo 1			20.2	24.9	21.4	26.4
Combo 2	21.8		14.9	14.4	9.4	7.0
Combo 3	23.4		15.9	15.2	10.2	7.6
Combo 4			14.0	21.1	15.1	22.2
Combo 5			16.3	22.0	16.1	22.6
Combo 6			31.9	33.0	29.2	31.5
Combo 7			3.2	11.0	8.5	11.8

Figure 11. Combinations of past 30-day substance use among 10ᵗʰ grade students, HYS 2008-2018

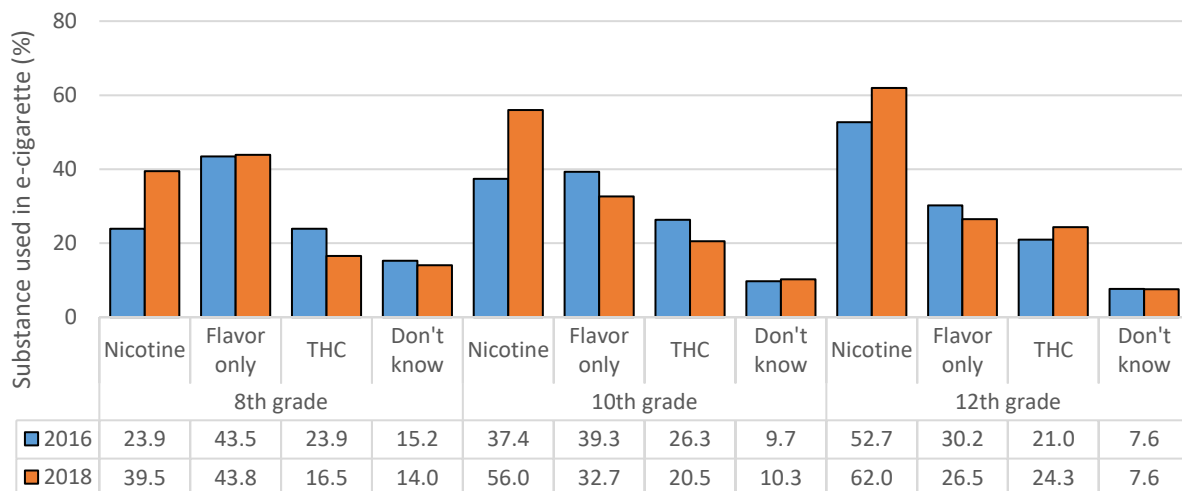|	2008	2010	2012	2014	2016	2018
Combo 8			2.6	5.7	4.1	3.4
Combo 9			2.9	11.2	8.2	11.7
Combo 10			3.4	10.7	6.4	5.7
Combo 11	16.7		11.5	9.9	7.4	5.0
Combo 12	13.4		10.9	10.0	7.0	5.4
Combo 13			2.8	8.0	5.4	4.3
Combo 14			2.6	8.3	5.1	4.7
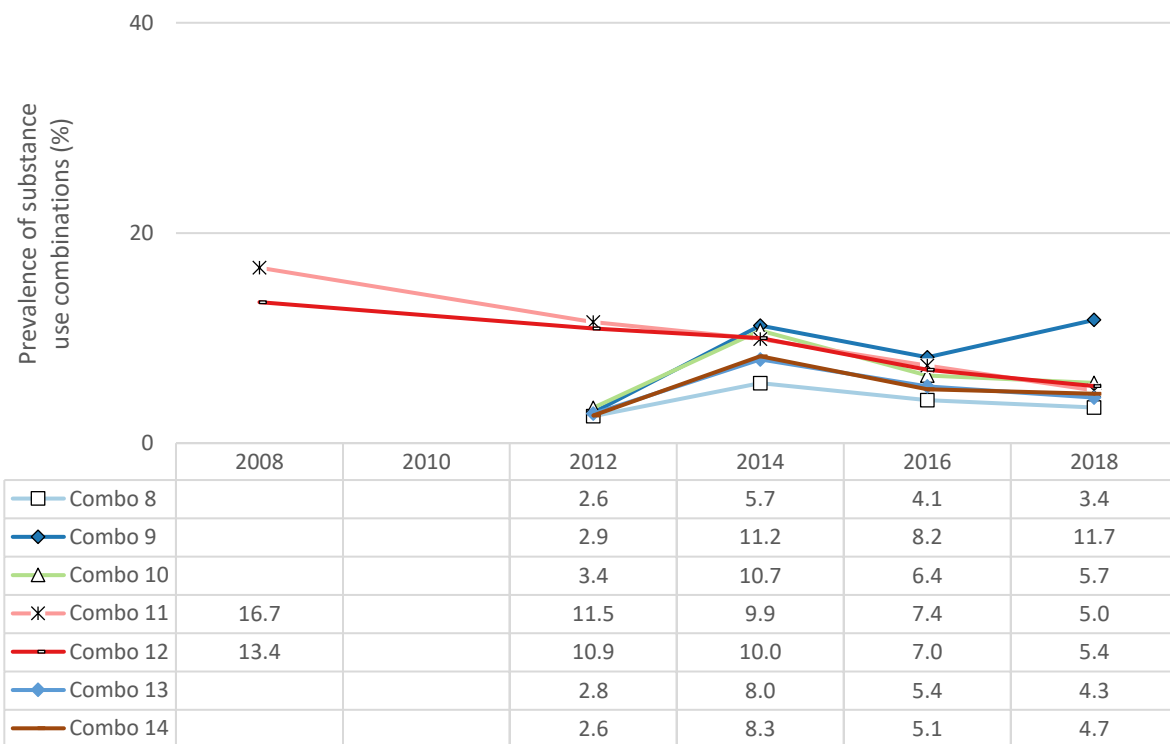
Substance used in e-cigarette

In 2016 and 2018 a question assessing the type of psychoactive substance being used in e-cigarettes/vape products was added to the HYS. The question reads, "During the past 30 days, what type of substances did you use in an electronic cigarette, also called e-cigs, or vape pens? Select all that apply" and included the following response options:

- I did not use an electronic cigarette

- Liquid with nicotine in it

- Liquid with THC (marijuana) in it

- Liquid with flavor only (no nicotine or THC)

- Don't know

For this analysis, those who reported not using an electronic cigarette to this question are excluded from analysis. The denominator includes respondents who selected any of the responses other than "I did not use an electronic cigarette." These results may differ from those found elsewhere. For questions that use "select all that apply" language the analyst has to make decisions about how the denominator for these measures is constructed. While the magnitude of estimates may vary depending on how the analysis was done, the pattern of what substance is most and least common should remain similar.

There is a notable increase in the prevalence of using nicotine in e-cigarettes across all grades between 2016 and 2018. Additional significant year-to-year changes include a reduction in THC use among 8th and 10th graders and a reduction in flavor-only vape use among 10th grade students. Reported substance used in e-cigarettes should be considered cautiously as students may not know the true content of e-cigarette liquid as labeling has been demonstrated to be inconsistent.[3]

Figure 12. Substance used in e-cigarette in the past 30 days by grade, HYS 2016 and 2018

	8th grade				10th grade				12th grade			
	Nicotine	Flavor only	THC	Don't know	Nicotine	Flavor only	THC	Don't know	Nicotine	Flavor only	THC	Don't know
2016	23.9	43.5	23.9	15.2	37.4	39.3	26.3	9.7	52.7	30.2	21.0	7.6
2018	39.5	43.8	16.5	14.0	56.0	32.7	20.5	10.3	62.0	26.5	24.3	7.6

---

[3] Raymond BH, Collette-Merrill K, Harrison RG, Jarvis S, Rasmussen RJ. The Nicotine Content of a Sample of E-cigarette Liquid Manufactured in the United States. *J Addict Med.* 2018 Mar/Apr;12(2):127-131. doi: 10.1097/ADM.0000000000000376. PubMed PMID: 29280749.

Mode of consuming marijuana

The question assessing usual mode of marijuana use was asked in 2014, 2016 and 2018 and reads, "During the past 30 days, if you used marijuana, how did you usually use it?" This was not a "select all that apply" question. Response options included the following (note the "Dabbed it" option was not included in 2014 or 2016):

- I did not use marijuana during the past 30 days
- Smoked it (in a joint, bong, pipe, blunt)
- Ate it (in brownies, cakes, cookies, candy)
- Drank it (tea, cola, alcohol)
- Vaporized it
- Dabbed it [*added in 2018*]
- Used it some other way

"Vaporized it" refers to using e-cigarettes use with a THC solution. "Dabbed it" refers to the use of dabs, which are concentrated waxy oils of cannabis that are made by extracting THC and other cannabinoids from cannabis using a solvent. Respondents reporting they did not use marijuana in the past 30 days on this question are excluded from analysis. Data from 2014 and 2016 are not presented because the addition of the "Dabbed it" option makes current estimate incomparable to past estimates. The most common mode of use was to smoke marijuana, with dabbing and edibles a distant second and third option.

Figure 13. Usual mode of consuming marijuana in the past 30 days by grade, HYS 2018

	Smoked it	Ate it	Dabbed it	Vaporized it	Drank it	Some other way
8th grade	54.2	16.2	12.7	7.0	5.6	4.2
10th grade	62.3	11.6	12.8	6.5	3.5	3.3
12th grade	58.0	8.7	19.0	8.5	3.5	2.4
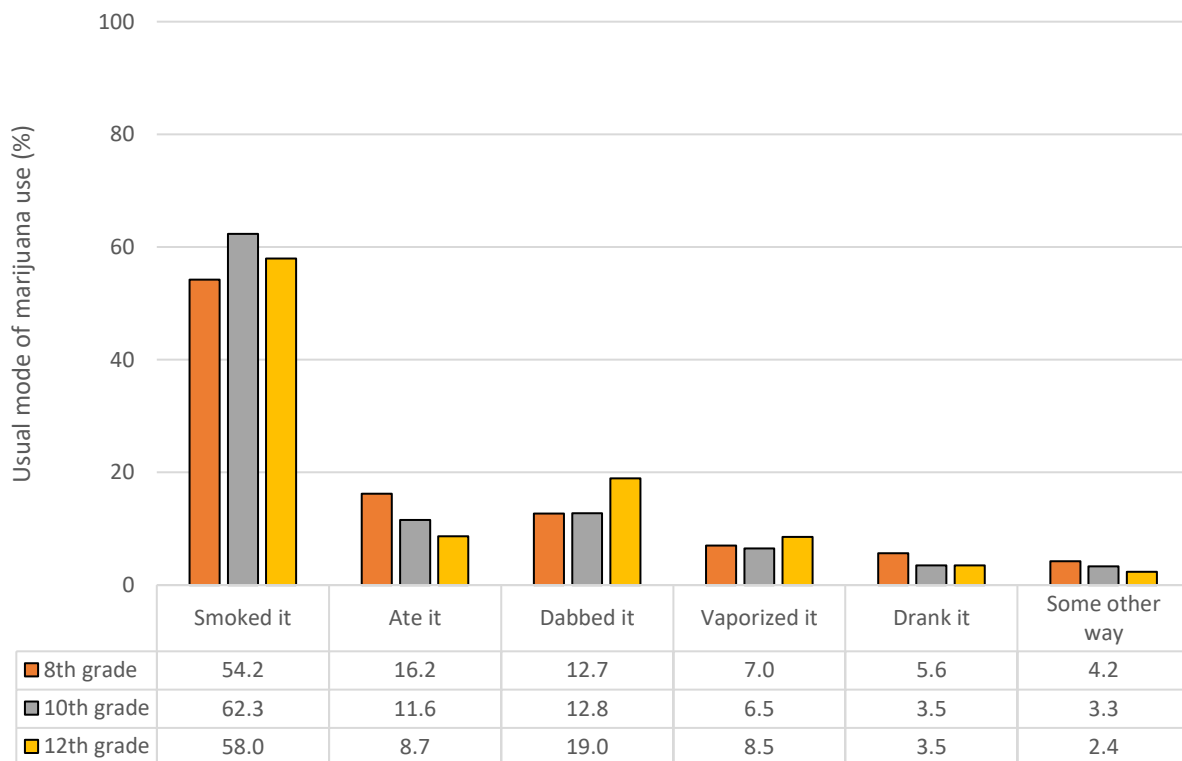
Access to marijuana, cigarettes, alcohol and other drugs

The following questions have been asked on the HYS since 2002.

- If you wanted to get some beer, wine, or hard liquor (for example vodka, whiskey, or gin), how easy would it be for you to get some?

- If you wanted to get some cigarettes, how easy would it be for you to get some?

- If you wanted to get some marijuana, how easy would it be for you to get some?

- If you wanted to get a drug like cocaine, LSD, or amphetamines, how easy would it be for you to get some?
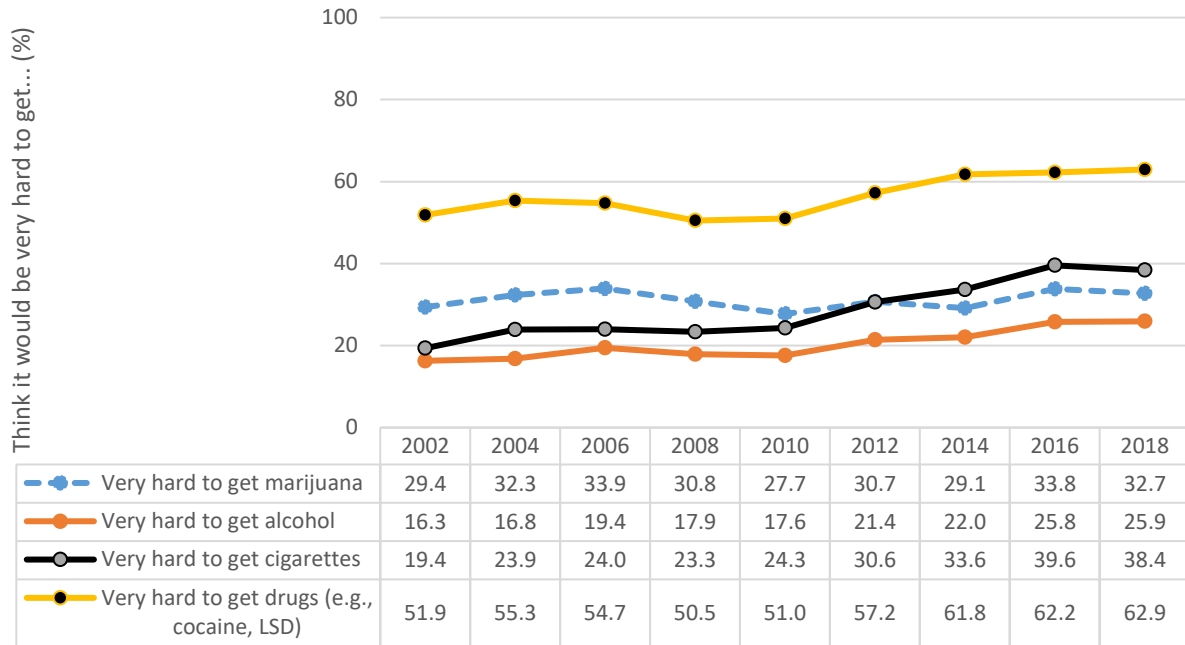
All four questions have the same response options: Very hard, Sort of hard, Sort of easy and Very easy. The following charts reflect the prevalence of 10th and 12th grade students who thought it would be very hard to get the corresponding product. These indicators reflect perceived access to the related product. Figures describing perceived access for 10th and 12th grade students, separately, are provided because 12th grade students includes students who are 18 and, therefore, have legal access to tobacco products.

Illegal drugs like cocaine or LSD are the least accessible while alcohol is considered very hard to access by the least percent of students. Beginning in 2014, more 10th grade students reported cigarettes were very hard to get than reported marijuana was very hard to get. Among 10th and 12th grade students, the percent who think it is very hard to get drugs like cocaine and LSD has been increasing by about 0.7 and 0.9 percentage points per year, respectively, since 2002. The percent of students who think it would be hard to get cigarettes has been increasing by 1.2 percentage points per year since 2002 among 10th graders and by 1.9 percentage points per year since 2012 among 12th grade students. Among 10th and 12th grade students, the percent who think it would be very hard to get alcohol has been increasing by about 0.6 and 0.5 percentage points per year, respectively, since 2002. There has been no significant linear change in the percent of 10th or 12th grade students who think it would be very hard to get marijuana. See figures A.10-A.13 in the appendix to see how the prevalence of perceived access to substances varies by subpopulation in 2018.

Figure 14. Prevalence of thinking it would be very hard to get marijuana, cigarettes, alcohol or other drugs among 10th grade students, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
Very hard to get marijuana	29.4	32.3	33.9	30.8	27.7	30.7	29.1	33.8	32.7
Very hard to get alcohol	16.3	16.8	19.4	17.9	17.6	21.4	22.0	25.8	25.9
Very hard to get cigarettes	19.4	23.9	24.0	23.3	24.3	30.6	33.6	39.6	38.4
Very hard to get drugs (e.g., cocaine, LSD)	51.9	55.3	54.7	50.5	51.0	57.2	61.8	62.2	62.9

Figure 15. Prevalence of thinking it would be very hard to get marijuana, cigarettes, alcohol or other drugs among 12th grade students, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
Very hard to get marijuana	15.4	18.3	20.7	19.5	16.6	17.9	17.1	18.6	21.6
Very hard to get alcohol	9.1	9.2	11.8	11.1	10.9	12.7	13.8	15.6	19.1
Very hard to get cigarettes	7.8	8.9	12.2	11.5	11.9	14.6	18.0	21.3	25.8
Very hard to get drugs (e.g., cocaine, LSD)	36.8	41.0	40.8	40.2	40.8	45.9	50.8	47.3	51.1
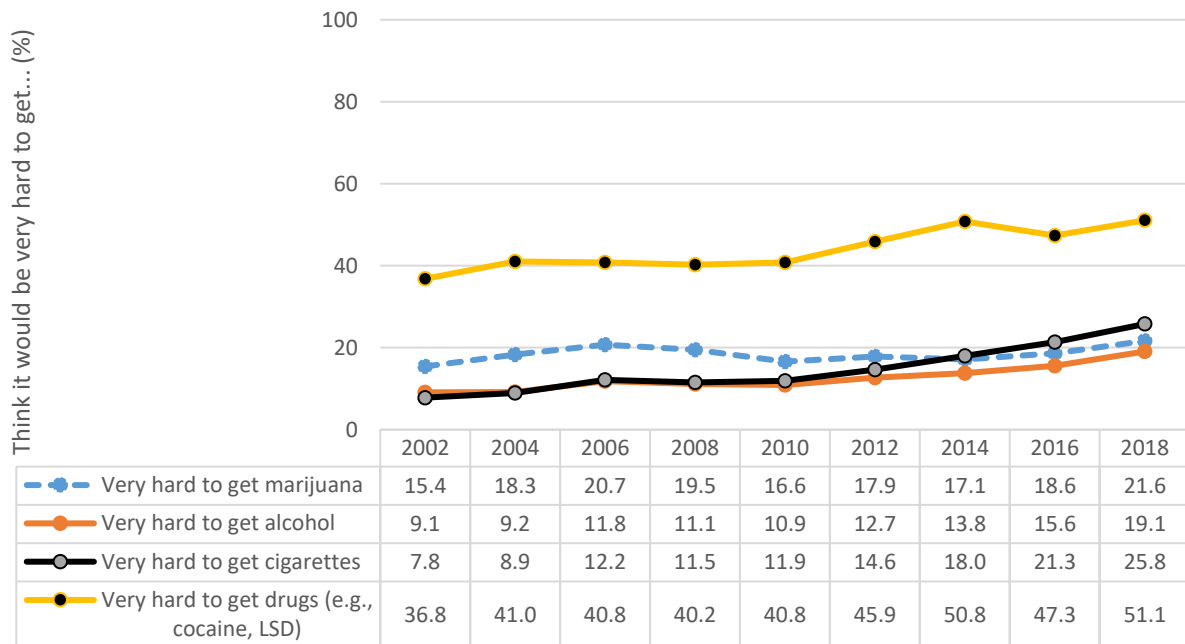
Trends in the perceived risk of harm from using substances

The perceived risk of harm from using a substance is assessed with the following questions.

- How much do you think people risk harming themselves if they use electronic cigarettes, also called e-cigs or vape pens regularly (almost daily)?

- How much do you think people risk harming themselves if they: Smoke one or more packs of cigarettes per day?

- How much do you think people risk harming themselves if they: Use marijuana regularly (at least once or twice a week)?

- How much do you think people risk harming themselves if they: Take one or two drinks of an alcoholic beverage (wine, beer, a shot, liquor) nearly every day?

- How much do you think people risk harming themselves if they: Have 5 or more drinks of an alcoholic beverage once or twice a week?

- How much do you think people risk harming themselves if they: Use prescription drugs that are not prescribed to them?

All questions have the same response options: No risk, Slight risk, Moderate risk, Great risk or Not sure. For this analysis, selecting "Great risk" was coded as perceiving great risk of harm from using the corresponding product as described. No risk, slight risk, moderate risk and "not sure" were coded as not perceiving great risk of harm from using the corresponding product as described. The question assessing the perception of harm from regular e- cigarette use was first asked in 2016 and the questions assessing the perceived risk of binge drinking and using prescription drugs were first asked in 2014.

The prevalence of perceiving great risk of harm from smoking cigarettes is relatively high and stable. The prevalence of perceiving great risk of harm from using marijuana regularly, however, declined by 2.2 percentage points per year between 2002 and 2018 among 10th grade students. The prevalence of 10th grade students who perceive great risk of harm from daily alcohol use has been increasing by about 1.4 percentage points per year between 2002 and 2014, but has flattened out since 2014. In 2016, e-cigarettes had the lowest prevalence of great risk of harm, but, as of 2018, the prevalence of perceiving great risk of harm from regular marijuana use is significantly lower than that of e-cigarette use among 10th grade students (Z=2.07).[4] See figures A.14-A.19 in the appendix to see how the prevalence of perceived great risk of harm from substance use varies by subpopulation in 2018.

---

[4] The e-cigarette perceived risk question is asked on Form B and the marijuana risk question is asked on Form A of the HYS, so, these indicators come from independent samples. A two-sided Z-test is therefore used to assess differences.

Figure 16. Comparison of the perception of harm from cigarette, e-cigarette (vape) and marijuana use among 10th grade students, HYS 2002-2018
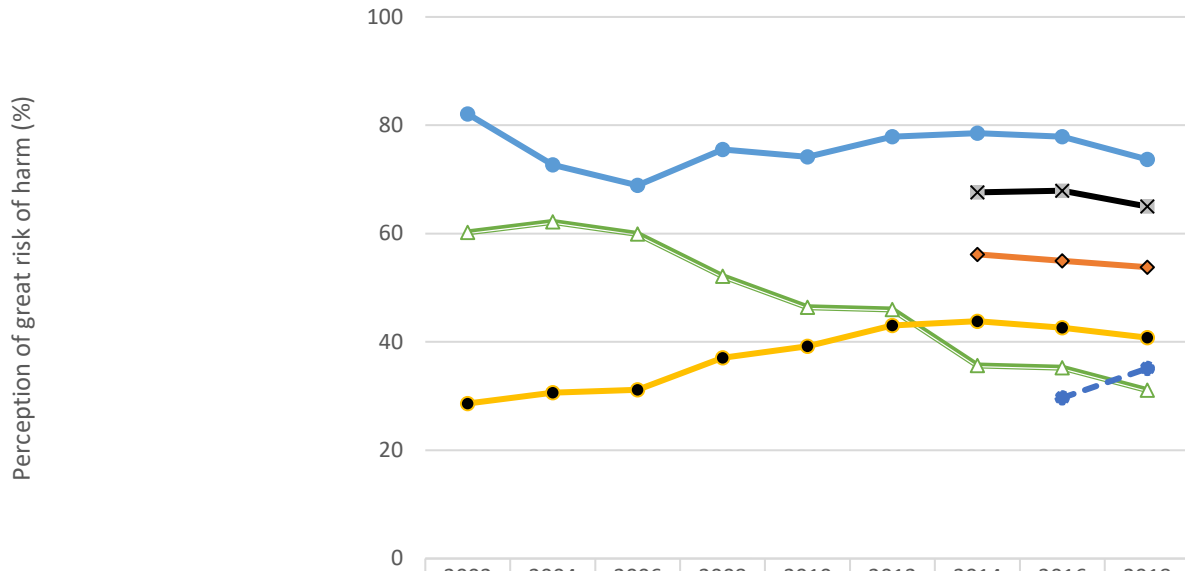
	2002	2004	2006	2008	2010	2012	2014	2016	2018
Great risk of harm from smoking one or more packs of cigarettes per day	82.1	72.7	68.9	75.5	74.2	77.9	78.5	77.9	73.7
Great risk of harm from regular marijuana use	60.2	62.2	59.9	52.2	46.4	46.0	35.6	35.2	31.1
Great risk of harm from using e-cigarettes almost daily								29.7	35.1
Great risk of harm from daily alcohol use	28.6	30.6	31.2	37.1	39.2	43.0	43.8	42.6	40.8
Great risk of harm from binge drinking							56.2	55.0	53.8
Great risk of harm from using other's prescriptions							67.6	67.9	65.0

Source of tobacco, vape and marijuana products

Source of tobacco and vape

A question assessing the source of tobacco has been asked on the HYS since 2002, except for 2014 when it was rotated off the survey. The question reads, "During the past 30 days, how did you usually get your own tobacco? (Choose only one answer.)" And has the following response options:

- I did not use tobacco during the past 30 days.
- I bought it in a store such as a convenience store, supermarket, discount store or gas station.
- I bought it from a vending machine.
- I gave someone else money to buy them for me.
- I borrowed (or bummed) them from someone else.
- A person 18 years old or older gave them to me.
- I took them from a store or a family member.
- I got them some other way.

The source of e-cigarette/vape products was first asked in 2016 and reads, "During the past 30 days, how did you usually get your own electronic vapor products? (Choose only one answer.)" And has the following response options:

- I did not use electronic vapor products during the past 30 days.
- I bought them in a store such as a convenience store, supermarket, discount store or gas station.
- I got them on the Internet.
- I gave someone else money to buy them for me.
- I borrowed (or bummed) them from someone else.
- A person 18 years old or older gave them to me.
- I took them from a store or family member.
- I got them some other way.

The response options for the source of tobacco and vape products differ in that the tobacco question asks about vending machines while the vape question asks about purchases on the internet. The below table excludes the "I did not use" responses from the analysis. The prevalence of reporting borrowing or "bumming" e-cigarettes (35.3%, 95% CI: 32.8-37.9%) is significantly higher than the prevalence of borrowing or "bumming" tobacco (19.5%, 95% CI: 14.7-25.3%).

Table 2. Tobacco and e-cigarette/vape source among 10th grade students, HYS 2018

	Tobacco source	E-cigarette/vape source
1. I bought them in a store…	19.9	7.8
2. I got them on the Internet.		5.9
3. I bought it from a vending machine.	10.7	
4. I gave someone else money to buy them for me.	22.8	21.1
5. I borrowed (or bummed) them from someone else.	19.5	35.3
6. A person 18 years old or older gave them to me.	9.2	8.7
7. I took them from a store or family member.	5.1	2.5
8. I got them some other way.	12.9	18.7

A common way of condensing these options down is to describe "social" sources of tobacco or vape products. In the above table, social sources would be options 4, 5, 6 and 7 – cases where adolescents are not making a purchase themselves. Option 8 is left as a separate option in this analysis because a substantial number of youth select this option. The remaining options 1, 2 and 3 are combined to reflect non-social sources. The prevalence of getting tobacco from social sources among 10th grade students in 2018 (56.6%, 95% CI: 50.6-62.4%) is significantly lower than the same prevalence in 2012 (67.8%, 95% CI: 62.9-72.3%). A factor that may be related to this decrease is the declining rate of smoking – the distribution of sources of tobacco is restricted to this shrinking population and may change in unpredictable ways. The prevalence of 10th grade students reporting getting e-cigarette/vape products from social sources in 2018 is 67.6% (95% CI: 64.1-71.0%), which is significantly larger than it was in 2016 (59.2%, 95% CI: 55.0-63.3%) and the prevalence of social sources of tobacco in 2018 (56.6%, 95% CI: 50.6-62.4%). This increase in social sources may correspond to the surge in the number of youth using e-cigarettes/vape products. See figures A.20-A.21 in the appendix to see how the prevalence of getting tobacco or e-cigarettes from social sources varies by subpopulation in 2018.

Figure 17. Source of tobacco and e-cigarette/vape products among 10th grade students, HYS, 2002-2016

Year	Product	Social source	Non-social source	Other source
2002	Cigarette	Social source, 70.9	Non-social source, 16.8	Other source, 12.4
2004	Cigarette	Social source, 66.5	Non-social source, 18.9	Other source, 14.6
2006	Cigarette	Social source, 63.6	Non-social source, 21.6	Other source, 14.8
2008	Cigarette	Social source, 69.3	Non-social source, 14.7	Other source, 16.0
2010	Cigarette	Social source, 66.9	Non-social source, 16.2	Other source, 16.9
2012	Cigarette	Social source, 67.8	Non-social source, 17.6	Other source, 14.6
2014				
2016	Cigarette	Social source, 57.2	Non-social source, 23.5	Other source, 19.3
2016	Vape	Social source, 59.2	Non-social source, 20.0	Other source, 20.8
2018	Cigarette	Social source, 56.6	Non-social source, 30.5	Other source, 12.9
2018	Vape	Social source, 67.6	Non-social source, 13.8	Other source, 18.7

Source of marijuana products

The question assessing the source of marijuana products is fundamentally different from the tobacco and vape source questions in that it asks respondents to select all responses that apply. This makes the results of this question incomparable to the tobacco and vape questions, which ask the respondent to select only one response. The marijuana source question was asked in 2014, 2016 and 2018 and reads, "During the past 30 days, how did you get marijuana? Choose all that apply." The response options are:

- I did not get marijuana in the past 30 days.
- I bought it from a store.
- I stole it from a store.
- I got it from friends.
- I got it at a party.
- I got it from an older brother or sister.
- I gave money to someone to get it for me.
- I took it from home without my parents' permission.
- I got it at home with my parents' permission.
- I got it some other way.

Similar to the select-all-that-apply question assessing substances used in e-cigarettes, for this analysis those who reported not getting marijuana in the past 30 days are excluded from analysis and the denominator includes respondents who selected any of the other responses. There is a statistically significant decrease in the prevalence of reporting getting marijuana from friends, buying marijuana from a store, getting it from a party, getting it from an older sibling and a significant increase in reporting getting marijuana from home without parent's permission between 2014 and 2018.

Figure 18. Source of marijuana among 10th grade students who used marijuana in the past 30 days, HYS, 2014-2018
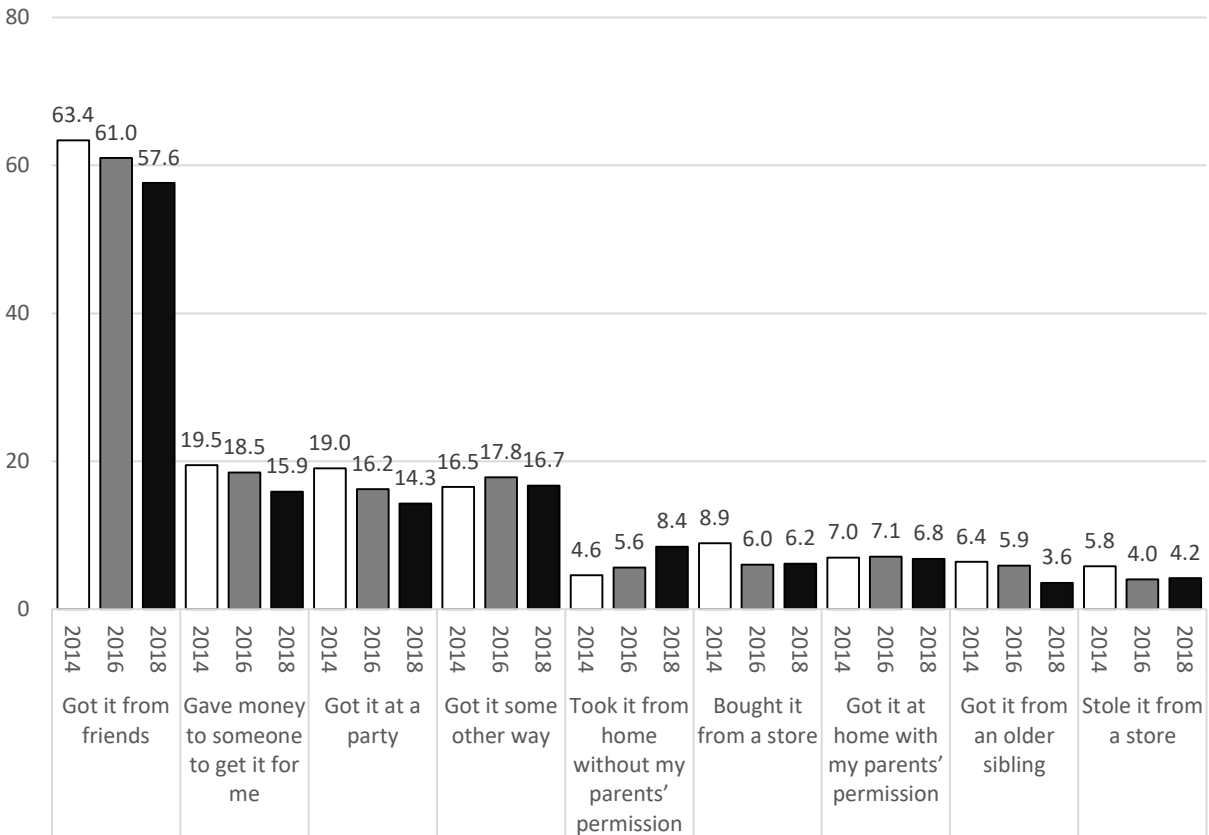
Driving drunk or high in the past 30 days

Questions about driving after drinking and riding with a driver who has been drinking have been asked since 2002. Similar questions were asked in 2014, 2016 and 2018 about driving high or riding with a driver who had been using marijuana. The questions read…

- During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

- During the past 30 days, how many times did you drive a car or other vehicle within three hours after using marijuana?

- During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

- During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been using marijuana?

All questions have the same response options: 0 times, 1 time, 2–3 times, 4–5 times or 6 or more times. Youth who said they engaged in the respective behavior one or more times are counted as having driven after drinking or using marijuana or riding with someone who may have been drinking or using marijuana.

Driving after using marijuana and riding with a driver who has been using marijuana tends to be more prevalent than driving after drinking or riding with someone who had been drinking, respectively, except for 8th grade students, where riding in a car with someone who has been drinking is more prevalent than riding in a car with someone who has been using marijuana. The prevalence of these risky behaviors increases with age. The prevalence of driving after drinking decreased by 0.1, 0.1 and 0.4 percentage points per year among 8th, 10th and 12th graders, respectively, between 2002 and 2018. The prevalence of riding with a driver who had been drinking did not change significantly among 8th grade students, but decreased by about 0.6 and 0.7 percentage points per year among 10th and 12th grade students, respectively, between 2002 and 2018.

Figure 19. Drove after drinking alcohol or using marijuana in the last 3 hours in the past 30 days, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
Drove a car after drinking in the past 30 days (8th)	5.0	4.3	4.2	4.1	4.3	3.6	3.0	3.4	2.8
Drove a car after drinking in the past 30 days (10th)	6.7	6.4	7.4	6.3	7.2	5.4	4.9	5.4	4.8
Drove a car after drinking in the past 30 days (12th)	14.3	14.3	12.5	12.1	11.9	11.0	8.8	9.5	7.1
Drove a car within 3 hours of using marijuana in the past 30 days (8th)							4.5	5.6	5.4
Drove a car within 3 hours of using marijuana in the past 30 days (10th)							9.1	9.3	9.3
Drove a car within 3 hours of using marijuana in the past 30 days (12th)							16.8	16.5	16.2

Figure 20. Rode with driver who had been drinking or using marijuana in the past 30 days, by grade, HYS 2002-2018

	2002	2004	2006	2008	2010	2012	2014	2016	2018
Rode in a car with driver who had been drinking (8th)	19.7	18.5	16.9	18.6	18.4	17.2	16.8	15.0	18.2
Rode in a car with driver who had been drinking (10th)	24.2	23.9	24.5	24.4	21.8	19.4	17.7	17.5	17.0
Rode in a car with driver who had been drinking (12th)	25.0	24.5	24.1	23.3	22.6	21.3	16.8	17.1	16.5
Rode in a car with driver who had been using marijuana (8th)							9.6	10.8	10.8
Rode in a car with driver who had been using marijuana (10th)							19.0	17.6	17.6
Rode in a car with driver who had been using marijuana (12th)							25.9	25.2	23.7

27

Technical Notes

The HYS is a school-based paper-and-pencil survey conducted among all students in grades 6, 8, 10 and 12 every two years in schools that agree to conduct the survey. Except as noted below, this report uses the HYS state probability sample, a smaller selection of randomly selected schools designed to be representative of all Washington State students. Detailed data collection methods are available online at http://www.askhys.net.

In 2018, a noticeable difference in the rates of less common risk behaviors was found between the state sample and Census among American Indian and Alaska Native (AIAN) youth. Specifically, AIAN youth in the state sample reported substantially lower rates of certain risk behaviors than was reported by those in the Census. The lower rates reported in the state sample are inconsistent with historically documented disparities, such as cigarette smoking, where AIAN youth tend to have higher rates in Washington State. To address this inconsistency between the state sample and Census, this report uses the Census sample for estimates by race and ethnicity status in the appendix. All other estimates are derived from the state sample.

Table 3. Comparison of cigarette smoking prevalence rates between the Census and state sample by race/ethnicity among 10th grade students, HYS 2018

	Census	State Sample	Rate Diff	Rate Ratio
African American non-Hispanic	7.8	6	1.7	1.3
American Indian/Alaska Native non-Hispanic	9.9	4.5	5.4	2.2
Asian non-Hispanic	2.4	2.2	0.2	1.1
Hispanic	5.2	6.1	0.9	1.2
Multiracial non-Hispanic	6	5.3	0.7	1.1
Native Hawaiian/Pacific Islander non-Hispanic	8.1	8.5	0.4	1.1
White non-Hispanic	5.3	4.7	0.6	1.1

Limitations: The Healthy Youth Survey (HYS) is a biennial cross-sectional survey, which does not inform temporal relationships. It is, for instance, clear from the HYS that adolescent smoking is associated with lower grades, but it cannot be determined whether this is because students with lower grades are more likely to smoke or students who smoke are more likely get lower grades. The HYS relies on self-reported information, which may be subject to systematic misclassification due to various reporting bias, such as social desirability or recall bias.

Most of the subpopulations used in the figures found in the appendix are self-evident and additional information about them can be found on www.AskHYS.net. The question assessing sexual orientation, however, included additional response options in 2018 which make it incomparable to responses from prior years. The sexual orientation question was also included on an optional tear-off sheet at the end of the survey, so, it was only completed in schools that did not remove the tear-off sheet. Being at the back of the survey also reduces question response rates. Both of these factors may lead to unpredictable bias in the estimates using this question.

Trends are assessed using JoinPoint software to identify significant linear trends in outcomes with up to one point of inflection. Significant (p<0.05) β's are interpreted as the annual percentage point change in the prevalence of the risk factor across the given time period.

95% confidence intervals: Given the data, if the survey were repeated independently 100 times, the prevalence under consideration would fall within the 95% confidence interval about 95 times. This report focuses on trends and does not systematically report confidence intervals for prevalence estimates. Confidence intervals are reported in the text where two or more prevalence estimates are compared to each other.

Confidence interval comparisons as statistical tests: A statistical test is needed to determine whether two estimates are statistically different from each other. One can, however, make some comparisons based on confidence interval overlap using the following rules.

If the confidence intervals of two estimates do not overlap, the estimates are significantly different from each other.	2.4 5.2
If the confidence interval of one estimate overlaps the point estimate of the other estimate, the estimates are **not** significantly different from each other.	20.4 23.5
If the upper bound of the smaller estimate overlaps the lower bound of the larger estimate, statistical difference cannot be determined from confidence intervals and a formal statistical test is needed.	7.8 9.9
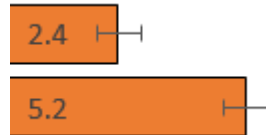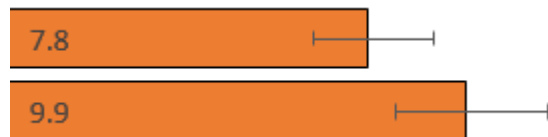
Appendix

Figure A.1 Prevalence of past 30-day smoking by subpopulation among 10th grade students, HYS 2018
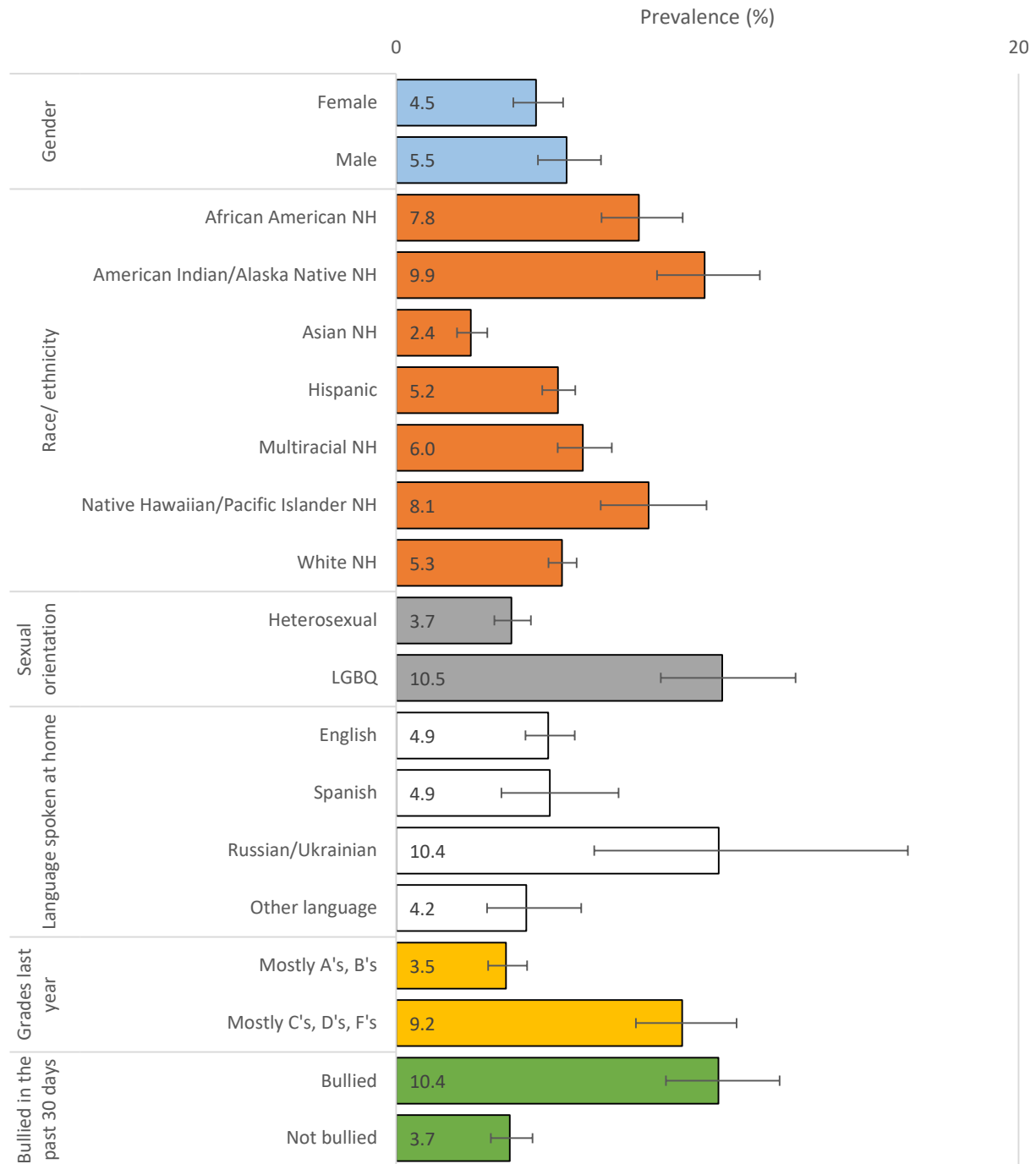
Prevalence (%)

Category	Subpopulation	Value
Gender	Female	4.5
	Male	5.5
Race/ethnicity	African American NH	7.8
	American Indian/Alaska Native NH	9.9
	Asian NH	2.4
	Hispanic	5.2
	Multiracial NH	6.0
	Native Hawaiian/Pacific Islander NH	8.1
	White NH	5.3
Sexual orientation	Heterosexual	3.7
	LGBQ	10.5
Language spoken at home	English	4.9
	Spanish	4.9
	Russian/Ukrainian	10.4
	Other language	4.2
Grades last year	Mostly A's, B's	3.5
	Mostly C's, D's, F's	9.2
Bullied in the past 30 days	Bullied	10.4
	Not bullied	3.7

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.2 Prevalence of past 30-day e-cigarette use by subpopulation among 10th grade students, HYS 2018

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.3 Prevalence of past 30-day cigar smoking by subpopulation among 10th grade students, HYS 2018
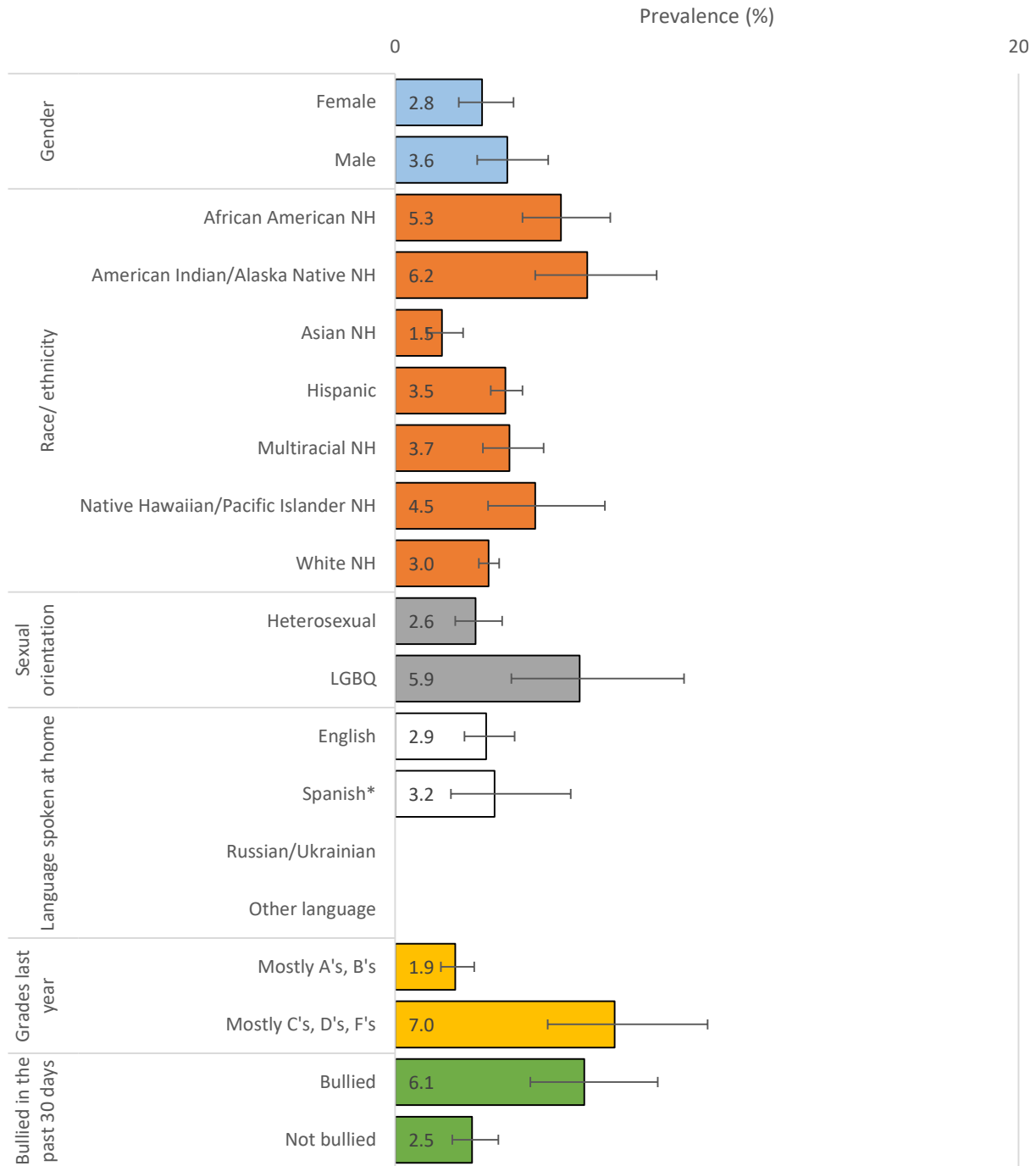
NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.4 Prevalence of past 30-day smokeless tobacco use by subpopulation among 10th grade students, HYS 2018
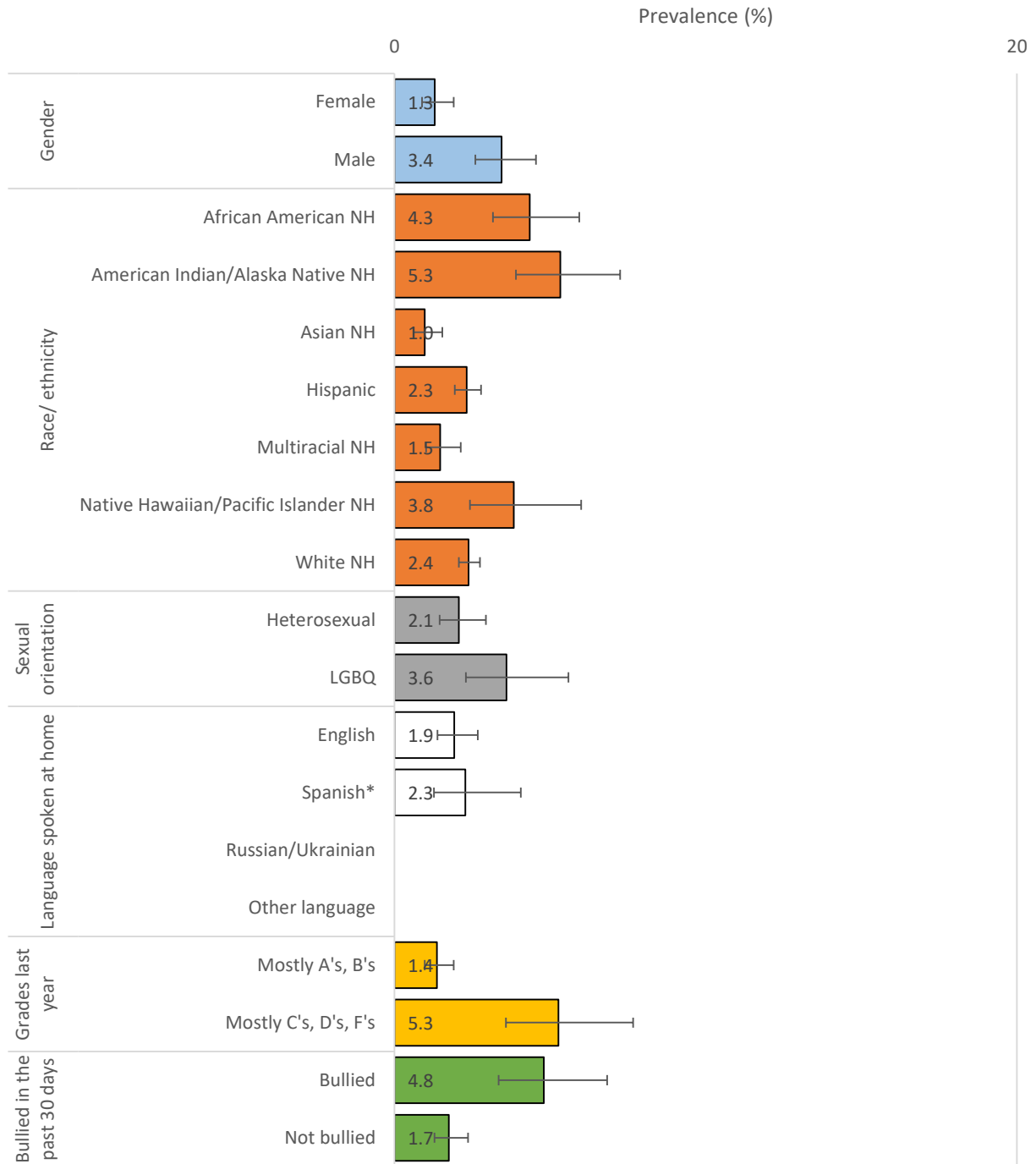
NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.5 Prevalence of past 30-day hookah smoking by subpopulation among 10th grade students, HYS 2018

	Prevalence (%)
Gender	
Female	3.6
Male	2.7
Race/ ethnicity	
African American NH	4.6
American Indian/Alaska Native NH	5.7
Asian NH	1.8
Hispanic	5.4
Multiracial NH	3.6
Native Hawaiian/Pacific Islander NH	4.5
White NH	2.2
Sexual orientation	
Heterosexual	2.8
LGBQ	6.1
Language spoken at home	
English	2.3
Spanish	7.5
Russian/Ukrainian*	9.1
Other language	
Grades last year	
Mostly A's, B's	2.1
Mostly C's, D's, F's	6.4
Bullied in the past 30 days	
Bullied	6.3
Not bullied	2.4

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

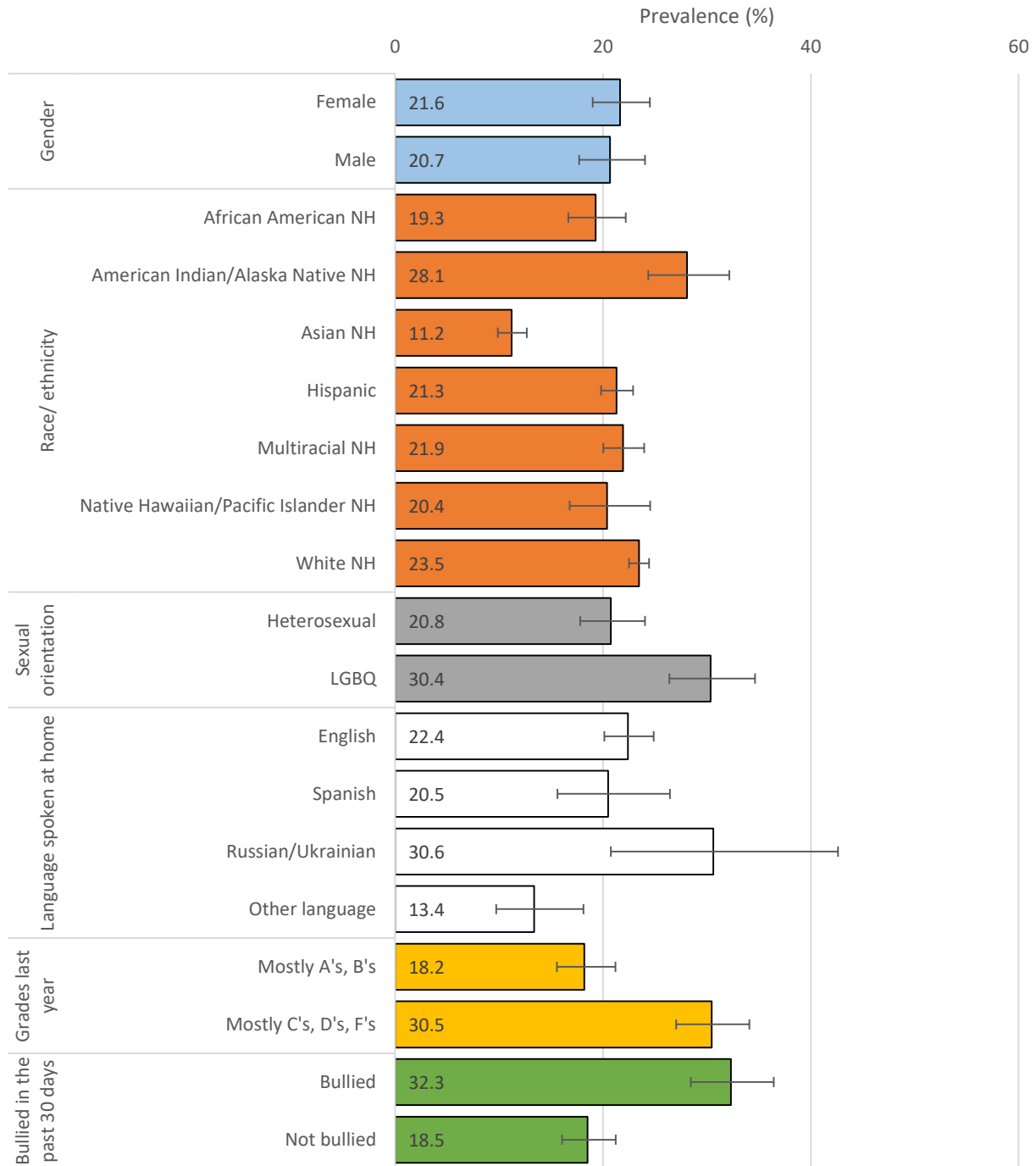**Figure A.6 Prevalence of past 30-day marijuana use by subpopulation among 10th grade students, HYS 2018**
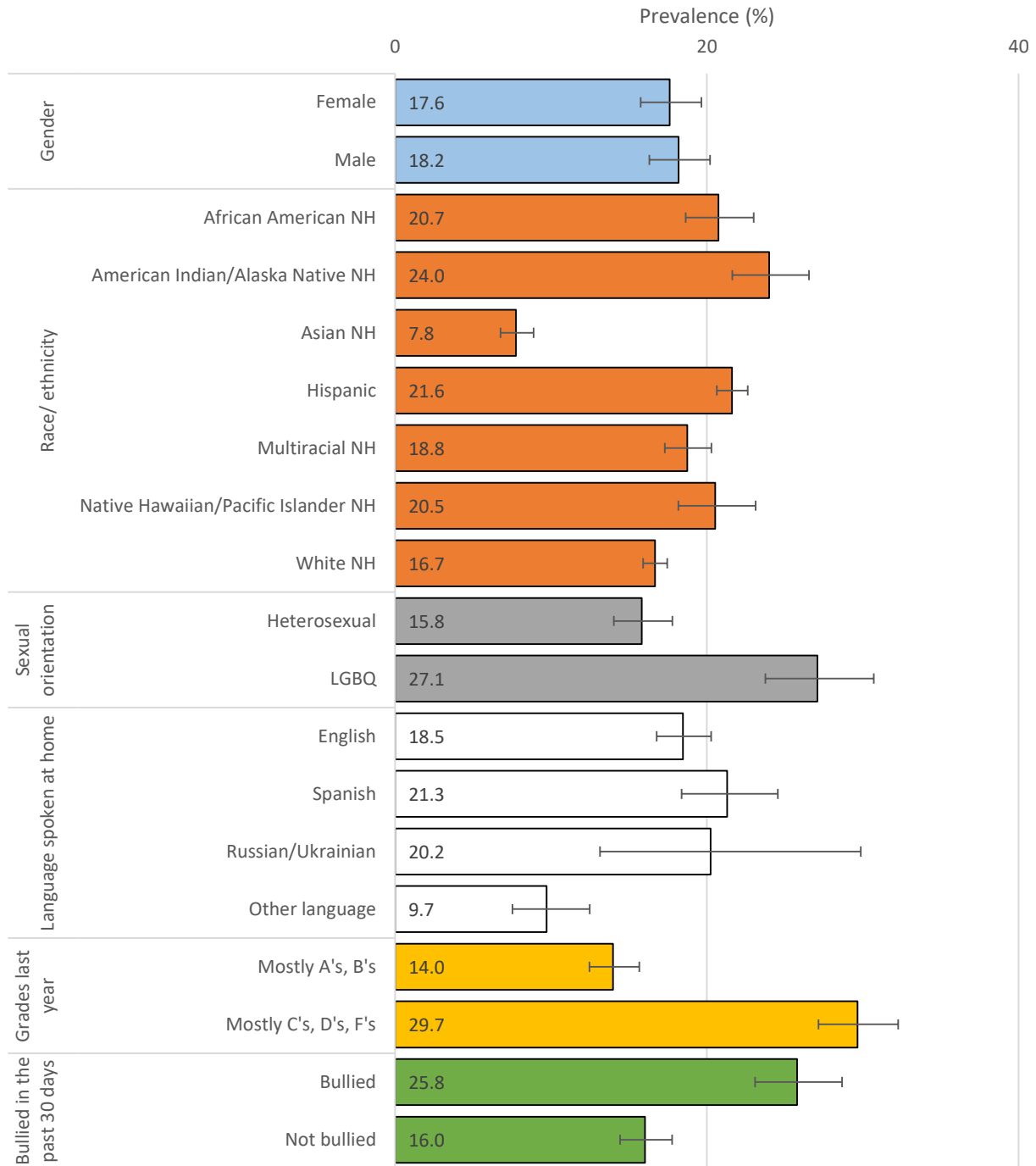
NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.7 Prevalence of marijuana use one six or more of the past 30 days by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

| Category	Subgroup	Value
Gender	Female	6.4
	Male	7.9
Race/ ethnicity	African American NH	9.3
	American Indian/Alaska Native NH	11.1
	Asian NH	2.8
	Hispanic	9.2
	Multiracial NH	7.9
	Native Hawaiian/Pacific Islander NH	8.0
	White NH	6.9
Sexual orientation	Heterosexual	6.1
	LGBQ	11.6
Language spoken at home	English	7.3
	Spanish	9.0
	Russian/Ukrainian	
	Other language	3.0
Grades last year	Mostly A's, B's	5.1
	Mostly C's, D's, F's	12.9
Bullied in the past 30 days	Bullied	10.0
	Not bullied	6.4

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.8 Prevalence of past 30-day alcohol drinking by subpopulation among 10th grade students, HYS 2018
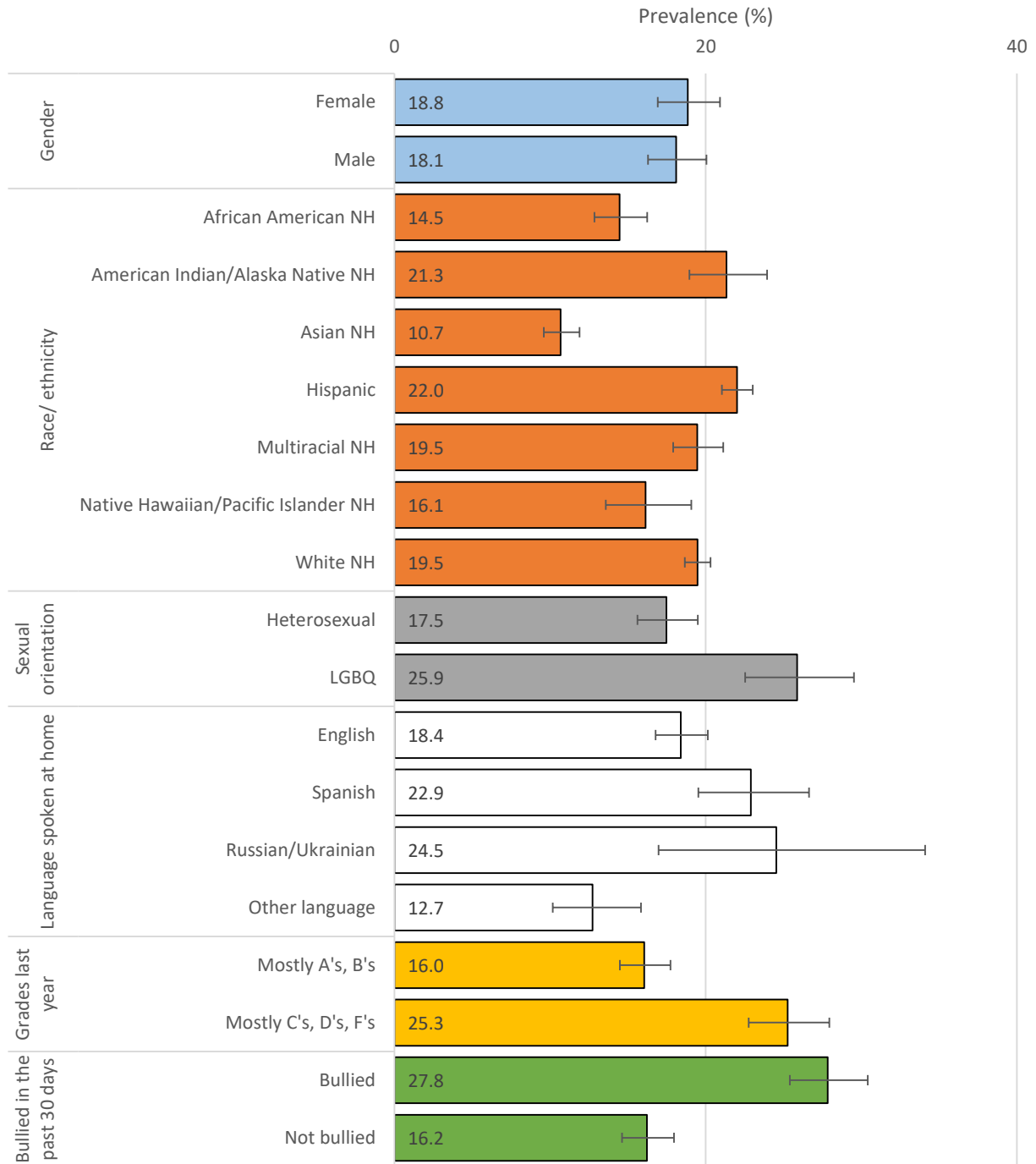
NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.9 Prevalence of past 30-day opioid use by subpopulation among 10th grade students, HYS 2018
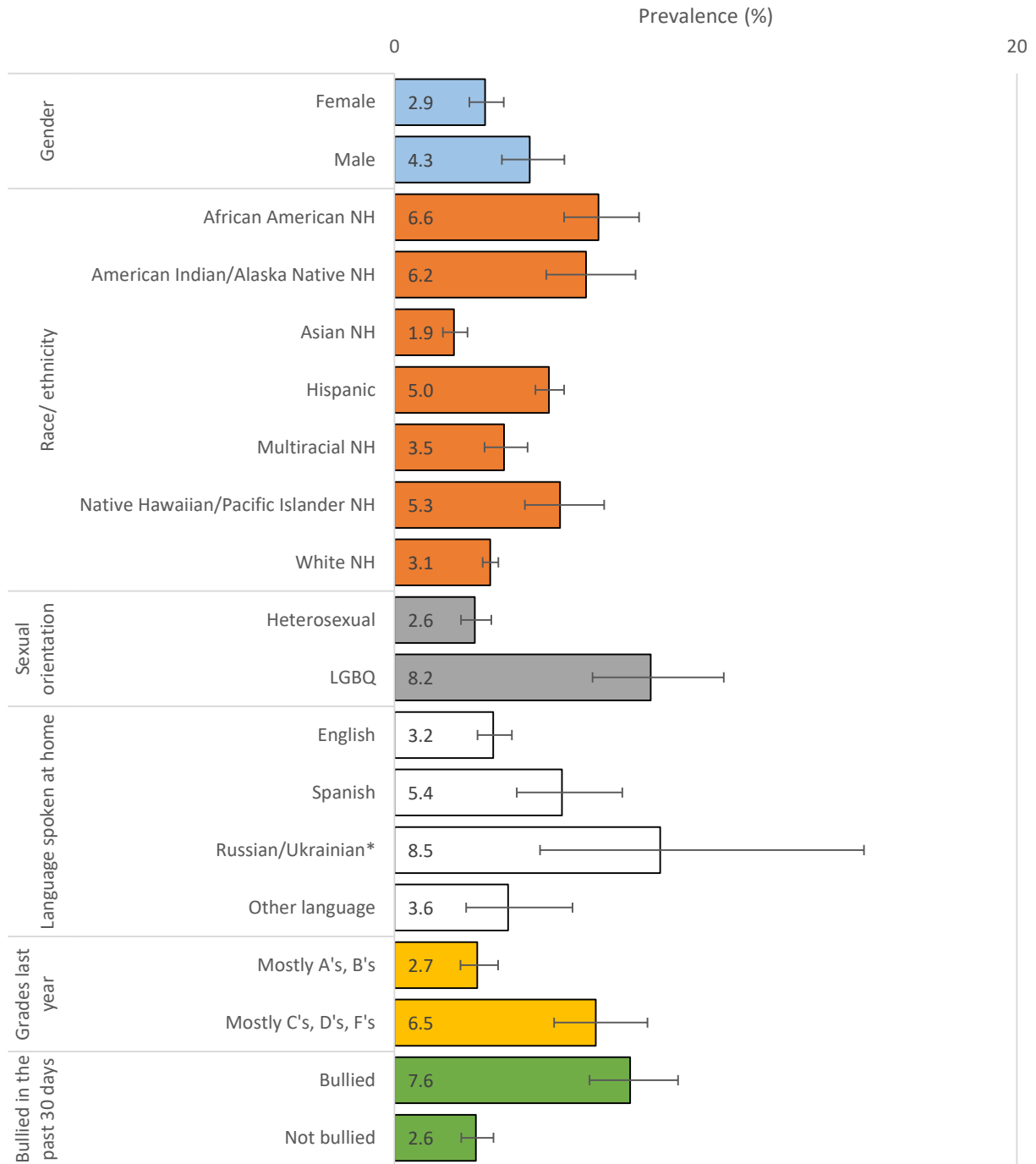
NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.
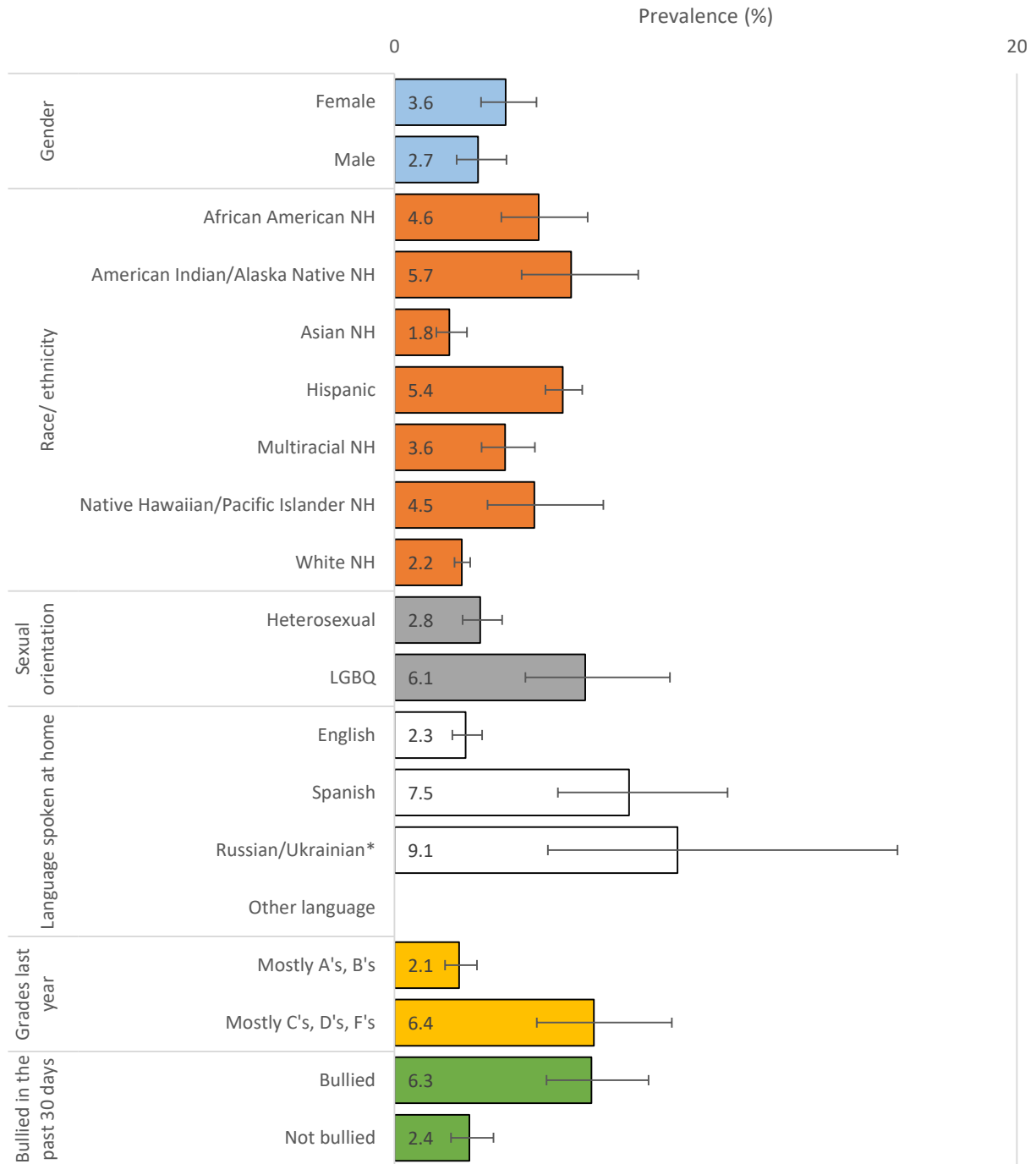
Figure A.10 Prevalence of perceiving it would be very hard to get cigarettes by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

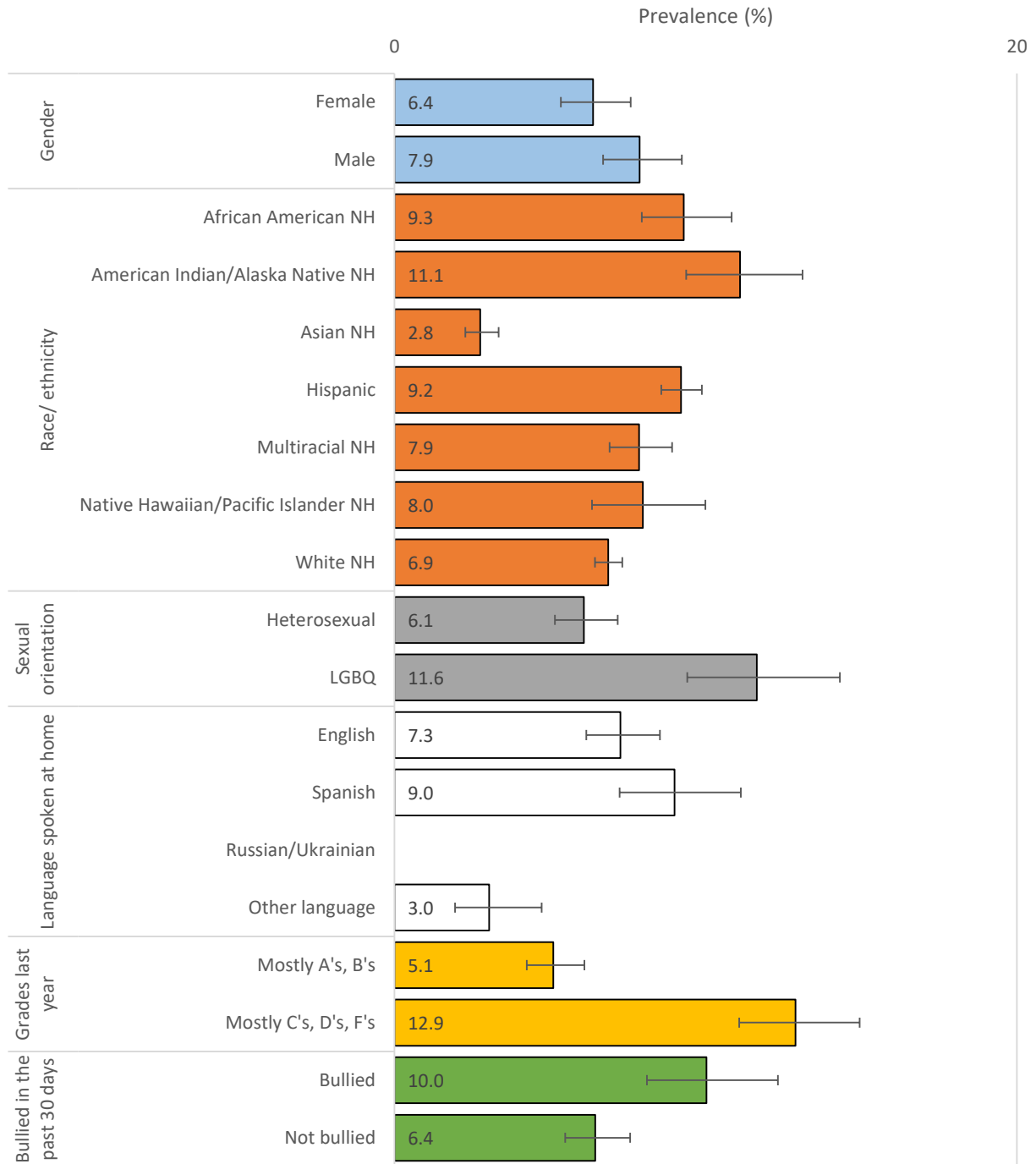| Category	Subpopulation	Value
Gender	Female	38.7
Gender	Male	38.1
Race/ ethnicity	African American NH	42.8
Race/ ethnicity	American Indian/Alaska Native NH	37.3
Race/ ethnicity	Asian NH	45.5
Race/ ethnicity	Hispanic	41.7
Race/ ethnicity	Multiracial NH	34.4
Race/ ethnicity	Native Hawaiian/Pacific Islander NH	42.9
Race/ ethnicity	White NH	36.9
Sexual orientation	Heterosexual	38.5
Sexual orientation	LGBQ	34.4
Language spoken at home	English	36.3
Language spoken at home	Spanish	42.9
Language spoken at home	Russian/Ukrainian	41.8
Language spoken at home	Other language	48.3
Grades last year	Mostly A's, B's	39.6
Grades last year	Mostly C's, D's, F's	34.5
Bullied in the past 30 days	Bullied	29.6
Bullied in the past 30 days	Not bullied	40.6

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.11 Prevalence of perceiving it would be very hard to get marijuana by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

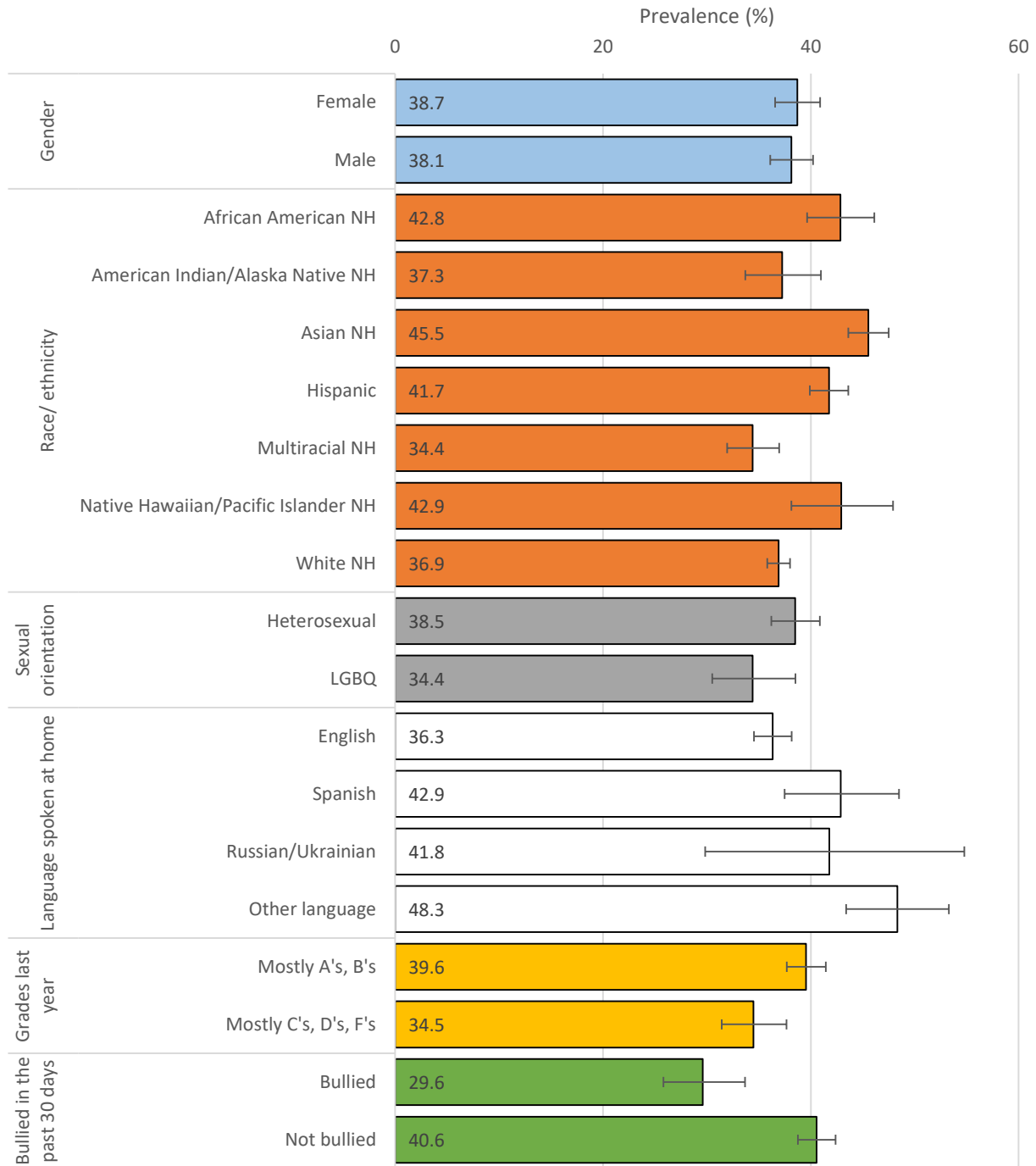| Category	Subgroup	Value
Gender	Female	30.9
Gender	Male	34.8
Race/ ethnicity	African American NH	32.3
Race/ ethnicity	American Indian/Alaska Native NH	34.4
Race/ ethnicity	Asian NH	47.0
Race/ ethnicity	Hispanic	30.6
Race/ ethnicity	Multiracial NH	27.9
Race/ ethnicity	Native Hawaiian/Pacific Islander NH	39.3
Race/ ethnicity	White NH	32.7
Sexual orientation	Heterosexual	32.6
Sexual orientation	LGBQ	26.4
Language spoken at home	English	30.2
Language spoken at home	Spanish	30.9
Language spoken at home	Russian/Ukrainian	37.7
Language spoken at home	Other language	51.8
Grades last year	Mostly A's, B's	35.3
Grades last year	Mostly C's, D's, F's	24.5
Bullied in the past 30 days	Bullied	23.6
Bullied in the past 30 days	Not bullied	34.8

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.12 Prevalence of perceiving it would be very hard to get alcohol by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

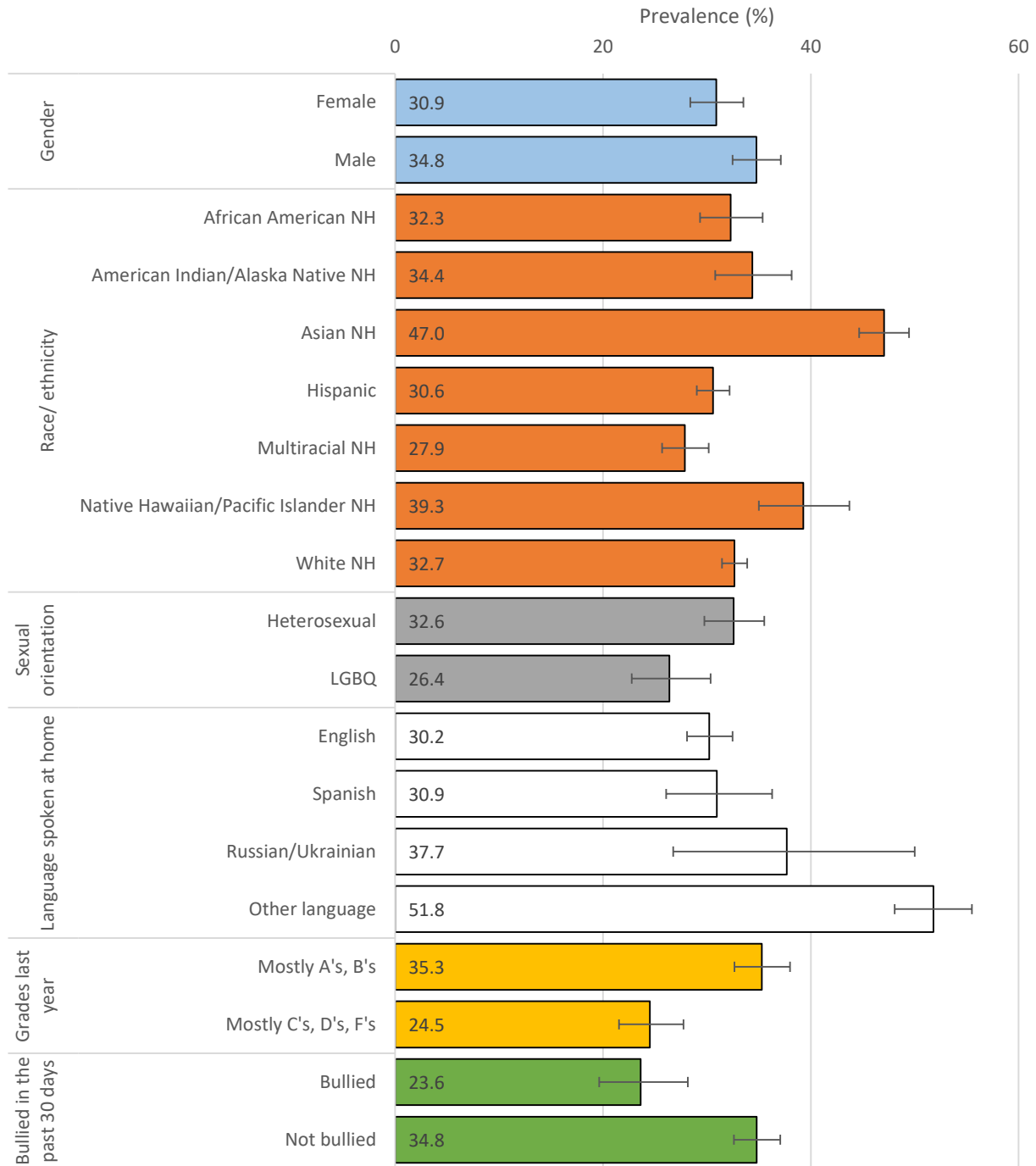| Category	Subpopulation	Value
Gender	Female	24.6
	Male	27.5
Race/ ethnicity	African American NH	33.8
	American Indian/Alaska Native NH	30.6
	Asian NH	32.9
	Hispanic	29.3
	Multiracial NH	20.7
	Native Hawaiian/Pacific Islander NH	35.7
	White NH	22.1
Sexual orientation	Heterosexual	25.6
	LGBQ	19.4
Language spoken at home	English	23.7
	Spanish	30.6
	Russian/Ukrainian	29.0
	Other language	37.4
Grades last year	Mostly A's, B's	25.7
	Mostly C's, D's, F's	25.0
Bullied in the past 30 days	Bullied	18.5
	Not bullied	27.5

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.13 Prevalence of perceiving it would be very hard to get drugs by subpopulation among 10th grade students, HYS 2018

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.
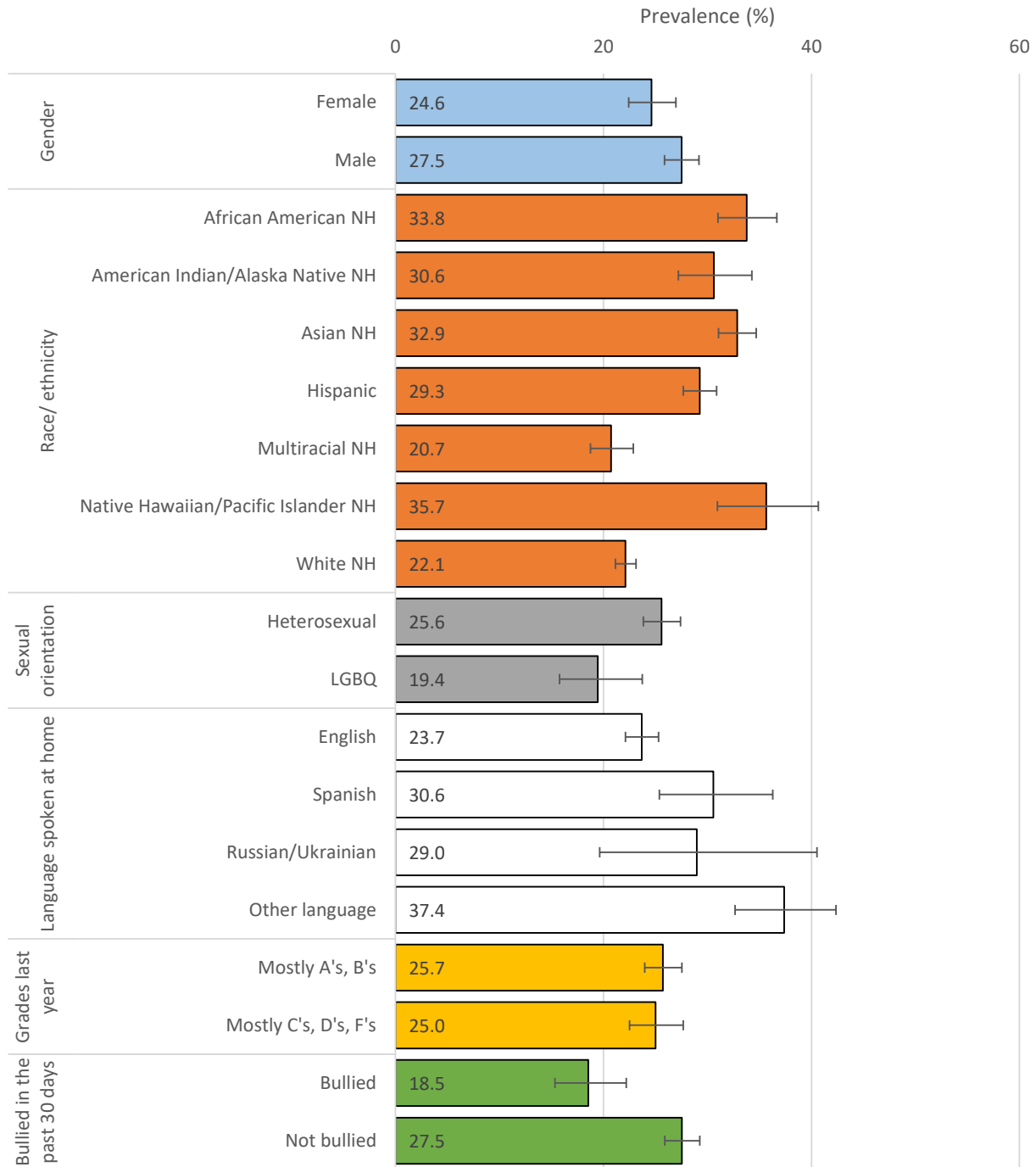
Figure A.14 Prevalence of perceiving great risk of harm from smoking one or more packs of cigarettes per day by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

Category	Subpopulation	Value
Gender	Female	76.5
Gender	Male	70.4
Race/ ethnicity	African American NH	67.3
Race/ ethnicity	American Indian/Alaska Native NH	62.3
Race/ ethnicity	Asian NH	77.6
Race/ ethnicity	Hispanic	69.8
Race/ ethnicity	Multiracial NH	78.1
Race/ ethnicity	Native Hawaiian/Pacific Islander NH	65.1
Race/ ethnicity	White NH	79.0
Sexual orientation	Heterosexual	75.4
Sexual orientation	LGBQ	70.4
Language spoken at home	English	75.2
Language spoken at home	Spanish	65.6
Language spoken at home	Russian/Ukrainian	68.7
Language spoken at home	Other language	72.5
Grades last year	Mostly A's, B's	77.1
Grades last year	Mostly C's, D's, F's	63.4
Bullied in the past 30 days	Bullied	67.2
Bullied in the past 30 days	Not bullied	75.2

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.
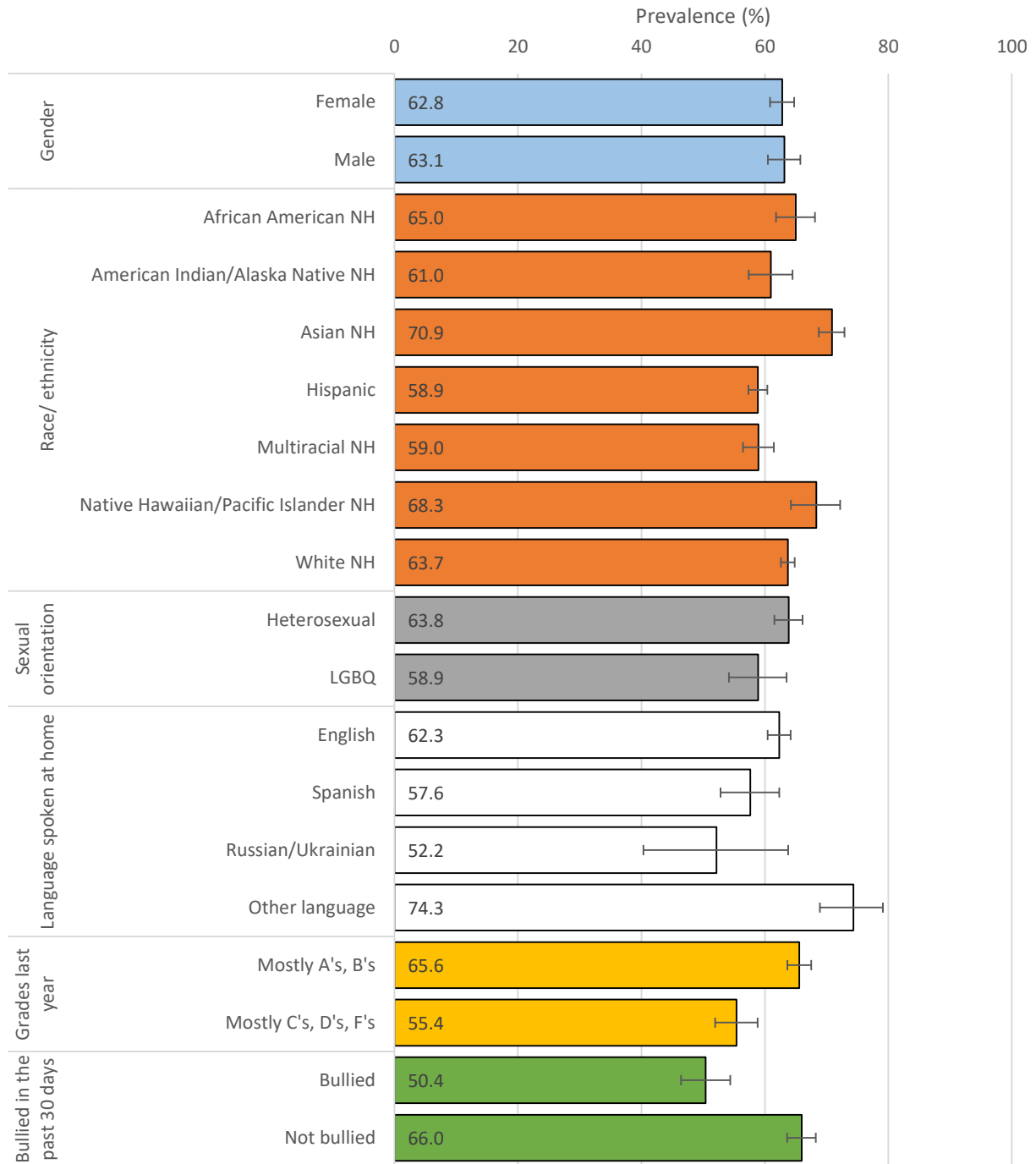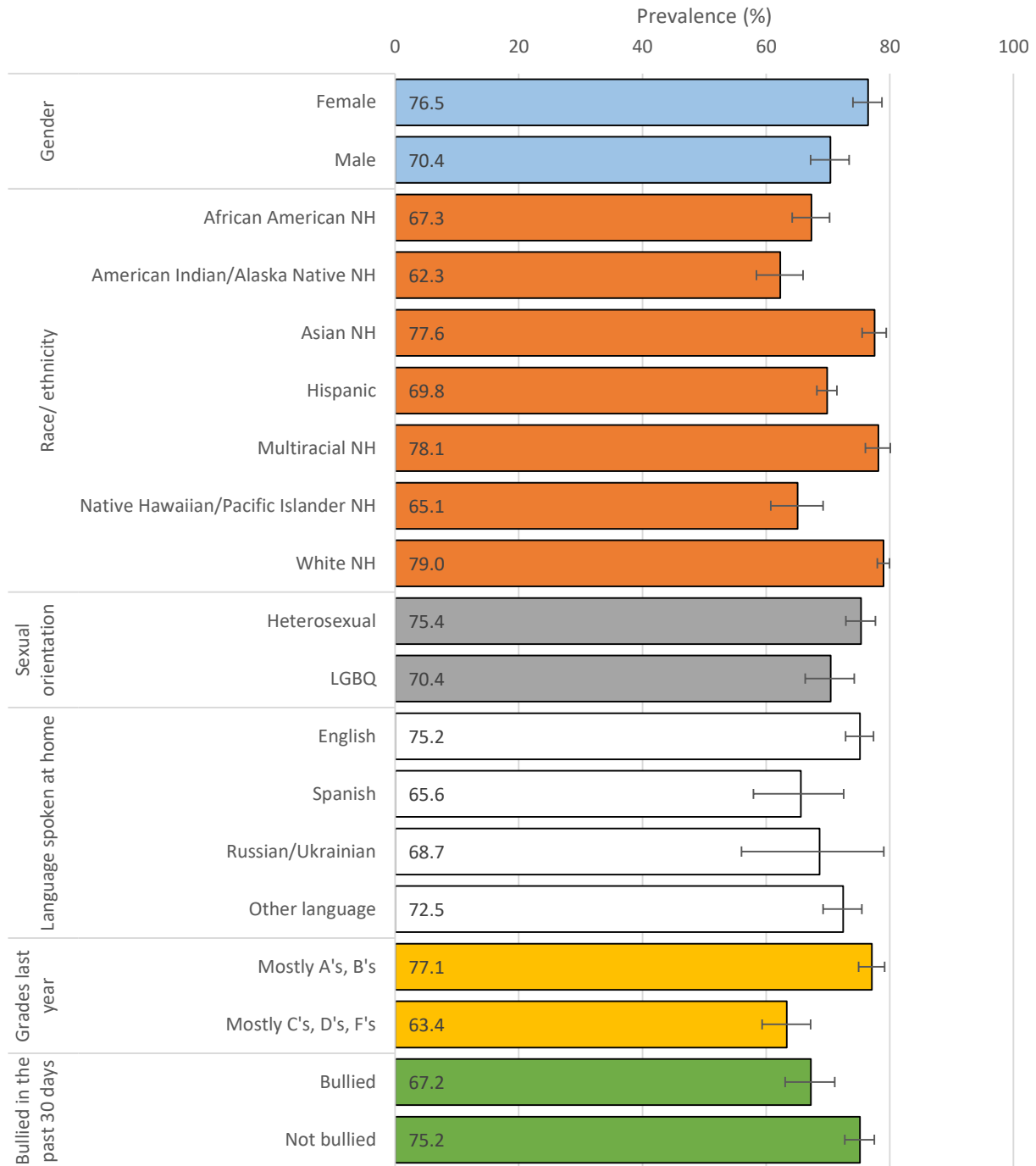
Figure A.15 Prevalence of perceiving great risk of harm from using e-cigarettes regularly by subpopulation among 10th grade students, HYS 2018
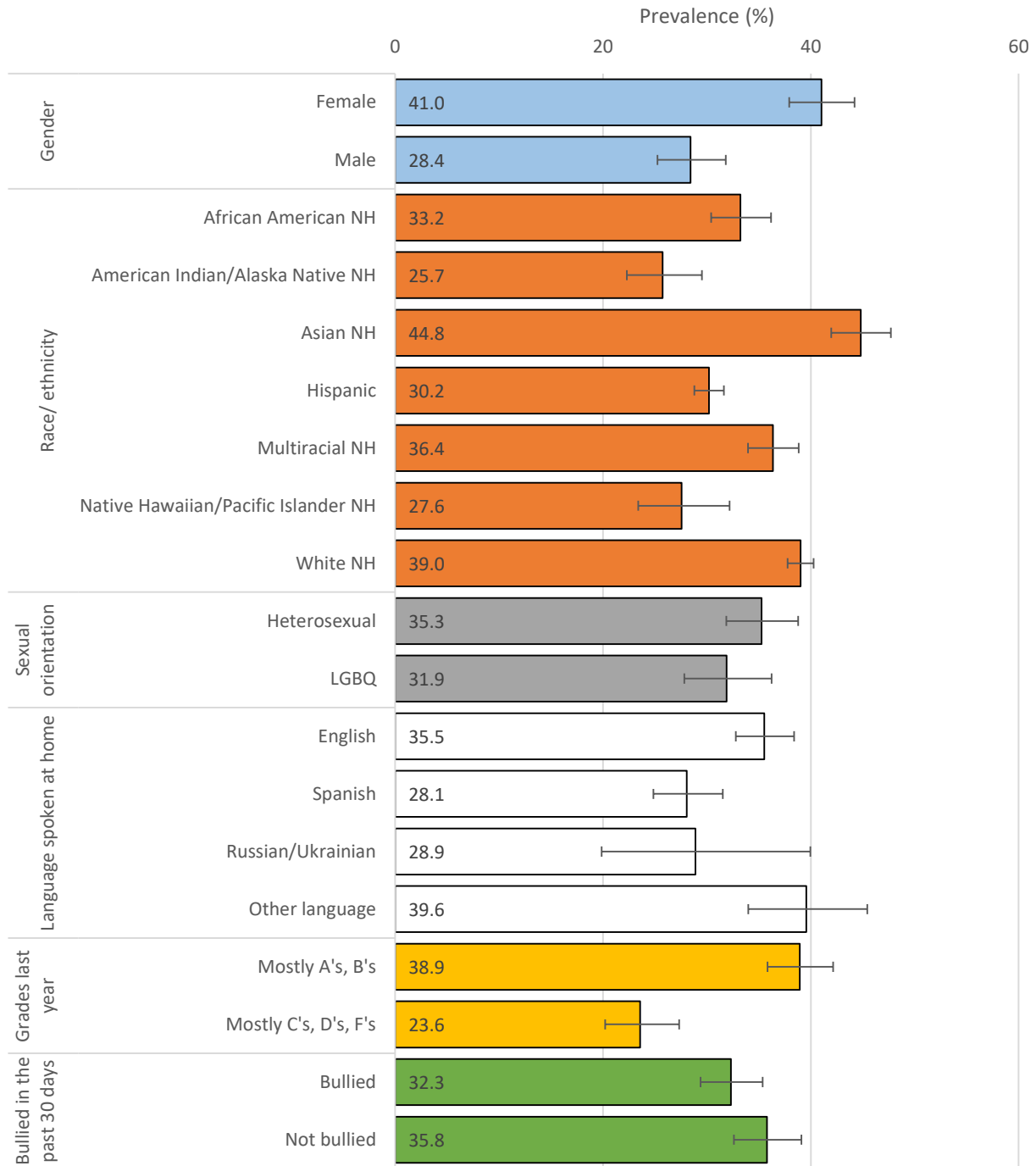

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.16 Prevalence of perceiving great risk of harm from using marijuana regularly by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

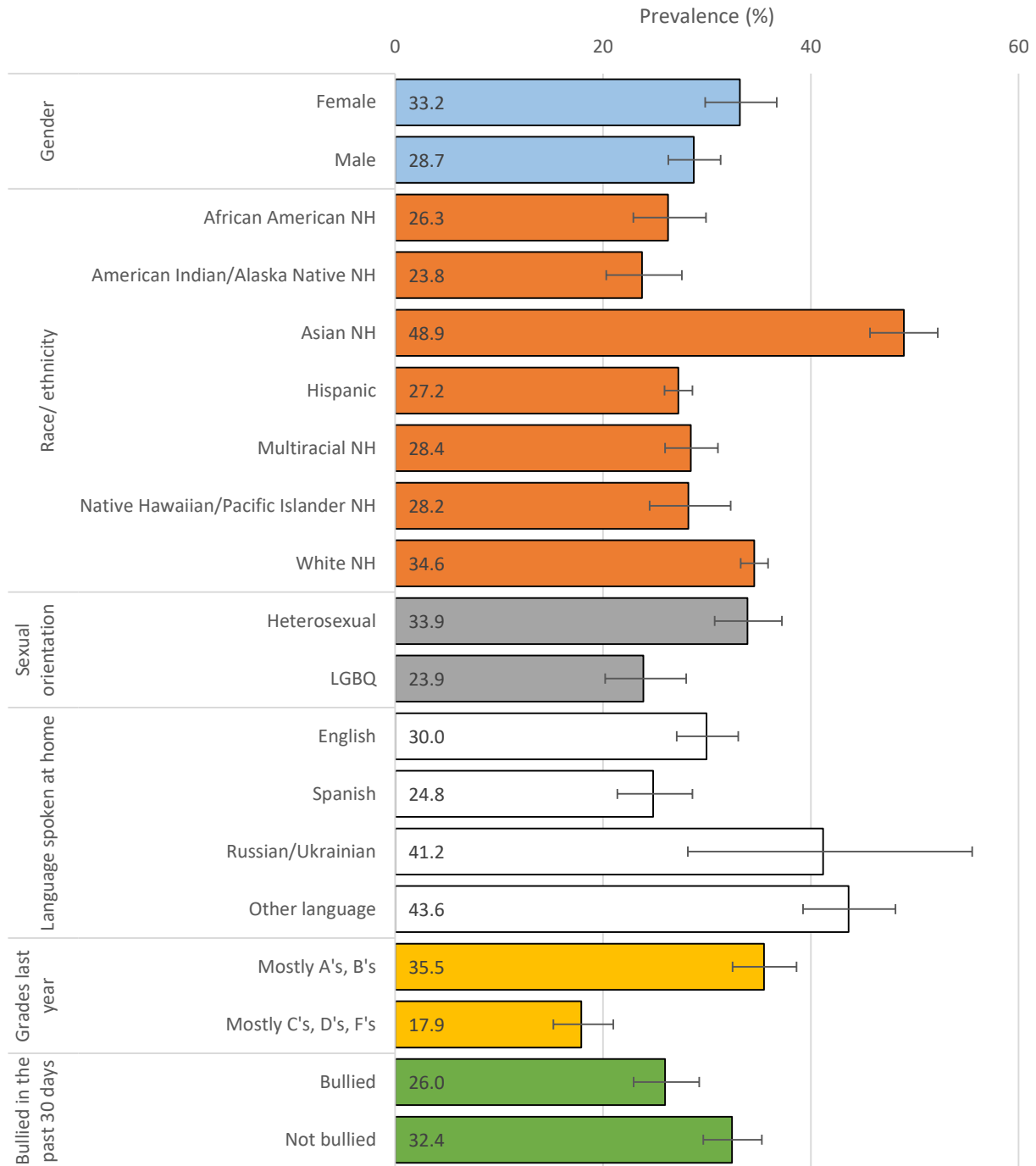| Category	Subpopulation	Value
Gender	Female	33.2
	Male	28.7
Race/ethnicity	African American NH	26.3
	American Indian/Alaska Native NH	23.8
	Asian NH	48.9
	Hispanic	27.2
	Multiracial NH	28.4
	Native Hawaiian/Pacific Islander NH	28.2
	White NH	34.6
Sexual orientation	Heterosexual	33.9
	LGBQ	23.9
Language spoken at home	English	30.0
	Spanish	24.8
	Russian/Ukrainian	41.2
	Other language	43.6
Grades last year	Mostly A's, B's	35.5
	Mostly C's, D's, F's	17.9
Bullied in the past 30 days	Bullied	26.0
	Not bullied	32.4

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.17 Prevalence of perceiving great risk of harm from drinking one to two alcoholic beverages nearly every day by subpopulation among 10th grade students, HYS 2018
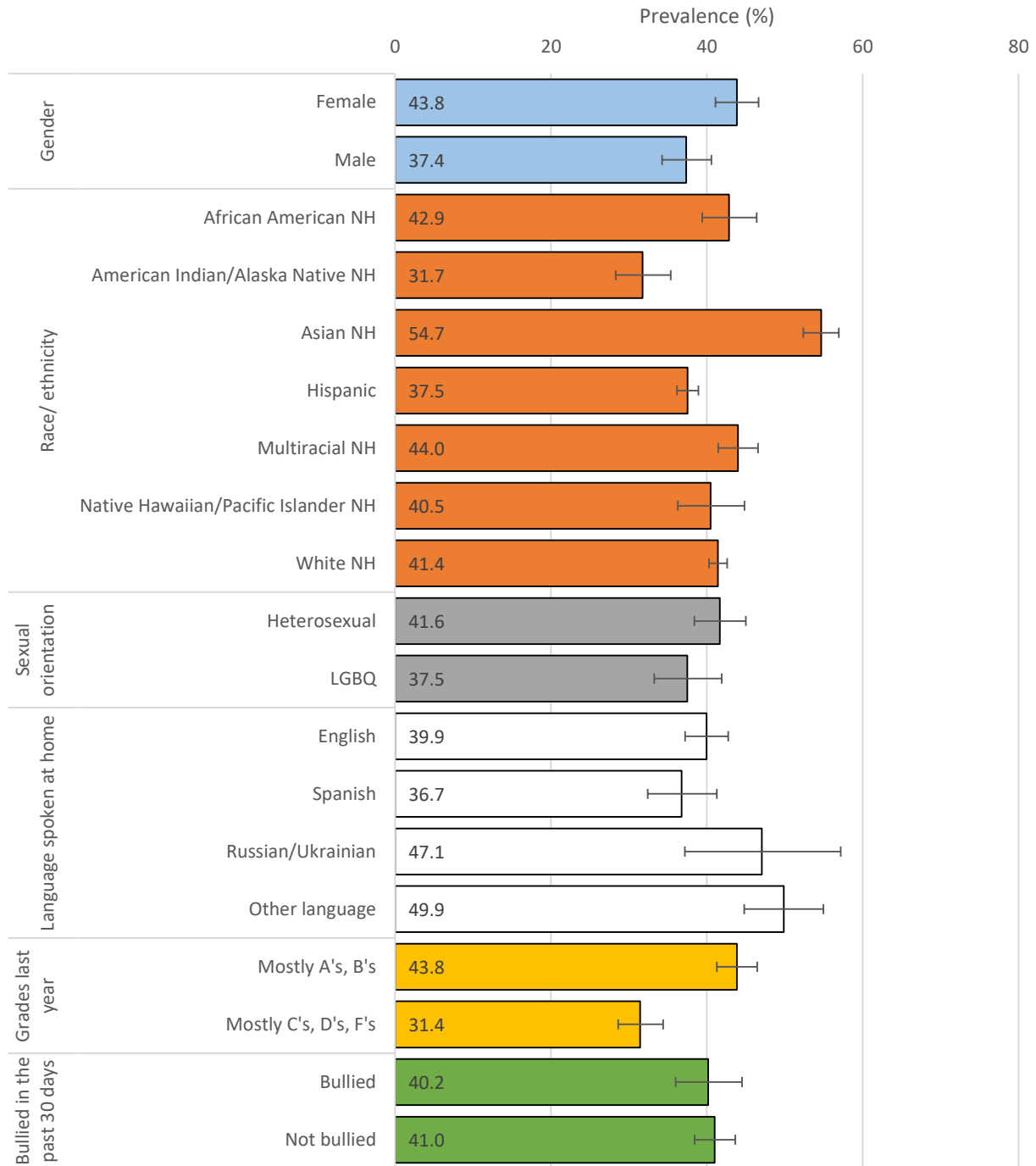
NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.18 Prevalence of perceiving great risk of harm from binge drinking by subpopulation among 10th grade students, HYS 2018
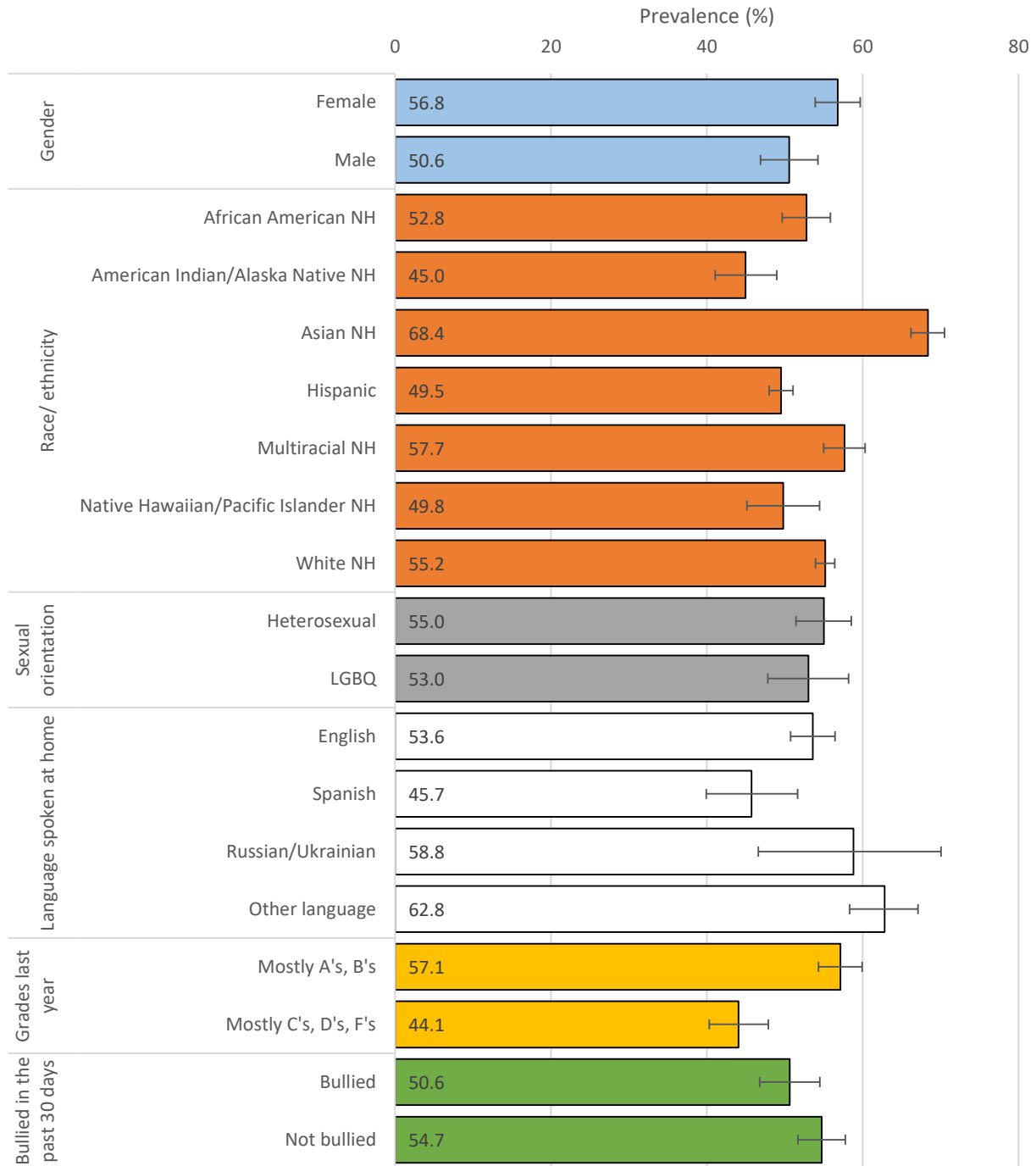

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.19 Prevalence of perceiving great risk of harm from using prescription drugs that are not prescribed to them by subpopulation among 10th grade students, HYS 2018
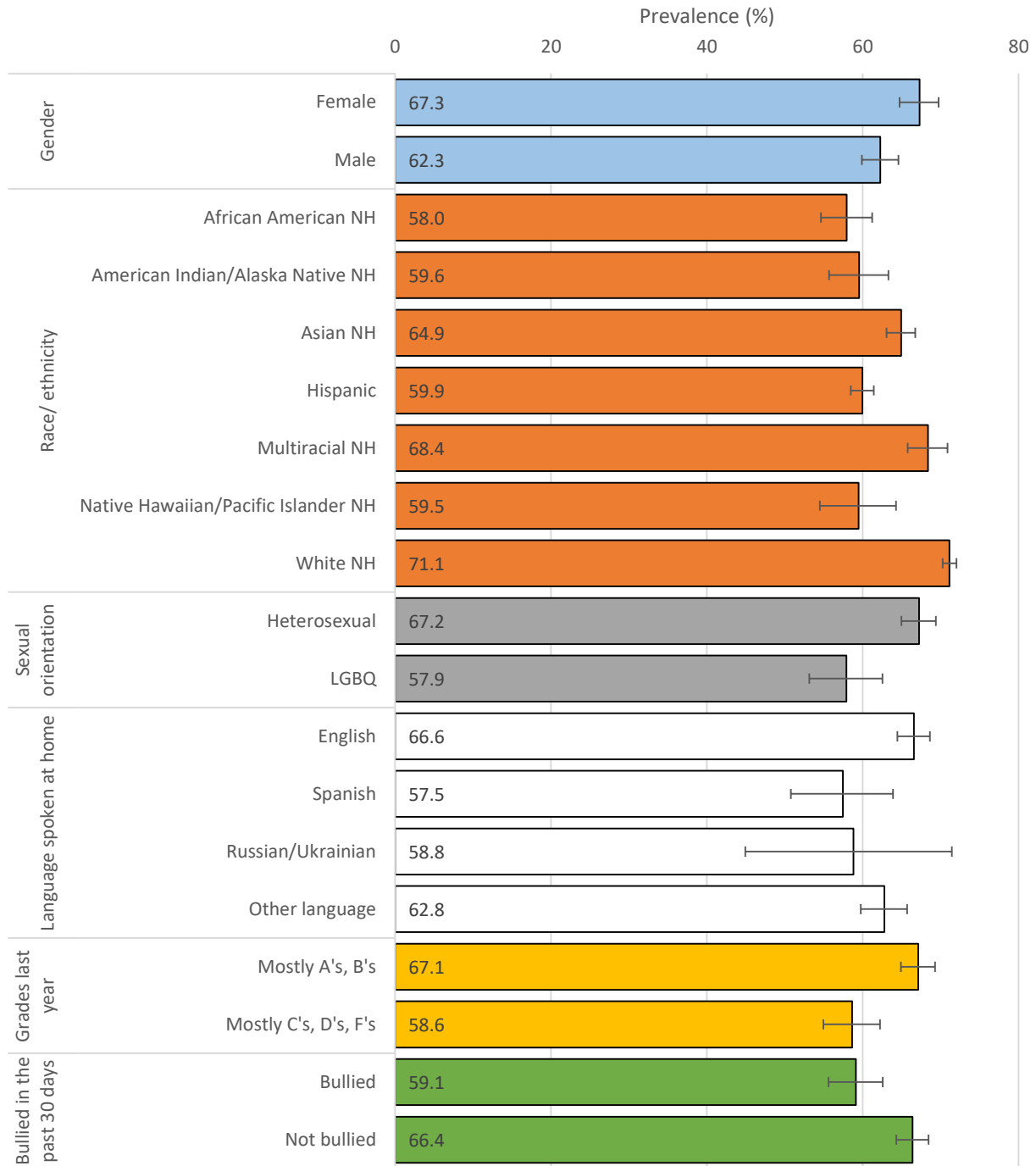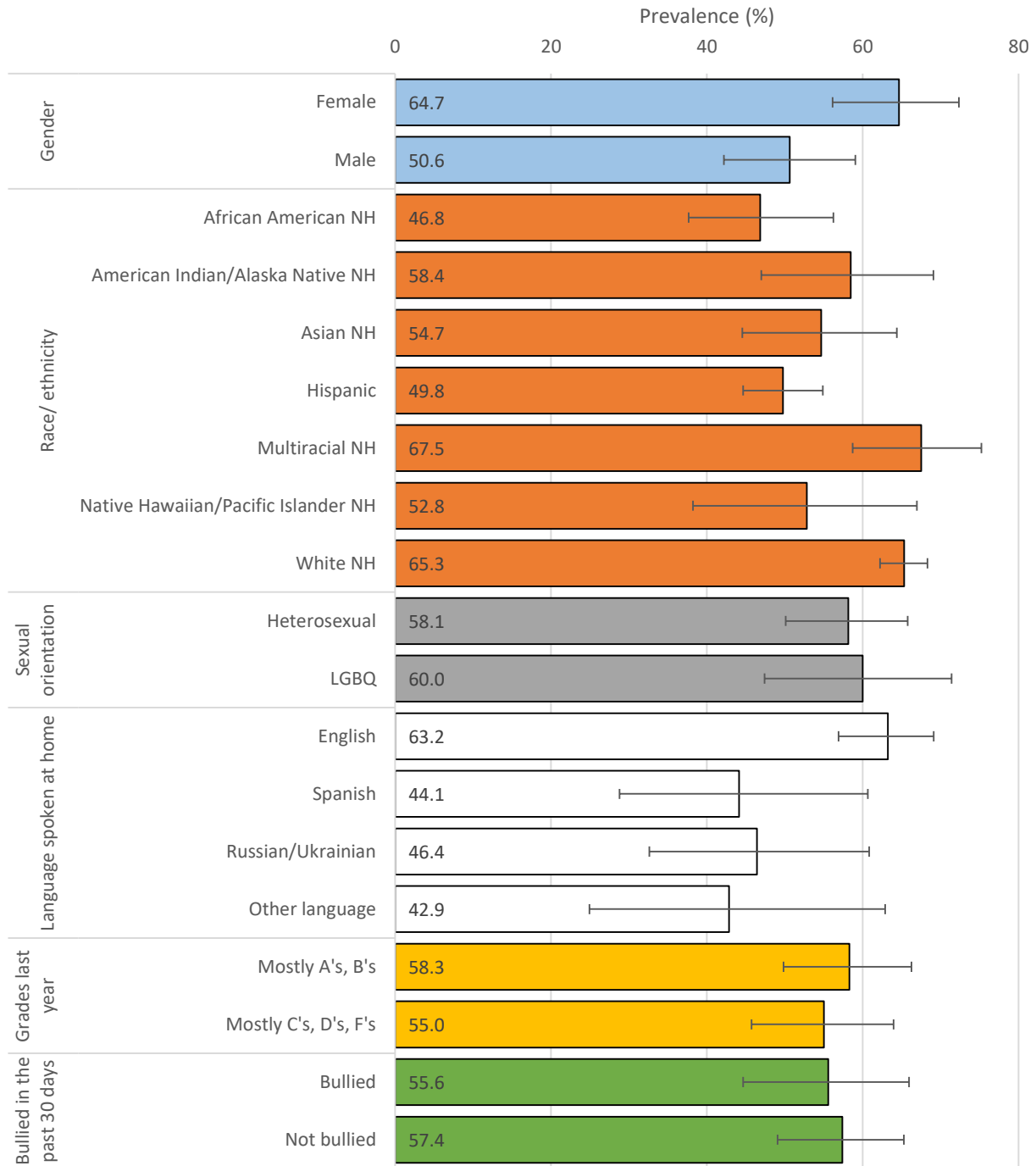

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.

Figure A.20 Prevalence of usually getting tobacco from social sources by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

Category	Subpopulation	Value
Gender	Female	64.7
	Male	50.6
Race/ ethnicity	African American NH	46.8
	American Indian/Alaska Native NH	58.4
	Asian NH	54.7
	Hispanic	49.8
	Multiracial NH	67.5
	Native Hawaiian/Pacific Islander NH	52.8
	White NH	65.3
Sexual orientation	Heterosexual	58.1
	LGBQ	60.0
Language spoken at home	English	63.2
	Spanish	44.1
	Russian/Ukrainian	46.4
	Other language	42.9
Grades last year	Mostly A's, B's	58.3
	Mostly C's, D's, F's	55.0
Bullied in the past 30 days	Bullied	55.6
	Not bullied	57.4

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.
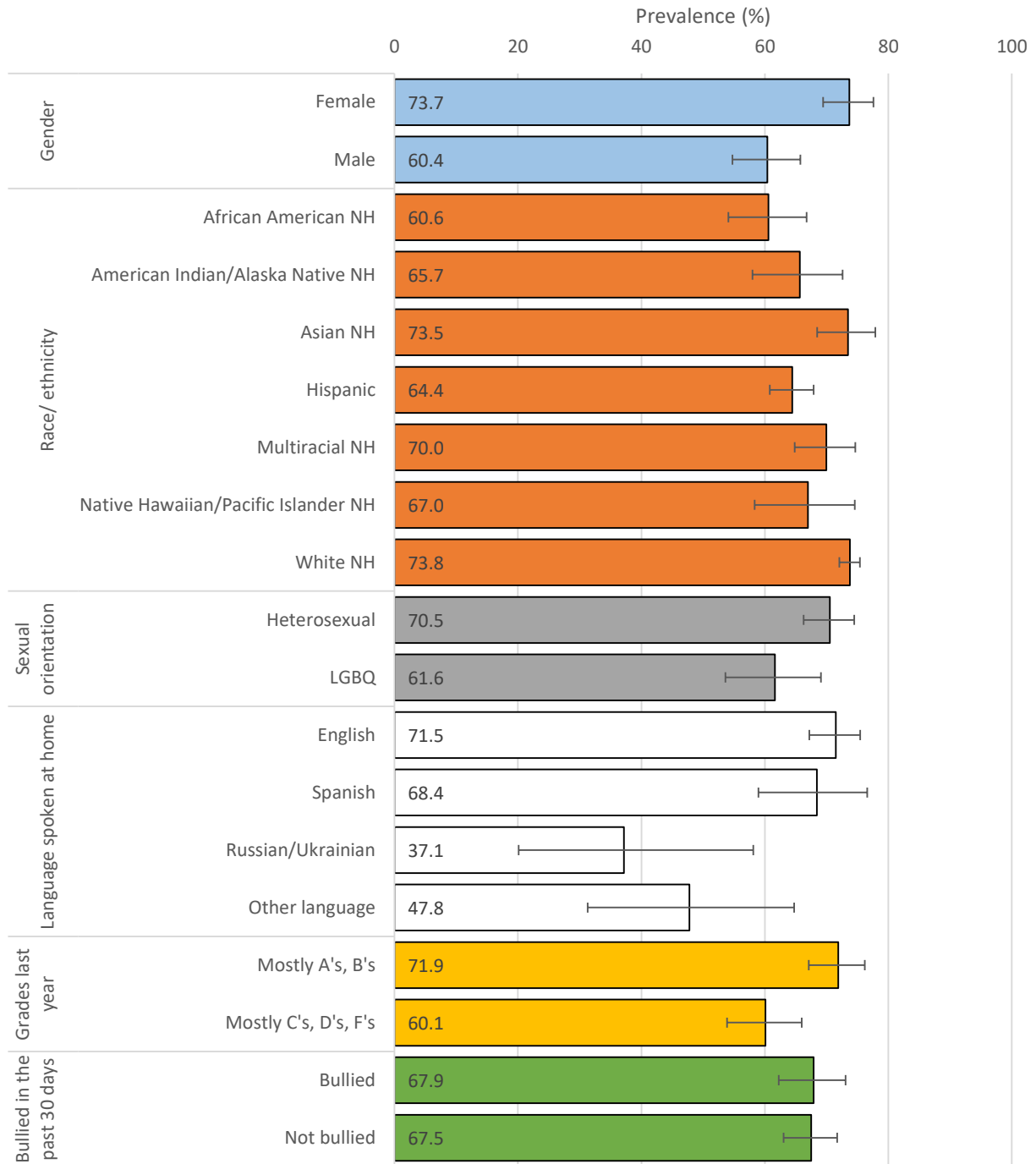
Figure A.21 Prevalence of usually getting e-cigarettes from social sources by subpopulation among 10th grade students, HYS 2018

Prevalence (%)

Category	Subgroup	Value
Gender	Female	73.7
Gender	Male	60.4
Race/ ethnicity	African American NH	60.6
Race/ ethnicity	American Indian/Alaska Native NH	65.7
Race/ ethnicity	Asian NH	73.5
Race/ ethnicity	Hispanic	64.4
Race/ ethnicity	Multiracial NH	70.0
Race/ ethnicity	Native Hawaiian/Pacific Islander NH	67.0
Race/ ethnicity	White NH	73.8
Sexual orientation	Heterosexual	70.5
Sexual orientation	LGBQ	61.6
Language spoken at home	English	71.5
Language spoken at home	Spanish	68.4
Language spoken at home	Russian/Ukrainian	37.1
Language spoken at home	Other language	47.8
Grades last year	Mostly A's, B's	71.9
Grades last year	Mostly C's, D's, F's	60.1
Bullied in the past 30 days	Bullied	67.9
Bullied in the past 30 days	Not bullied	67.5

NH=non-Hispanic; LGBQ=lesbian, gay, bisexual or questioning; * RSE is between 25% and 30% - use with caution; missing bars have an RSE >30%.