



# 2018 Analytic Report

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**Sponsoring Washington State Agencies:**  
**Health Care Authority – Division of Behavioral Health and Recovery**  
**Department of Health**  
**Office of Superintendent of Public Instruction**  
**Liquor and Cannabis Board**

Prepared by:  
**Looking Glass Analytics, Inc.**

**November 2019**

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# Washington State Healthy Youth Survey 2018

## **Analytic Report**

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**November 2019**

In collaboration with members of the Healthy Youth Survey Planning Committee

This report is available online at:

<http://www.AskHYS.net>

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The Healthy Youth Survey was administered by the Washington State Health Care Authority Division of Behavioral Health and Recovery, the Department of Health, the Office of the Superintendent of Public Instruction, and the Liquor and Cannabis Board. Healthy Youth Survey Planning Committee includes members of these state agencies and oversaw the implementation of the 2018 survey.

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# Executive Summary

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This report details the findings from the 2018 administration of the Healthy Youth Survey. HYS 2018 continues Washington State’s ongoing effort to assess the health of youth throughout the state. The results of the survey will be used by stakeholders at the state, county, district, school, and community levels who are interested in developing and improving prevention and intervention programs to better the lives of their youth.

## Background

The Washington State Healthy Youth Survey (HYS) measures behaviors, attitudes, and experiences that contribute to the health and safety of youth in Washington State. The survey results serve two important functions: as needs assessment data for program planning and as a global look at the effectiveness of statewide prevention and health promotion initiatives related to a range of education and health-related goals at the federal and state levels.

The 2018 administration of the HYS represents a collaborative effort among the Health Care Authority Division of Behavioral Health and Recovery (HCA/DBHR); the Office of Superintendent of Public Instruction (OSPI); the Department of Health (DOH); the Liquor and Cannabis Board (LCB); and the contractor, Looking Glass Analytics, Inc. (LGAN). Representatives of these agencies served as members of the Healthy Youth Survey Planning Committee (HYSPC), which guided every aspect of the survey development and implementation.

The HYS 2018 was the 16th administration of a statewide survey among Washington’s students. This report provides results of HYS 2018, including comparisons by grade and by gender. It also includes past survey results, and it looks at changes from the HYS 2016 results and trends from 2002-2018.

## Participation

Washington State schools were randomly selected for the HYS 2018 statewide sample. Of the sampled schools asked to participate, about 91 percent of Grade 6 schools, 90 percent of Grade 8 schools, 87 percent of Grade 10 schools, and 85 percent of Grade 12 schools took part in the survey.

All Grade 6, 8, 10, and 12 students in the sampled schools were eligible to participate in the survey. An estimated 76 percent of the Grade 6 students and Grade 8 students, 66 percent of the Grade 10 students, and 46 percent of the Grade 12 students in the original random sample of schools took part in the survey (estimates were based on fall 2018 enrollment data from the Office of Superintendent of Public Instruction). Non-response is both a function of schools choosing not to participate AND students not participating. Student non-participation could come from a number of factors, including absence on the day of the survey, student or parent opt-out, or survey flagged as not valid during quality control.

A total of 182 schools and 32,271 students contributed data to the statewide sample. In addition, 202,423 students in 884 schools participated in the survey as non-sampled schools. These additional schools received reports of their own results, but those results are not included in this statewide report because the schools were not part of the representative statewide sample.

## Results

Results from the 2018 HYS by grade are presented in this summary, along with any significant increases or decreases from 2016 to 2018. Results are provided for the following topics:



- Demographics
- Physical activity and dietary behavior
- Health status and health care
- Mental health
- Sexual behavior
- School climate
- Unintentional injury behaviors
- Intentional injury behaviors
- Alcohol, tobacco, and other drug use

## Demographics

- Gender, 50 percent of Grade 8 and 10 students, and 48 percent of Grade 12 students reported being Female. Forty-four percent of Grade 8 and 10 students, and 46% of students reported being Male. One percent of Grade 8 and 12 students and 2 percent of Grade 10 students identified as transgender. Eight percent of Grade 8, 9 percent of Grade 10 and 12 students identified as questioning, not sure, or something else fits better than male or female.
- Race/Ethnicity, 36 percent of Grade 6, 47 percent of Grade 8, 44 percent of Grade 10, and 48 percent of Grade 12 students reported being White only. Twenty percent of Grade 6, 18 percent of Grade 8, 20 percent of Grade 10, and 22 percent of Grade 12 reported being any Hispanic. Six percent of Grade 6, 3 percent of Grade 8, and 2 percent of Grade 10 and 12 students reported being American Indian or Alaska Native only. Seven percent of Grade 6, 9 percent of Grade 8, 14 percent of Grade 10, and 12 percent of Grade 12 students reported being Asian or Asian American only. Four percent of Grade 6 and 8 students, 6 percent of Grade 10, and 5 percent of Grade 12 students reported being Black or African American only. Two percent of Grade 6, 8, 10 and 12 students reported being Native Hawaiian or other Pacific Islander only.
- Language spoken at home, 20 percent of Grade 6 and 8 students, 25 percent of Grade 10, and 23 percent of Grade 12 students reported a language other than English is spoken in their home.
- Sexual orientation, 3 percent of Grade 8 and 10 students, and 4 percent of Grade 12 identified as gay or lesbian. Eight percent of Grade 8 students, and 9 percent of Grade 10 and 12 students identified as bisexual.

## Physical Activity and Dietary Behavior

- Self-reported data on height and weight indicate that 12 percent of Grade 8 students, 14 percent of Grade 10 students, and 17 percent of Grade 12 students are obese. In addition, the percentage who are overweight was 14 percent of Grade 8 students and 15 percent of Grade 10 and 12 students. From 2016, there were significant increases in obesity and overweight among Grade 10 and 12 students.
- At least 60 minutes of daily physical activity is recommended for youth. Twenty-seven percent of Grade 6 students, 28 percent of Grade 8 students, 22 percent of Grade 10 students, and 21 percent of Grade 12 students met the physical activity recommendation.
- Participation in physical education classes five days a week: 40 percent of Grade 8 students, 27percent of Grade 10 students, and 30 percent of Grade 12 students. In addition, among those that took physical education, the percentage spending more than 20 minutes exercising or playing sports in an average class was 90 percent of Grade 8 and Grade 10 students and 91 percent of Grade 12 students.

- Watching television or playing video games for two hours or less on an average school day: 53 percent of Grade 6 students, 61 percent of Grade 8, 10, and 12 students. The description of television watching and video game playing was expanded to include streaming video and any electronic device, so comparisons cannot be made with 2018.
- Eating fruit less than once a day: 40 percent of Grade 8 students, 41 percent of Grade 10 students, and 44 percent of Grade 12 students. From 2016, there was a significant increase in eating fruit less than once a day among Grade 12 students. From 2016, there were significant increases eating fruit less than once a day among Grade 8, 10 and 12 students.
- Eating vegetables less than once a day: 39 percent of Grade 8 students, 38 percent of Grade 10 students, and 40 percent of Grade 12 students. From 2016, there was a significant decrease in eating vegetables less than once a day among Grade 6 students.
- Eating dinner with their family most of the time or always: 75 percent of Grade 6 students, 67 percent of Grade 8 students, 56 percent of Grade 10 students, and 48 percent of Grade 12 students. From 2016, there was a significant increase in eating dinner with family among Grade 6 students.
- Drinking sweetened beverages daily: 13 percent of Grade 8 students, 14 percent of Grade 10 students, and 18 percent of Grade 12 students. From 2016, there were significant decreases in drinking one or more sweetened beverages daily.
- Drinking sweetened beverages at school (including after school or weekend activities): 38 percent of Grade 8 students, 42 percent of Grade 10 students, and 43 percent of Grade 12 students.
- Among those who drank soft drinks at school, the percentage purchasing soft drinks at school was 17 percent of Grade 8 students, 27 percent of Grade 10 students, and 17 percent of Grade 12 students.
- Students who reported that their family had to cut meal size or skip meals because of lack of money for food in the past year: 10 percent of Grade 8 students, 12 percent of Grade 10 students, and 16 percent of Grade 12 students.

## Health Status and Health Care

- Doctor-diagnosed or “lifetime” asthma: 13 percent of Grade 6 students, 18 percent of Grade 8 students, 21 percent of Grade 10 and 12 students. From 2016, there was a significant decrease in lifetime asthma among Grade 6 and 12 students.
- Current asthma: 7 percent of Grade 6 students, 8 percent of Grade 8 students, 9 percent of grade 10 students, and 8 percent of Grade 12 students. From 2016, there was a significant decrease in current asthma among Grade 12 students.
- Visiting a dentist in the past year for a checkup, exam, teeth cleaning, or other dental work: 79 percent of Grade 8 students, 77 percent of Grade 10 students, and 74 percent of Grade 12 students.
- Seeing a doctor or health care provider in the past year for a check–up or physical exam when you were not sick or injured: 70 percent of Grade 8 students, 68 percent of Grade 10 students, and 65 percent of Grade 12 students. From 2016, there were increases in seeing a doctor when not sick or injured among Grade 8, 10, and 12 students.

## Mental Health

- Experiencing depressive feelings (i.e., had ever felt so sad or hopeless almost every day for two weeks in a row that they stopped doing some usual activities) during the past year: 32 percent of Grade 8 students, 40 percent of Grade 10 students, and 41 percent of Grade 12 students. From 2016, there was a significant increase in experiencing depressive feelings among Grade 8, 10, and 12 students.
- Experiencing high levels of anxiety during the past two weeks: 26 percent for Grade 8 students, 33 percent for Grade 10 students, and 35 percent for Grade 12 students. From 2016, there were significant increases in experiencing high levels of anxiety among Grade 8, 10, and 12 students.
- Highly hopeful: 52 percent of Grade 8, 47 percent of Grade 10, and 51 percent of Grade 12 students reported being highly hopeful for the future.
- Suicide attempts during the past year: 10 percent for Grade 8 and 10 students, and 9 percent for Grade 12 students. From 2016, there was an increase in suicide attempts among Grade 8 students.

## Abuse

- Witnessed physical abuse: 22 percent of Grade 8 students, 26 percent of Grade 10 students, and 27 percent in Grade 12 students. From 2016, there was a significant increase in witnessing physical abuse among Grade 8 students.
- Experienced physical abuse: 20 percent of Grade 8 students, 25 percent of Grade 10 students, and 27 percent in Grade 12 students. From 2016, there were significant increases in experiencing physical abuse among Grade 10 and 12 students.
- Experienced emotional abuse: 33 percent of Grade 8 students, 39 percent of Grade 10 and 12 students.
- Dating violence: 14 percent of Grade 8 students, 18 percent of Grade 10 students, and 17 percent of Grade 12 students were limited, threatened or made to feel unsafe by the person they were dating. From 2016, there were increases in feeling limited, threatened, or unsafe among Grade 8, 10, and 12 students. Ten percent of Grade 8 students, and 11 percent of Grade 10 students, and 12 percent Grade 12 students were hurt on purpose by the person they were dating. From 2016, there were increases in being physically hurt on purpose among Grade 8 and 12 students.

## Sexual Behavior

- Reports of having ever had sex: 9 percent of Grade 8 students, 26 percent of Grade 10 students, and 47 percent in Grade 12 students.

## School Climate

- Feeling safe at school: 85 percent of Grade 6 students, 80 percent of Grade 8 students, 79 percent of Grade 10 students, and 81 percent of Grade 12 students. From 2016, there were significant decreases in feeling safe at school among Grade 6, 8, 10, and 12 students.
- Being bullied at school in the past month: 31 percent of Grade 6 students, 27 percent of Grade 8 students, 19 percent of Grade 10 students, and 17 percent of Grade 12 students. From 2016, there was a significant increase in being bullied among Grade 6 students.
- Being bullied through social media: 16 percent of Grade 8 students, 14 percent of Grade 10 students, and 12 percent of Grade 12 students. Twenty-one percent of Grade 8 students, 31% of

Grade 10 students, and 33% of Grade 12 students reported receiving sexually suggestive or revealing messages or images.

- Being harassed because of their perceived sexual orientation: 12 percent of Grade 8 students, 9 percent of Grade 10 students, and 7 percent of Grade 12 students.
- Carrying weapons at school in the past month: 2 percent of Grade 6 students, 3 percent of Grade 8 students, 5 percent of Grade 10 students, and 7 percent of Grade 12 students. From 2016, there was a significant decrease in weapon carrying at school among Grade 6 students.
- Being drunk or high at school in the past year: 8 percent of Grade 8 students, 16 percent of Grade 10 students, and 18 percent of Grade 12 students. From 2016, there were significant increases in being drunk or high at school among Grade 8 and 10 students.
- Using tobacco at school in the past month: 1 percent of Grade 8 students, 3 percent of Grade 10 students, and 2 percent of Grade 12 students. Also, 4 percent of grade 8 students, 10 percent of Grade 10 students, and 12 percent of Grade 12 students reported using an electronic cigarette at school in the past month.
- Drinking alcohol at school in the past month: 2 percent of Grade 8 students, 3 percent of Grade 10 students, and 2 percent of Grade 12 students.
- Using marijuana at school in the past month: 2 percent of Grade 8 students, 4 percent of Grade 10 students, and 5 percent of Grade 12 students.
- Having someone at school for students to discuss substance-related problems (such as a counselor, intervention specialist, or some other school staff member): 57 percent of Grade 8 students, 50 percent of Grade 10 students, and 54 percent of Grade 12 students.
- Skipping school in the past month: 19 percent of Grade 6 students, 14 percent of Grade 8 students, 16 percent of Grade 10 students, and 27 percent of Grade 12 students. From 2016, there was a significant decrease in skipping school among Grade 8 and 10 students.
- Enjoying school almost always: 25 percent of Grade 6 students, 13 percent of Grade 8 students, and 8 percent of Grade 10 students and Grade 12 students. From 2016, there were decreases in almost always enjoying school among Grade 6, 8, and 10 students.

### **Unintentional Injury Behaviors**

- Riding in a vehicle in the past month that was driven by someone who had been drinking alcohol: 6 percent of Grade 6 students, 18 percent of Grade 8 students, 17 percent of Grade 10 students, and 16 percent of Grade 12 students. From 2016, there was an increase in riding in a vehicle by someone who had been drinking among Grade 8 students.
- Driving a vehicle in the past month after they had been drinking alcohol: 5 percent of Grade 10 students and 7 percent of Grade 12. From 2016, there was a significant decrease in drinking and driving among Grade 12 students.
- Riding in a vehicle in the past month that was driven by someone who had been using marijuana: 11 percent of Grade 8 students, 18 percent of Grade 10 students, and 24 percent of Grade 12 students.
- Driving a vehicle in the past month after they had been using marijuana: 9 percent of Grade 10 students and 16 percent of Grade 12 students.
- Riding in a vehicle in the past month that was driven by someone who had been texting or emailing while driving: 28 percent of Grade 6 students.
- Driving a vehicle in the past month while texting or emailing: 21 percent of Grade 10 students and 58 percent of Grade 12.

- Having ever taken formal swimming lessons: 51 percent of Grade 6 students, 59 percent of Grade 8 students, 58 percent of Grade 10 students, and 55 percent of Grade 12 students. In addition, the percentage reporting that they are good swimmers was 54 percent of Grade 6 students, 57 percent of Grade 8 students, and 52 percent of Grade 10 and 12 students.
- Among those who had rode a bicycle in the past 12 months: 53 percent of Grade 6 students reported wearing a helmet most of the time or always.

### **Intentional Injury Behaviors**

- Any physical fighting (not just fighting at school) in the past year: 27 percent of Grade 6 students, 26 percent of Grade 8 students, 19 percent of Grade 10 students, and 16 percent of Grade 12 students. From 2016, there was a significant increase in fighting among Grade 6 students. From 2016, there was a significant decrease in fighting among Grade 10 students.
- Gang membership in the past year: 7 percent of Grade 8 students, and 6 percent of Grade 10 and 12 students. From 2016, there were significant increases in gang membership among Grade 8 and 10 students. Twenty-nine percent of Grade 8 students, 52 percent of Grade 10 students, and 37 percent of Grade 12 students reported that there are gangs at their school.

### **Alcohol, Tobacco, and Other Drug Use**

- 30-day alcohol use: 2 percent of Grade 6 students, 8 percent of Grade 8 students, 18 percent of Grade 10 students, and 28 percent of Grade 12 students. From 2016, there was a significant increase in 30-day alcohol use among Grade 6 students. From 2016, there was a significant decrease in 30-day alcohol use among Grade 8 students.
- Binge drinking (i.e., five or more drinks on at least one occasion during the previous two weeks): 2 percent of Grade 6 students, 5 percent of Grade 8 students, 10 percent of Grade 10 students, and 15 percent of Grade 12 students. From 2016, there was a significant increase in binge drinking among Grade 6 students. From 2016, there was a significant decrease in binge drinking among Grade 12 students.
- 30-day cigarette smoking: 1 percent of Grade 6 students, 3 percent of Grade 8 students, 5 percent of Grade 10 students, and 8 percent of Grade 12 students. From 2016, there was a significant increase in 30-day cigarette smoking among Grade 6 students. From 2016, there were significant decreases in 30-day cigarette smoking among Grade 8 and 10 students.
- 30-day chewing tobacco: 1 percent of Grade 6 students, 2 percent of Grade 8 students, 4 percent of Grade 10 and 12 students. From 2016, there was a significant increase in 30-day chewing tobacco use among Grade 6 students. From 2016, there was a significant decrease in 30-day chewing tobacco use among Grade 12 students.
- 30-day e-cigarette (e-cig) or vape pen use: 3 percent of Grade 6 students, 10 percent of Grade 8 students, 21 percent of Grade 10 students, and 30 percent of Grade 12 students. From 2016, there were significant increases in 30-day e-cig or vape pen use among Grade 6, 8, 10, and 12 students.
- 30-day marijuana use: 1 percent of Grade 6 students, 7 percent of Grade 8 students, 18 percent of Grade 10 students, and 26 percent of Grade 12 students. From 2016, there was a significant increase in 30-day marijuana use among Grade 6 students.
- 30-day use of other drugs (not including alcohol, tobacco, or marijuana): 1 percent of Grade 6 students, 3 percent of Grade 8 students, 6 percent of Grade 10 students, and 7 percent of Grade 12 students. From 2016, there was a significant increase in 30-day use of other drugs among Grade 6 students.

- 30-day use of painkillers to “get high”: 2 percent of Grade 8 students and 4 percent of Grade 10 and 12 students. From 2016, there was a significant decrease in 30-day use of painkillers to “get high” among Grade 12 students.
- 30-day use of non-prescribed prescription drugs: 6 percent of Grade 8 students and 7 percent of Grade 10 and 12 students. From 2016, there was a significant decrease in 30-day use of non-prescribed prescription drugs among Grade 12 students.

As in previous survey administrations, there was a clear relationship between the number of risk and protective factors present and the use of alcohol, cigarettes, and marijuana for students in Grade 8 (the only grade examined in terms of risk and protective factors for this report). The greater the number of risk factors for individual students, the more likely they were to use alcohol, cigarettes, and marijuana. Similarly, the greater the number of protective factors for individual students, the less likely they were to use alcohol, cigarettes, and marijuana.

# 1. Introduction

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The Washington State Healthy Youth Survey (HYS) is an effort to measure health risk behaviors that contribute to morbidity, mortality, and social problems among youth in Washington State. These behaviors include alcohol, tobacco, and other drug use; behaviors that result in unintentional and intentional injuries (e.g., violence); dietary behaviors and physical activity; and related risk and protective factors. The survey produces estimates of the prevalence of major adolescent health risk behaviors and provides crucial information to school officials, health professionals, human service agencies, policymakers, and parents as they work together to ensure the optimum health of young people across the state. This report uses the survey results to estimate the current status of these health risk behaviors and examine trends in the behaviors over the past 30 years.

The survey results also provide important needs assessment data for program planning. They offer insight into the effectiveness of statewide prevention and health promotion initiatives designed to reach a range of education- and health-related goals at the federal and state levels. Federal initiatives of interest to readers of this report include these:

- No Child Left Behind (DOE, 2001), which addresses the importance of school safety.
- High School Graduation Initiative (US DOE, 2002).
- The National Drug Control Strategy (The White House, 2014).
- Substance Abuse Prevention and Mental Health Promotion Five Year Strategic Plan (SAMHSA, 2017).
- The U.S. Department of Health and Human Services' Healthy People 2020 Health Promotion Objectives (U.S. Department of Health and Human Services, 2010).

State initiatives of interest to readers of this report include these:

- The Washington State Board of Health Strategic Plan 2009 (Washington State Board of Health, 2009).
- Graduation: A Team Effort (GATE) Initiative (OSPI, 2011).
- Washington State Suicide Prevention Plan (DOH, 2016)
- Washington State Substance Abuse Prevention and Mental Health Promotion Strategic Plan (Washington State Prevention Enhancement Policy Consortium 2017).

The 2018 administration of the Healthy Youth Survey meets a wide variety of information needs by producing:

- Empirical needs assessment data necessary for planning substance abuse and other prevention and early intervention programs, including county-level strategic plans.
- Data for studying trends of student substance use and abuse, as well as associated risk and protective factors.
- Information to support monitoring of the Substance Abuse Prevention and Treatment Block Grant (SAPTBG) from the Substance Abuse and Mental Health Services Administration (SAMHSA).
- Needs assessment, evaluation, and monitoring of federal grants to prevent and reduce substance use such as the Reducing Underage Drinking Initiative and the evaluation of results from the Partnership for Success Grant.
- Information to support the evaluation of prevention and education programs funded under the federal Safe and Drug-Free Schools and Communities Act, the federal Tobacco Settlement, and the state Omnibus Controlled Substance and Alcohol Abuse Act.
- Data to measure the progress toward attainment of the state's goals for substance abuse prevention.

- Information on the progress of programs implemented pursuant to the state’s Youth Violence Act (E2SHB 2319).
- Information on sexual education in schools used to help monitor implementation of the Healthy Youth Act.
- Needs assessment data used as part of the Comprehensive Needs Assessment for the Maternal and Child Health Block Grant.
- Data that can contribute information to local community profiles designed to help community stakeholders understand the importance of programs that support youth.
- Data to describe risk and protective factors that can be used by local school and community members as they plan or refine school- and community-based prevention and intervention programs.
- Data fulfilling the state youth survey requirement as specified in Initiative 502.
- Data to support community and state level grant applications.
- Data to support the Governor’s Results Washington Initiative (<http://www.results.wa.gov/>)

HYS 2018 represents a collaborative effort by Health Care Authority Division of Behavioral Health and Recovery; the Department of Health; the Office of Superintendent of Public Instruction; the Liquor and Cannabis Board; and the survey contractor, Looking Glass Analytics, Inc. Representatives of these agencies served as members of the Healthy Youth Survey Planning Committee, which guided every aspect of the survey development and implementation. In addition, staff members from the University of Washington’s Social Development Research Group provided consultation on the risk and protective factors assessment portion of the survey.

Staff members at the nine Educational Service Districts (ESDs) coordinated local school recruitment efforts and provided technical assistance. Local health jurisdictions, educational agencies, and other local partners provided valuable input into the development and administration of the survey.

HYS 2018 was the 16th administration of a statewide survey among Washington’s students. Ten of the surveys included students in Grades 6, 8, 10, and 12; one survey (1988) included students in Grades 6, 8, and 10; and one survey (1999) included students in Grades 9 through 12. The survey content and methodology have varied over time:

- The first two administrations in 1988 and 1990 included only questions about alcohol, tobacco, and other drug use and associated behaviors (Deck and Nickel, 1989; Gabriel, 1991).
- The 1992 and 1995 surveys asked additional questions that addressed other health risk behaviors (Einspruch and Pollard, 1993; Gabriel, Deck, Einspruch, and Nickel, 1995).
- The 1998 survey focused on alcohol, tobacco, and other drug use and related risk and protective factors (Einspruch, Gabriel, Deck, and Nickel, 1998).
- The 1999 survey (Bensley, VanEenwyk, Schoder, and Tollefsen, 2000) was based on the Centers for Disease Control and Prevention’s Youth Risk Behavior Survey (Grunbaum et al., 2004).
- The 2000 survey was similar to the 1998 survey and focused on alcohol, tobacco, and other drug use and related risk and protective factors (Einspruch, Deck, Nickel, and Hyatt, 2001).
- Surveys since 2002 have included items related to health behaviors, substance use, and related risk and protective factors (Einspruch and Hyatt, 2004), (Einspruch, 2005, and 2007).

Copies of prior Analytic Reports are available online at: <http://www.askhys.net/Reports/Additional>.



## ***Organization and Purpose of the Report***

This report provides the results of the 2018 administration of the Healthy Youth Survey and results from the earlier Washington State surveys. It is organized in the following sections.

- Chapter 1 describes the purpose of this report.
- Chapter 2 describes the survey methods.
- Chapter 3 presents results related to demographics.
- Chapter 4 presents results related to physical activity and dietary behaviors.
- Chapter 5 presents results related to health status and health care.
- Chapter 6 presents results related to mental health.
- Chapter 7 presents results related to sexual behavior.
- Chapter 8 presents results related to school climate.
- Chapter 9 presents results related to unintentional injury behaviors.
- Chapter 10 presents results related to intentional injury behaviors.
- Chapter 11 details results related to alcohol, tobacco, and other drug use.
- Chapter 12 details results pertaining to relevant risk and protective factors.
- And the Appendix includes all of the Healthy Youth Survey 2018 state sample results by grade.

Chapters 3 through 12 are organized so that the 2018 results are presented first, followed by comparative analyses to test for differences by grade level and gender. Next, the differences in Washington State survey results over time are presented along with the results of comparative analyses to test for significant differences from 2016 to 2018, and trend analyses for items that have five or more years of data. These comparisons allow readers to view the trends over past years' reports of health risk behaviors among Washington's students at the same grade levels.

Throughout the report, national- and state-level goals, objectives, and benchmarks—such as Healthy People 2020 (U.S. Department of Health and Human Services, 2010)—are included to provide a context in which to review the results.

## ***Participation***

The Department of Health selected three simple random samples to constitute representative samples of schools serving Grade 6, Grade 8, and Grades 10 and 12 in Washington. One sample was drawn for Grades 10 and 12 because those grades usually occur together in a high school, whereas Grades 6 and 8 may be together in a middle school, or separate in an elementary school and a middle school or junior high school. Of those schools asked to participate in the survey, about 91 percent with Grade 6 students, 90 percent with Grade 8 students, 87 percent with Grade 10 students, and 85 percent with Grade 12 students took part in the survey.

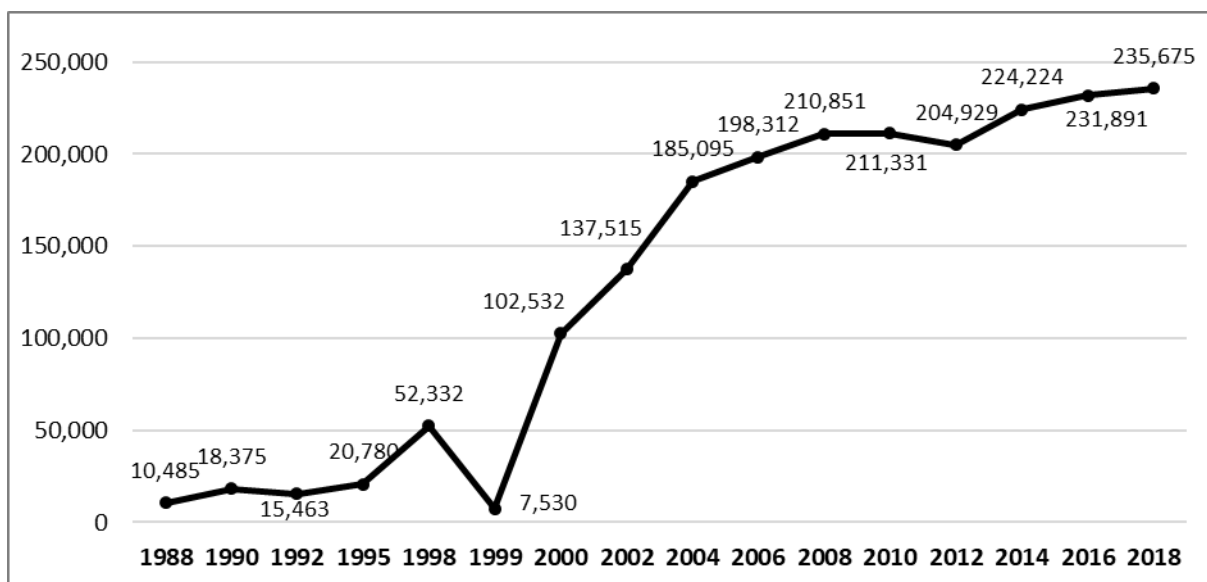
Overall response rates were about 76 percent of the Grade 6 and Grade 8 students, 66 percent of the Grade 10 students, and 46 percent of the Grade 12 students. These participation rates are based on the October 2018 enrollment in all sampled schools (including non-participating schools). Non-response is both a function of schools choosing not to participate AND students not participating. Student non-participation could come from a number of reasons, including students being absent on the day of the survey, students opting themselves out, parents/caregivers opting their students out, and students not completing valid surveys. Although the Grade 10 and 12 participation rates are below 70 percent, these findings are expected to be representative of Washington youth in public schools, based on an extensive examination of bias conducted for HYS 2002, 2004, 2008, 2010, 2014, and 2016.

Looking Glass Analytics' analysis of the survey results included a series of quality controls to remove data that were incomplete, obviously inaccurate, or internally inconsistent (e.g., reporting no lifetime use of a substance and also reporting use of the same substance in the past 30 days). The results presented in this report are not perfect estimates. There are margins of error indicated by the confidence intervals.

A total of 32,271 students in 182 schools contributed data to the statewide results. In addition, 202,423 students in 884 schools participated in the survey as non-sampled schools. Non-sampled schools received reports of their own results, but those results are not included in this statewide report because the schools were not part of the representative statewide sample.

Over the life of the survey, the number of participating students has grown. Participation may reflect increasing interest across the state in health-related information, and it is a tribute to the collaboration and funding efforts among sponsoring agencies, schools, and local community members.

**Chart 1: Total Number of Survey Respondents by Year, 1988 - 2018**



## Cautions

Readers should bear in mind several cautions when interpreting the survey results presented in this report. This section describes these cautions in detail.

## Representativeness

Survey responses are often used to estimate the frequency of behaviors or other characteristics in a population larger than that which actually completed the survey. Thus, the results of the survey are used to characterize all Grade 6, 8, 10, and 12 students in Washington State, even though only a portion of public school students took the survey. This is possible only if the students who participated in the survey are not different from those who did not participate. If they are different, the survey is considered biased and the results are limited in their ability to be generalized to all students. Bias represents systematic error and is different from the random fluctuation measured by confidence intervals.

If similar to past survey administrations, the 2018 HYS results are generalizable to the majority of youth in Washington State, but may underrepresent students attending small and non-urban public schools.

They also may not be representative of youth who attend private schools, nonpublic tribal schools, home school, or who have dropped out of school. Students in juvenile detention facilities are restricted from participating in the survey.

In previous survey administrations, alternative schools were less likely to participate in HYS. In 2018, alternative schools were just as likely as traditional schools to participate. Very few alternative schools were selected for the 2018 state sample, making it difficult to detect a difference in participation.

## Trends

In comparing the results of the HYS 2018 survey and earlier surveys, readers should remember that certain factors may influence apparent trends. For example, information about the characteristics of the 1988 and 1990 samples is not readily available. Comparisons with the 1992 survey might be influenced by the inclusion of non-sampled schools in the data from that year, although comparisons between the sampled and non-sampled schools that year revealed similar levels of substance use. In addition, the wording of some of the survey items has changed over the years so that some items are only somewhat comparable, and some are not comparable at all. A description of changes to substance use survey items over time is available on pages 57 and 62.

Administration and data processing procedures have been consistent over time, and the HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, and 2016 administrations were very similar.

Results for each year available are presented in charts and tables throughout the report. Trend analyses do not include results from years prior to 2002. Trends were assessed using Joinpoint software, available at <http://surveillance.cancer.gov/joinpoint/>. Models with at least seven time points allowed for one joinpoint (change in trend line); however, models were first run with zero joinpoints, if the analysis revealed a significant trend, then those results were reported. If the analysis for zero joinpoints did not reveal a significant trend, then the analysis was rerun with one joinpoint. If the second analysis revealed a significant joinpoint, then those results were reported.

## Rounding Differences

Results presented in this Analytic Report were calculated to two decimal points and then rounded to whole numbers. Results presented in the Appendix of this report and in the local reports prepared by Looking Glass Analytics were also calculated to two decimal points and then rounded to one decimal point. If the results ending in 0.5 in the Appendix or local reports were rounded to whole numbers, those rounded results may be 1 percent different from the whole numbers presented in this report. For example, if a result in the Appendix is 8.5 percent, then you would round up to 9 percent. But that 8.5 percent could have originally been 8.49 percent - thus it was rounded down to 8 percent in this report.

## School Dropouts

In interpreting differences between survey results for each grade level, readers should remember that some reported behaviors and risk factors may appear more prevalent in Grade 10 compared to Grade 12 because of increased rate of school dropout after age 16 (i.e., prior to Grade 12). It is generally accepted that the results for high school seniors in surveys such as this one are underestimates because many of the youth most likely to engage in risky behaviors may have dropped out of school (Johnston, O'Malley, and Bachman, 1994). Thus, the authors recommend interpreting results for high school seniors with some caution, particularly when their prevalence rates differ markedly from those of students in earlier grades.

The school dropout concern is not new and has existed in previous Washington surveys. Unless the characteristics of school dropouts have changed over time, the bias in Grade 12 estimates is likely similar to what it has been in the past. This fact means that although any given year's data on health risk

behaviors among Grade 12 students may be an underestimate, the year-to-year comparisons are likely to be less affected by this bias (Johnston et al., 1994).

### **Developmental Changes**

In interpreting differences between grade levels, readers should remember that developmental changes may influence students' perceptions and accuracy of reporting. These factors include the ability to read or accurately interpret the intention of survey questions, to accurately recall events during a specific time frame, or to have developed opinions about different topics.

### **Self-Report Data**

The survey measures self-reports, which may be influenced by factors including problems in remembering, social desirability or the wish to present oneself in a positive manner, reading ability, and developmental changes. However, research indicates that these factors are not common.

### **Correlational Data**

Interrelationships among the variables should not be interpreted as indicating that one variable caused the other. Although causal relationships might exist, the direction of the correlation may be the reverse of what is expected, or an apparent relationship might be due to some other measured or unmeasured cause.

## 2. Methods

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This chapter details the methodological considerations of HYS 2018. The chapter addresses the topics of sampling, survey administration, the questionnaires, translations, reliability and validity, data preparation and analysis, response rates, non-completion rates, and the characteristics of the students who completed the survey. The survey procedures were approved by the Washington State Institutional Review Board.

### *Sampling*

The statewide results presented in this report are based on a statewide sample of all schools in the public-school system serving the surveyed grades, with at least 15 students in each grade. For the statewide sample, Department of Health epidemiology staff drew three simple random samples of all public schools serving Grade 6, Grade 8, and Grades 10 and 12 together. This procedure was used because Grades 10 and 12 usually occur together within a single school, whereas Grades 6 and 8 may be together in a middle school or separate in an elementary school and a middle school or junior high school. About 12 percent of the schools had fewer than 15 students per grade, but these schools accounted for less than 1 percent of the students. Consequently, excluding these schools saves considerable effort in the recruitment and administration phase without biasing the final results.

To obtain a confidence interval of plus or minus 3 percent for statewide results at each grade, based on the intraclass correlations obtained in the 2000 survey, we estimated that a sample size of about 5,335 students would be needed per grade. The average school enrollments were 121 in Grade 6, 178 in Grade 8, 210 in Grade 10, and 195 in Grade 12. Using estimations of a 50 percent response rate for schools and a 90 percent response rate for students within the participating schools and experience from the 2002, 2004, 2006, 2008, 2010, 2012, and 2014 surveys, the sample was drawn to include 98 schools serving Grade 6, 68 schools serving Grade 8, 58 schools serving Grades 10 and 12, and 4 schools serving Grade 12 but not 10. The additional schools for Grade 12 were necessary because they had lower average enrollments than the Grade 10 schools.

The Department of Health also drew county samples in four large counties with thirty or more schools per grade. County samples were drawn for King, Pierce, Snohomish, and Spokane for Grade 6; King, Pierce, and Snohomish for Grade 8; and King, Pierce, and Snohomish for Grades 10 and 12. Schools already selected for the county sample were also included in the county sample. Then additional schools were sampled to reach a total of 20 schools in each county/grade-level sample.

Schools not selected for the state or county samples were offered an opportunity to participate in the survey by “piggybacking” onto the statewide data collection effort. The data from the piggyback schools, including those drawn for the county samples, are not included in the results presented in this report because they were not part of the state sample.

### *Survey Administration*

Washington public schools, except institutional/correctional schools, serving Grades 6, 8, 10, or 12 were invited to participate in the survey as either a state sampled, county sampled, or piggyback school at the beginning of the 2018 calendar year. Schools that wished to participate registered between February and the end of June 2018.

Each school designated a survey coordinator. The survey contractor and sponsoring agencies offered an on-line training to provide the coordinators with the information necessary to successfully administer

the survey. Materials were made available on the project website, [www.AskHYS.net](http://www.AskHYS.net). Coordinators trained teachers in their school(s) who were to administer the survey to students (teacher training materials were provided to the coordinators).

The coordinators received detailed written instructions with their survey materials, along with materials used to notify parents/caregivers and students prior to the survey administration. Parents/caregivers had an opportunity to decline their child's participation, and students could also choose not to participate. The coordinators distributed the survey materials to the teachers, who in turn distributed them to the students and proctored the survey administration. Students participated on a voluntary and anonymous basis. Students who did not wish to participate were provided with alternative activities.

Teachers read standardized instructions to the students, informing them of the importance of the survey. The survey was to be administered to all participating students in a single class period during the school day. Students absent that day were not to make up the survey. Students placed their completed answer sheets in envelopes, the envelopes were sealed by students, returned to the coordinator, and ultimately returned to Looking Glass Analytics.

## **Questionnaires**

The questions on HYS 2018 were derived primarily from the following sources: the Monitoring the Future Survey (Johnston et al., 1994; National Institute on Drug Abuse, 2001), the Youth Risk Behavior Survey (Eaton et al., 2006), the Global Youth Tobacco Survey (Centers for Disease Control and Prevention, 2000), and the Communities that Care Survey (Arthur, Hawkins, Catalano, and Pollard, 1998). In 2018, there were three main survey forms - Form C for primary students and Forms A and B for secondary students. The questions for secondary students were divided into two forms (A and B) because the number of items of interest to the sponsoring agencies was greater than could be answered by a student during the allotted time (one class period). The forms are alternative (interleaved), so that in a give classroom every other student completed form A or Form B, effectively distributing the two forms randomly among students.

While both Form A and B contained a core set of 35 questions, Form A contained additional items mostly drawn from the Monitoring the Future Survey and the Communities that Care Survey. Form B mainly contained items from the Youth Risk Behavior Survey and the Global Youth Tobacco Survey.

Secondary schools that did not want to ask optional questions could remove the perforated optional questions page at the ends of Survey Forms A and B, called the "tear-off". Form A included one question on sexual orientation and one question on gender identity. Form B included four questions on sexual behavior, one on sexual orientation, one on gender identity, and two on sexual abuse.

Form A had 133 questions and two optional/tear-off questions (135 total), Form B had 115 questions and eight optional questions (123 total). Students in Grades 8, 10, and 12 completed either Forms A or B. The question numbers on the survey forms do not match the actual number of questions asked on the survey, as some of the questions are numbered as sub-questions (A, B, C, etc.).

Form C contained 91 items drawn primarily from Forms A and B (not including the optional questions) and was completed by students in Grade 6.

## **Translations**

The survey was available in English and Spanish. All schools received Spanish-language survey materials. The survey coordinators duplicated the Spanish survey materials locally and provided them to the

students as needed. Students read the translated survey but responded on the English answer sheet to preserve anonymity. The number of students who use a Spanish survey is unknown.

## **Reliability and Validity**

A survey item is *valid* if it accurately measures the concept it is intended to measure. A survey item is *reliable* if it consistently produces the same results under the same circumstances. Nearly all HYS 2018 questions were gleaned from four established surveys that have been used throughout the United States—some for more than 25 years. Each of these surveys has been subjected to scientific research regarding reliability and validity and has been field-tested extensively (Arthur et al., 1998; Eaton et al., 2006; Johnston et al., 1994). This field testing generally addresses such issues as the content and structure of the questions, the ordering of the questions, the types and ordering of the response options, and the survey length.

Bensley (1997) reviewed the reliability and validity of school-based surveys and found adequate reliability based on a large test–retest study as well as studies of interrelationships among the data (such as gender and age differences, and differences between dropouts and in-school youth). Bensley found that remaining questions about validity were based on differences among methodologies. School-based, self-administered surveys appeared to yield higher prevalence of socially disapproved behaviors than either telephone surveys or face-to-face interviews, but lower prevalence than biochemical indicators of substance use or methods that provide even greater anonymity. Biochemical indicators, which provide the most objective comparison data, and low self-reported use of a fictitious drug suggest that most self-reported behaviors on school-based surveys are likely valid but some underreporting may occur. Underreporting of socially disapproved behaviors has been noted for both adults and youth, particularly when the possibility is greater that the responding individual is identifiable.

## **Data Preparation and Analysis**

Looking Glass Analytics, Inc. received, prepared, and scanned the completed answer sheets, then cleaned the data using programs designed to detect dishonest and inconsistent answers. Most data processing and analytic code were written using SAS analytic software.

Looking Glass Analytics, Inc., also used SAS to create local reports with item-level frequency distributions and scale results for the participating schools (unless the school requested at the time of registration that these reports not be sent), districts, counties, and ESDs. In all cases, a minimum of 15 valid, completed surveys were required at a given grade level for a grade level report to be produced. In addition, 70 percent or more of the students enrolled at a district, county, or ESD were required to have participated in the survey for a report of results to be produced at that level (if participation was between 40 and 69 percent, a “report of participating schools” was produced). An interpretive guide to aid recipients in reading their report was made available on the project web site, [www.AskHYS.net](http://www.AskHYS.net). Statewide results were presented as comparative data in the local reports.

For this Analytic Report, STATA Statistical Software was used for determining significant differences by grade-level, gender and change from 2016 to 2018. JoinPoint 4.2.0.2 was used to determine significant trends for HYS questions with at least five administrations.

## **Differences by Grade Level and Gender**

A chi-square test of significance was used to compare 2018 results among grade levels and between genders. Comparisons with a *p*-value less than 0.05 were considered significant differences.

## Differences over Time

A chi-square test of significance was used to compare HYS 2016 results to HYS 2018 results. Comparisons with a  $p$ -value less than 0.05 were reported as significant differences.

Joinpoint analysis (National Cancer Institute, 2005) was used to examine trends over time back to 2002 for those questions that had been asked on five or more administrations of the survey. Differences in the linear trend of the time span of the question are reported for analyses in which the  $p$ -value was less than 0.05. Joinpoint analysis tested both whether there was a significant trend over time and whether there was a change in the trend over time (i.e., a change in inflection). The Joinpoint analysis allowed one change in trend if there were seven time points. The direction of the differences and if there was a significant change in trend, the time spans with significant trends are reported for analyses in which the  $p$ -value was less than 0.05.

Washington data presented in this report are from surveys that were implemented in Washington public schools from 1988 to 2018. Results from the 1998 to 2000 surveys are presented in charts when available, but not included in trend analyses.

- **1988: Student Alcohol and Drug Use Survey (SADUS)**—This health risk-focused survey was administered in public schools in the fall of 1988. A total of 10,485 Grade 6, 8, and 10 students in 125 schools participated in the state sample for a state response rate of about 50 percent.
- **1990: Student Alcohol and Drug Use Survey**—SADUS was administered in public schools in the fall of 1990. A total of 18,375 Grade 6, 8, 10, and 12 students in 176 schools participated in the state sample for a state response rate of about 65 percent.
- **1992: Washington State Survey of Adolescent Health Behaviors (WSSAHB)**—This substance use and risk and protective factor-focused survey was administered in public schools in the fall of 1992. Because the state sample response rate was 45 percent, sampled and non-sampled schools were combined for the report (a total of 15,463 Grade 6, 8, 10, and 12 students in 144 schools).
- **1995: Washington State Survey of Adolescent Health Behaviors**—WSSAHB was administered in public schools in the spring of 1995. A total of 8,780 Grade 6, 8, 10, and 12 students in 89 schools participated in the state sample for a state response rate of about 25 percent. An additional 12,060 students participated in the survey voluntarily and contributed to local results.
- **1998: Washington State Survey of Adolescent Health Behaviors**—WSSAHB was administered in public schools in the spring of 1998. A total of 14,601 Grade 6, 8, and 10 students in 102 schools participated in the state sample for a state response rate of about 60 percent. An additional 37,731 students participated in the survey voluntarily and contributed to local results.
- **1999: Washington State Youth Risk Behavior Survey (YRBSS)**—This health risk-focused survey was administered in public schools in the spring of 1999. A total of 7,642 Grade 9, 10, 11, and 12 students completed the survey (4,022 from the Seattle region and 3,602 across the state). The overall response rate was about 40 percent.
- **2000: Washington State Survey of Adolescent Health Behaviors**—WSSAHB was administered in public schools in the fall of 2000. A total of 17,780 Grade 6, 8, 10, and 12 students in 98 schools participated in the state sample for a state response rate of about 65 percent. An additional 84,662 students participated in the survey voluntarily and contributed to local results.
- **2002: Healthy Youth Survey (HYS)**—This health risk and risk and protective factor-focused survey was administered in public schools in the fall of 2002. A total of 24,685 Grade 6, 8, 10, and 12 students in 171 schools participated in the state sample for a state response rate of about 55 percent. An additional 112,650 students participated in the survey voluntarily and contributed to local results.
- **2004: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2004. A total of 30,263 Grade 6, 8, 10, and 12 students in 191 schools participated in the state sample for a state



response rate of about 65 percent. An additional 154,832 students participated in the survey voluntarily and contributed to local results.

- **2006: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2006. A total of 32,531 Grade 6, 8, 10, and 12 students in 203 schools participated in the state sample for a state response rate of about 65 percent. An additional 165,781 students participated in the survey voluntarily and contributed to local results.
- **2008: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2008. A total of 30,346 Grade 6, 8, 10, and 12 students in 201 schools participated in the state sample for a state response rate of about 66 percent. An additional 180,505 students participated in the survey voluntarily and contributed to local results.
- **2010: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2010. A total of 34,069 Grade 6, 8, 10, and 12 students in 212 schools participated in the state sample for a state response rate of about 70 percent. An additional 177,262 students participated in the survey voluntarily and contributed to local results.
- **2012: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2012. A total of 33,207 Grade 6, 8, 10, and 12 students in 201 schools participated in the state sample for a state response rate of about 69 percent. An additional 171,659 students participated in the survey voluntarily and contributed to local results.
- **2014: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2014. A total of 35,262 Grade 6, 8, 10, and 12 students in 192 schools participated in the state sample for a state response rate of about 68 percent. An additional 188,962 students participated in the survey voluntarily and contributed to local results.
- **2016: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2016. A total of 36,809 Grade 6, 8, 10, and 12 students in 198 schools participated in the state sample for a state response rate of about 69 percent. An additional 195,203 students participated in the survey voluntarily and contributed to local results.
- **2018: Healthy Youth Survey**—HYS was administered in public schools in the fall of 2018. A total of 32,271 Grade 6, 8, 10, and 12 students in 182 schools participated in the state sample for a state response rate of about 66 percent. An additional 202,423 students participated in the survey voluntarily and contributed to local results.

## Chart Formatting

In Analytic Reports before 2012, bar charts detailing specific outcomes by year and grade were presented. As additional years have been added, these bar charts have become increasingly complex, and so, since the 2012 Analytic Report, we have used line charts for most outcomes. In order to maintain readability, we have not presented confidence intervals in the charts. However, confidence intervals for 2018 are available at the end of this report in the Appendix. Healthy Youth Survey 2018 statewide sample results and confidence intervals for previous years are depicted in previous Analytic Reports (available online at [www.AskHYS.net](http://www.AskHYS.net)). Also, significance tests for changes between 2016 and 2018, and tests of trends between 2002 and 2018, are included in this Analytic Report for each of the outcomes depicted in the charts.

## Calculating Confidence Intervals

Reports of results from previous Washington State surveys are available on [www.AskHYS.net](http://www.AskHYS.net). Confidence intervals for the 1999, 2002, 2004, 2006, 2008, and 2010 data were obtained by direct analysis using SUDAAN. For 2012, 2014, 2016, and 2018, confidence intervals were obtained using SAS. Confidence intervals for the 1992, 1995, 1998, and 2000 data were based on estimates provided in the

respective reports (and confidence intervals for 1988 and 1990 were based on the 1992 estimates). Confidence intervals in these years were limited to single estimates that have been applied to all percentages obtained in those years:

- For 1988, 1990, and 1992 percentages near 50 percent, these estimates were plus or minus 1.4 percent for Grade 6, 1.4 percent for Grade 8, 1.7 percent for Grade 10, and 2.0 percent for Grade 12. For 1988, 1990 and 1992 percentages near 10 or 90 percent, these estimates were plus or minus 0.9 percent for Grade 6, 0.8 percent for Grade 8, 1.0 percent for Grade 10, and 1.2 percent for Grade 12. Twenty-five percent was used to divide these two groups of percentages. (The confidence intervals for 1988 and 1990 are based on the estimates provided in 1992.)
- For 1995 these estimates were plus or minus 2 percent for Grade 6, 2 percent for Grade 8, 2 percent for Grade 10, and 4 percent for Grade 12.
- For 1998 these estimates were plus or minus 2 percent for Grade 6, 3 percent for Grade 8, 4 percent for Grade 10, and 4 percent for Grade 12.
- For 2000 these estimates were plus or minus 3 percent for Grade 6, 3 percent for Grade 8, 4 percent for Grade 10, and 4 percent for Grade 12.

## Response Rates

The overall response rates (the number of participating students who completed valid surveys divided by the total enrollment in schools asked to participate in the state sample) were 76 percent in Grade 6, 76 percent in Grade 8, 66 percent in Grade 10, and 46 percent in Grade 12. Participation rates presented here are based on the 2018 enrollment data from the Office of Superintendent of Public Instruction’s P-105 October Enrollment Headcount Report for October 2018 (retrieved from <http://www.k12.wa.us/Enrollment-Reports.aspx>). Although some of the participation rates are below 70 percent, these findings are expected to be representative of most Washington youth in public schools based on an examination of bias conducted for HYS 2002, 2004, 2008, 2010, 2014, and 2016.

Table 1 provides the response rates for schools calculated by dividing the number of participating schools by the number of schools asked to participate. Because some schools were selected for more than one sampled grade, the total number of schools is less than the sum of the number of schools at each grade.

**Table 1**  
**State Sample School Response Rates in 2018**

Number of Schools			
Grade	School Participated	Schools Asked to Participate	Response Rate
Grade 6	82	90	91%
Grade 8	61	68	90%
Grade 10	48	55	87%
Grade 12	52	61	85%

Table 2 provides the percentage of valid surveys compared to total enrollment in sampled schools asked to participate.

**Table 2**  
**Student Response Rates in 2018 (Valid Surveys)**

Grade	Number of Valid Surveys	Enrollment in Schools Asked to Participate	Percent of Valid Surveys
Grade 6	9,604	12,644	76%
Grade 8	8,895	11,675	76%
Grade 10	8,096	12,353	66%
Grade 12	5,687	12,461	46%
Total	32,282	49,133	66%

Of the original 253,759 surveys that were submitted from all schools (sampled and “piggyback”), a total of 9,526 were removed during the scanning process because they were unscannable or from an invalid grade level or grade for the school. The remaining scanned surveys were screened to detect dishonest and inconsistent answers. A total of 7,470 were dropped during the data cleaning process. This was about 2 percent of Grade 6 surveys, 3 percent of Grade 8 surveys, and 4 percent of Grade 10 and Grade 12 surveys. Another 277 surveys were completed by students who used the wrong survey form for their grade. Responses from 132 students who took the wrong form were included in school building results, but excluded from higher aggregations, such as district, county and state results.

### Non-completion Rates by Form

HYS 2018 consisted of three forms, one elementary version and two secondary versions. The two secondary versions included optional questions that schools could remove if they did not want to ask them. Figure 1 illustrates the percentage of Grade 8, 10, and 12 students who did not complete all items on Form A; Figure 2 illustrates the percentage of Grade 8, 10, and 12 students who did not complete all items on Form B; and Figure 3 illustrates the percentage of Grade 6 students who did not complete all items on Form C.

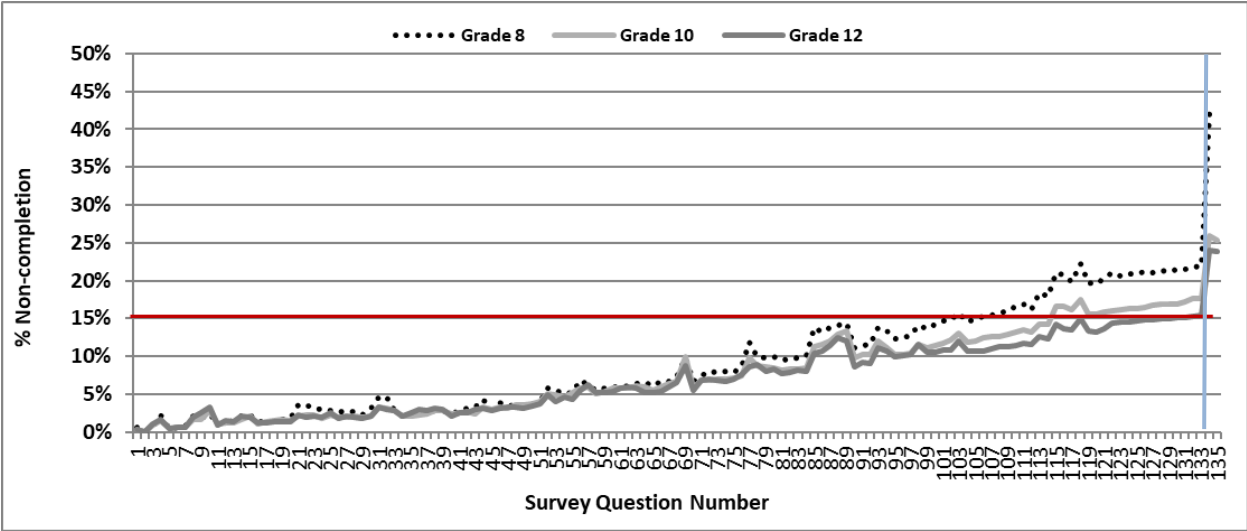
The rates at which valid respondents failed to complete the last question on a survey by form type were:

- 22 percent of Grade 8, 18 percent of Grade 10, and 15 percent of Grade 12 students did not complete Form A.
- 44 percent of Grade 8, 26 percent of Grade 10, and 24 percent of Grade 12 students did not complete the optional question on Form A.
- 20 percent of Grade 8, 16 percent of Grade 10, and 13 percent of Grade 12 students did not complete Form B.
- 46 percent of Grade 8, 26 percent of Grade 10, and 24 percent of Grade 12 students did not complete the optional questions on Form B.
- 19 percent of Grade 6 students did not complete Form C.

Conversely, 85 percent of students completed at least:

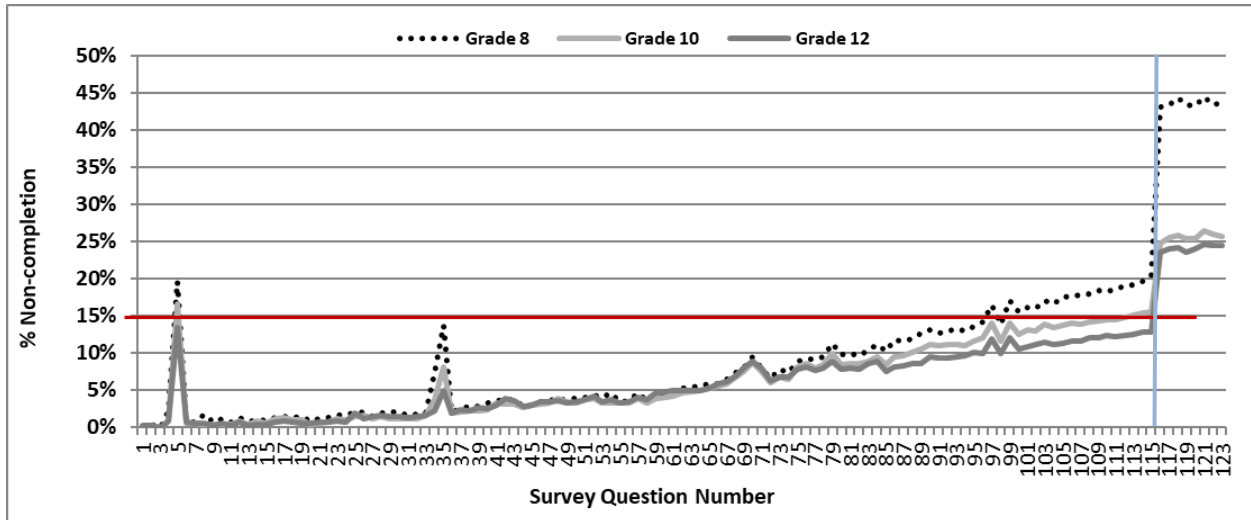
- 105 questions for Grade 8, 114 for Grade 10, and 127 for Grade 12 out of 134 questions on Form A.
- 96 questions for Grade 8, 112 for Grade 10, and 115 for Grade 12 out of 123 questions on Form B.
- 71 out of 91 questions for Form C.

**Chart 2: Non-completion Rates for Form A, Grades 8, 10, and 12 in 2018**



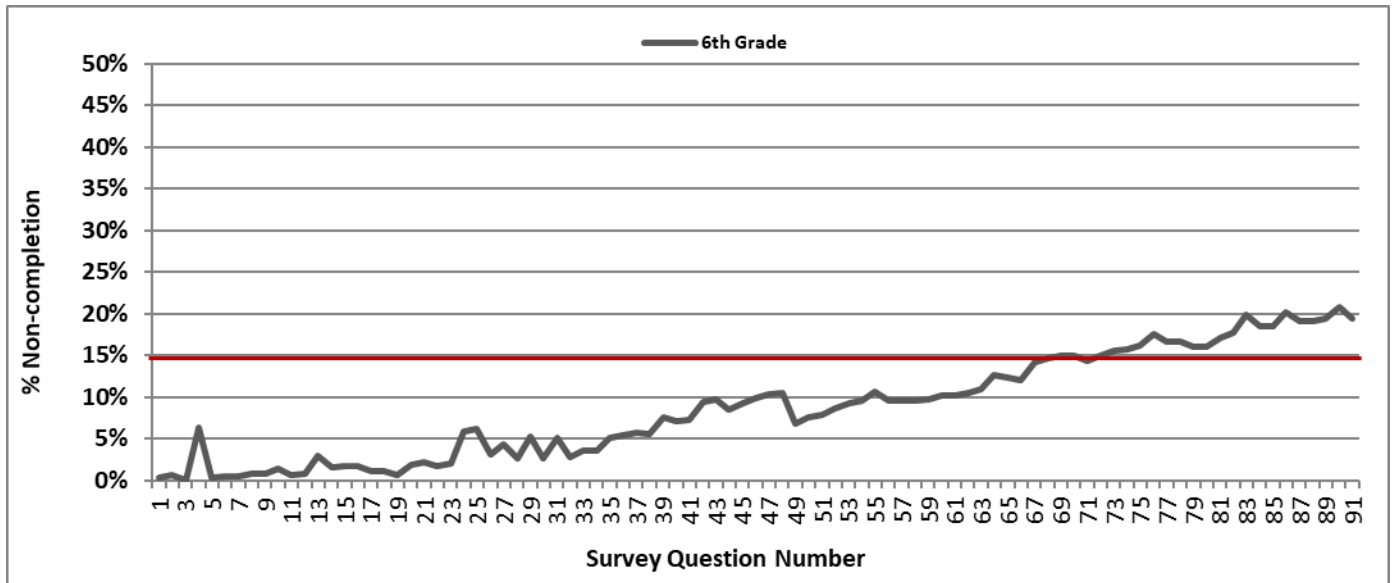
\*red line indicates desired maximum of 15% for non-completion; light blue line indicates optional questions.

**Chart 3: Non-completion Rates for Form B Grades 8, 10, and 12 in 2018**



\*red line indicates desired maximum of 15% for non-completion; light blue line indicates optional questions. On Form B and B-enhanced, there was a spike at questions 5, 34 and 35 – question 5 was about Asian/Pacific Islander race and questions 36 and 37 were about self-report height and weight.

**Chart 4: Non-completion Rates for Form C, Grade 6 in 2018**



\*red line indicates desired maximum of 15% for non-completion.

## 3. Demographics

### Respondent Characteristics

The findings of HYS 2018 presented in this report are based on the responses of 32,271 students in Grades 6, 8, 10, and 12. Schools were selected using a scientific sampling plan intended to represent the full population of public school students at these grade levels across the state. Table 3 provides details about the demographic characteristics of the participating students.

**Table 3: Respondent Characteristics in 2018, Percent of Students (and 95% CI)**

	6th Grade % (±CI) (n=9566)	8th Grade % (±CI) (n=8861)	10th Grade % (±CI) (n=8078)	12th Grade % (±CI) (n=5660)
<b>Age</b>				
10 or younger	1.6% (±0.3)	**	**	**
11	75.8% (±1.0)	**	**	**
12	22.1% (±1.0)	1.0% (±0.2)	0.1% (±0.1)	0.2% (±0.1)
13	0.5% (±0.2)	75.7% (±1.3)	0.1% (±0.0)	0.0% (±0.0)
14	0.0% (±0.0)	22.9% (±1.2)	1.2% (±0.2)	0.0% (±0.0)
15	0.0% (±0.0)	0.4% (±0.1)	76.0% (±1.2)	0.1% (±0.1)
16	**	0.0% (±0.0)	21.8% (±1.1)	1.1% (±0.3)
17	**	0.0% (±0.0)	0.6% (±0.2)	73.9% (±1.5)
18	**	0.0% (±0.0)	0.1% (±0.1)	23.4% (±1.5)
19 or older	**	0.0% (±0.0)	0.1% (±0.1)	1.3% (±0.5)
<b>Gender</b>	(n=9544)	(n=8845)	(n=8051)	(n=5638)
Female	50.0% (±1.1)	51.6% (±1.1)	52.0% (±1.5)	49.7% (±1.6)
Male	50.1% (±1.1)	48.4% (±1.1)	48.0% (±1.5)	50.4% (±1.6)
<b>Race - Ethnic Group</b>	(n=8987)	(n=8698)	(n=7996)	(n=5605)
American Indian or Alaska Native	5.6% (±0.9)	3.4% (±0.7)	2.3% (±0.6)	1.9% (±0.6)
Asian or Asian American	7.3% (±1.7)	9.1% (±2.8)	14.3% (±4.3)	11.6% (±3.8)
Black or African-American	4.2% (±1.0)	4.4% (±1.5)	6.1% (±1.8)	5.4% (±1.8)
Hispanic or Latino/Latina	16.8% (±4.0)	14.5% (±4.6)	16.3% (±4.7)	18.1% (±6.6)
Native Hawaiian or other Pacific Islander	1.7% (±0.4)	2.0% (±0.5)	1.9% (±0.6)	2.0% (±0.8)
White or Caucasian	35.6% (±4.3)	47.4% (±5.4)	43.9% (±6.0)	47.5% (±6.9)
Other	19.5% (±1.6)	9.3% (±1.1)	4.7% (±0.7)	3.4% (±0.6)
<i>More than one race/ethnicity marked</i>	9.3% (±0.8)	9.9% (±1.2)	10.5% (±1.5)	10.1% (±1.3)
<b>Language Spoken at Home</b>	(n=9568)	(n=8585)	(n=7833)	(n=5485)
English	79.7% (±3.8)	80.2% (±4.2)	75.2% (±4.4)	76.9% (±5.3)
Spanish	12.9% (±3.4)	10.0% (±3.8)	11.3% (±3.3)	12.0% (±4.8)
Russian	**	1.3% (±0.4)	1.3% (±0.3)	0.9% (±0.3)
Ukrainian	**	0.6% (±0.3)	0.8% (±0.3)	0.5% (±0.2)
Vietnamese	**	1.0% (±0.4)	2.5% (±1.1)	2.0% (±0.9)
Chinese	**	1.3% (±1.2)	1.5% (±0.9)	1.4% (±0.9)
Korean	**	0.4% (±0.2)	0.6% (±0.4)	0.8% (±0.6)
Japanese	**	0.2% (±0.1)	0.2% (±0.1)	0.3% (±0.2)
Other	7.4% (±1.7)	5.0% (±1.1)	6.5% (±2.2)	5.4% (±1.8)

*Notes:*

- “\*\*\*” indicates that the answer choice was not included on the survey.
- Individual race/ethnic groups are reported for students who only selected a single race/ethnic group. Students who selected more than one group are reported as “more than one race/ethnicity marked”.

# Sexual Orientation

About 80% of schools included in the state sample elected to administer the optional questions, including the question about sexual orientation.

In 2018, about 3 percent of Grade 8 and 10 students and 4 percent of Grade 12 students identified as gay or lesbian. About 8 percent of Grade 8 students and 9 percent of Grade 10 and 12 students identified as bisexual. About 8 percent of Grade 8 students, 7 percent of Grade 10 students, and 5 percent of Grade 12 students identified as questioning/not sure or something else fits better.

*Differences by grade level:*

- Grade 12 students were more likely than Grade 8 students to identify as gay or lesbian.
- There were no differences in students identifying as bisexual by grade.
- Grade 8 students were more likely than Grade 12 students to identify as questioning, not sure or something else fits better.

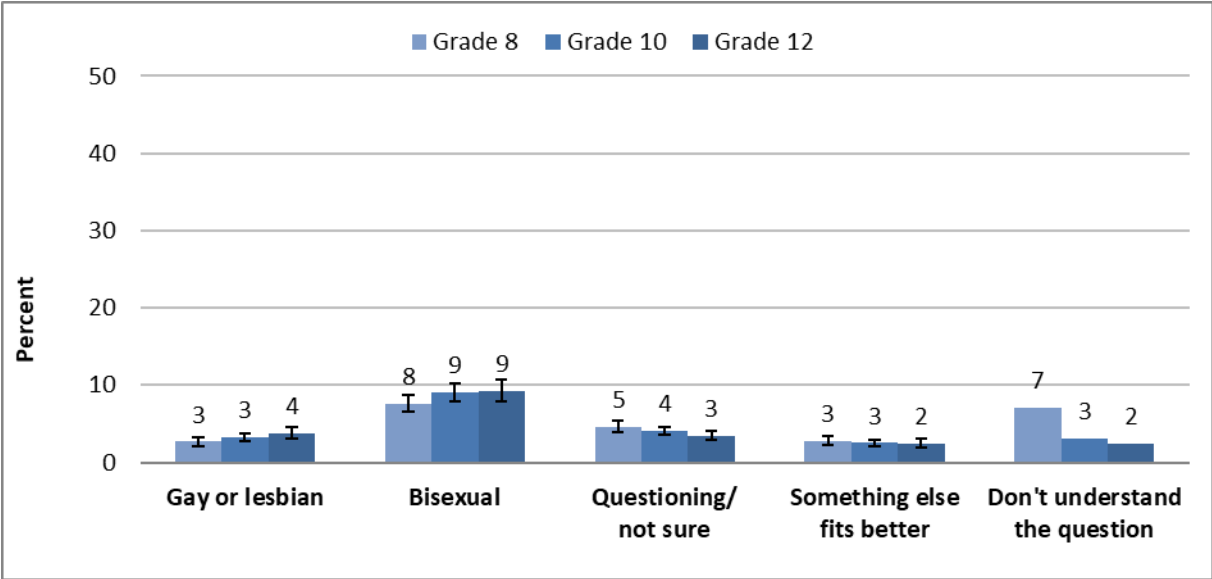
*Differences by gender:*

- Grade 12 males were more likely than females to identify as gay or lesbian.
- Grade 8, 10, and 12 females were more likely than males to identify as bisexual and to identify as questioning, not sure or something else fits better.

*Differences over time:*

- Among Grade 8, 10, and 12 students, there were no changes in identifying as gay or lesbian, or bisexual for any grade from 2016 to 2018.

**Chart 1: Sexual Orientation, Grades 8, 10, and 12 in 2018**



*Survey Questions:* Which of the following best describes you?

*Notes:*

- Percentages represent students who responded, “Gay or lesbian”, “Bisexual”, “Questioning/not sure”, “Something else fits better”, and “I don’t know what this question is asking”. Results for “Heterosexual (straight)” are not reported.
- In 2018, the “Not sure” response option was expanded to three response options; “Questioning/not sure”, “Something else fits better”, and “I don’t know what this question is asking”.
- From 2010 through 2014, schools could register to receive surveys without this question. In 2016 and 2018, all schools received this question, but they could remove it if they didn’t want to ask it, so there may be a break in trend.
- The proportion of schools administering these each year has changed over time, from about 40% from 2010 through 2014, and increased to about 80% in 2016 and 2018.

*Source:* HYS 2018.

*More information:* Information about the optional questions and their generalizability are available in Bias Analysis reports, found at: <http://www.askhys.net/Reports/Additional>.



## Gender Identity

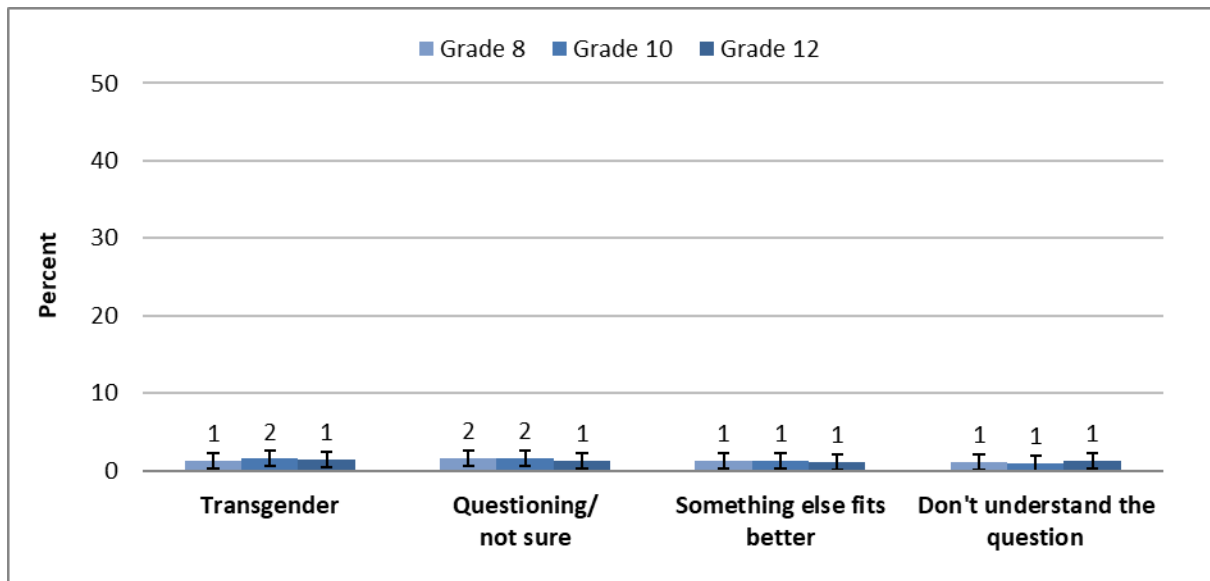
About 80% of schools included in the state sample elected to administer the optional questions, including the question about gender identity.

About 1 percent of Grade 8 and Grade 12 students and 2 percent of Grade 10 students selected “Transgender”. About 3 percent of Grade 8 students and 2 percent of Grade 10 and 12 students selected “questioning/not sure of my gender identity”, or “Something else fits better”. One percent of students selected “I don’t know what this question is asking”. Respondents who selected more than one response are included in multiple categories.

### Differences by grade level:

- There were no differences in students identifying as transgender by grade.
- Grade 8 students were more likely than Grade 12 students to identify as questioning, not sure, or something else fits better.

**Chart 2: Gender Identity, Grades 8, 10, and 12 in 2018**



*Survey Questions* How do you currently identify yourself? Select all that apply.

### Notes:

- Respondents could select more than one response.
- Percentages represent students who responded “Transgender”, “Questioning/not sure of my gender identity”, “Something else fits better”, and “I don’t know what this question is asking”. Respondents who only selected either “Male” or “Female” are not presented.
- In 2018, the “Not sure” response option was expanded to three response options; “Questioning/not sure”, “Something else fits better”, and “I don’t know what this question is asking”.
- From 2010 through 2014, schools could register to receive surveys without this question. In 2016 and 2018, all schools received this question, but they could remove it if they didn’t want to ask it, so there may be a break in trend.
- The proportion of schools administering these each year has changed over time, from about 40% from 2010 through 2014, and increased to about 80% in 2016 and 2018.

Source: HYS 2018.

*More information:* Information about the optional questions and their generalizability are available in Bias Analysis reports, found at: <http://www.askhys.net/Reports/Additional>.

## 4. Physical Activity and Dietary Behavior

### Obesity and Overweight

The Healthy People 2020 objective is to reduce the proportion of adolescents ages 12–19 who are obese, determined using a body mass index (BMI) based on height and weight, to 16.1 percent by 2020. The Healthy People 2020 BMI goal is based on measured height and weights and may not be comparable to obesity based on self-reported heights and weights from the Healthy Youth Survey<sup>1</sup>. For adults, self-reported heights and weights tend to underestimate obesity. Results WA aimed to increase the percentage of 10<sup>th</sup> graders with healthy weight from 75 percent to 76 percent by 2016.

In 2018, 12 percent of Grade 8 students, 14 percent of Grade 10 students, and 17 percent of Grade 12 students were obese based on their reported BMI. Fourteen percent of Grade 8 students, 15 percent of Grade 10 and Grade 12 students were overweight.

#### Differences by grade level:

- Grade 12 students were more likely than Grade 8 and 10 students to be obese.
- There were no differences in overweight by grade.

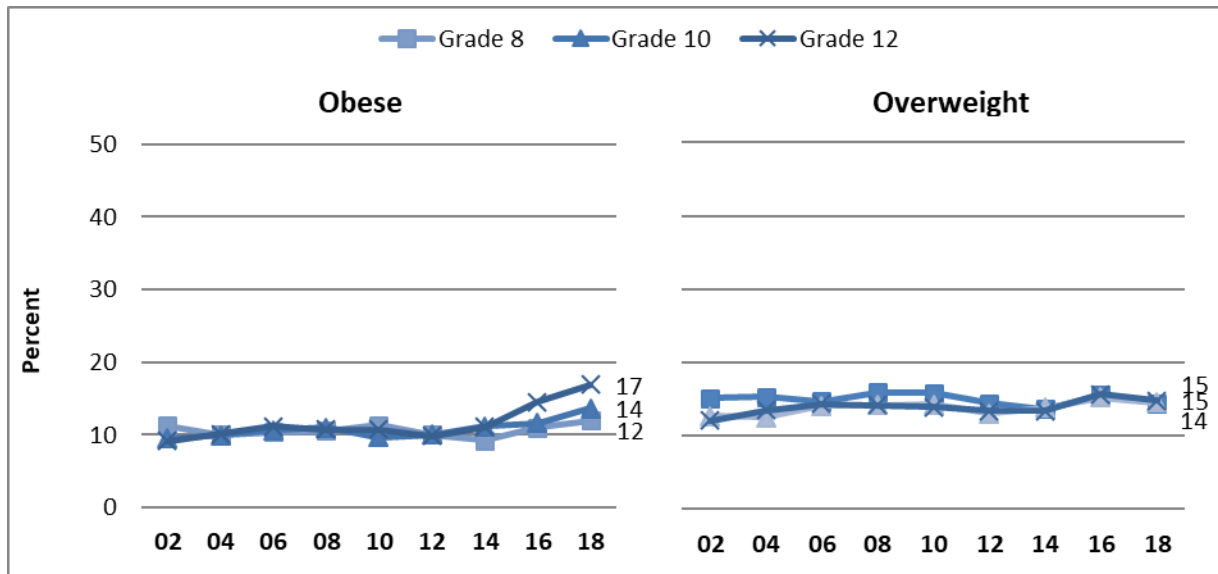
#### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to be obese.
- Grade 12 females were more likely than males to be overweight.

#### Differences over time:

- Among Grade 10 and 12 students, there was an increase in obesity and overweight from 2016 to 2018.
- Among Grade 10 and 12 students, there were significant increases in obesity from 2002 through 2018.
- Among Grade 10 students, there were significant increases in overweight from 2002 through 2018.

**Chart 3: Obesity and Overweight, Grades 8, 10, and 12, from 2002 - 2018**



*Survey Questions:*

- How tall are you without your shoes on?
- How much do you weigh without your shoes on?

*Note:* Findings based on reported Body Mass Index (BMI) ratings calculated from height and weight, see footnote on the bottom of the page.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

<sup>1</sup>Obese and overweight are based on age and gender specific growth charts developed by the Centers for Disease Control and Prevention (Kuzmarski, Ogden, Grummer-Strawn, et al., 2000). Body mass index is obtained by dividing a person's weight (in kilograms) by the square of his or her height (in centimeters). Individuals in the top 5 percent for body mass index (based on the grown charts) are considered obese and those in the top 15 percent, but not the top 5 percent, are considered overweight. This is a change from 2006 and earlier years, when these categories were called overweight and at risk for overweight, respectively.

### 60 Minutes of Exercise Daily

The Centers for Disease Control and Prevention recommends that children and adolescents participate in at least 60 minutes of physical activity daily, and muscle strengthening 3 days a week.

In 2018, 27 percent of Grade 6 students, 28 percent of Grade 8 students, 22 percent of Grade 10 students, and 21 percent of Grade 12 students reported that they were physically active for at least 60 minutes, seven days a week.

*Differences by grade level:*

- Grade 6 and 8 students were more likely than Grade 10 and 12 students to be physically active for 60 minutes, seven days a week.

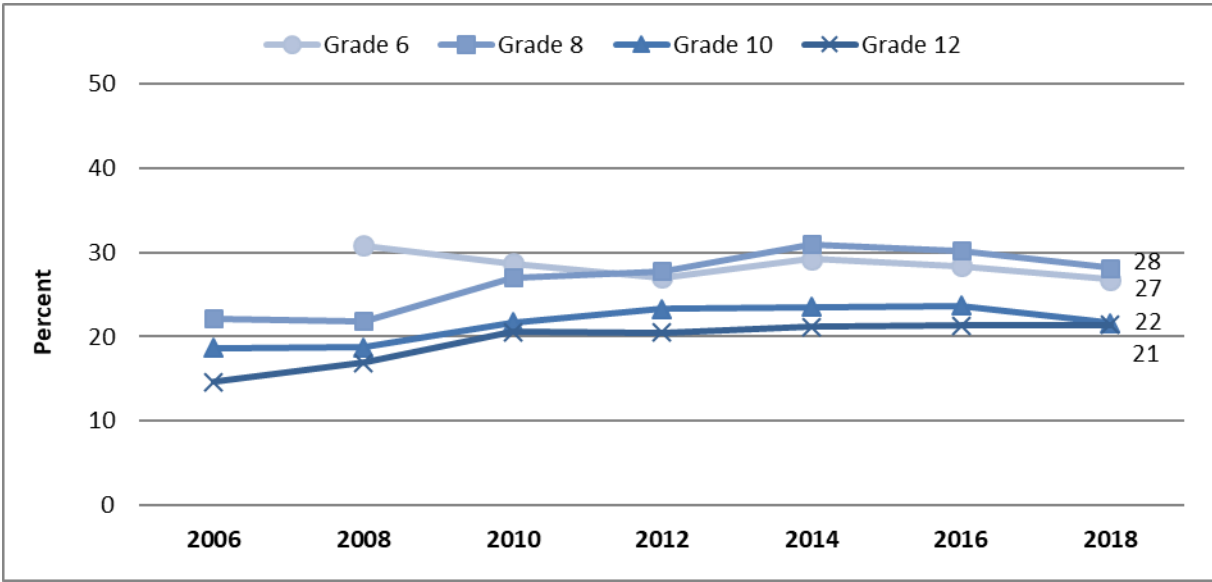
*Differences by gender:*

- Grades 6, 8, 10, and 12 males were more likely than females to be physically active for 60 minutes, seven days a week.

*Differences over time:*

- There were no changes in being physically active for 60 minutes, seven days a week for any grade from 2016 to 2018.
- Among Grade 6 students, there was a decrease in being physically active for 60 minutes, seven days a week, from 2006 through 2018.
- Among Grade 8 and 12 students, there were increases in being physically active for 60 minutes, seven days a week, from 2006 through 2018.

**Chart 4: 60 Minutes of Exercise 7 Days a Week, Grades 6, 8, 10, and 12 from 2006-2018**



*Survey Question:* In the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increases your heart rate or makes you breathe hard some of the time.)

*Note.* Percentages represent students who reported they were physically active for at least 60 minutes on 7 days in an average week.

*Source:* HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

# Physical Education Classes

In 2018, 40 percent of Grade 8 students, 27 percent of Grade 10 students, and 30 percent of Grade 12 students reported that they attended a physical education class every day during an average school week.

The Healthy People 2020 objective for physical education is that 36.6 percent of adolescents in grade 9 through 12 should participate in daily school physical education classes (five days a week).

*Differences by grade level:*

- Grade 8 students were more likely than Grade 10 or 12 students to report attending physical education classes every day during an average school week.

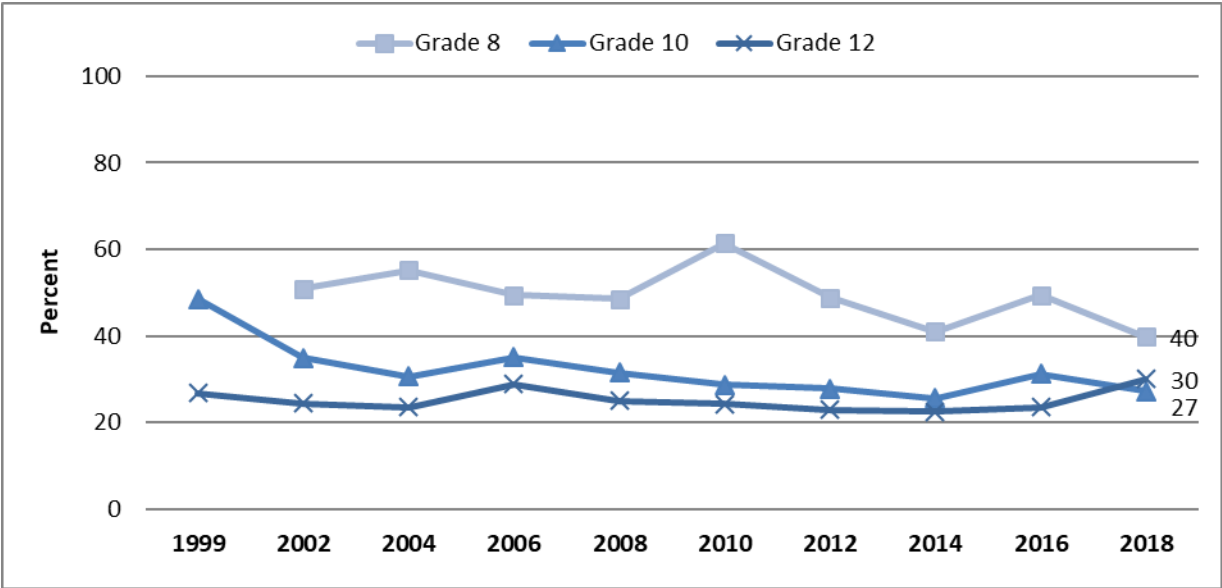
*Differences by gender:*

- Grade 8, 10, and 12 males were more likely than females to attend physical education classes every day during an average school week.

*Differences over time:*

- Among Grade 12 students, there was an increase in attending physical education classes every day during an average school week from 2016 to 2018.
- Among Grade 10 students, there was a decreasing trend in attending physical education classes every day during an average school week from 2002 through 2018.

**Chart 5: Participation in Physical Education, Grades 8, 10, and 12 from 1999–2018**



*Survey Question:* In an average week when you are in school, on how many days do you go to physical education (PE) classes?

*Note:* Percentages represent students who reported that they attended physical education classes five days in an average week when in school.

*Source:* YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016 and 2018.

## Time Spent in Physical Education Classes

In 2018, among students who took physical education, 90 percent of Grade 8 students and Grade 10 students, and 91 percent of Grade 12 students reported spending more than 20 minutes of an average physical education (PE) class actually exercising or playing sports.

### Differences by grade level:

- There were no differences in spending more than 20 minutes of an average PE class exercising by grade.

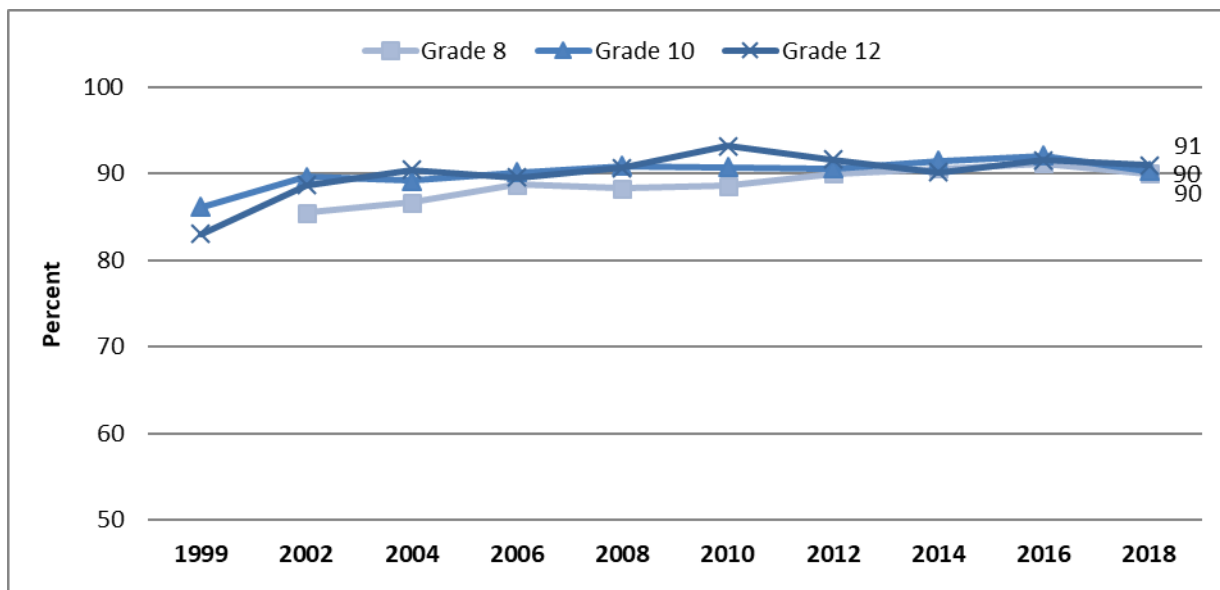
### Differences by gender:

- Grade 12 males were more likely to report spending more than 20 minutes of an average PE class exercising compared to girls.

### Differences over time:

- There were no significant changes in spending more than 20 minutes of an average PE class exercising from 2016 to 2018.
- Among Grade 8 and 10 students, there were increases in spending more than 20 minutes of an average PE class exercising from 2002 through 2018.

**Chart 6: Exercising for More Than 20 Minutes during Physical Education Classes, Grades 8, 10, and 12 from 1999–2018**



*Survey Question:* During an average PE class, how many minutes do you spend actually exercising or playing sports?

### Notes:

- Percentages represent students who reported that they participated in physical education and exercised or played sports for more than 20 minutes during physical education classes.
- Students who reported that they “do not take PE” were not included in the results.
- The sample sizes for the 2018 results in this figure are: 1,534 Grade 8; 2,266 Grade 10; and 1,546 Grade 12 students.

*Source:* YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Television Watching and Video Game Playing

In 2018, about 47 percent of Grade 6 students, 39 percent of Grade 8, 10, and 12 students reported restricting television and video viewing and video game playing to two hours or less on a school day.

A Healthy People 2020 objective is that at least 74 percent of students in grades 9 through 12 restrict television and video viewing and video game playing to two hours or less on a school day.

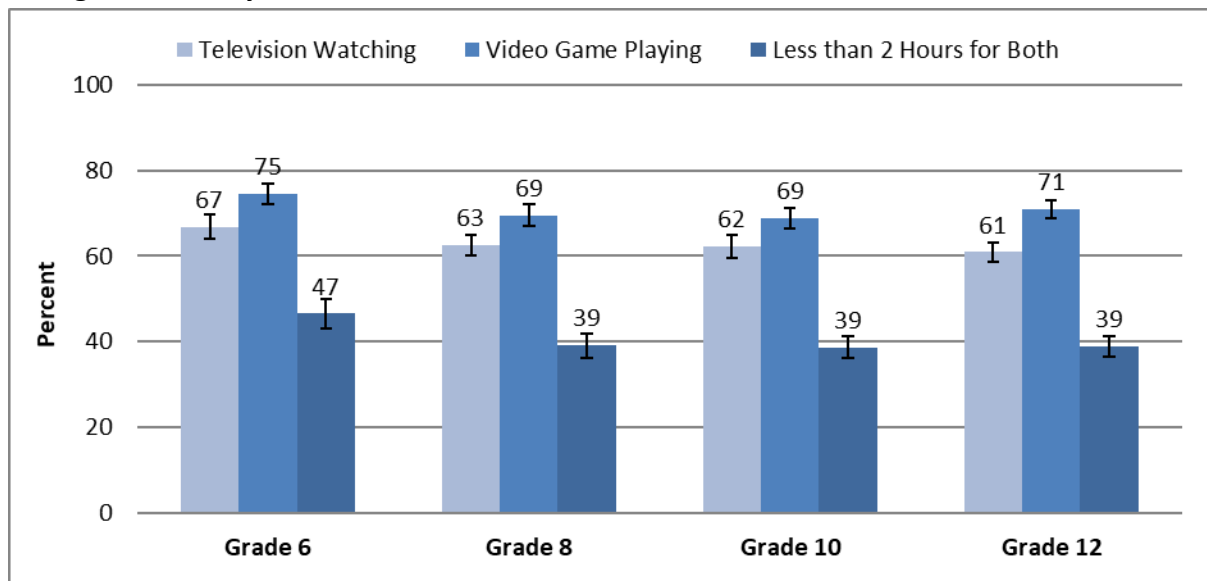
### Differences by grade level:

- Grade 6 students were more likely than Grade 8, 10, and 12 students to restrict television and video viewing and video game playing to two hours or less on a school day.

### Differences by gender:

- Grade 6, 8, 10, and 12 females were more likely than males to restrict television and video viewing and video game playing to two hours or less on a school day.

**Chart 7: Television Watching or Video Game Playing Restricted to 2 Hours or Less on an Average School Day, Grades 6, 8, 10, and 12, 2018**



### Survey Questions:

- On an average school day, how many hours do you watch TV shows or movies or stream videos (such as YouTube, Netflix, Hulu) on any electronic device (Computer, TV set, tablets or smartphone)?
- On an average school day, how many hours do you play video or computer games, or use a computer for something that is not school work? (Count time spent on things such as Xbox, PlayStation, tablet or smartphone, social media).

### Notes:

- Percentages represented students who reported watching TV and/or playing video games for less than two hours total on an average school day.
- The question wording for both questions changed in 2018, making changes over time no longer comparable.

Source: HYS 2018.

# Nutrition

## Fruit and Vegetable Consumption

Youth need to eat a variety of fruits and vegetables every day to get essential vitamins and minerals, fiber, and other substances that are important for good health and to reduce the risk of obesity and chronic diseases. The 2010 U.S. Dietary Guidelines for Americans recommend eating sufficient amounts of fruits and vegetables within caloric needs rather than the previous recommendation of five servings for all calorie levels. For example, the USDA MyPyramid recommends daily intake of 2-3 cups of vegetables and 1.5-2 cups of fruits for youth. The Healthy Youth Survey does not measure intake of fruits and vegetables relative to caloric need and age but in terms of number of times fruits and vegetables are eaten a day. (U.S. Department of Health and Human Services, 2015)

### Eating Fruit Less than Once a Day

In 2018, 40 percent of Grade 8 students, 41 percent of Grade 10 students, and 44 percent of Grade 12 students ate fruit less than once a day.

Differences by grade level:

- Grade 12 students were more likely than Grade 8 students to eat fruit less than once a day by grade.

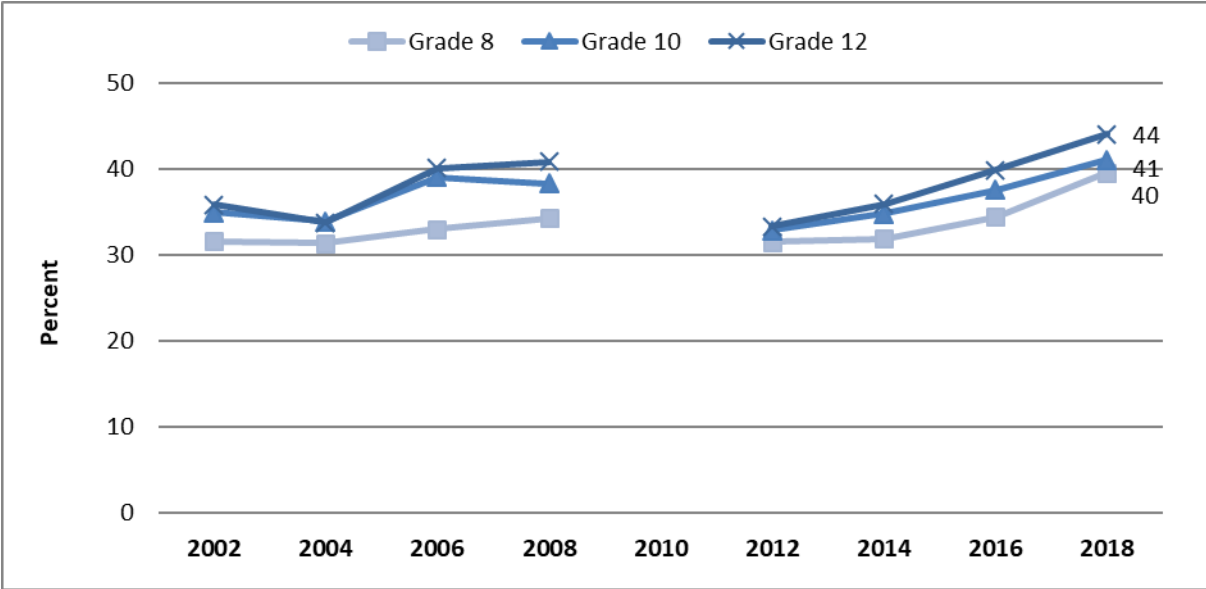
Differences by gender:

- There were no differences in eating fruit less than once a day by gender for any grade.

Differences over time:

- Among Grade 8, 10, and 12 students, there were increases in eating fruit less than once a day from 2016 to 2018.
- Among Grade 8 students, there was an increase in eating fruit less than once a day from 2002 through 2018.

**Chart 8: Eating Fruit Less than Once a Day, Grades 8, 10, and 12 from 2002-2018**





*Survey Questions: During the past 7 days, how many times did you?:*

- Drink 100% fruit juice such as orange juice, apple juice or grape juice? (Do not count punch, Kool-Aid, sports drinks, and other fruit-flavored drinks.)
- Eat fruit? (Do not count fruit juice.)

*Note.* Percentages are calculated from the questions above to represent students who reported eating fruit less than once a day

*Source:* HYS 2002, 2004, 2006, 2008, 2012, 2014, 2016, and 2018. Questions were not asked in 2010.

## Eating Vegetables Less than Once a Day

In 2018, 39 percent of Grade 8 students, 38 percent of Grade 10 students, and 40 percent of Grade 12 students ate vegetables less than once a day.

Differences by grade level:

- There were no differences in eating vegetables less than once a day by grade.

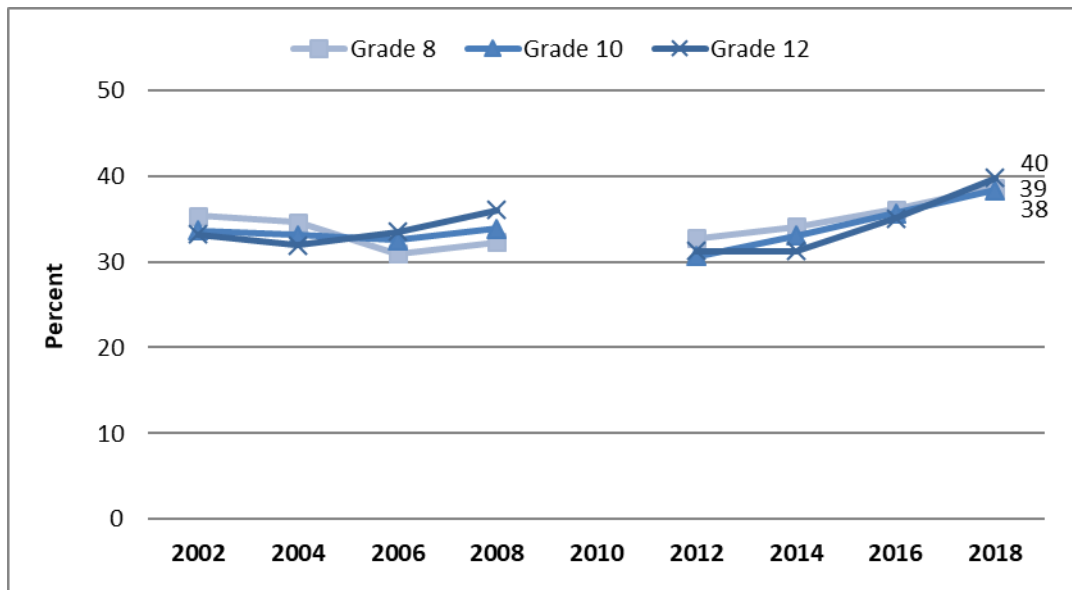
Differences by gender:

- There were no differences in eating vegetables less than once a day by gender for any grade.

Differences over time:

- Among Grade 12 students, there was an increase in eating vegetables less than once a day from 2016 to 2018.
- Among Grade 8 students, there was an increase in eating vegetables less than once a day from 2006 through 2018.
- Among Grade 10 students, there was an increase in eating vegetables less than once a day from 2012 through 2018.

**Chart 9: Eating Vegetables Less than Once a Day, Grades 8, 10, and 12 from 2002-2018**



*Survey Questions: During the past 7 days, how many times did you?:*

- Eat green salad?
- Eat potatoes? (Do not count French fries, fried potatoes, or potato chips.)
- Eat carrots?
- Eat other vegetables? (Do not count green salad, potatoes, or carrots.)

*Note.* Percentages are calculated from the questions above to represent students who reported eating vegetables less than once a day

*Source:* HYS 2002, 2004, 2006, 2008, 2012, 2014, 2016, and 2018.

## Eating Dinner with Family

In 2018, 75 percent of Grade 6 students, 67 percent of Grade 8 students, 56 percent of Grade 10 students, and 48 percent of Grade 12 students reported eating dinner with their family most of the time or always.

Children and adolescents who eat meals with family are more likely to have healthy eating habits.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was less likely to eat dinner with their family most of the time or always.

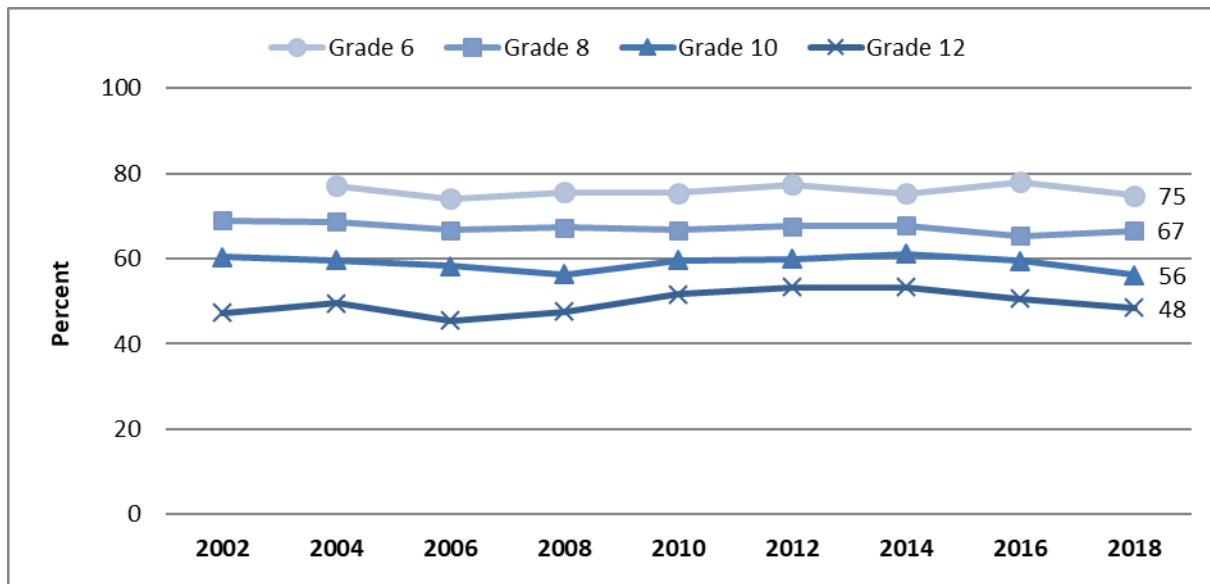
### Differences by gender:

- Grade 8 and 10 males were more likely than females to eat dinner with their family most of the time or always.

### Differences over time:

- Among Grade 6 students, there was an increase in eating dinner with the family from 2016 to 2018.
- Among Grade 8 students, there was a decrease in eating dinner with the family most of the time or always from 2002 through 2018.

**Chart 10: Eating Family Dinners Most of the Time or Always, Grades 6, 8, 10, and 12 from 2002–2018**



*Survey Question:* How often do you eat dinner with your family?

*Note:* Percentages represent students who reported that they ate dinner with their family most of the time or always.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Drinking Sweetened Beverages

In 2018, 13 percent of Grade 8 students, 14 percent of Grade 10 students, and 19 percent of Grade 12 students reported drinking sweetened beverages once or more a day.

Drinking sugar-sweetened beverage is associated with obesity and dental caries.

### Differences by grade level:

- Grade 12 students were more likely than Grade 8 and 10 students to report drinking sweetened beverages once or more per day.

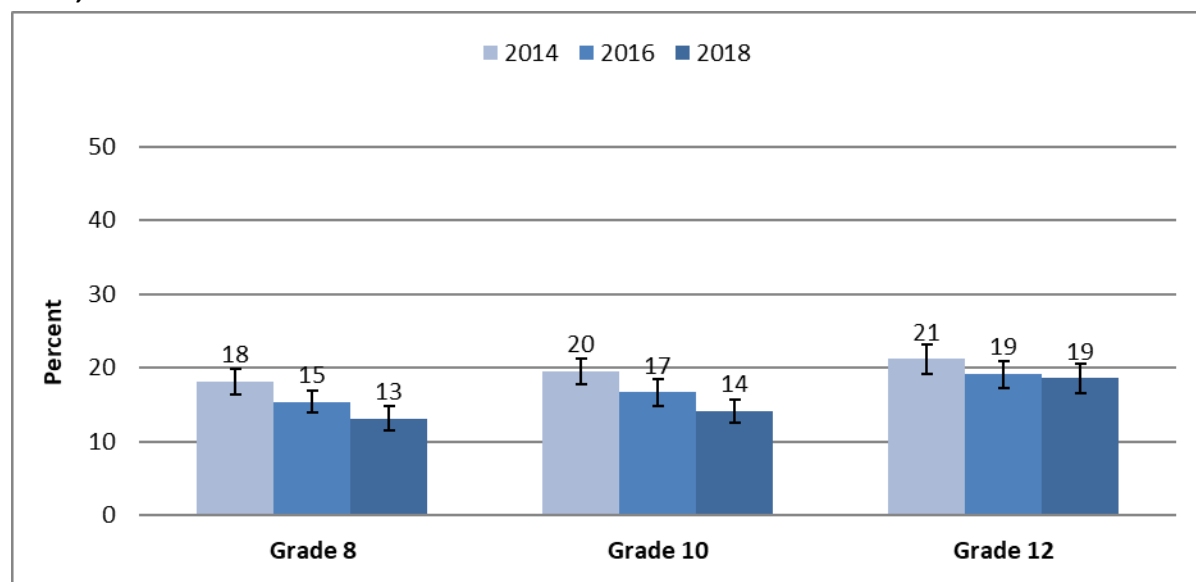
### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to report drinking sweetened beverages once or more a day.

### Differences over time:

- Among Grade 8 and 12 students, there were decreases in drinking sweetened beverages once or more a day from 2016 to 2018.

**Chart 11: Drinking Sweetened Beverages Once or More Daily, Grades 8, 10, and 12, 2014, 2016, and 2018**



*Survey Question:* During the past 7 days, how many times did you drink regular soda, sports drinks (such as Gatorade) and other flavored sweetened drinks (such as Snapple or SoBe)? Do not include diet drinks.

*Note.* Percentages represent students who reported that they consumed one or more sweetened beverages daily.

*Source:* HYS 2014, 2016, and 2018.

## Drinking Sweetened Drinks at School

In 2018, 38 percent of Grade 8 students, 42 percent of Grade 10 students, and 43 percent of Grade 12 students reported drinking sweetened drinks at school.

### Differences by grade level:

- Grade 8 students were less likely than Grade 12 students to drink sweetened drinks at school.

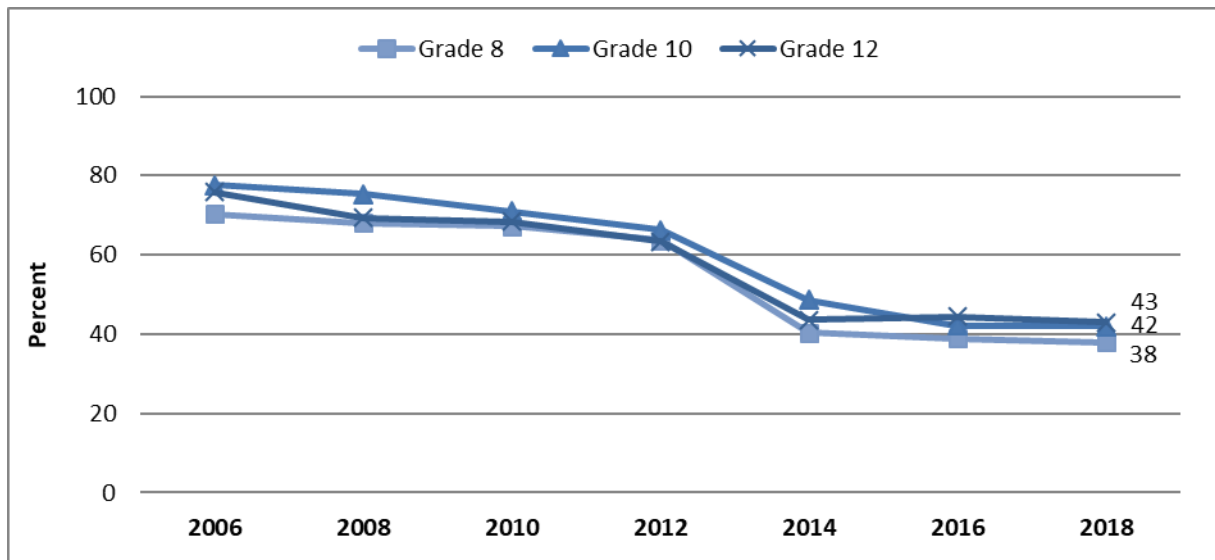
### Differences by gender:

- Grade 10 and 12 males were more likely than females to drink sweetened drinks at school.

### Differences over time:

- There were no changes in drinking sweetened drinks at school for any grade from 2016 to 2018.
- Among Grade 8, 10, and 12 students, there were decreases in drinking sweetened drinks at school in the past week from 2006 through 2018.

**Chart 12: Drinking Sweetened Drinks at School in the Past Week, Grades 8, 10, and 12, from 2006 through 2018**



*Survey Question:* During the past 7 days, how many times did you drink regular soda, sports drinks (such as Gatorade) and other flavored sweetened drinks (such as Snapple or SoBe) at school (including any after-school and weekend activities)? Do not include diet drinks.

*Notes:* Percentages represent students who reported that they drank soda or sweetened drinks at school in the past 7 days.

*Source:* HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Buying Sweetened Drinks at School

In 2018, 38 percent of Grade 8 students, 42 percent of Grade 10 students, and 43 percent of Grade 12 students reported drinking sweetened drinks at school. Among those who reported drinking these beverages at school in 2018, 17 percent of Grade 8 students, 27 percent of Grade 10 students, and 17 percent of Grade 12 students bought the sweetened drinks at school.

### Differences by grade level:

- Among those who drank sweetened beverages at school, Grade 10 students were more likely than Grade 8 and 12 students to buy the sweetened drinks at school.

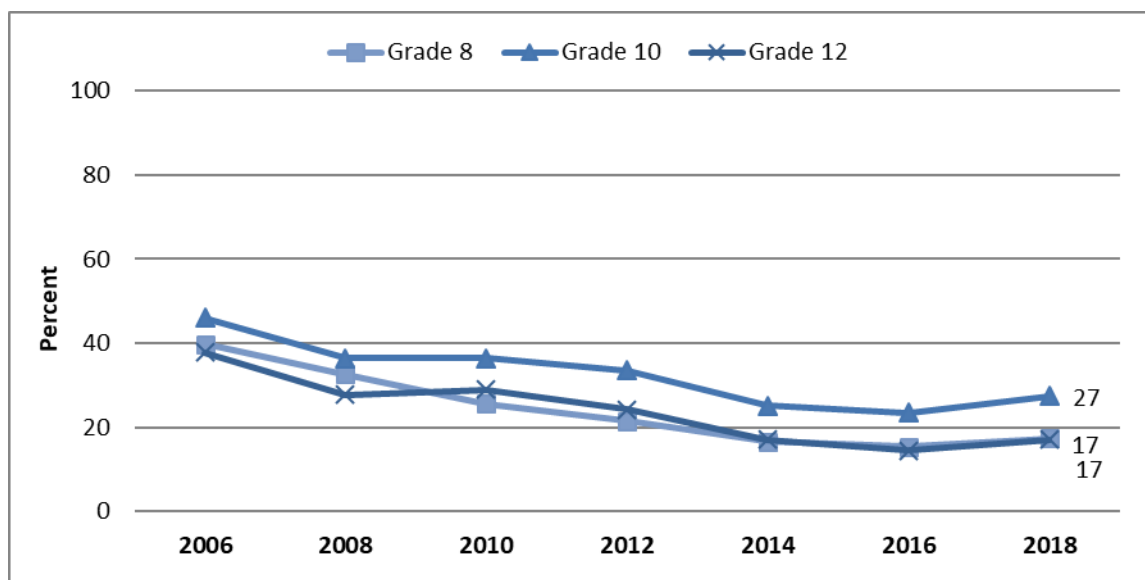
### Differences by gender:

- There were no differences in buying sweetened drinks at school by gender for any grade.

### Differences over time:

- There were no changes in buying sweetened drinks at school for any grade from 2016 to 2018.
- Among Grade 8, 10, and 12 students who drank sweetened beverages at school, there were decreases in buying sweetened drinks at school from 2006 through 2018.

**Chart 13: School as the Source of Sweetened Drinks, Grades 8, 10, and 12, from 2006 through 2018**



*Survey Question:* During the past 7 days, where did you usually get the soda or other sweetened drinks that you drank at school? (Choose only one answer.)

### Notes:

- Percentages represent students who reported that they bought the soft drinks at school.
- Students who reported that they “did not drink sodas, sports drinks, or other flavored drinks at school” in the past 7 days were not included in the results.
- The sample sizes for the 2016 results in this figure are: 1,662 Grade 8; 2,412 Grade 10; and 1,899 Grade 12 students.

*Source:* HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Food Insecurity

In 2018, 10 percent of Grade 8 students, 12 percent of Grade 10 students, and 16 percent of Grade 12 students reported food insecurity.

Compared to children from families who are food secure, children from families with food insecurity are more likely to have behavior problems, do poorly in school, need medical care and hospitalization, and develop chronic diseases (Center on Hunger and Poverty, 2002; Hampton, 2007). Food insecurity may also be associated with poor quality diet and obesity (Lobstein, 2015, Weinreb, 2002).

### *Differences by grade level:*

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to report having to cut meal size or skip meals.

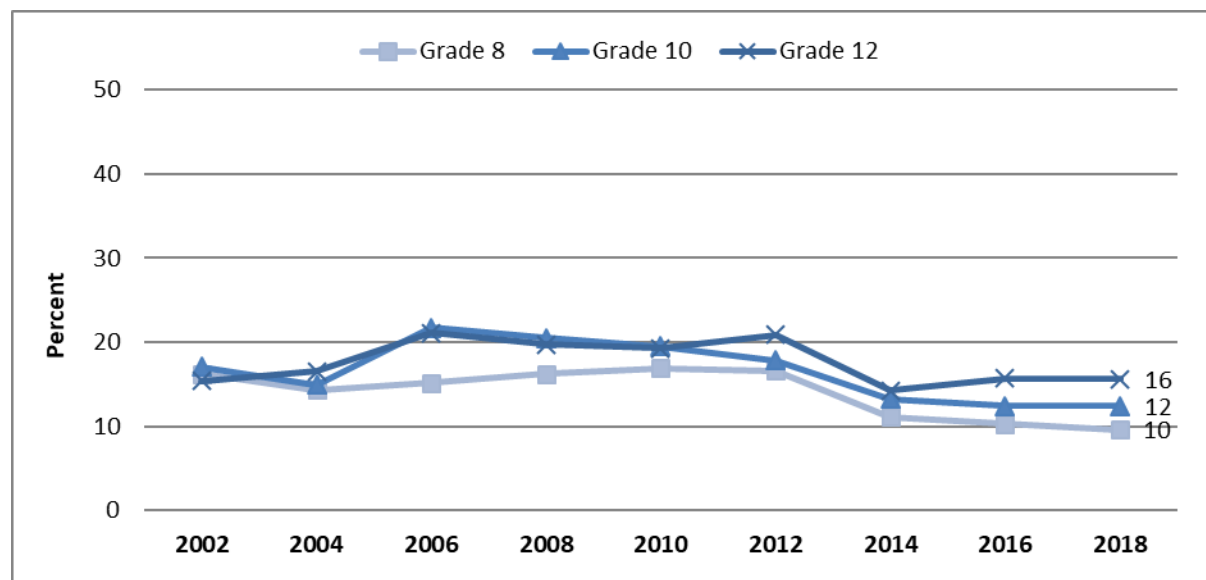
### *Differences by gender:*

- There were no differences in having to cut meal size or skip meals by gender for any grade.

### *Differences over time:*

- There were no changes in having to cut meal size or skip meals for any grade from 2016 to 2018.
- Among Grade 8 and 10 students, there were decreasing trends in having to cut meal size or skip meals from 2002 through 2018.

**Chart 14: Food Insecurity During Any Months in the Past Year, Grades 8, 10, and 12 from 2002–2018**



*Survey Question:* How often in the past 12 months did you or your family have to cut meal size or skip meals because there wasn't enough money for food?

### *Notes:*

- Percentages represent students who reported that their family cut meal size or skipped meals during any months in the past year due to lack of money for food.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## 5. Health Status and Health Care

### Asthma

#### Lifetime Asthma

Lifetime asthma includes anyone who has ever been told by a doctor or nurse that they have asthma. In 2018, 13 percent of Grade 6 students, 18 percent of Grade 8 students, 21 percent of Grade 10 and Grade 12 students reported that they had been told they have asthma.

##### *Differences by grade level:*

- Grade 6 students were less likely than Grade 8, 10 and 12 students to have been diagnosed with asthma in their lifetime.
- Grade 8 students were less likely than Grade 10 and Grade 12 students to have been diagnosed with asthma in their lifetime.

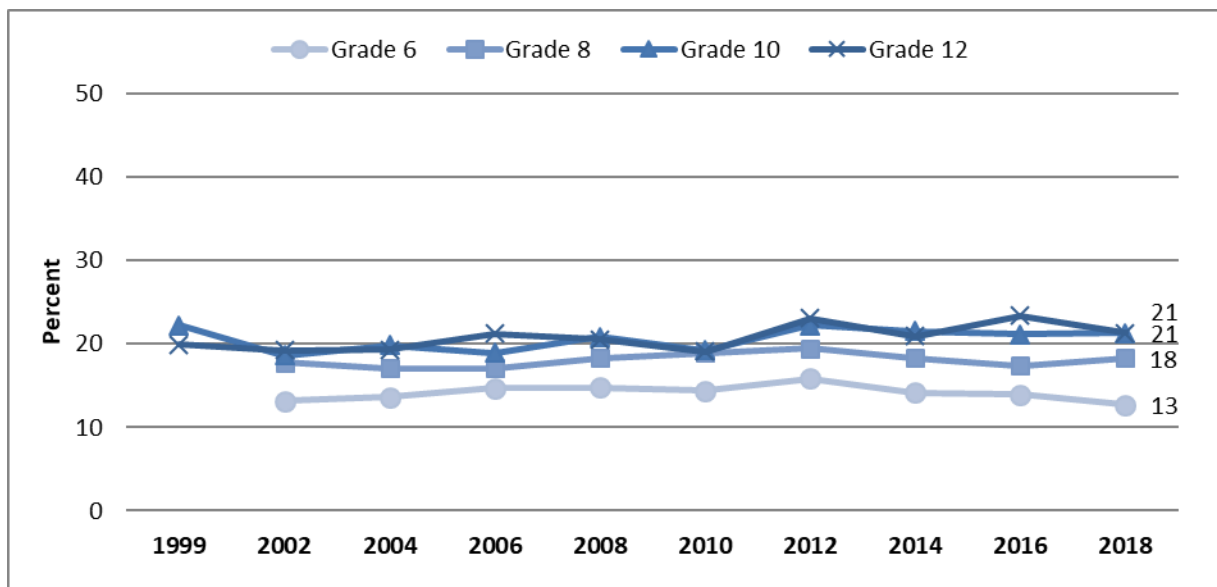
##### *Differences by gender:*

- Grade 6 males were more likely than females to have been diagnosed with asthma in their lifetime.

##### *Differences over time:*

- Among Grade 6 and Grade 12 students, there were decreases in having been diagnosed with asthma in their lifetime from 2016 to 2018.
- Among Grade 10 students, there was an increase in having been diagnosed with asthma in their lifetime from 2002 through 2018.

**Chart 16: Lifetime Asthma, Grades 6, 8, 10, and 12 from 1999–2018**



*Survey Question:* Has a doctor or nurse ever told you that you have asthma?

*Note.* Percentages represent students who reported that they were ever told they had asthma by a doctor or nurse in their life.

*Source:* YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



## Current Asthma

Current asthma includes anyone who had ever been told they have asthma by a doctor or a nurse and also reports that they still have asthma. In 2018, 7 percent of Grade 6 students, 8 percent of Grade 8 students, 9 percent of Grade 10 students, and 8 percent of Grade 12 students reported that they were told they had asthma and that they still have asthma.

### Differences by grade level:

- Grade 6 students were less likely than Grade 8, 10 and 12 students to have current asthma.

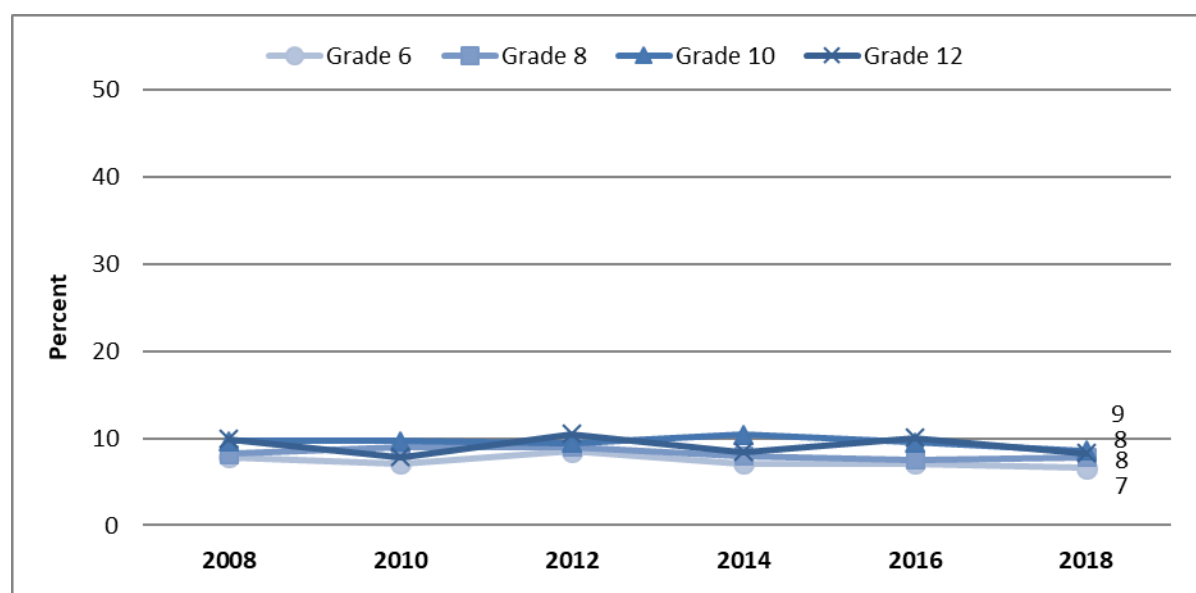
### Differences by gender:

- Grade 10 and Grade 12 females were more likely than males to have current asthma.

### Differences over time:

- Among Grade 12 students, there was a decrease in having current asthma from 2016 to 2018.
- There were no trends in having current asthma for any grade from 2002 through 2018.

**Chart 17: Current Asthma, Grades 6, 8, 10, and 12 from 2008 through 2018**



### Survey Questions:

- Has a doctor or nurse ever told you that you have asthma?
- Do you still have asthma?

### Notes:

- Percentages represent students who reported that they were ever told by a doctor they had asthma and still have asthma.
- The definition of current asthma changed in 2008, so previous results for current asthma are not comparable. In the past, current asthma was defined as being diagnosed by a doctor and having an asthma attack in the past year.

Source: HYS 2008, 2010, 2012, 2014, 2016, and 2018.

## Access to Care

### Access to a Dentist

Access to dental care is an important component in creating a healthy adolescent and adult.

In 2018, 79 percent of Grade 8 students, 77 percent of Grade 10 students, and 74 percent of Grade 12 students had seen a dentist in the past 12 months.

#### Differences by grade level:

- Grade 8 students were more likely than Grade 12 students to have seen a dentist in the past year.

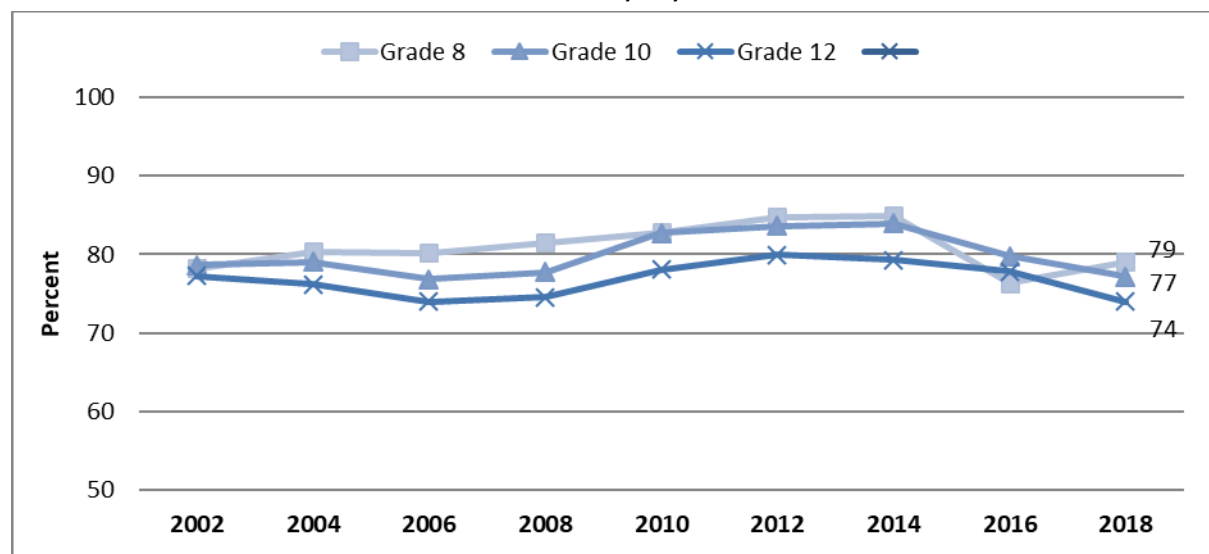
#### Differences by gender:

- Grade 8 and Grade 12 females were more likely to have seen a dentist in the past year compared to males.

#### Differences over time:

- There were no significant changes in seeing a dentist in the past year from 2016 to 2018.
- Among Grade 8 and 10 students, there were increases in seeing a dentist in the past year from 2002 through 2014.

**Chart 18: Student Access to a Dentist Grades 8, 10, and 12 from 2002–2018**



*Survey Question:* When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?

*Note:*

- Percentages represent students who reported they saw a dentist in the past year.
- Students who reported “not sure” were not included in the results.
- The sample sizes for the 2018 results in this figure are 4,242 for Grade 8; 3,899 for Grade 10; and 2,689 for Grade 12 students.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Access to a Doctor

In 2018, 70 percent of Grade 8 students, 68 percent of Grade 10 students, and 65 percent of Grade 12 students had seen a doctor in the past 12 months.

### Differences by grade level:

- Grade 8 students were more likely than Grade 12 students to have seen a doctor in the past year.

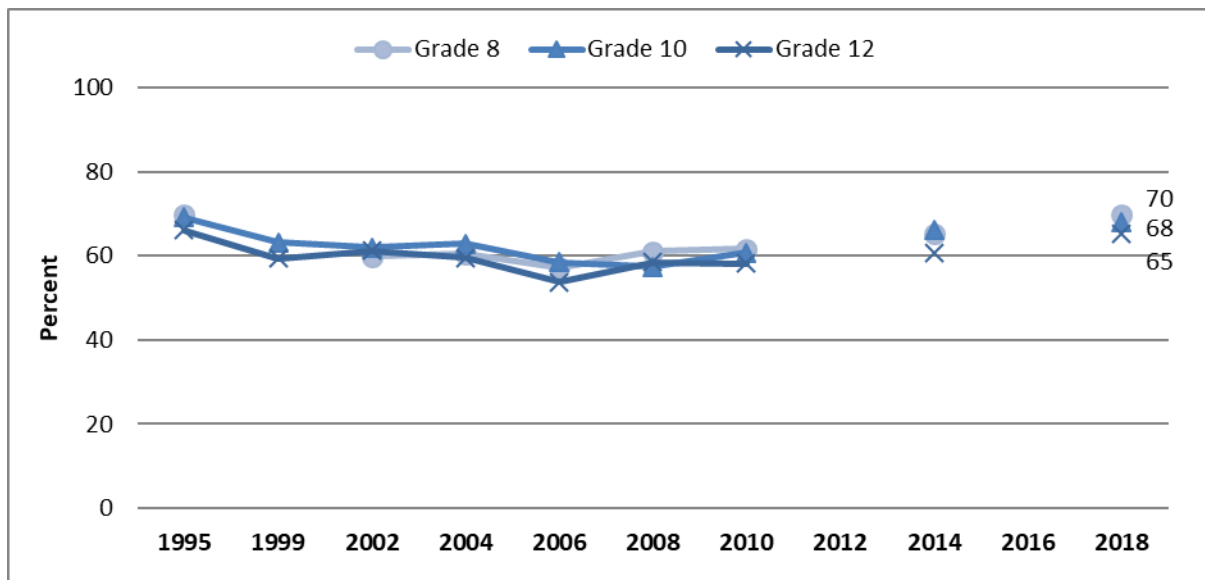
### Differences by gender:

- Grade 12 females were more likely to have seen a doctor in the past year compared to males.

### Differences over time:

- Among Grade 8, 10, and 12 students, there were increases in seeing a doctor in the past year from 2014 to 2018.
- Among Grade 8 students, there was an increase in seeing a doctor in the past year from 2002 through 2018.
- Among Grade 12 students, there was an increase in seeing a doctor in the past year from 2006 through 2018.

**Chart 19: Student Access to a Doctor, Grades 8, 10, and 12 from 1995–2018**



*Survey Question:* When was the last time you saw a doctor or health care provider for a check-up or physical exam when you were not sick or injured?

### Note:

- Percentages represent students who reported they saw a doctor in the past year.
- Students who reported “not sure” were not included in the results.
- The sample sizes for the 2018 results in this figure are 4,248 for Grade 8; 3,903 for Grade 10; and 2,697 for Grade 12 students.

*Source:* WSSAHB 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2014, and 2018. Question was not asked in 2012 or in 2016.

## 6. Mental Health

### Depressive Feelings

Students were asked, “During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?” Although this question is not sufficient to diagnose depression, it can be used as a surrogate measure for experiencing symptoms of depression (Merikangas, 2009).

In 2018, 32 percent of Grade 8 students, 40 percent of Grade 10 students, and 41 percent of Grade 12 students reported experiencing depressive feelings during the past year.

#### Differences by grade level:

- Grade 10 and Grade 12 students were more likely than Grade 8 students to experience depressive feelings.

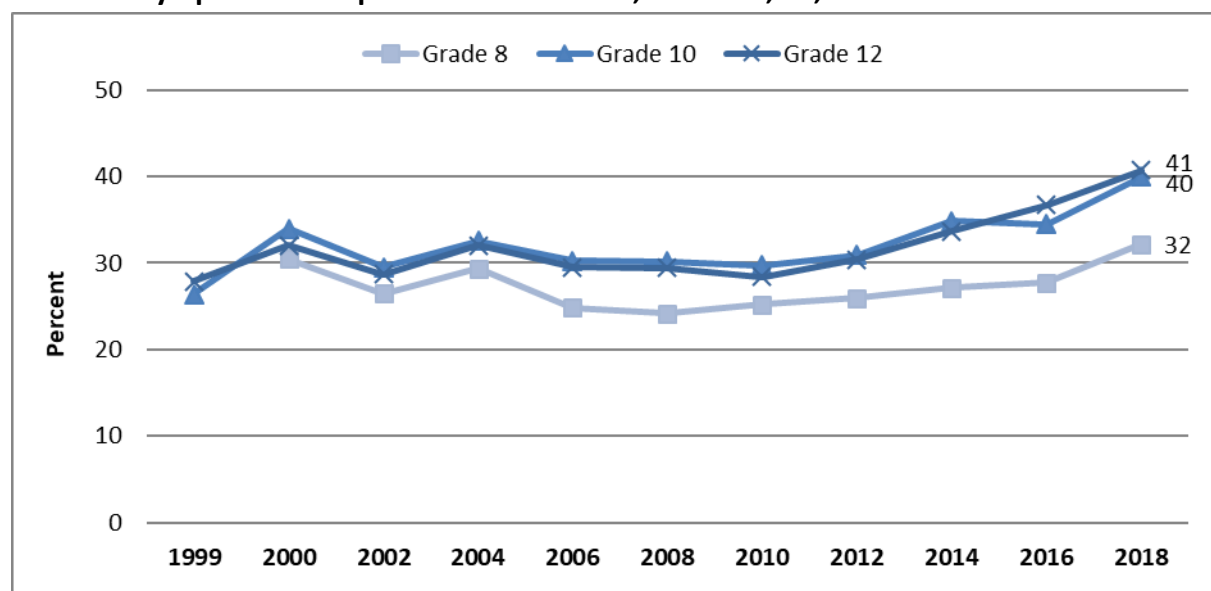
#### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to experience depressive feelings.

#### Differences over time:

- Among Grade 8, 10, and 12 students, there were increases in experiencing depressive feelings from 2016 to 2018.
- Among Grade 10 and 12 students, there were increases in experiencing depressive feelings from 2002 through 2018.

**Chart 20: Symptoms of Depression in Past Year, Grades 8, 10, and 12 from 1999-2018**



*Survey Question:* During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

*Note:* Percentages represent students who reported that, yes, they felt sad or hopeless for two weeks or more in the past year.

*Source:* YRBS 1999; WSSAHB 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Anxiety

Students were asked two questions about anxiety: How often over the last 2 weeks were you bothered by 1) feeling nervous, anxious or on edge, and 2) Not being able to stop or control worrying. These questions form the Generalized Anxiety Disorder (GAD)-2 scale. When added together as a 0-6 scale, a cutoff of 3 has been found to have acceptable properties in screening for GAD (Plummer, Manea, Trepel, and McMillan 2016). While this is not sufficient to diagnose an anxiety disorder among youth responding to the HYS, it can be used as an indicator of students experiencing a high level of anxiety.

In 2018, 26 percent of Grade 8 students, 33 percent of Grades 10 students, and 35 percent of Grade 12 students reported experiencing high levels of anxiety in the past two weeks.

### Differences by grade level:

- Grade 10 and Grade 12 students were more likely than Grade 8 students to experience high levels of anxiety in the past two weeks.

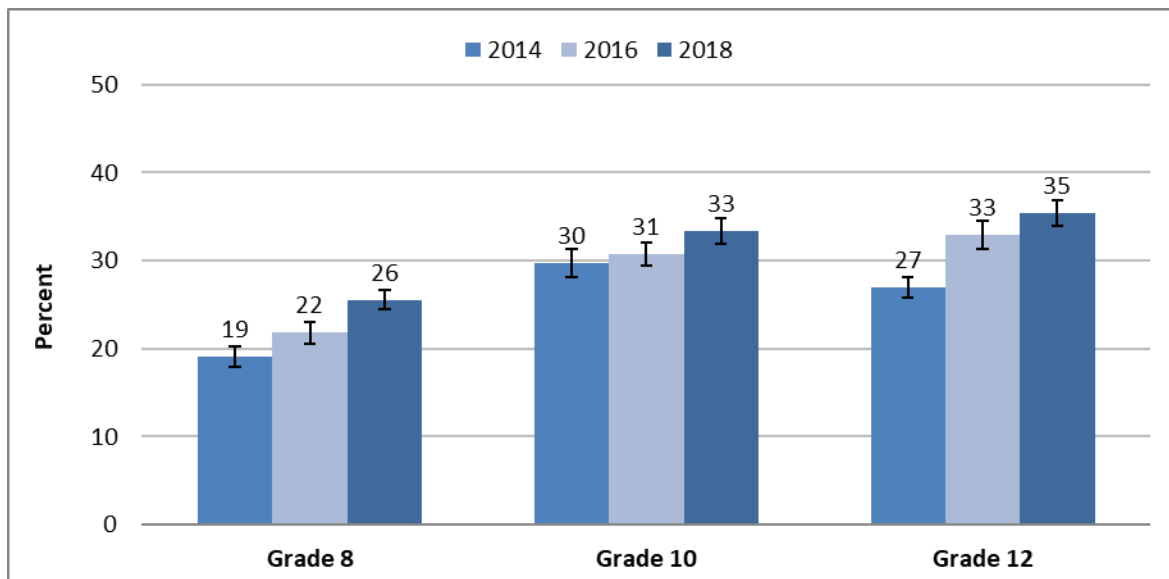
### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to experience high levels of anxiety in the past two weeks.

### Differences over time:

- Among Grade 8, 10, and 12 students, there were increases in experiencing high levels of anxiety in the past two weeks from 2016 to 2018.

**Chart 21: High Levels of Anxiety in the Past Two Weeks, Grades 8, 10, and 12 in 2014, 2016, and 2018**



### Survey Questions:

- How often over the last 2 weeks were you bothered by: Feeling nervous, anxious or on edge?
- How often over the last 2 weeks were you bothered by: Not being able to stop or control worrying?

*Note:* Percentages represent students who reported that, they were feeling nervous or unable to stop worrying on at least several days and feeling nervous or unable to stop worrying on at least more than half of the days in the past two weeks, or that they were experiencing one of these concerns nearly every day.

*Source:* HYS 2014, 2016, and 2018.

# Children’s Hope Scale

Hope reflects a future orientated mindset and motivational process by which an individual has an expectation toward attaining a desirable goal. Research has linked hope with overall physical, psychological, and social well-being. The Children’s Hope Scale is an assessment which measures the ability to initiate and sustain action towards goals (also known as pathways thinking) and the ability to find a way to carry out goals (i.e. agency thinking).

The Children’s Hope Scale uses a six-point response scale with “none of the time” equating to the lowest value of one, and “all of the time” equating to the highest value of six. Adding the response values for pathway questions will provide a pathway score ranging from 2-12; higher scores reflect higher pathways thinking. Adding the response values for agency questions will provide an agency score ranging from 2-12; higher scores reflect higher agency thinking. Adding pathway and agency scores will provide an overall hope score (i.e., level of hope). Scores of 4-8 indicate no to very low hope, 9-12 indicate slightly hopeful, 13-16 indicate moderately hopeful, and 17-24 indicates highly hopeful.

In 2018, 52 percent of Grade 8 students, 47 percent of Grades 10 students, and 51 percent of Grade 12 students reported being “highly hopeful”.

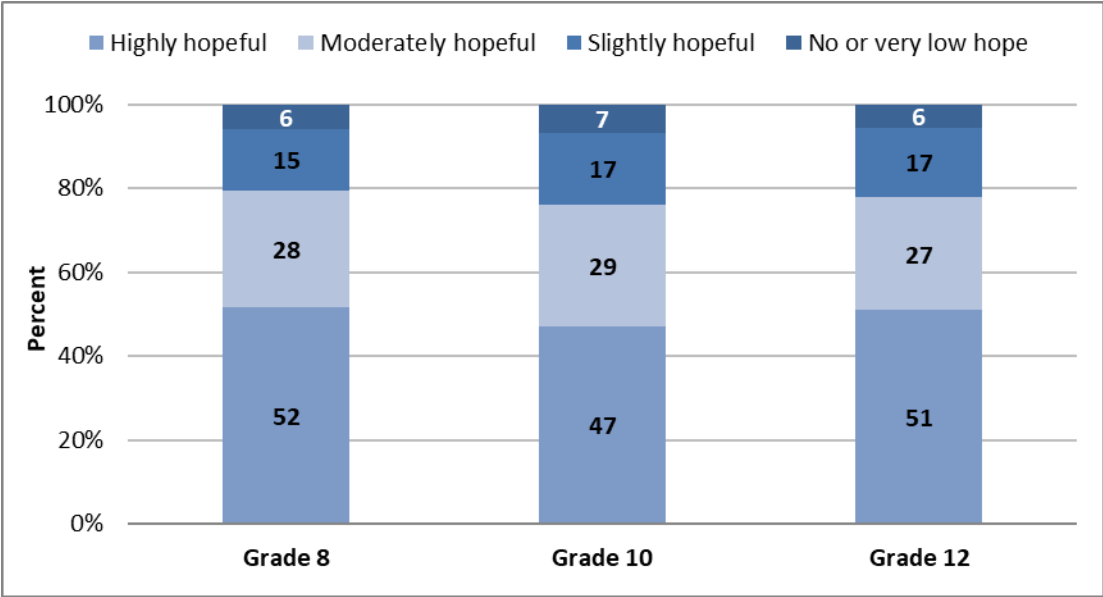
*Differences by grade level:*

- Grade 8 and Grade 12 students were more likely than Grade 10 students to report being highly hopeful.

*Differences by gender:*

- Grade 8, 10, and 12 males were more likely than females to report being highly hopeful.

**Chart 22: Children’s Hope Scale, Grades 8, 10, and 12 in 2018**



*Survey Questions:*

- I can think of many ways to get the things in life that are most important to me.
- I am doing just as well as other kids my age
- When I have a problem, I can come up with lots of ways to solve it.
- I think the things I have done in the past will help me in the future.

Notes:

- Percentages represent students who reported who answered all four Hope Scale questions. Scores of 4-8 indicate no to very low hope, 9-12 indicate slightly hopeful, 13-16 indicate moderately hopeful, and 17-24 indicates highly hopeful.
- The sample sizes for the 2018 results in these figures are: 3,797 Grade 8; 3,576 Grade 10; and 2,549 Grade 12 students.
- Source: HYS 2018.

# Suicide

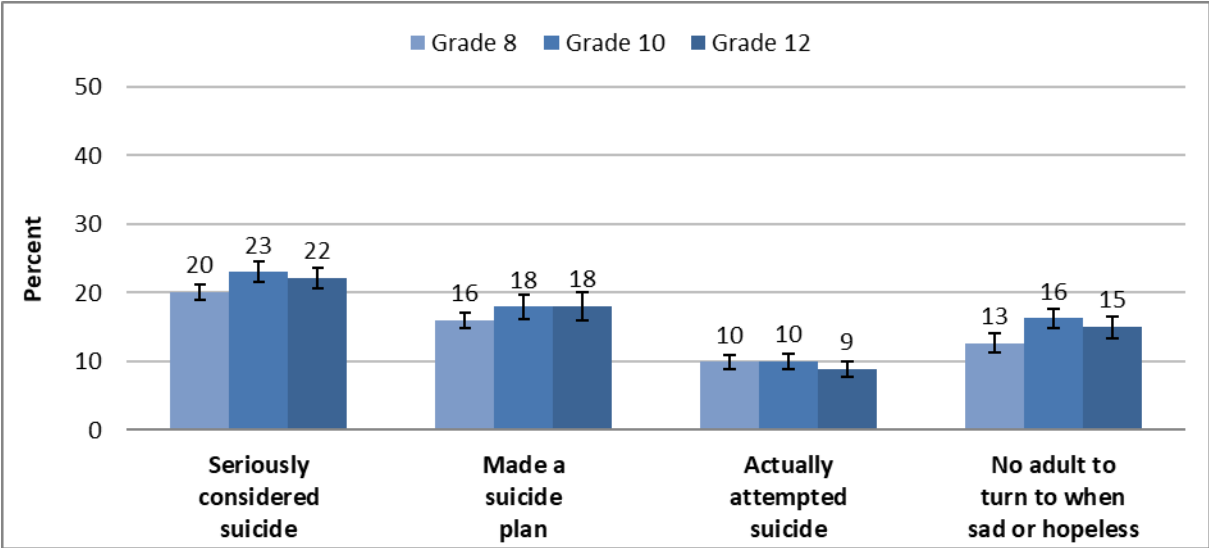
Suicide attempts and suicide ideation are associated with adverse childhood experiences (ACEs), a recent or serious loss (including divorce of parents or breakup with significant other), substance use disorders, struggling with sexual orientation, lack of social support, and stigma around help-seeking ([Child Mind Institute](#)). Prior suicide attempts increase risk for another suicide attempt. Loss of a loved one to suicide or family history of suicide also increases an individual’s risk.

Key protective factors include problem-solving and conflict resolution skills, strong social connections, restricted access to highly lethal means of suicide, and access to evidence-based clinical interventions. In a research study, youth hospitalized for suicide risk chose four caring adults in their lives who then received suicide education (King, et.al, 2019). Empowering a youth’s adult support network as part of a safety plan is a promising strategy.

In 2018, students reported the following suicide-related behaviors:

- Seriously considered attempting suicide in the past year: 20 percent of Grade 8 students, 23 percent of Grade 10 students, and 22 percent of Grade 12 students.
- Made a plan about how to attempt suicide in the past year: 16 percent of Grade 8 students, 18 percent of Grade 10 and Grade 12 students.
- Attempted suicide: 10 percent of Grade 8 and Grade 10 students, and 9 percent of Grade 12 students.
- Felt they did not have an adult to turn to for help when feeling sad or hopeless, 9 percent of Grade 6 students, 13 percent of Grade 8 students, 16 percent of Grade 10 students, and 15 percent of Grade 12 students did not have an adult to turn to for help when feeling sad or hopeless.

**Chart 23: Suicide-Related Behaviors, Grades 8, 10, and 12 in 2018**





*Survey Questions:*

- During the past 12 months, did you ever seriously consider attempting suicide?
- During the past 12 months, did you make a plan about how you would attempt suicide?
- During the past 12 months, how many times did you actually attempt suicide?
- When you feel sad or hopeless, are there adults that you can turn to for help?

*Notes:*

- Percentages represent students who seriously considered suicide, who made a plan to attempt suicide, or who attempted suicide any time in the past 12 months.
- Percentages for “no adult to turn to when sad or hopeless” represent students who said “no”.

*Source:* HYS 2018.

## Suicide Attempts

In 2018, 10 percent of Grade 8 and Grade 10 students, and 9 percent of Grade 12 students reported making a suicide attempt in the past year.

The Healthy People 2020 objective is to reduce the percentage of adolescents in grades 9 through 12 who attempt suicide from 1.9 suicide attempts per 100,000 people, to 1.7 suicide attempts per 100,000 people.

### Differences by grade level:

- There were no differences in attempting suicide in the past year by grade.

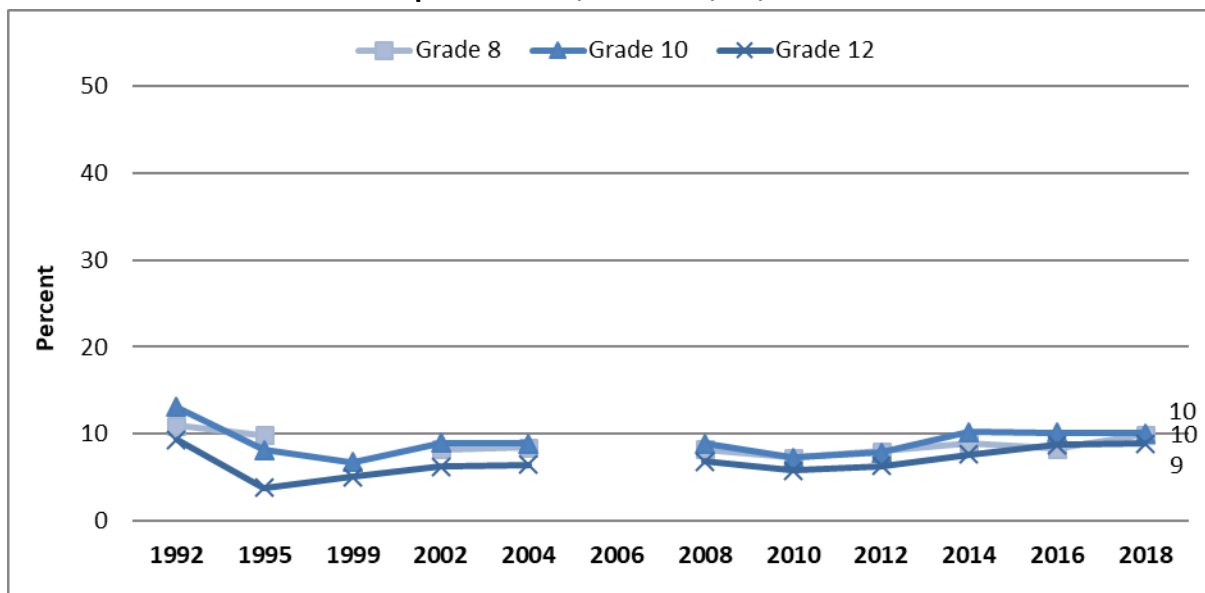
### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to have attempted suicide in the past year.

### Differences over time:

- Among Grade 8 students, there was an increase in attempting suicide in the past 12 months from 2016 to 2018.
- Among Grade 12 students, there was an increase in attempting suicide in the past 12 months from 2002 through 2018.

**Chart 24: Students Who Attempted Suicide, Grades 8, 10, and 12 from 1992–2018**



*Survey Questions:* During the past 12 months, how many times did you actually attempt suicide?

### Notes:

- Percentages represent students who reported attempted suicide any time in the past 12 months.
- In 2006, the survey response options were changed from the number of times of attempted suicide to “yes” or “no” attempted suicide. 2006 survey results are not reported.

*Source:* WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2008, 2010, 2012, 2014, 2016, and 2018.

## 7. Physical, Emotional and Sexual Abuse

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### *Physical, Emotional and Sexual Abuse*

Intimate partner violence and sexual violence are serious, preventable public health issues that often begin in adolescence and affect every community in our state. Intimate partner violence experienced in adolescence is often referred to as teen dating violence (TDV).

Sexual violence can occur in any type of relationship or be perpetrated by a stranger. Most perpetrators of sexual violence are known to their victims, but the type of relationship varies. For example, acts of sexual violence are often perpetrated by acquaintances and non-spouse relatives (Washington State Health Assessment, 2018).

Intimate partner and sexual violence are associated with several risk factors and other forms of violence. Research shows that 1) children who are exposed to intimate partner violence between their parents or caregivers are more likely to experience intimate partner violence later in life and 2) that youth who experience teen dating violence are at greater risk for suicidal ideation (Niolon, 2016).

Intimate partner violence and sexual violence are harmful to survivors, families, and communities. The effects of intimate partner violence and sexual violence can be long lasting, and negatively affect a person's quality of life physically, psychologically, and socially (Basile, 2016).

## Witnessing Physical Abuse

In 2018, 22 percent of Grade 8 students, and 26 percent of Grade 10 students, and 27 percent Grade 12 students reported they'd seen an adult hurt another adult more than once.

### Differences by grade level:

- Grades 10 and 12 were more likely than Grade 8 students to have seen an adult hurt another adult more than once.

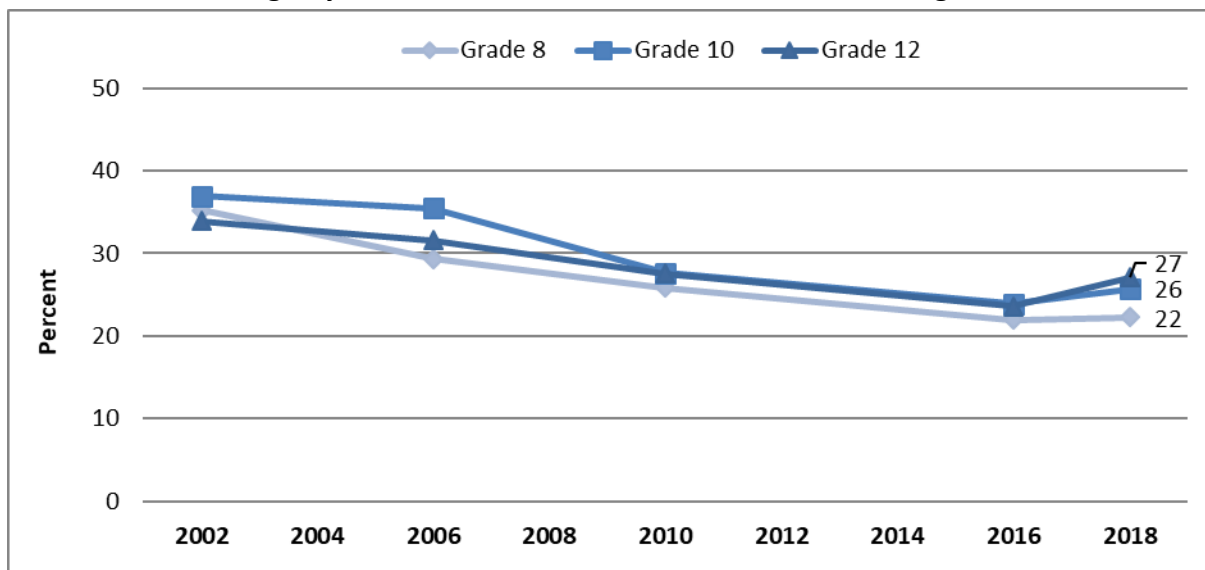
### Differences by gender:

- There were no differences in seeing adult hurt another adult more than once by gender.

### Differences over time:

- Among Grade 12 students, there was an increase seeing adult hurt another adult from 2016 to 2018.
- Among Grade 8 and 10 students, there were decreases seeing adult hurt another adult from 2002 through 2018.

**Chart 25: Witnessing Physical Abuse, Grades 8, 10, and 12, 2002 through 2018**



*Survey Question:* Not counting TV, movies, video games, and sporting events, have you seen an adult hit, slap, punch, shove, kick, or otherwise physically hurt another adult more than one time?

*Note:* Percentages represent students who reported “yes” they had seen an adult hurt another adult.

*Source:* HYS 2002, 2006, 2010, 2016, and 2018.

# Experiencing Physical Abuse

In 2018, 20 percent of Grade 8 students, 25 percent of Grade 10 students, and 27 percent of Grade 12 students reported being ever physically hurt by an adult on purpose.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have ever been physically hurt by an adult on purpose.

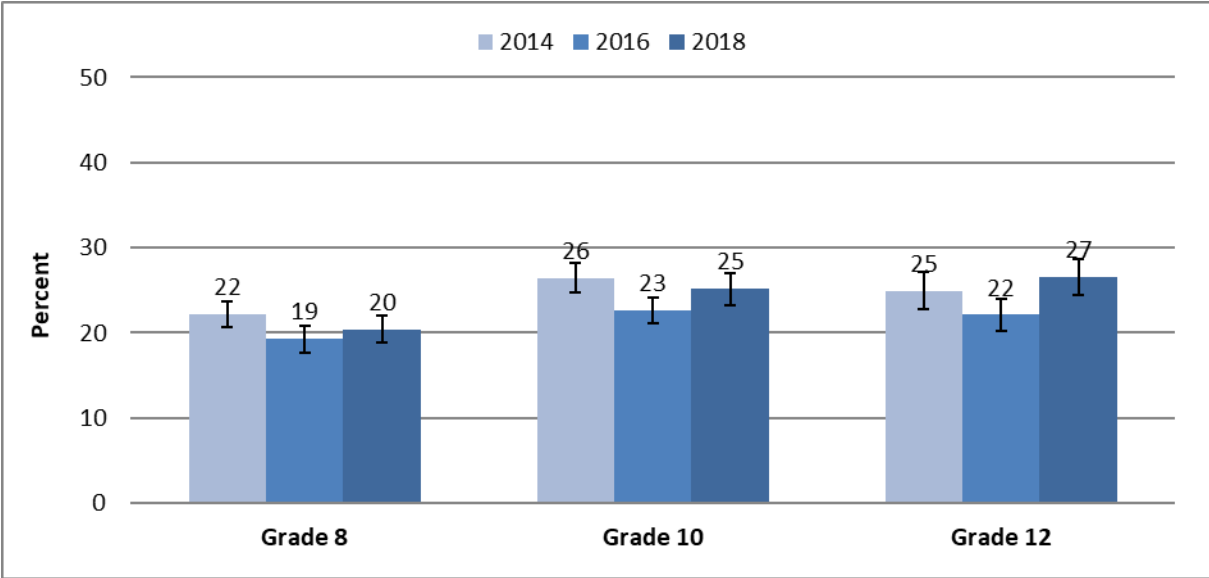
### Differences by gender:

- There were no differences in ever being physically hurt by an adult on purpose by gender.

### Differences over time:

- Among Grade 10 and 12 students, there were increases in ever being physically hurt by an adult on purpose from 2016 to 2018.

**Chart 26: Experiencing Physical Abuse, Grades 6, 8, 10, and 12 from 2014–2018**



*Survey Question:* During the past 12 months, how many times were you in a physical fight? Has an adult ever physically hurt you on purpose (like pushed, slapped, hit, kicked or punched you), leaving a mark, bruise or injury?

*Note:* Percentages represent students who reported “yes” ever been physically hurt by an adult on purpose.

*Source:* HYS 2014, 2016, and 2018.

## Emotional Abuse at Home

In 2018, 33 percent of Grade 8 students, and 39 percent of Grade 10 and Grade 12 students reported being sworn at, insulted, or humiliated by an adult at home.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have been sworn at, insulted, or humiliated by an adult at home.

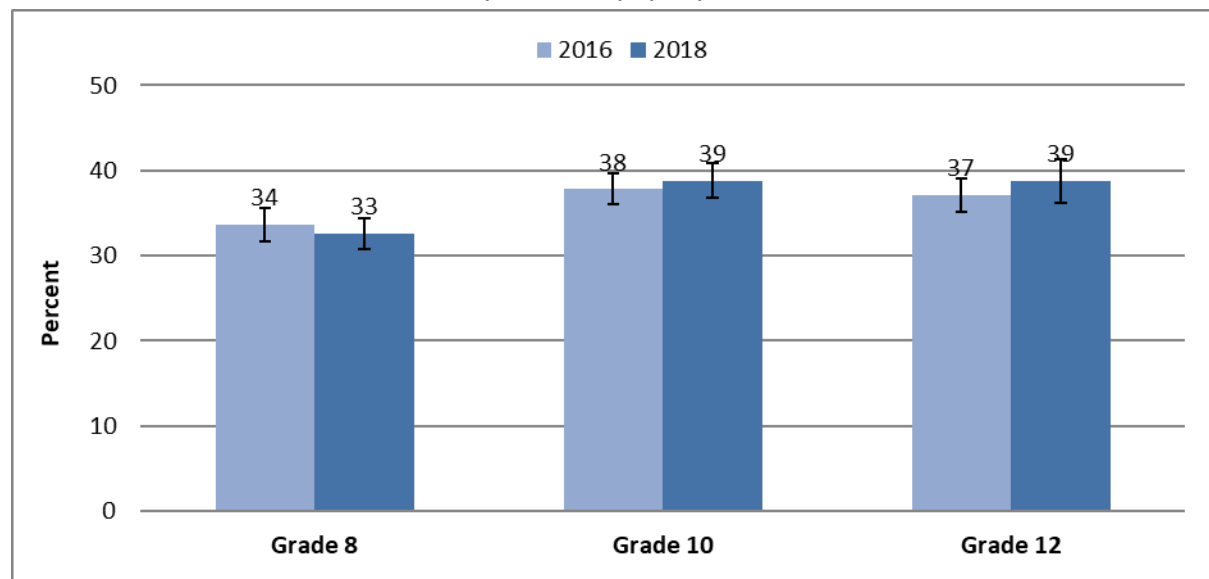
### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to have been sworn at, insulted, or humiliated by an adult at home.

### Differences over time:

- There were no changes in being sworn at, insulted, or humiliated by an adult at home 2016 to 2018.

**Chart 27: Emotional Abuse at Home, Grades 6, 8, 10, and 12 from 2016–2018**



*Survey Question:* How often does a parent or adult in your home swear at you, insult you, put you down or humiliate you?

*Note:* Percentages represent students who reported “sometimes”, “often”, or “very often” being sworn at, insulted, or humiliated by an adult at home.

*Source:* HYS 2014, 2016, and 2018.

# Emotional and Physical Dating Violence

In 2018, 14 percent of Grade 8 students, 18 percent of Grade 10 students, and 17 percent of Grade 12 students who had dated in the past year, reported the person they were dating limited their activities, threatened or made them feel unsafe in any other way in the past year. In 2018, 10 percent of Grade 8 students, and 11 percent of Grade 10 students, and 12 percent Grade 12 students who had dated in the past year, reported the person they were dating physically hurt on purpose in the past year.

*Differences by grade level:*

- Grade 10 and 12 students were more likely than Grade 8 students being limited, threatened or made to feel unsafe by the person they were dating in the past year.

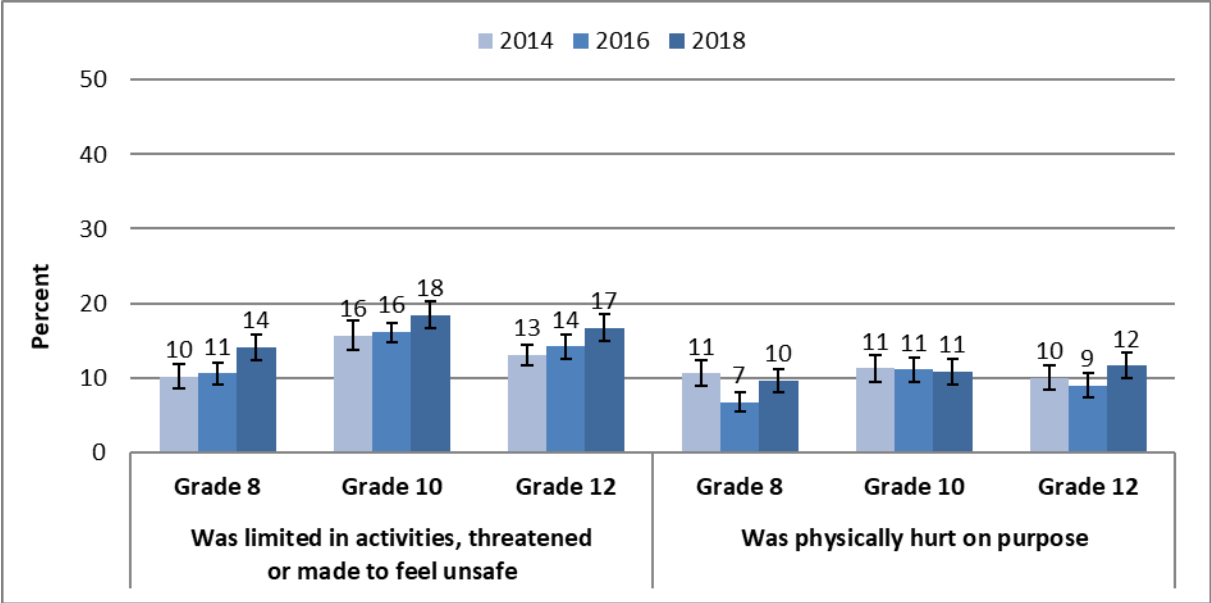
*Differences by gender:*

- Grade 8, 10, and 12 females were more likely than males to be ever limited, threatened or made to feel unsafe by the person they were dating in the past year

*Differences over time:*

- Among Grade 8, 10, and 12 students, there were increases in being limited, threatened or made to feel unsafe by the person they were dating in the past year from 2016 to 2018.
- Among Grade 8 and 12 students, there were increases in being physically hurt on purpose by the person they were dating in the past year from 2016 to 2018.

**Chart 28: Emotional and Physical Dating Violence, Grades 8, 10, and 12 in 2014, 2016, and 2018**



*Survey Question:*

- During the past 12 months, did someone you were dating or going out with ever limit your activities, threaten you, or make you feel unsafe in any other way?
- In the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)

*Note:* Percentages represent students who dated in the past 12 months and responded “yes” they were limited, threatened or made to feel unsafe or they were physically hurt on purpose.

- The sample sizes for the 2018 limited in activities, threatened made to feel unsafe results in this figure are: 214 Grade 8, 332 Grade 10, and 260 Grade 12 students.

The sample sizes for the 2018 physically hurt on purpose results in this figure are: 141 Grade 8; 185 Grade 10; and 173 Grade 12 students.

*Source: HYS 2014, 2016, and 2018.*



## 8. Sexual Behavior

About 80% of schools included in the state sample elected to administer five optional questions on sexual orientation, behavior and abuse. Engaging in sexual activities can result in unintended pregnancy and sexually transmitted diseases, including HIV.

### Lifetime Sex

In 2018, 9 percent of Grade 8 students, 26 percent of Grade 10 students, and 47 percent of Grade 12 students reported they ever had sex.

#### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, the higher grade was more likely to have ever had sex.

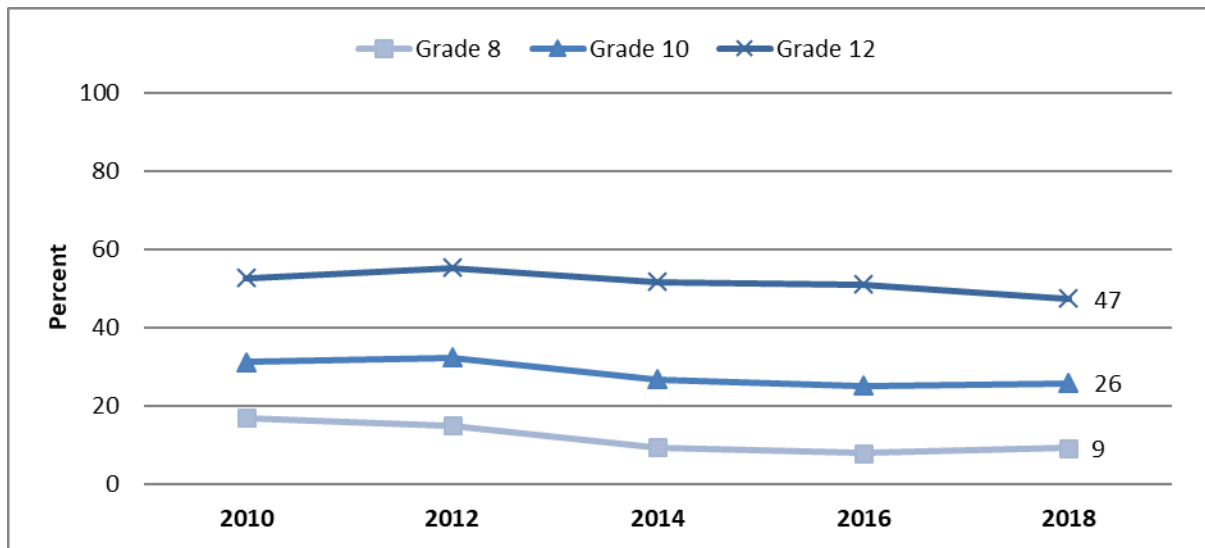
#### Differences by gender:

- Grade 8 and 10 males were more likely than females to have ever had sex.

#### Differences over time:

- There were no significant changes in having sex from 2016 to 2018.
- Among Grade 8 students, there were decreases in having sex from 2010 through 2018.

**Chart 29: Ever had Sex, Grades 8, 10, and 12 from 2010-2018**



*Survey Question:* How old were you when you had sex for the first time?

#### Notes:

- Percentages represent students who had ever had sex. In 2018, sex was defined as including oral, vaginal, and/or anal sex.
- From 2010 through 2014, schools could register to receive surveys without this question. In 2016 and 2018, all schools received this question, but they could remove it if they didn't want to ask it, so there may be a break in trend.
- The proportion of schools administering these each year has changed over time, from about 40% from 2010 through 2014, and increased to about 80% in 2016 and 2018.

*Source:* HYS 2010, 2012, 2014, 2016, and 2018.

*More information:* Information about the optional questions and their generalizability are available in Bias Analysis reports, found at: <http://www.askhys.net/Reports/Additional>.

## Sexual Behaviors among Those who have had Sex

Sexual behaviors reported among those who have ever had sex:

- 16 percent of Grade 10 students and 7 percent of Grade 12 had sex before the age of 13.
- About 18 percent of Grade 10 students and 25 percent of Grade 12 students had sex with four or more partners in their lifetime.

*Differences by grade level:*

- Grade 10 students were more likely than Grade 12 students to have had sex before age 13.
- Grade 12 students were more likely than Grade 10 students to have had four or more sex partners.

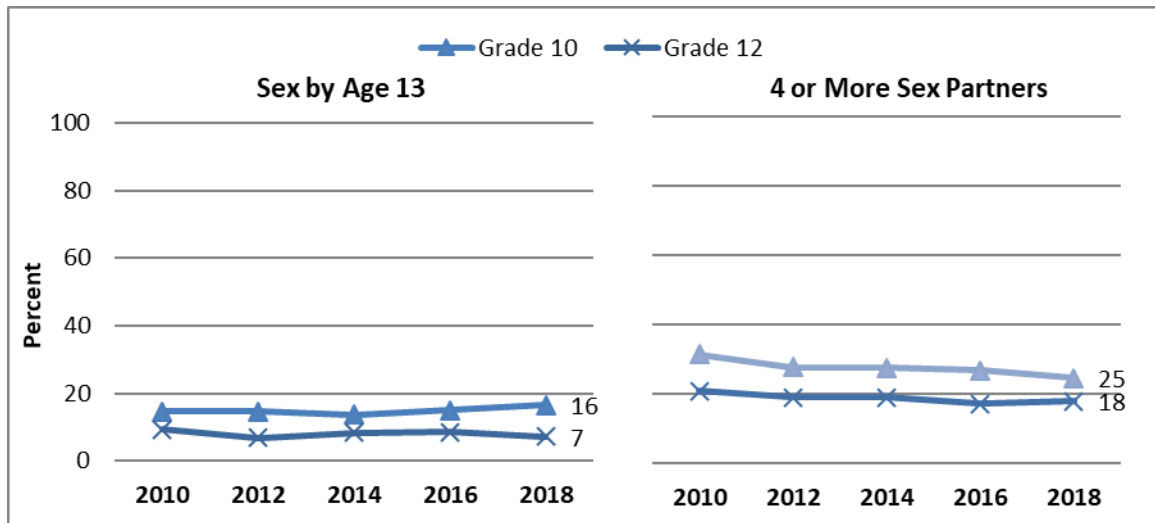
*Differences by gender:*

- Grade 10 and 12 males were more likely than females to have had sex before age 13.
- Grade 10 males were more likely than females to have had four or more sex partners.

*Differences over time:*

- There were no changes in having sex before age 13 or having four or more partners for any grade from 2010 to 2018.
- Among Grade 12 students, there was a decrease in having four or more partners from 2010 through 2018.

**Chart 30: Sexual Behaviors among those who Ever Had Sex, Grades 10 and 12, from 2010 through 2018**



*Survey Questions:*

- Have you ever had sex?
- How old were you when you had sex for the first time?
- With how many people have you ever had sex?

*Notes:*

- Percentages represent students who had ever had sex who reported having had sex before age 13, having had 4 or more sexual partners.
- From 2010 through 2014, schools could register to receive surveys without this question. In 2016 and 2018, all schools received this question, but they could remove it if they didn't want to ask it. The proportion of schools administering these each year has changed over time, from about 40% from 2010 through 2014, and increased to about 80% in 2016 and 2018.
- Students who reported that they had not had sex in their lifetime were not included in the results. The sample sizes for the 2018 results in this chart are 725 Grade 10 and 1,102 Grade 12 students.
- The results for Grade 8 are not reported.

*Source:* HYS 2010, 2012, 2014, 2016, and 2018.

## Pregnancy and STD Prevention Methods Among Those Who Had Sex

In 2018, during last sex, the following methods were used among those who had sex and their sexual partner to prevent pregnancy and sexually transmitted diseases (STD):

- Six percent of Grade 10 students and 8 percent of Grade 12 students reported that they or their partner didn't use any pregnancy or STD prevention method.
- Five percent of Grade 10 students and 13 percent of Grade 12 students reported that they or their partner used birth control pills for pregnancy prevention.
- Fourteen percent of Grade 10 students and 23 percent of Grade 12 students reported that they or their partner used condoms for pregnancy or STD prevention.
- Two percent of Grade 10 students and 7 percent of Grade 12 students reported that they or their partner an IUD or implant for pregnancy prevention.
- About 1 percent of Grade 10 and Grade 12 students reported that they or their partner had a shot for pregnancy prevention.
- About 1 percent of Grade 10 and Grade 12 students reported that they or their partner used a patch or birth control ring for pregnancy prevention.
- Three percent of Grade 10 students and 5 percent of Grade 12 students reported that they or their partner used withdrawal for pregnancy prevention.
- About 1 percent of Grade 10 and Grade 12 students were not sure if they or their partner used a pregnancy or STD prevention method.

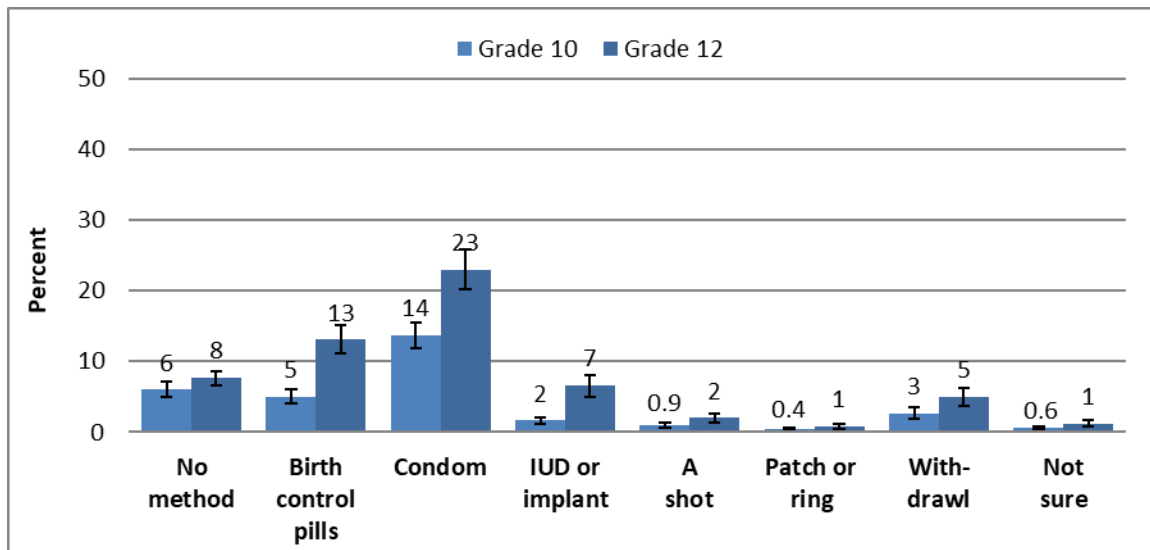
### *Differences by grade level:*

- Grade 12 students were more likely than Grade 10 students to report that they or their partner used birth control pills, condoms, an IUD or implant, a shot, and withdrawal for prevention. Grade 12 students were also more likely to report that they or their partner did not use a prevention method or were unsure if they used a prevention method.

### *Differences by gender:*

- Grade 10 males were more likely than females to report that they or their partner used birth control pills for pregnancy prevention.
- Grade 10 and 12 females were more likely than males to report that their or their partner used an IUD or implant for pregnancy prevention
- Grade 12 females were more likely than males to report that they or their partner used a shot for pregnancy prevention.

**Chart 31: Pregnancy and STD Prevention Methods among those who Had Sex, Grades 10 and 12, 2018**



*Question:* The last time you had sex, what method(s) did you or your partner use to prevent pregnancy and/or sexually transmitted infections? Select all that you used.

*Notes:*

- Percentages represent students who had ever had sex and they or their partners used a method to prevent pregnancy or sexually transmitted infections the last time they had sex.
- From 2010 through 2014, schools could register to receive surveys without this question. In 2016 and 2018, all schools received this question, but they could remove it if they didn't want to ask it. The proportion of schools administering these each year has changed over time, from about 40% from 2010 through 2014, and increased to about 80% in 2016 and 2018.
- Students who reported that they had not had sex in their lifetime were not included in the results. The sample sizes for the 2018 results in this chart are 772 Grade 10 and 1,114 Grade 12 students.
- The results for Grade 8 are not reported.

*Source:* HYS 2018

## 9. School Climate

### School Safety, Bullying, and Harassment

RCW 28A.320.185 requires all public school districts and public schools to have current safety plans and procedures in place. State legislators, the Governor, the state education agency, local schools and communities, and parents recognize that students must feel safe at school to be successful learners. Effective school safety plans that include bullying and harassment prevention programs challenge traditional cultural norms that might condone bullying as a normal part of growing up.

#### Feeling Safe at School

When students feel safe at school, they are more likely to make better grades compared to those students who do not feel safe at school (Dilley 2009). In 2018, 85 percent of Grade 6 students, 80 percent of Grade 8 students, 79 percent of Grade 10 students, and 81 percent of Grade 12 students felt safe at school.

##### Differences by grade level:

- Grade 6 students were more likely than Grade 8, 10, and 12 students to feel safe at school.

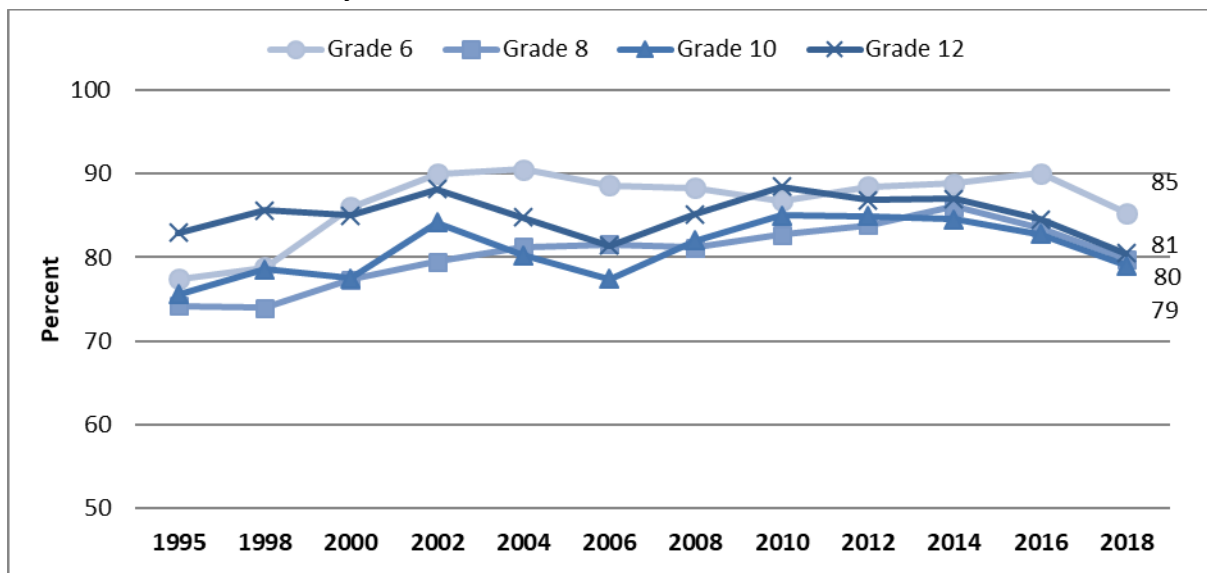
##### Differences by gender:

- Grade 6 females were more likely than males to feel safe at school.
- Grade 8 males were more likely than females to feel safe at school.

##### Differences over time:

- Among Grade 6, 8, 10, and 12 students, there were significant decreases in feeling safe at school from 2016 to 2018.
- Among Grade 8 students, there was an increase from 2002 through 2014 and a decrease from 2014 to 2018 in feeling safe at school.

Chart 32: Perceived Safety at School, Grades 6, 8, 10, and 12 from 1995–2018



*Survey Question:* I feel safe at my school.

*Notes:*

- Survey forms A and B have different response options.
- Percentages represent students who reported yes or mostly true, or, YES! or definitely true, that they felt safe at school.

*Source:* WSSAHB 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Bullied at School

In 2018 the definition of bullying was updated. Bullying is now defined as when one or more students threaten, spread rumors about, hit, shove, or otherwise hurt another student over and over again. It is not bullying when two students of about the same strength or power argue or fight or tease each other in a friendly way. The definition of bullying includes electronic forms of bullying, known as cyberbullying.

Students who are bullied at school are more likely to get lower grades compared to those who are not bullied. Creating a safe environment is critical for students' academic achievement. Research has identified best practice support programs that address school harassment and bullying and build positive school culture (Smith, Pepler, and Rigby, 2004). In 2018, 31 percent of Grade 6 students, 27 percent of Grade 8 students, 19 percent of Grade 10 students, and 17 percent of Grade 12 students reported being bullied at school in the last 30 days.

### *Differences by grade level:*

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was less likely to have been bullied.

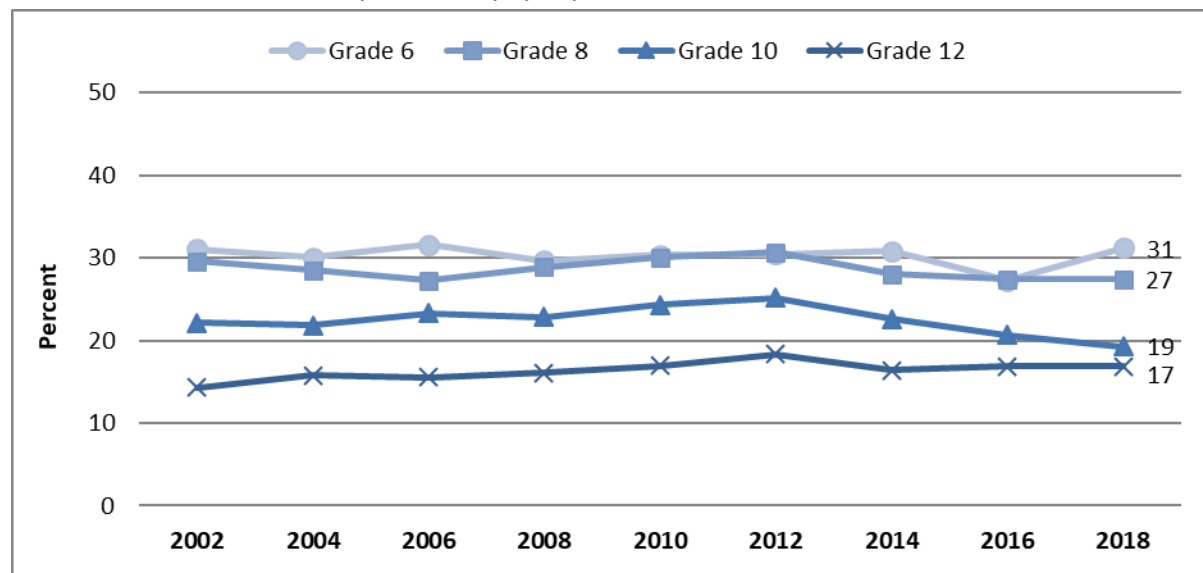
### *Differences by gender:*

- Grade 8, 10, and 12 females were more likely than males to have been bullied.

### *Differences over time:*

- Among Grade 6 students, there was an increase in bullying from 2016 to 2018.
- Among Grade 10 students, there was an increase from 2002 through 2012 and a decrease from 2012 through 2018 in bullying.
- Among Grade 12 students, there was an increase in bullying from 2002 through 2018.

**Chart 33: Bullied at School, Grades 6, 8, 10, and 12 from 2002–2018**



*Survey Questions:*

- For 2018: In the last 30 days, how often have you been bullied? Bullying is when one or more students threaten, spread rumors about, hit, shove, or otherwise hurt another student over and over again. It is not bullying when two students of about the same strength or power argue or fight or tease each other in a friendly way.
- Prior to 2018: A student is being bullied when another student, or group of students, say or do nasty or unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she doesn't like. It is NOT bullying when two students of about the same strength argue or fight. In the last 30 days, how often have you been bullied?

*Note:* Percentages represent students who reported they were bullied on any days in the last 30 days.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



## Social Media Harassment & Sexting

Many schools have modified their policy and procedures to specifically address harassment, and computer or cell phone harassment is included in bullying and harassment policies and procedures. In 2018, the definition harassment by computer or cell phone was expanded to specifically address harassment and sexting through social media.

In 2018, 16 percent of Grade 8 students, 14 percent of Grade 10 students, and 12 percent of Grade 12 students reported being harassed through social media in the past 30 days. In 2018, 21 percent of Grade 8 students, 31 percent of Grade 10 students, and 33 percent of Grade 12 students reported receiving sexually suggestive or revealing messages, images, photos or videos via text, app, or social media in the past 30 days.

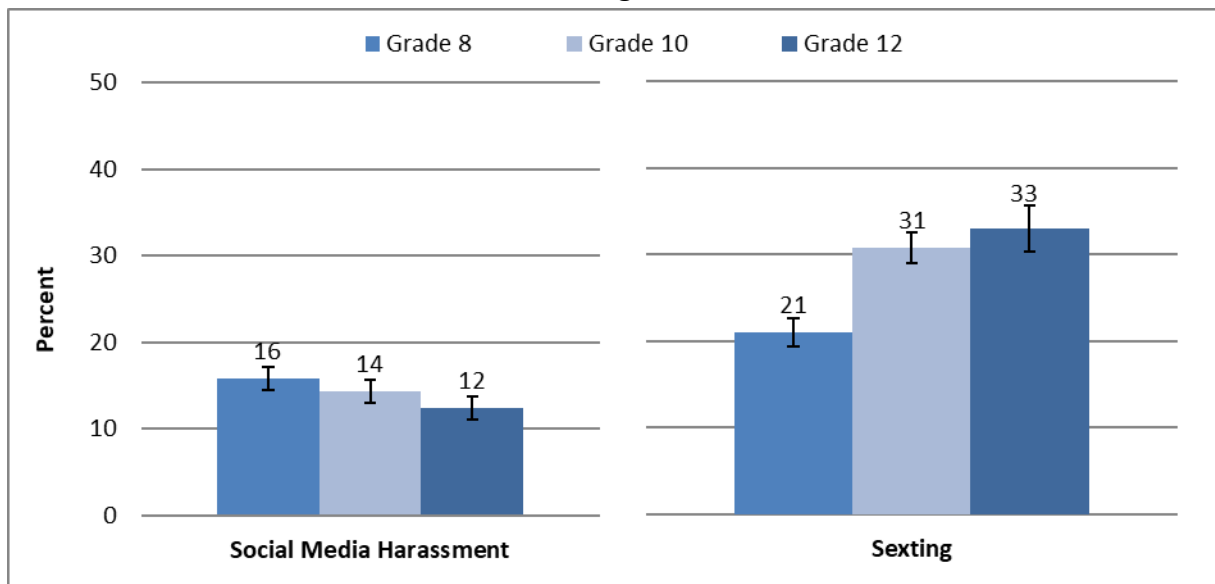
### Differences by grade level:

- Grade 8 and 10 students were more likely than Grade 12 students to be harassed through social media in the past 30 days.
- Grade 10 and 12 students were more likely than Grade 8 students to receive sexually suggestive or revealing messages, images, photos or videos via text, app, or social media in the past 30 days.

### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to be harassed through social media in the past 30 days.
- Grade 8 females were more likely than males to receive sexually suggestive or revealing messages, images, photos or videos via text, app, or social media in the past 30 days.

**Chart 34: Social Media Harassment and Sexting, Grades 8, 10, and 12, from 2018**



### Survey Questions:

- Harassed through social media: In the past 30 days, how often have you been bullied by someone using social media, a phone, or video games?
- Sexting: During the past 30 days, have you received sexually suggestive or revealing messages, images, photos or videos via text, app, or social media?

Notes: Percentages represent students who were harassed with a computer or cell phone on any days in the past 30 days and students who received sexually suggestive messages, images, photos or video in the past 30 days.

Source: HYS 2018.

## Harassment Due to Perceived Sexual Orientation

In 2018, 12 percent of Grade 8 students, 9 percent of Grade 10 students, and 7 percent of Grade 12 students reported being harassed in the past 30 days because someone thought they were gay, lesbian, or bisexual.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was less likely to be harassed due to perceived sexual orientation.

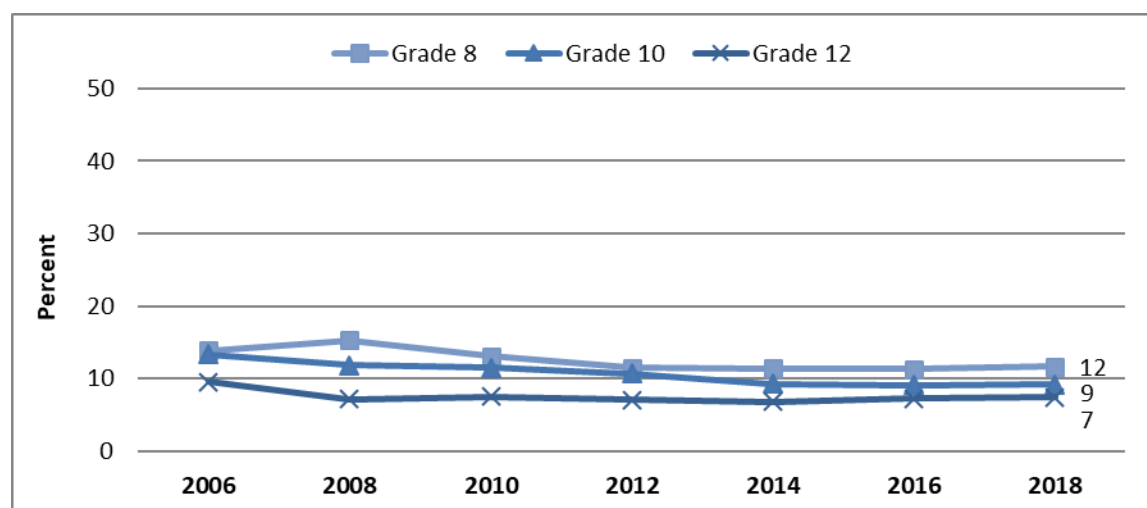
### Differences by gender:

- There were no differences in being harassed due to perceived sexual orientation by gender for any grade.

### Differences over time:

- There were no significant changes in being harassed due to perceived sexual orientation from 2016 to 2018.
- Among Grade 8 and 10 students, there were decreases in being harassed due to perceived sexual orientation from 2006 through 2018.

**Chart 35: Harassment due to Perceived Sexual Orientation, Grades 8, 10, and 12, from 2006 to 2018**



*Survey Question:* In the past 30 days, how often were you bullied, harassed, or intimidated at school or on your way to or from school because someone thought you were gay, lesbian or bisexual (whether you are or are not)?

*Notes:* Percentages represent students who reported being harassed due to their perceived sexual orientation on any days in the past 30 days.

*Source:* HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Weapon Carrying at School

School safety requires the commitment of staff members, students, parents, and the community. Creating a safe and supportive learning environment is critical for student academic success (Dilley, 2009). In 2018, 2 percent of Grade 6 students, 3 percent of Grade 8 students, 5 percent of Grade 10 students, and 7 percent of Grade 12 students reported weapon carrying at school in the past 30 days.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to carry a weapon at school in the past 30 days.

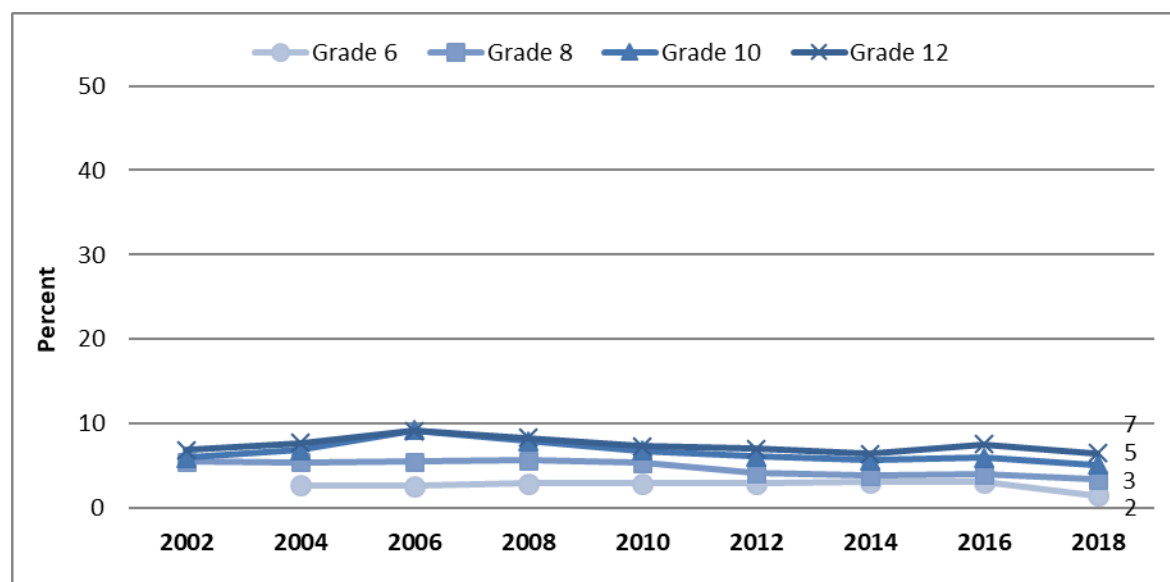
### Differences by gender:

- Grade 6, 8, 10, and 12 males were more likely than females to carry a weapon at school in the past 30 days.

### Differences over time:

- Among Grade 6 students, there was a decrease in weapon carrying at school from 2016 to 2018.
- Among Grade 6 students, there was an increase from 2004 through 2014 and a decrease from 2014 through 2018 in weapon carrying at school.
- Among Grade 8 students, there was a decrease in weapon carrying at school from 2002 to 2018.
- Among Grade 10 students, there was a decrease in weapon carrying at school from 2006 to 2018.

**Chart 36: Weapon Carrying at School in the Past 30 Days, Grades 6, 8, 10, and 12 from 2002–2018**



*Survey Question:* During the past 30 days, did you carry a weapon such as a gun, knife, or club on school property?

### Notes:

- Percentages represent students who reported any weapon carrying at school in the past 30 days.
- Grade 6 students were asked if they carried a weapon at school, “yes” or “no.”
- Grade 8, 10, and 12 students were asked the number of times they carried a weapon.
- In 2006, the response options were reduced from 5 different numbers of times options to 3 different numbers of times.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Substance Use at School

The use of substances at school significantly affects student learning and compromises the school environment. Substance use and abuse are closely correlated with violent behavior (Office of National Drug Control Policy, 2007). Prevention, early intervention, treatment, and other related efforts that reduce the number of students engaging in these behaviors and coming to school drunk or high enhances school safety and increases student potential for academic success.

### Alcohol or Other Drug Use on School Property

The National Center for Education Statistics (2013) tracks alcohol and marijuana use as Indicators of School Crime and Safety relying on data collected from the Youth Risk Behavior Surveillance System (YRBS). In 2018, 6 percent of students surveyed in grades 9–12 reported using marijuana on school property while 3 percent reported using alcohol on school property during the past 30 days.

In 2018, 8 percent of Grade 8 students, 16 percent of Grade 10 students, and 18 percent of Grade 12 students reported being drunk or high at school in the past year.

*Differences by grade level:*

- Grade 10 and 12 students were more likely than Grade 8 students to be drunk or high at school in the past year.

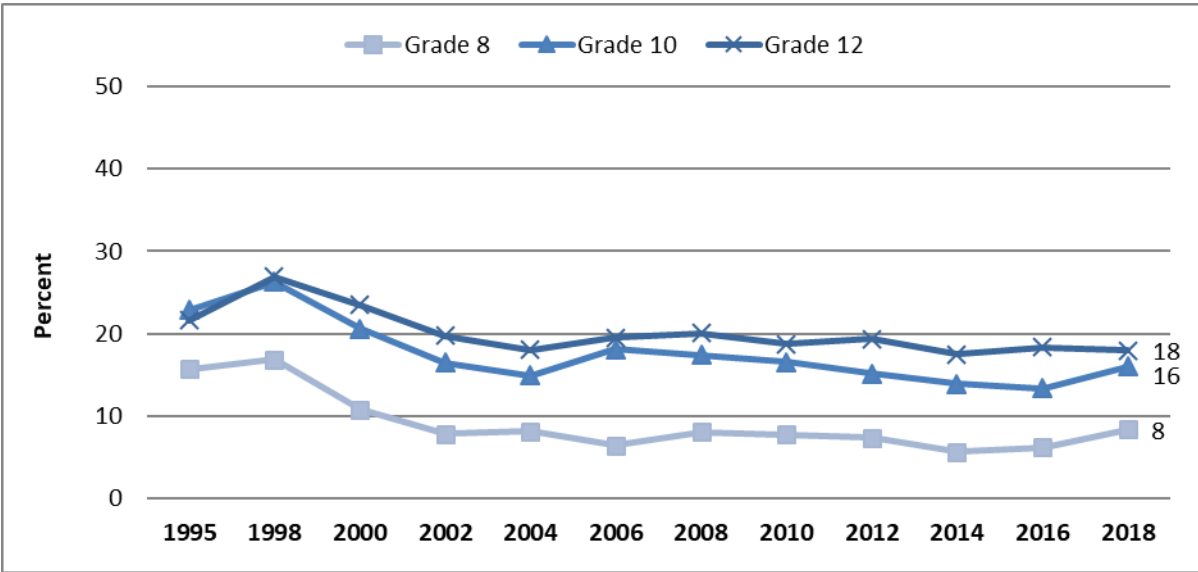
*Differences by gender:*

- There were no differences in being drunk or high at school in the past year by gender for any grade.

*Differences over time:*

- Among Grade 8 and 10 students, there were increases in being drunk or high at school from 2016 to 2018.
- There were no trends in being drunk or high at school for any grade from 2002 through 2018.

**Chart 37: Drunk or High at School in the Past Year, Grades 8, 10, and 12 from 1995–2018**



Survey Question: How many times in the past year (12 months) have you been drunk or high at school?

Note: Percentages represent students who reported being drunk or high on school property on any days in the past year.

Source: WSSAHB 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Tobacco, E-cigarette/Vape, Marijuana, and Alcohol Use on School Property

In 2018, 1 percent of Grade 8 students, 3 percent of Grade 10 students, and 2 percent of Grade 12 students reported using tobacco at school in the past 30 days. Four percent of Grade 8 students, 10 percent of Grade 10 students, and 12 percent of Grade 12 students reported using e-cigarettes at school. Two percent of Grade 8 students, 4 percent of Grade 10 students, and 5 percent of Grade 12 students reported using marijuana at school. Two percent of Grade 8 students, 3 percent of Grade 10 students, and two percent of Grade 12 students reported using alcohol at school.

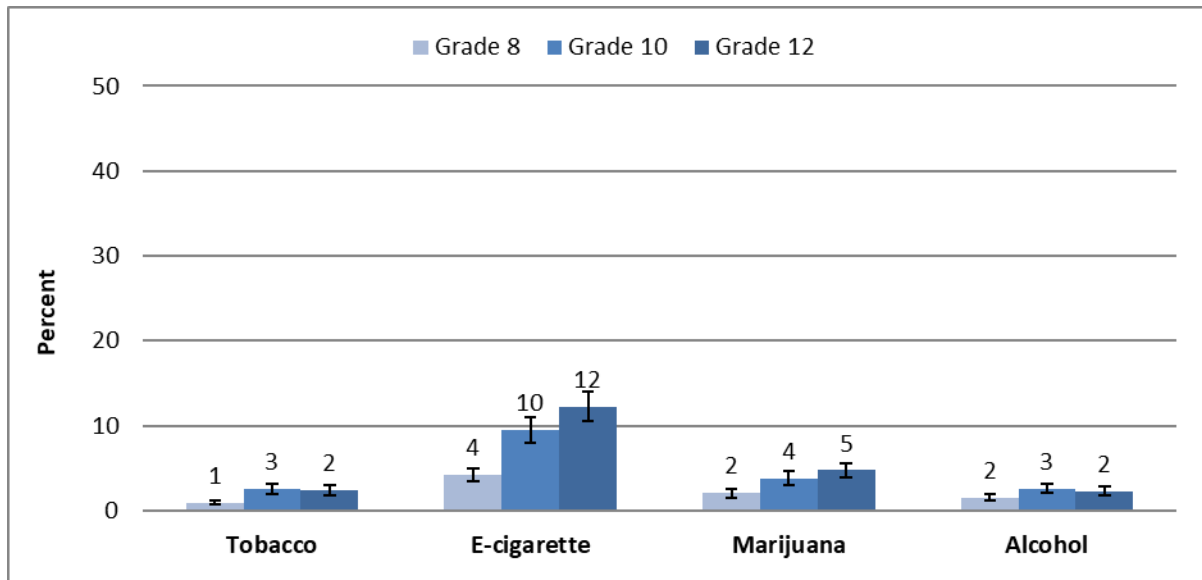
### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to use tobacco at school.
- Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to vape at school.
- Grade 10 and 12 students were more likely than Grade 8 students to use marijuana at school.
- Grade 10 and 12 students were more likely than Grade 8 students to drink alcohol at school.

### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to use tobacco at school in the past 30 days.
- Grade 10 and 12 males were more likely than females to vape at school in the past 30 days.
- Grade 12 males were more likely than females to use marijuana at school in the past 30 days.

**Chart 38: Tobacco, E-cigarette, Marijuana, and Alcohol Use on School Property in the Past 30 Days, Grades 8, 10, and 12 in 2018**



*Survey Question:* During the past 30 days, which of the following did you use on school property? Select all that apply.

- I didn't use any of these on school property
- Tobacco (cigarettes, cigars, or chew/dip)
- Electronic cigarette, also called e-cigs, or vape pens
- Marijuana
- Alcohol (at least one drink)

*Note:* Percentages represent students who reported using on school property on any days in the past 30 days.

Questions about using tobacco, e-cigs/vapes, alcohol and marijuana on school property have been asked on previous surveys. In 2018, a select all that apply question about all four substances was used. Results may not be comparable to previous years.

*Source:* HYS 2018

## Availability of School Staff to Discuss Substance-Related Problems

Students who have opportunities for interaction with school staff, especially in times of crisis, are more likely to be connected to school and academically successful (Catalano, Haggerty, Oesterle, Fleming, and Hawkins, 2004). In 2018, 57 percent of Grade 8 students, 50 percent of Grade 10 students, and 45 percent of Grade 12 students reported having someone at school with whom to discuss substance-related problems.

### Differences by grade level:

- Grade 8 students were more likely than Grade 10 and 12 students to have someone at school with whom to discuss substance-related problems.

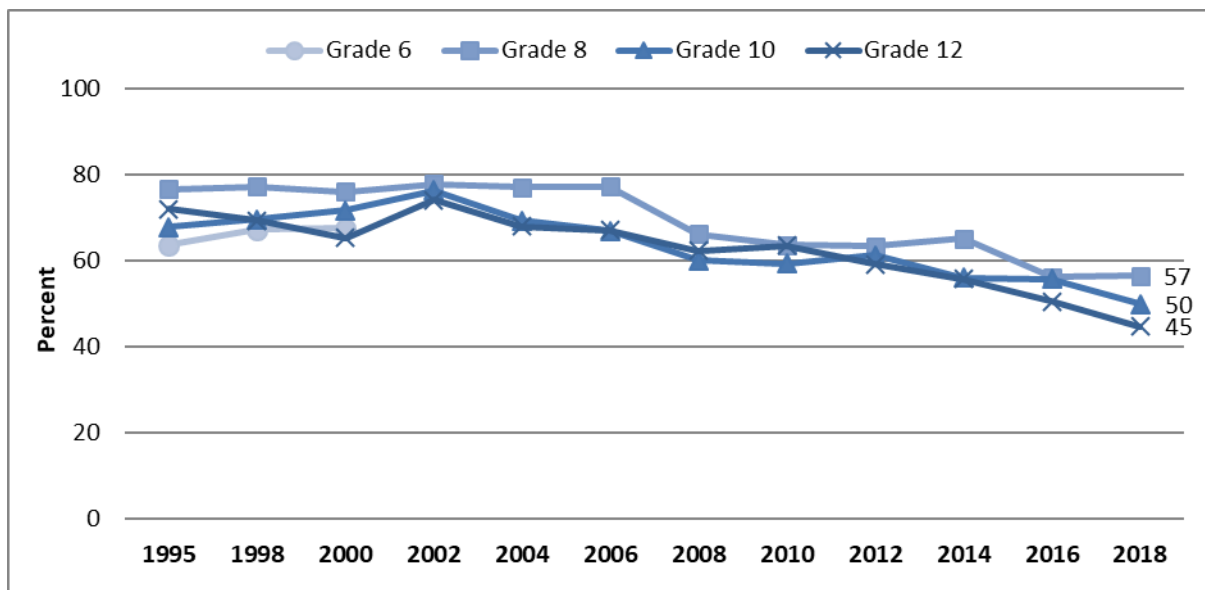
### Differences by gender:

- Grade 10 males were more likely than females to have someone at school to discuss substance-related problems.

### Differences over time:

- There were no changes in having someone at school with whom to discuss substance-related problems for any grade from 2016 to 2018.
- Among Grade 8, 10, and 12 students, there were decreases in having someone at school with whom to discuss substance-related problems from 2002 through 2018.

**Chart 39: Availability of School Staff to Discuss Substance-Related Problems, Grades 6, 8, 10, and 12 from 1995–2018**



*Survey Question:* Does your school provide a counselor, intervention specialist, or other school staff member for students to discuss problems with alcohol, tobacco, or other drugs?

*Note:* Percentages represent students who were aware of having someone at school with whom they could discuss substance-related problems. Those who answered “I’m not sure” were considered not aware.

*Source:* WSSAHB 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

# School Attendance

A significant portion of young people’s lives is spent attending school. When youth enjoy school and attend regularly, they are more likely to achieve academically and are at much less risk of engaging in a variety of at-risk behaviors.

## Skipping or Cutting School

In 2018, 19 percent of Grade 6 students, 14 percent of Grade 8 students, 16 percent of Grade 10 students, and 27 percent of Grade 12 students reported skipping or cutting at least one day of school in the past 30 days.

*Differences by grade level:*

- Grade 6 students were more likely than Grade 8 and 10 students to skip or cut a whole day of school in the past 30 days.
- Grade 12 students were more likely than Grade 6, 8, and 10 students to skip or cut a whole day of school in the past 30 days.

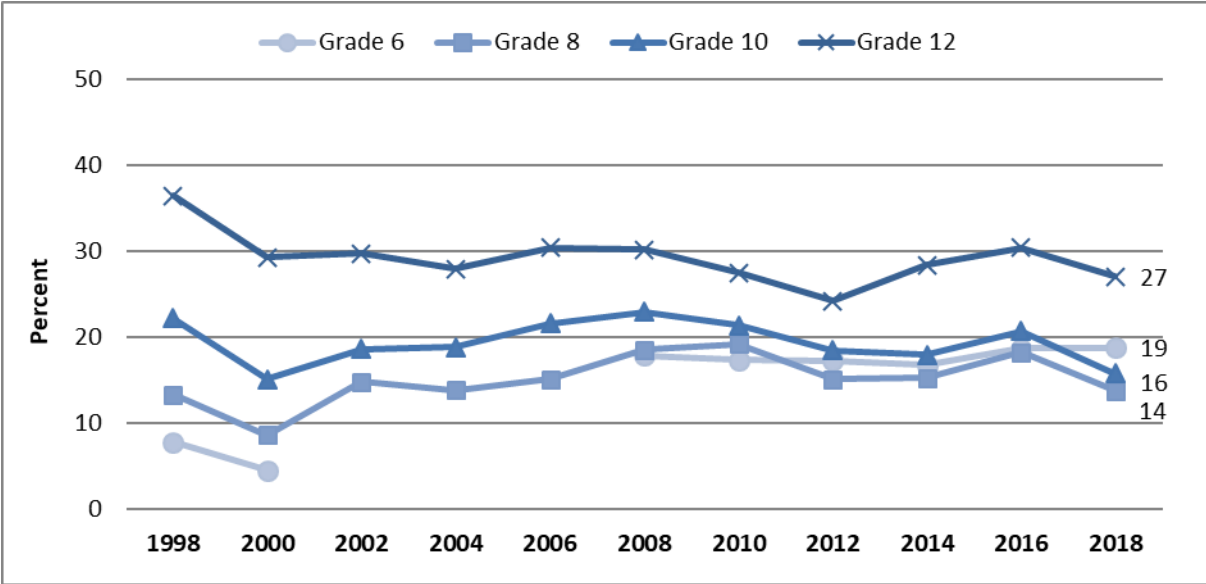
*Differences by gender:*

- Grade 6 males were more likely than females to skip or cut a whole day of school in the past 30 days.

*Differences over time:*

- Among Grade 8 and 10 students, there were decreases in skipping school from 2016 to 2018.
- There were no trends in skipping school for any grade from 2002 through 2018.

**Chart 40: Skipping School in the Past 30 Days, Grades 6, 8, 10, and 12 from 1998–2018**



*Survey Question:* During the LAST 4 WEEKS, how many whole days of school have you missed because you skipped or “cut”?

*Notes:*

- Percentages represent students who reported that they skipped or cut any days of school in the past 4 weeks.
- This question was not asked of Grade 6 students in 2002, 2004, and 2006, but was added back on the survey in 2008.

*Source:* WSSAHB 1998 and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



## Enjoying School

Students who report a positive attitude toward school are more likely to be academically successful (Catalano, Haggerty, Oesterle, Fleming, and Hawkins, 2004). In 2018, 25 percent of Grade 6 students, 13 percent of Grade 8 students, and 8 percent of Grade 10 and 12 students reported almost always enjoying school over the past year.

Differences by grade level:

- Grade 6 students are more likely than Grade 8, 10, and 12 students to report they almost always enjoy school.
- Grade 8 students are more likely than Grade 10 and 12 students to report they almost always enjoy school.

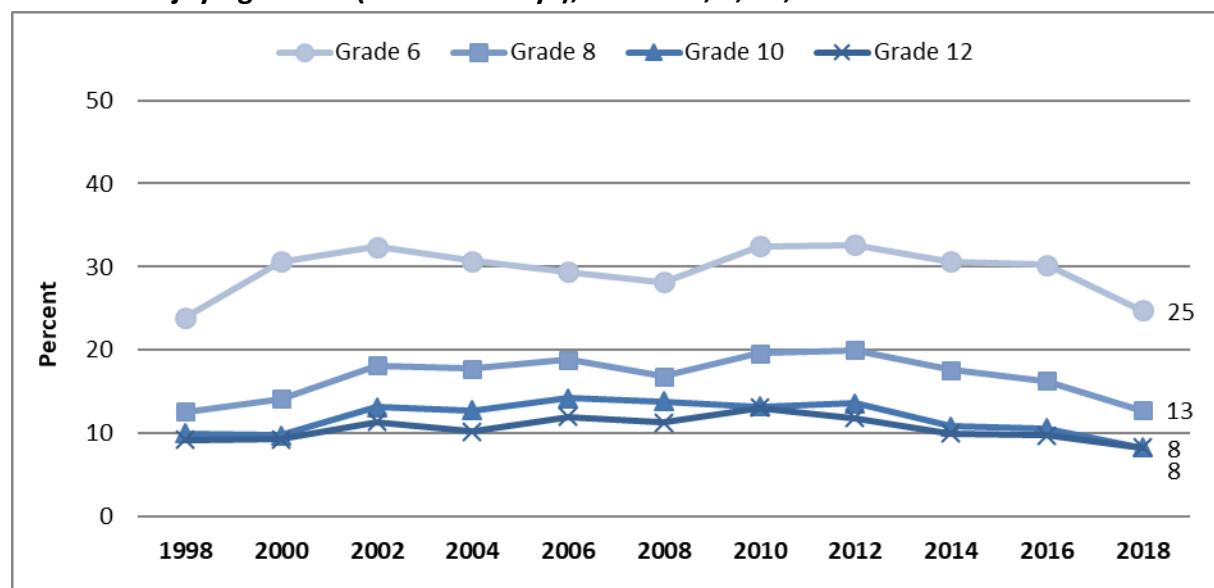
Differences by gender:

- Grade 6 and 8 females were more likely than males to report they almost always enjoy school.

Differences over time:

- Among Grade 6, 8, and 10 students, there were decreases in reporting almost always enjoying school from 2016 to 2018.
- Among Grade 10 students, there was a decrease in reporting almost always enjoying school from 2002 through 2018.
- Among Grade 12 students, there was a decrease in reporting almost always enjoying school from 2010 through 2018.

**Chart 41: Enjoying School (Almost Always), Grades 6, 8, 10, and 12 from 1998–2018**



*Survey Question:* Think back over the past year in school. How often did you enjoy being in school?

*Note:* Percentages represent students who reported that they almost always enjoyed being in school over the past year.

*Source:* WSSAHB 1998 and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## 10. Unintentional Injury Behaviors

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### *Motor Vehicle Safety*

#### **Riding with a Drinking Driver**

Impaired driving is a strong risk factor for a fatal crash. At all levels of blood alcohol concentration (BAC), the risk of involvement in a motor vehicle crash is greater for teens than for older drivers. Among drivers between 15 and 20 years of age who were involved in fatal crashes in 2012, 23% had been drinking (National Highway Traffic Safety Administration, 2012). The Healthy People 2020 objective is to reduce the percentage of adolescents in grades 9 through 12 who report riding with a driver who has been drinking alcohol from 28.3 to 25.5 percent.

In 2018, 6 percent of Grade 6 students, 18 percent of Grade 8 students, 17 percent of Grade 10 students, and 16 percent of Grade 12 students reported riding in a car in the last 30 days which was driven by someone who had been drinking alcohol.

#### *Differences by grade level:*

- Grade 6 students were less likely than Grade 8, 10, and 12 students to ride in a vehicle driven by someone who had been drinking alcohol.

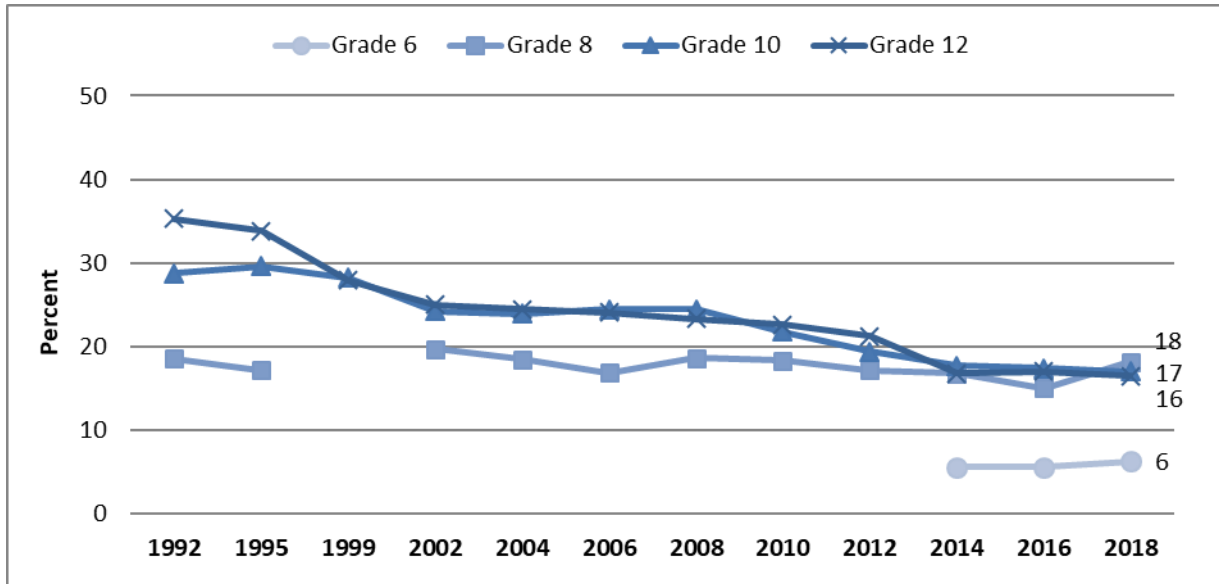
#### *Differences by gender:*

- Grade 8 and 10 females were more likely than males to ride in a vehicle driven by someone who had been drinking alcohol.

#### *Differences over time:*

- Among Grade 8 students, there was an increase in riding in a vehicle driven by someone who had been drinking alcohol from 2016 to 2018.
- Among Grade 10, and 12 students, there were decreases in riding in a vehicle driven by someone who had been drinking alcohol from 2002 through 2018.

**Chart 42: Riding in a Vehicle Driven by Someone Who had been Drinking Alcohol, Grades 6, 8, 10, and 12 from 1992–2018**



*Survey Questions:*

- Secondary: 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?
- Primary: In the last 30 days, have you ridden in a car driven by someone who had been drinking alcohol?

*Note:* Percentages represent students who reported that they rode in a vehicle in the last 30 days whose driver had been drinking alcohol.

*Source:* WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Drinking and Driving

In 2018, 5 percent of Grade 10 students and 7 percent of Grade 12 students reported drinking alcohol and driving in the past 30 days. Among those who drank alcohol on any days in the past 30 days, 20 percent of Grade 10 students and 17 percent of Grade 12 students report driving after drinking alcohol.

### Differences by grade level:

- Grade 12 students were more likely than Grade 10 students to report driving a vehicle after drinking alcohol.

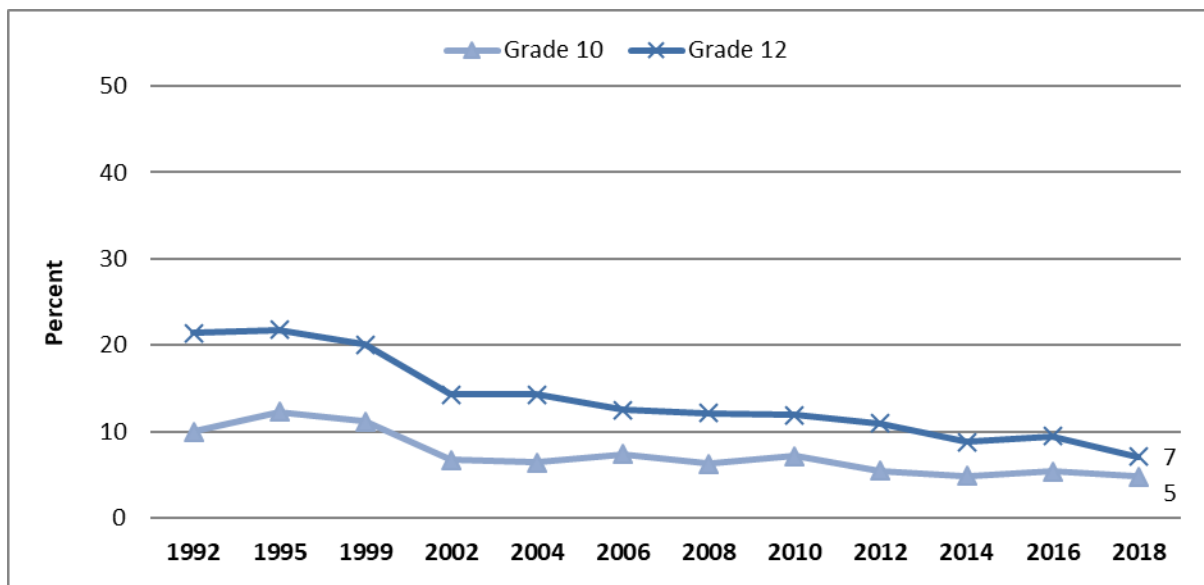
### Differences by gender:

- Grade 10 and 12 males were more likely than females to report driving a vehicle after drinking alcohol.

### Differences over time:

- Among Grade 12 students, there was a decrease in driving a vehicle after drinking alcohol from 2016 to 2018.
- Among Grade 10 and 12 students, there were decreases in driving a vehicle after drinking alcohol from 2002 through 2018.

**Chart 43: Driving a Vehicle after Drinking Alcohol, Grades 10 and 12 from 1992-2018**



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

### Notes:

- Percentages represent students who reported driving and drinking alcohol any number of times in the past 30 days.
- The results for Grade 8 students are not reported due to the fact that most are not old enough to drive.

*Source:* WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Riding with a Marijuana User

Research indicates impairment in driving after recent smoking of marijuana or with blood THC serum concentrations 2-5 ng/mL, particularly for infrequent users of cannabis (Skopp, 2003; Hartman, 2013; Hammond, 2014). In addition, there is a higher risk of auto accidents for drivers under the influence of both alcohol and marijuana than under the influence of one substance alone (Dubois, 2015).

In 2018, 11 percent of Grade 8 students, 18 percent of Grade 10 students, and 24 percent of Grade 12 students reported riding in a vehicle in the past 30 days with someone who had been using marijuana.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to ride with a driver who used marijuana.

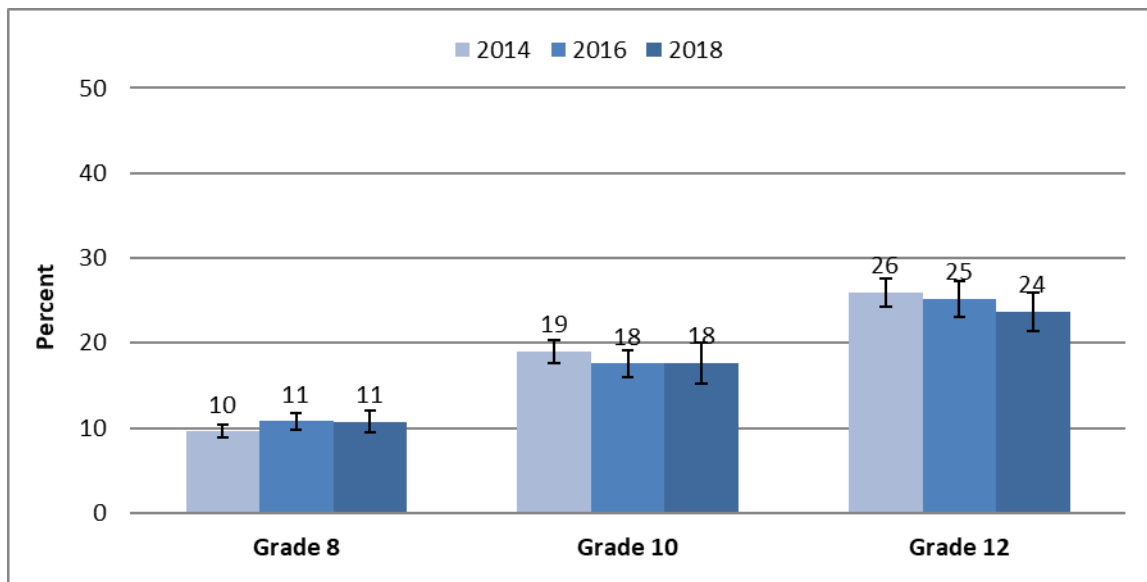
### Differences by gender:

- Grade 8 females were more likely than males to ride with a driver who used marijuana.

### Differences over time:

- There were no changes in riding with a driver who used marijuana for any grade from 2016 to 2018.

**Chart 44: Riding in a Vehicle Driving by Someone Who had been Using Marijuana, Grades 8, 10, and 12, from 2014, 2016, and 2018**



### Survey Questions:

- 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?

### Notes:

- Percentages represent students who reported having ridden in a vehicle in the past 30 days which was driven by someone who had been using marijuana.

Source: HYS 2018.

## Marijuana Use and Driving

In 2018, 9 percent of Grade 10 students and 16 percent of Grade 12 students reported driving within three hours after using marijuana.

### *Differences by grade level:*

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to ride with a driver who used marijuana.
- Grade 12 students were more likely than Grade 10 students to drive within three hours after using marijuana.

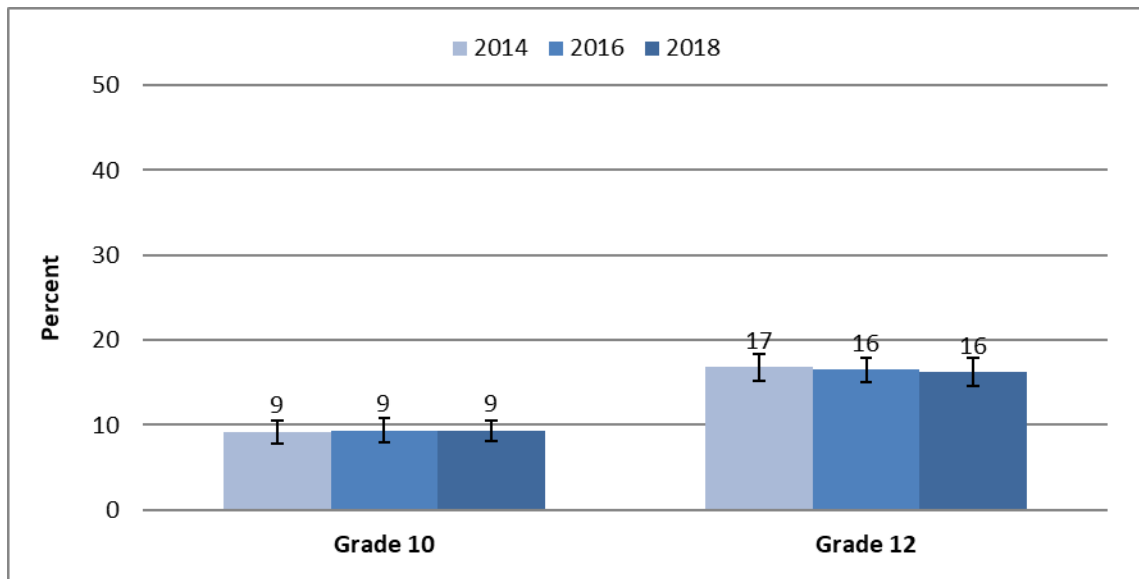
### *Differences by gender:*

- Grade 12 males were more likely than females to report driving within three hours after using marijuana.

### *Differences over time:*

- there were no changes in driving after using marijuana for any grade from 2016 to 2018.

**Chart 45: Driving a Vehicle within 3 Hours of Using Marijuana, Grades 10 and 12 from 2014, 2016, and 2018**



### *Survey Questions:*

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

### *Notes:*

- Percentages represent students who reported having driven within three hours of using marijuana in the past 30 days.
- The results for Grade 8 students are not reported due to the fact that most are not old enough to drive (NR, not reported).

Source: HYS 2018.

## Texting or Emailing – Riding and Driving

In 2018, 28 percent of Grade 6 students reported riding in a vehicle with someone who was texting or emailing while driving in the past 30 days.

In 2018, among those who reported driving, 21 percent of Grade 10 students and 58 percent of Grade 12 students report driving while texting or emailing in the past 30 days.

### Differences by grade level:

- Grade 12 students were more likely than Grade 10 students to drive while texting or emailing.

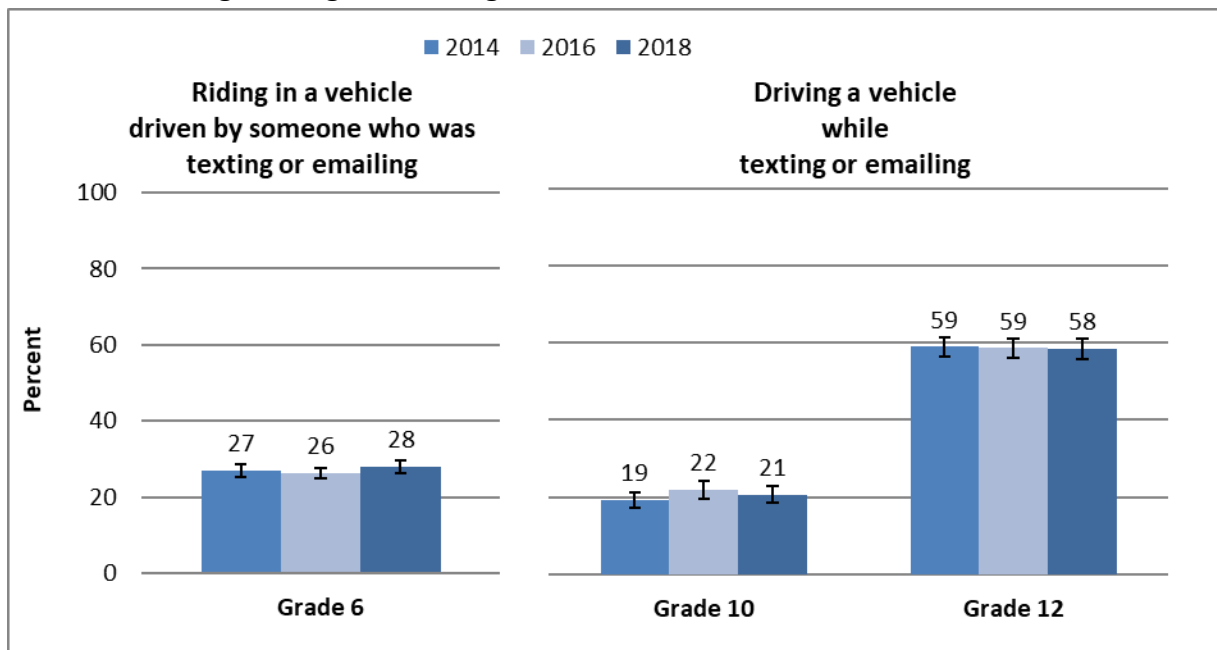
### Differences by gender:

- There were no differences in riding with someone who was texting or emailing while driving by gender for any grade.
- Grade 10 and 12 males were more likely than females to drive while texting or emailing.

### Differences over time:

- There were no changes in riding with someone who was texting or emailing for any grade from 2016 to 2018.
- There were no changes in driving while texting or emailing for any grade from 2016 to 2018.

**Chart 46: Texting - Riding and Driving, Grades 6, 10, and 12 in 2014, 2016 and 2018**



### Survey Questions:

- During the past 30 days, did you ride in a car or other vehicle driven by someone who was texting or emailing?
- During the past 30 days, how many days did you text or email while driving a car or other vehicle?

### Notes:

- Percentages represent students who reported riding with a texting or emailing driver in the past 30 days.
- Percentages represent students who reported driving while texting or emailing in the past 30 days.
- The results for Grade 8 students are not reported due to the fact that most are not old enough to drive.

Source: HYS 2014, 2016, and 2018.

# Swimming Safety

## Taken Formal Swim Lessons

A study shows that swimming lessons reduce drowning risk (Brenner, 2009).

In 2018, 51 percent of Grade 6 students, 59 percent of Grade 8 students, 58 percent of Grade 10 students, and 55 percent of Grade 12 students had taken formal swimming lessons.

### Differences by grade level:

- Grade 8 students were more likely than Grade 12 students to report taking formal swim lessons.

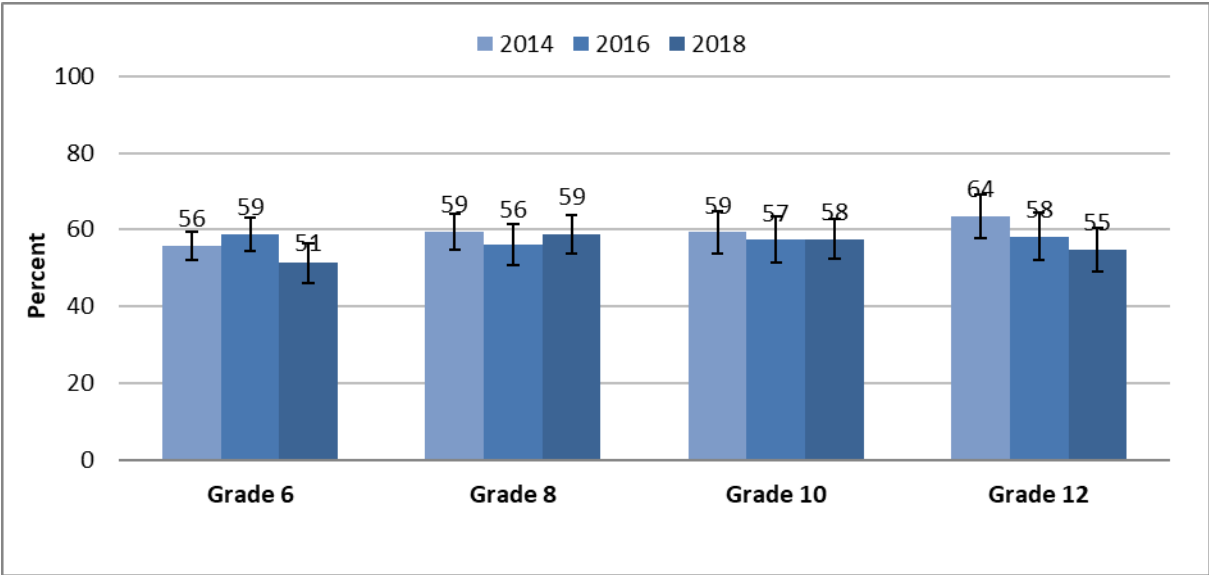
### Differences by gender:

- Grade 8 females were more likely than males to have taken formal swim lessons.
- Grade 10 and 12 males were more likely than females to have taken formal swim lessons.

### Differences over time:

- There were no changes in having taken formal swim lessons for any grade from 2016 to 2018.

**Chart 47: Taken Formal Swim Lessons, Grades 6, 8, 10, and 12 in 2012, 2016, and 2018**



Survey Question: Have you ever taken formal swimming lessons?

Note: Percentages represent students who reported “yes” they had formal swim lessons.

Source: HYS 2014, 2016, and 2018.



## Good Swimmer

In 2018, 54 percent of Grade 6 students, 57 percent of Grade 8 students and 52 percent of Grade 10 and 12 students felt they were good swimmers.

### Differences by grade level:

- Grade 8 students were more likely than Grade 12 students to feel like a good swimmer.

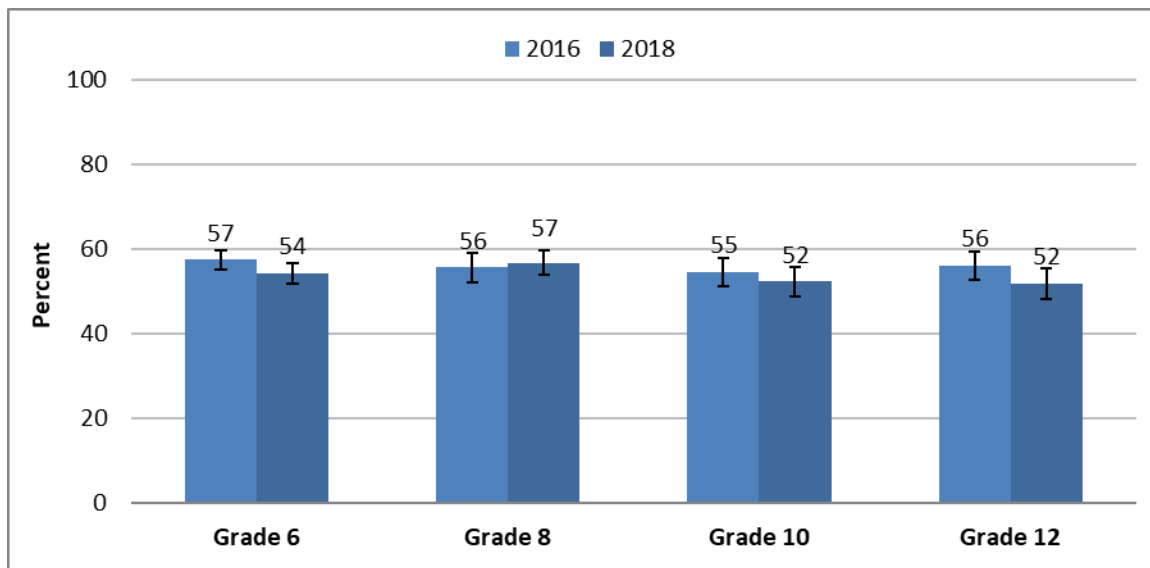
### Differences by gender:

- Grade 6 females were more likely than males to report feeling like a good swimmer.

### Differences over time:

- Among Grade 6 students, there was a significant decrease in feeling like good swimmers from 2016 to 2018.

**Chart 48: Good Swimmer, Grades 6, 8, 10, and 12 in 2016 and 2018**



Survey Question: How good a swimmer do you think you are? (Good, So-So, Not good, Can't swim)

Note: Percentages represent students who reported that they are "good" swimmers.

Source: HYS 2014, 2016, and 2018.

# Bicycle Safety

Wearing a helmet while riding a bicycle reduces the risk for head injuries. One study performed an analysis of the 2012 National Trauma Data Bank and found that helmeted bicycle riders had 51% reduced odds of severe TBI and reduced the odds of facial fractures by 31% (Joseph, et al., 2016). Washington adolescents have a low prevalence of wearing a bicycle helmet. In 2018, 53 percent of the Grade 6 students who rode a bicycle in the past year wore a helmet always or most of the time.

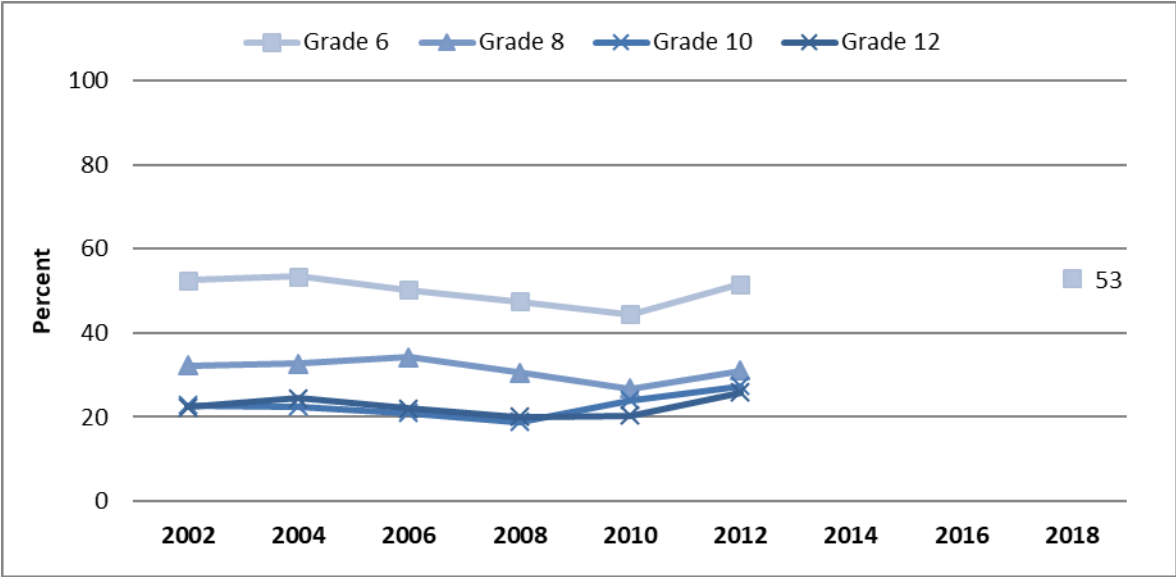
*Differences by gender:*

- Grade 6 females were more likely than males to report wearing a helmet always or most of the time when bicycling.

*Differences over time:*

- There were no trends among Grade 6 students wearing helmets always or most of the time when bicycling from 2002 through to 2018.

**Chart 49: Helmet Wearing When Riding a Bicycle (Most of the Time or Always), Grades 6, 8, 10, and 12 from 2002–2018**



*Survey Questions:*

- For Grade 6 - When you ride a bicycle, how often do you wear a helmet?
- For Grade 8, 10, and 12 – When you rode a bicycle in the past 12 months, how often did you wear a helmet?

*Notes:*

- Percentages represent students who reported that they rode a bicycle in the past 12 months and wore a helmet most of the time or always.
- Students who reported that they “did not ride a bicycle” were not included in the results. The sample sizes for the 2018 results in this figure are 8,211.

Source: WSSAHB 1992 and 1995, YRBS 1999, HYS 2002, 2004, 2006, 2008, 2010, 2012, and 2018. Question was not asked in 2014 or 2016. It was only asked of Grade 6 in 2018.

## 11. Intentional Injury Behaviors

### Physical Fighting

Physical fighting, a common form of interpersonal violence among teens, is a public health concern both because of the potential for fight-related injuries and its association with participation in many other health risk behaviors.

In 2018, 27 percent of Grade 6 students, 26 percent of Grade 8 students, 19 percent of Grade 10 students, and 16 percent of Grade 12 students reported being in a physical fight in the past year.

The Healthy People 2020 objective is to reduce physical fighting in the past year among adolescents in grades 9 through 12 to 28.4 percent.

#### Differences by grade level:

- Grade 6 students were more likely than Grade 10 and 12 students to be in a physical fight.
- Grade 8 students were more likely than Grade 6, 10 and 12 students to be in a physical fight.
- Grade 10 students were more likely than Grade 12 students to be in a physical fight.

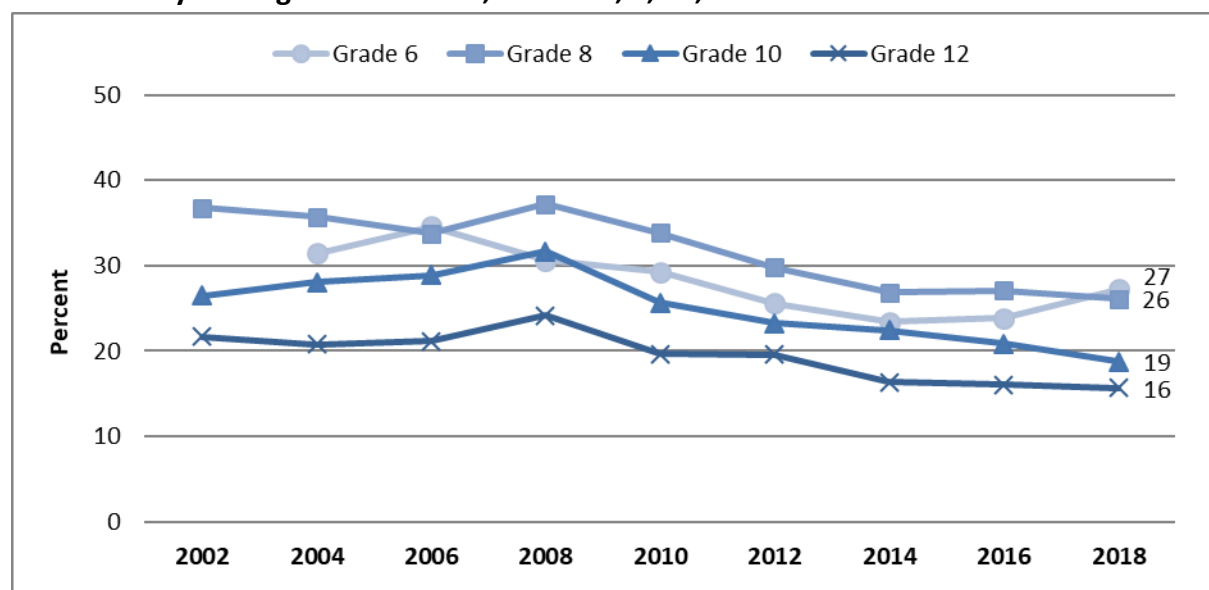
#### Differences by gender:

- Grade 6, 8, 10, and 12 males were more likely than females to be in a physical fight in the past year.

#### Differences over time:

- Among Grade 6 students, there was an increase in physical fighting from 2016 to 2018.
- Among Grade 10 students, there was a decrease in physical fighting from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were decreases in physical fighting from 2002 through 2018.

Chart 50: Physical Fight in Past Year, Grades 6, 8, 10, and 12 from 2002–2018



Survey Question: During the past 12 months, how many times were you in a physical fight?

Note: Percentages represent students who reported being in any number of physical fights in the past year.

Source: HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Gang Membership

Youth gangs are responsible for a substantial portion of serious violence in the United States and commit a disproportionate share of offenses (Egley et al., 2012). In schools and neighborhoods where gangs are active, gangs create a climate of fear and increase the amount of violence and criminal behavior.

In 2018, 7 percent of Grade 8 students, and 6 percent of Grade 10 students and Grade 12 students reported being in a gang in the past year.

### Differences by grade level:

- There were no differences in gang membership in the past year by grade.

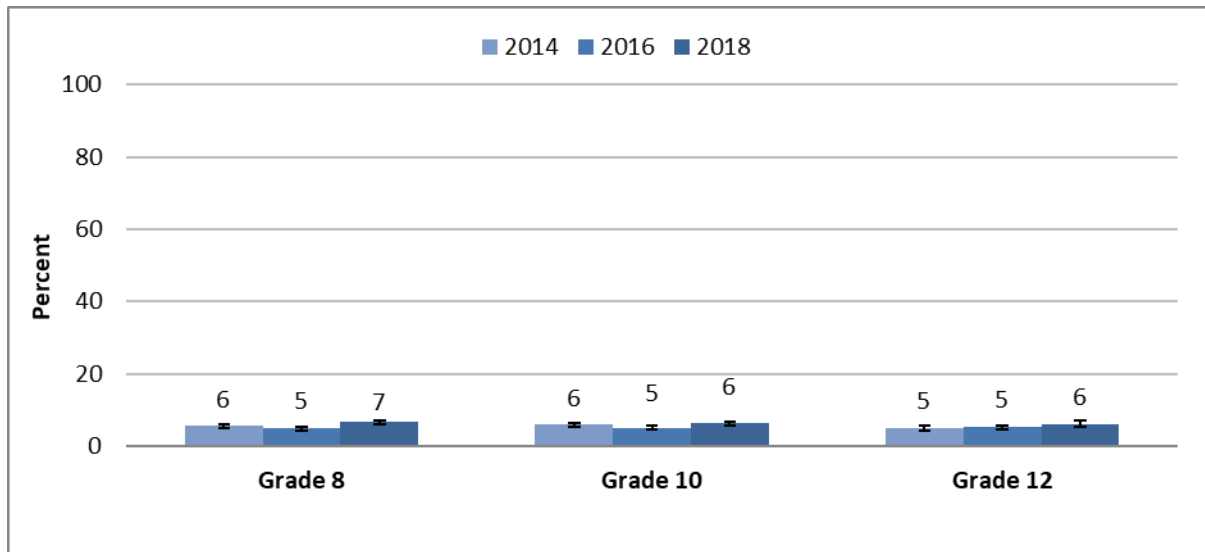
### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to have been a gang member in the past year.

### Differences over time:

- Among Grade 8 and 10 students, there were decreases in gang membership from 2016 to 2018.

**Chart 51: Gang Membership, Grades 8, 10, and 12 in 2014, 2016, and 2018**



*Survey Question:* During the past 12 months, have you been a member of a gang?

*Note:* Percentages represent students who reported “yes” they were a member of a gang in the past 12 months.

*Source:* HYS 2014, 2016, and 2018.

# Gangs at School

In 2018, 29 percent of Grade 8 students, 52 percent of Grade 10 students, and 37 percent of Grade 12 students reported that there are gangs at their school.

*Differences by grade level:*

- Grade 10 students were more likely than Grade 8 and 12 students to report gangs at their school.

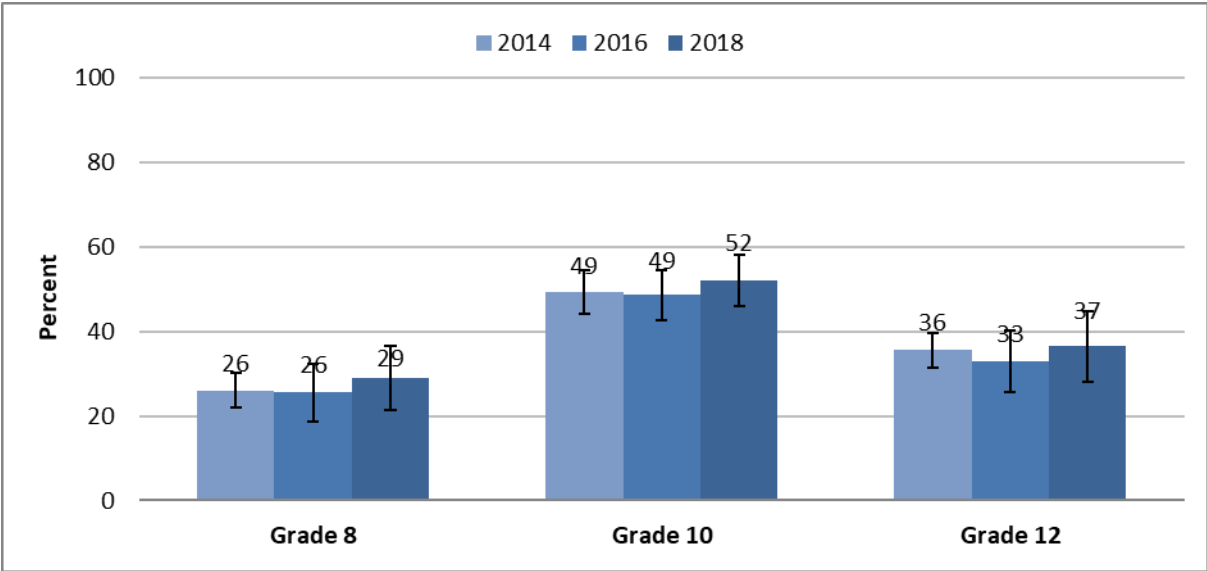
*Differences by gender:*

- Grade 8 and 10 females were more likely than males to report gangs at their school.

*Differences over time:*

- There were no changes in reporting gangs at their school for any grade from 2016 to 2018.

**Chart 52: Gangs at School, Grades 8, 10, and 12 in 2014, 2016, and 2018**



*Survey Question:* Are there gangs at your school?  
*Note:* Percentages represent students who reported “yes” there are gangs at their school.  
*Source:* HYS 2014, 2016, and 2018.

## 12. Alcohol, Tobacco, and Other Drug Use

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### Lifetime Substance Use

Lifetime prevalence is the percentage of students who had ever tried a substance, *even if on only one occasion*. This section presents lifetime substance use results by grade from 1988 to 2018 (see Tables 8 through 11). Lifetime prevalence trends reflect experimental use, and thus are especially relevant to efforts that aim to delay youths' initiation of substance use.

The prevalence of lifetime use for some substances has been assessed differently as survey instruments have changed over time. Superscripts in the tables describe any changes to survey questions or responses. Therefore, readers should use caution when making strong conclusions about changes over time for these substances.

#### **Description of Superscript Notes for Tables 8 through 11**

How the question was asked and changes over time:

1. Question asked as "how often did you use . . ."
2. Question asked as "have you ever in your life, even once, used . . ."
3. Question asked as "how old were you when you first used . . ."
4. Question asked as "how many times have you . . ."

Other changes in question format and wording over time:

- a. In 1988 and 1990, three questions were combined to create an alcohol estimate (how often did you use: beer, wine or wine coolers, hard liquor). In 1992, four questions were combined (beer, wine, wine coolers, hard liquor). In 1995 only one question was asked about alcohol (beer, wine, wine coolers, liquor). In 2000 the language changed to specify "more than a sip or two."
- b. The description of chewing tobacco has changed from "chewing tobacco" in 1988 to "smokeless tobacco (chew, plug, snuff)" in 1990. In 1995, "spit" was added, then changed to "(chew, dip or snuff)" in 2000, and to "chewing tobacco, snuff, or dip" in 2002.
- c. The term "hallucinogens" was used in 1990, 1992, 1995, and 1998, and then changed to "psychedelics" in 2000.
- d. In 1988, the inhaled substance question included "glue, gasoline, paint thinner, spray cans, and white out." In 1990, "snappers, poppers, and rush" were added. In 2002 the question was simplified to say only "things you sniff to get high."
- e. In 1990 and 1992, the over-the-counter question included "drugs purchased from the drug store to get high (diet pills like Dexatrim, stay awake pills like NoDoz and Vivarin, pep pills, Nyquil or other coffee medicine)." In 1995, it was shortened to "drugs you can get from the drug store to get high."
- f. In 1999, 2002, and 2004, "without a doctor's prescription" was added to the steroids question.
- g. In 1990, the methamphetamine question was for "crystal methamphetamine (crystal meth, ice)." In 1998 and 2000, the question was "methamphetamine, specifically (meth, crystal meth, ice, crank)." In 2002 and 2004 a statement was added, "do not include other types of amphetamines."
- h. In 2010, the description "(coke, rock, snow)" was dropped from the cocaine question.

**Table 4: Lifetime Substance Use by Year, Grade 6**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	51.4 <sup>1,a</sup>	33.0	33.0 <sup>a</sup>	33.4 <sup>2,a</sup>	39.8	–	21.2 <sup>a</sup>	32.7	30.3	30.9	29.2	26.3	23.0	21.2	21.2	<b>24.3</b>	<b>3.1</b>
Cigarette (even just a puff)	–	–	–	26.7	26.5	–	15.1	–	–	–	–	–	–	–	–	–	–
Cigarette (whole)	–	–	–	–	–	–	7.2	6.2	5.4	4.9	3.8	–	–	–	–	–	–
Tobacco, chewing	9.5 <sup>1,b</sup>	5.4 <sup>b</sup>	5.5	7.1 <sup>2,b</sup>	7.8	–	1.8 <sup>3,b</sup>	b–	–	–	–	–	–	–	–	–	–
Marijuana	3.6	1.7	1.9	4.9	7.0	–	2.2	3.4	3.0	3.2	2.7	3.9	2.9	3.1	<b>2.4</b>	<b>3.8</b>	<b>1.4</b>
Hallucinogens	1.5 <sup>1,c</sup>	0.8	1.2	1.1	2.6	–	0.8 <sup>c</sup>	–	–	–	–	–	–	–	–	–	–
Inhalants	13.0 <sup>1,d</sup>	7.5 <sup>d</sup>	7.7	3.9	7.0	–	2.5	3.6 <sup>d</sup>	3.7	3.7	2.9	3.5	2.4	2.3	2.0	<b>2.9</b>	<b>0.9</b>
Over-the-counter	–	7.0 <sup>1,e</sup>	7.8	2.0 <sup>2,e</sup>	–	–	–	–	–	–	–	–	–	–	–	–	–
Cocaine	0.8	0.9	1.1	1.3	2.3	–	–	–	–	–	–	–	–	–	–	–	–
Steroids	1.7	1.2	1.1	1.2	2.6	–	–	–	–	–	–	–	–	–	–	–	–
Other illegal drugs	–	–	–	–	–	–	–	3.3	2.9	3.3	3.8	3.3	2.0	2.4	2.0	2.6	0.6
Heroin	–	–	–	–	1.7	–	–	–	–	–	–	–	–	–	–	–	–
Illegal injection drugs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	3.4	–	–	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	0.9 <sup>1,g</sup>	–	–	2.3 <sup>2,g</sup>	–	–	–	–	–	–	–	–	–	–	–	–
Party drugs	–	–	–	–	–	–	0.9	–	–	–	–	–	–	–	–	–	–

*Notes:*

- Dashes (–) indicate a substance was not represented on that particular year’s survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 64.

Source: *SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

**Table 5: Lifetime Substance Use by Year, Grade 8**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	68.9 <sup>1,a</sup>	60.2	55.3 <sup>a</sup>	61.4 <sup>2,a</sup>	62.7	–	45.7 <sup>3,a</sup>	44.2	42.0	37.6	39.4	39.0	35.4	29.0	27.9	<b>31.7</b>	<b>3.8</b>
Cigarette (even just a puff)	–	–	–	53.3	49.1	–	37.1	28.6	23.9	19.8	20.1	17.6	14.7	11.8	11.4	11.4	-0.1
Cigarette (whole)	–	–	–	–	–	–	25.3	19.8	15.8	12.7	13.2	–	10.2	–	5.6	–	–
Tobacco, chewing	16.6 <sup>1,b</sup>	13.9 <sup>b</sup>	13.1	22.9 <sup>2,b</sup>	14.8	–	5.2 <sup>3,b</sup>	8.0 <sup>b</sup>	7.3	–	–	–	–	–	–	–	–
E-cigarette/vape	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18.5	–
Marijuana	14.4	11.2	9.7	27.2	28.2	–	19.7	15.7	14.0	10.7	11.9	13.2	13.7	10.4	10.0	10.8	0.8
Hallucinogens (psychedelics)	4.1 <sup>1,c</sup>	5.7	5.6	9.3	8.7	–	4.7 <sup>c</sup>	–	–	–	–	–	–	–	–	–	–
Inhalants	17.3 <sup>1,d</sup>	17.1 <sup>d</sup>	17.4	14.5 <sup>2,d</sup>	14.3	–	9.6	–	5.3	5.7	6.1	5.8	6.1	4.5	4.8	<b>6.4</b>	<b>1.6</b>
Over-the-counter	–	23.2 <sup>1,e</sup>	18.4	12.3 <sup>2,e</sup>	–	–	–	–	–	–	–	–	–	–	–	–	–
Cocaine	2.8	3.4	2.6	5.5	5.2	–	3.3	3.0	3.4	2.4	3.2	2.6 <sup>h</sup>	3.8	2.9	3.0	<b>1.9</b>	<b>-1.1</b>
Steroids	3.3 <sup>1,f</sup>	2.7	1.9	2.5	2.6	–	2.2 <sup>f</sup>	3.1	1.6	1.9	–	2.4	3.0	2.3	3.1	<b>1.6</b>	<b>-1.6</b>
Other illegal drugs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	2.6	–	1.4	–	–	1.6	–	2.2	3.0	2.6	2.9	<b>1.5</b>	<b>-1.4</b>
Illegal injection drugs	–	–	–	–	–	–	1.0	1.6	1.4	1.7	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	8.4	–	4.3	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	3.0 <sup>1,g</sup>	–	–	4.6 <sup>2,g</sup>	–	2.0	2.5	3.3	1.9	2.8	2.4	3.3	2.5	2.9	<b>1.6</b>	<b>-1.3</b>
Party drugs	–	–	–	–	–	–	4.8	–	–	–	–	–	–	–	–	–	–

*Notes:*

- Dashes (–) indicate a substance was not represented on that particular year’s survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 64.

*Source: SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*



**Table 6: Lifetime Substance Use by Year, Grade 10**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	84.1 <sup>1,a</sup>	75.7	70.3 <sup>a</sup>	73.0 <sup>2,a</sup>	79.7	68.9 <sup>3,a</sup>	65.0	60.0	60.4	61.2	60.6	57.1	52.2	50.1	47.6	49.1	1.5
Cigarette (even just a puff)	–	–	–	59.8	64.1	–	52.2	38.9	35.1	35.5	33.0	29.2	23.9	22.0	19.2	17.2	-2.0
Cigarette (whole)	–	–	–	–	–	50.1	40.9	29.6	26.3	26.6	25.2	–	18.5	–	12.6	–	–
Tobacco, chewing	21.5 <sup>1,b</sup>	22.1 <sup>b</sup>	23.2	30.7 <sup>2,b</sup>	25.8	–	14.3 <sup>3,b</sup>	13.1 <sup>b</sup>	11.6	–	–	–	–	–	–	–	–
E-cigarette/vape	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	35.0	–
Marijuana	32.7	21.5	22.8	39.1	49.5	42.4	37.6	32.4	29.5	30.8	30.8	30.9	29.3	29.4	27.8	29.3	1.5
Hallucinogens	12.1 <sup>1,c</sup>	9.1	11.1	15.4	18.8	–	10.7 <sup>c</sup>	–	–	–	–	–	–	–	–	–	–
Inhalants	19.5 <sup>1,d</sup>	17.7 <sup>d</sup>	15.6	12.3 <sup>2,d</sup>	15.3	–	11.9	–	6.6	10.7	8.9	9.2	9.2	7.6	7.6	8.2	0.6
Over-the-counter	–	27.2 <sup>1,e</sup>	22.3	10.4 <sup>2,e</sup>	–	–	–	–	–	–	–	–	–	–	–	–	–
Cocaine	8.1	4.3	3.5	7.4	9.4	7.7	6.0	5.4	6.0	7.4	7.0	6.1 <sup>h</sup>	6.1	4.2	5.0	3.9	-1.2
Steroids	4.9 <sup>1,f</sup>	3.0	2.2	2.1	3.1	3.6 <sup>4,f</sup>	2.9	2.9	2.7	3.2	–	3.5	4.2	3.2	3.6	2.6	-1.1
Other illegal drugs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	3.9	6.3	1.9	–	–	4.7	–	3.5	4.2	3.4	3.6	2.8	-0.8
Illegal injection drugs	–	–	–	–	–	2.8	1.3	2.1	1.8	2.5	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	14.6	–	8.4	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	3.1 <sup>1,g</sup>	–	–	9.8 <sup>2,g</sup>	–	5.3	4.5 <sup>g</sup>	5.1	5.9	4.7	4.8	5.2	4.1	4.1	<b>2.8</b>	<b>-1.3</b>
Party drugs	–	–	–	–	–	–	9.3	–	–	–	–	–	–	–	–	–	–

**Notes:**

- Dashes (–) indicate a substance was not represented on that particular year’s survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 64.

Source: SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

**Table 7: Lifetime Substance Use by Year, Grade 12**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	–	83.0 <sup>1,a</sup>	79.8 <sup>a</sup>	81.9 <sup>2,a</sup>	84.2	75.9 <sup>3,a</sup>	76.0	74.9	72.6	72.2	72.4	70.6	68.0	66.2	63.8	62.8	-1.0
Cigarette (even just a puff)	–	–	–	67.6	67.4	–	60.9	52.1	47.5	45.0	44.3	40.8	36.6	31.5	28.7	<b>25.0</b>	<b>-3.7</b>
Cigarette (whole)	–	–	–	–	–	59.6	52.0	42.5	36.8	35.5	34.3	–	28.7	–	20.7	–	–
Tobacco, chewing	–	28.5 <sup>1,b</sup>	27.9	37.7 <sup>2,b</sup>	35.0	–	24.8 <sup>3,b</sup>	20.0 <sup>b</sup>	17.6	–	–	–	–	–	–	–	–
E-cigarette/vape	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	47.4	–
Marijuana	–	34.0	32.9	43.5	55.1	57.3	50.5	48.0	41.1	43.1	44.6	45.7	45.6	45.7	45.3	43.0	-2.3
Hallucinogens (psychedelics)	–	13.7 <sup>1,c</sup>	16.8	18.7	23.8	–	15.1 <sup>c</sup>	–	–	–	–	–	–	–	–	–	–
Inhalants	–	16.4 <sup>1,d</sup>	13.1	11.0 <sup>2,d</sup>	13.3	–	13.1	–	7.1	9.4	9.7	10.7	9.7	8.0	7.4	8.0	0.6
Over-the-counter	–	27.2 <sup>1,e</sup>	22.3	10.4 <sup>2,e</sup>	–	–	–	–	–	–	–	–	–	–	–	–	–
Cocaine	–	7.8	4.6	7.6	9.7	13.1	9.2	8.2	8.3	9.9	10.5	8.9 <sup>h</sup>	8.1	6.5	6.9	5.8	-1.1
Steroids	–	3.2 <sup>1,f</sup>	2.4	2.4	3.0	2.6 <sup>4,f</sup>	2.9	4.2	2.5	3.9	–	3.5	4.5	3.2	3.7	3.0	-0.7
Other illegal drugs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	3.6	4.6	2.4	–	–	4.7	–	4.1	5.1	3.2	3.7	2.9	-0.8
Illegal injection drugs	–	–	–	–	–	3.0	1.5	2.1	1.8	2.9	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	14.9	–	10.0	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	4.3 <sup>1,g</sup>	–	–	11.0 <sup>2,g</sup>	–	7.5	7.2 <sup>g</sup>	6.3	7.1	5.6	4.8	5.6	3.8	4.8	<b>3.4</b>	<b>-1.4</b>
Party drugs	–	–	–	–	–	–	13.5	–	–	–	–	–	–	–	–	–	–

**Notes:**

- Dashes (–) indicate a substance was not represented on that particular year’s survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 64.

Source: *SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

## **Current Substance Use**

Student responses to questions about substance use in the past 30 days are indicators of their current substance use. This section presents current (30-day) prevalence results by grade from 1988 to 2018 (see Tables 4 through 7). Binge drinking in the past 2 weeks is also included in these tables. Detailed results for individual substances appear in subsequent sections.

The prevalence of current use for some substances has been assessed differently as survey instruments have changed over time. Superscripts in the tables describe any changes to survey questions or responses. Therefore, readers should use caution when making strong conclusions about changes over time for these substances.

In addition, it is important to recognize that these results are based on responses from students attending public schools. Rates of substance use may be different in other educational settings and are likely higher among youth who have dropped out of school.

### **Description of Superscript Notes for Tables 4 through 7**

How the question was asked and changes over time:

1. Question asked as “how often did you use...”
2. Question asked as “during the past 30 days, how many times have you...”
3. Question asked as “during the past 30 days, on how many days did you...”
4. Question asked as “think back over the past two weeks, how many times have you...”
5. Question asked as “during the past 30 days, how many cigarettes have you smoked...”
6. Question asked as “which describes your use of cocaine (coke, crack or freebase) ...”

Other changes in question format and wording over time:

- a. In 1990, 1992, 1995, and 1998, question was changed from “used alcohol,” in 1999 worded as “have at least one drink,” and in 2000, 2002 and 2004, to “drink a glass, bottle, or can.”
- b. The description of chewing tobacco has changed over time; from “smokeless tobacco (chew, plug, snuff)” in 1995 and 1998, to “chewing tobacco or snuff, such as Redman, Levi Garret, Beechnut, Skoal, Skoal Bandits or Copenhagen” in 1999, to “chew tobacco or use snuff” in 2000 and 2002, and then to “chewing tobacco, snuff, or dip” in 2004.
- c. The term “hallucinogens” was used in 1990, 1992, 1995, and 1998, and then changed to “psychedelics” in 2000.
- d. In 1995, 1998, 2000, and 2002, the description of inhalants included only “things you sniff to get high.” In 1999, it included “sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high.”
- e. In 2010, the Ritalin question changed from “Some kids take a medicine prescribed by their doctor to help with hyperactivity or focus (ADD),” to a more inclusive list of drugs, “Some names for this medicine are Ritalin, Adderall, or Concerta.”
- f. In 2014, the description of marijuana was changed from “grass, hash, pot” to “weed, hash, pot”.
- g. In 2014, the question for electronic cigarettes (e-cigs), added the language “or vape pens”

**Table 8: Current (30-Day) Substance Use by Year, Grade 6**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	–	11.8 <sup>1,a</sup>	12.8	12.2	13.8	–	6.6 <sup>3,a</sup>	3.8	4.4	4.3	3.5	3.8	2.5	2.1	1.8	<b>2.4</b>	<b>0.6</b>
Binge drinking*	–	4.0	4.7	6.2	7.6	–	4.7	–	–	–	3.0	3.7	2.4	2.3	<b>1.3</b>	<b>1.9</b>	<b>0.6</b>
Cigarettes	–	2.4	2.8	4.5	4.7	–	4.0	2.2	2.0	1.9	1.4	1.7	1.2	1.1	<b>0.5</b>	<b>1.0</b>	<b>0.5</b>
Tobacco, chewing	–	–	–	3.6 <sup>2,b</sup>	3.5	–	0.8 <sup>3,b</sup>	1.0 <sup>b</sup>	1.0	1.2	1.1	1.0	1.0	1.2	<b>0.5</b>	<b>1.0</b>	<b>0.5</b>
Cigars	–	–	–	–	–	–	1.5	–	–	–	–	–	–	–	–	–	–
Tobacco in pipe	–	–	–	–	–	–	0.6	–	–	–	–	–	–	–	–	–	–
Bidis	–	–	–	–	–	–	1.0	–	–	–	–	–	–	–	–	–	–
E-cigarettes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	<b>3.0</b>	<b>1.8</b>
Marijuana	–	1.3	1.3	3.1	3.4	–	1.5	1.3	1.7	1.5	1.2	1.6	1.2	1.3 <sup>f</sup>	<b>0.8</b>	<b>1.3</b>	<b>0.5</b>
Other illegal drugs** (not alcohol, tobacco or	–	–	–	–	–	–	–	–	–	–	–	0.9	0.8	0.6	0.6	<b>0.9</b>	<b>0.3</b>
Hallucinogens	–	–	–	–	1.3 <sup>2,c</sup>	–	0.6 <sup>3,c</sup>	–	–	–	–	–	–	–	–	–	–
Inhalants	–	–	–	2.7	3.2	–	1.4	–	–	–	–	–	–	–	–	–	–
Cocaine	–	–	–	1.0	1.1	–	–	–	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	0.6	–	–	–	–	–	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	1.4	–	–	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	–	–	–	0.9	–	–	–	–	–	–	–	–	–	–	–	–
Party drugs	–	–	–	–	–	–	0.7	–	–	–	–	–	–	–	–	–	–

Notes:

- \* Binge drinking in the past two weeks (not in the past 30 days)
- \*\* Other illegal drugs do not include alcohol, tobacco, or marijuana.
- Dashes (–) indicate a substance was not represented on that particular year’s survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 59.

Source: SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

**Table 9: Current (30-Day) Substance Use by Year, Grade 8**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	–	29.1 <sup>1,a</sup>	24.0	30.1	31.0	–	22.3 <sup>3,a</sup>	17.8	18.0	15.4	16.1	14.4	11.9	8.1	7.6	8.4	0.8
Binge Drinking*	15.0	12.8	10.7	17.1	18.3	–	14.9	10.0	10.2	8.6	9.1	8.1	7.1	4.5	4.0	4.6	0.6
Cigarettes	–	12.1	10.3	18.9	15.2	–	12.5	9.2	7.8	6.4	7.3	6.6	5.1	4.0	<b>3.1</b>	2.7	-0.4
Tobacco, chewing	–	–	–	11.5 <sup>2,b</sup>	6.7	–	2.1 <sup>3,b</sup>	2.7 <sup>b</sup>	2.8	2.8	3.4	3.0	2.6	1.3	1.6	1.4	-0.2
Cigars	–	–	–	–	–	–	4.3	8.3	6.4	6.9	8.3	4.3	2.9	1.9	<b>1.2</b>	1.5	0.3
Tobacco in a pipe	–	–	–	–	–	–	2.1	5.6	4.0	3.7	5.1	–	–	–	–	1.1	–
Bidis	–	–	–	–	–	–	3.3	6.8	5.3	4.5	6.3	–	–	–	–	–	–
Cloves	–	–	–	–	–	–	–	5.0	3.5	3.2	4.0	–	–	–	–	–	–
Tobacco in a hookah	–	–	–	–	–	–	–	–	–	–	6.1	–	4.1	4.7	2.4	1.9	-0.5
E-cigarettes	–	–	–	–	–	–	–	–	–	–	–	–	1.7	8.5 <sup>g</sup>	<b>6.2</b>	<b>10.5</b>	<b>4.3</b>
Candy flavor tobacco products	–	–	–	–	–	–	–	–	–	–	–	5.0	4.1	4.2	–	1.9	–
Marijuana	–	7.6	6.1	16.2	16.5	–	12.0	10.4	9.2	7.0	8.3	9.5	9.4	7.3 <sup>f</sup>	6.4	7.2	0.8
Other illegal drugs** (not alcohol, tobacco or marijuana)	–	–	–	–	–	–	–	–	3.3	3.0	3.4	3.0	2.8	1.9	<b>2.7</b>	3.4	0.7
Hallucinogens (psychedelics)	–	–	–	–	3.8 <sup>2,c</sup>	–	3.1 <sup>3,c</sup>	3.0	–	–	–	–	–	–	–	–	–
Inhalants	–	–	–	7.3	6.6	–	4.9	5.0	–	5.0	6.4	–	–	–	–	–	–
Cocaine	–	3.1	2.0	3.6	2.5	–	1.5	2.4	3.1	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	1.3	–	0.8	–	–	–	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	3.9	–	2.7	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	–	–	–	2.3	–	1.2	2.1	1.9	1.3	2.1	–	–	–	–	–	–
Party drugs	–	–	–	–	–	–	3.4	–	–	–	–	–	–	–	–	–	–
Ecstasy	–	–	–	–	–	–	–	2.4	2.1	–	–	–	–	–	–	–	–
Ritalin	–	–	–	–	–	–	–	–	2.8	2.0	2.8	–	1.6	–	–	–	–
Pain killers to get high	–	–	–	–	–	–	–	–	–	3.6	4.3	4.3	3.2	2.3	2.1	2.4	0.3
Prescription, not prescribed	–	–	–	–	–	–	–	–	–	–	–	–	–	4.2	5.2	5.6	0.4
Stimulant, like Adderall or Ritalin	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.8	–

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Painkiller, like Vicodin, OxyContin, or Percocet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
Tranquilizer, like Valium or Xanax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
Other kind of prescription drug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
Over-the-counter drug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-

Notes:

- \* Binge drinking in the past two weeks (not in the past 30 days)
- \*\* Other illegal drugs do not include alcohol, tobacco, or marijuana.
- Dashes (-) indicate a substance was not represented on that particular year's survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 59.

Source: SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

**Table 10: Current (30-Day) Substance Use by Year, Grade 10**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	–	44.0 <sup>1,a</sup>	40.0	37.0	44.9	45.3 <sup>3,a</sup>	37.6 <sup>a</sup>	29.3	32.6	32.8	31.7	27.7	23.3	20.6	20.3	18.5	-1.8
Binge Drinking*	24.5	20.2	17.9	22.2	27.7	–	23.2	18.7	18.7	19.6	18.4	16.2	14.3	10.6	10.9	9.6	-1.3
Cigarettes	–	15.5	17.1	21.0	21.8	25.0	19.8	15.0	13.0	14.9	14.4	12.7	9.5	7.9	<b>6.3</b>	<b>5.0</b>	<b>-1.3</b>
Tobacco, chewing	–	–	–	15.3 <sup>2,b</sup>	9.6	10.5 <sup>3,b</sup>	4.6 <sup>b</sup>	4.8 <sup>b</sup>	4.9	6.4	6.7	6.2	4.6	3.7	3.0	2.4	-0.6
Cigars	–	–	–	–	–	15.4	7.9	11.4	11.4	16.8	16.0	8.5	6.9	5.1	<b>4.1</b>	3.2	-0.9
Tobacco in a pipe	–	–	–	–	–	–	1.9	5.9	5.6	10.1	7.1	–	–	–	–	1.7	–
Bidis	–	–	–	–	–	–	4.6	8.0	8.1	12.7	10.4	–	–	–	–	–	–
Cloves	–	–	–	–	–	–	–	6.3	5.5	9.5	6.7	–	–	–	–	–	–
Tobacco in a hookah	–	–	–	–	–	–	–	–	–	–	10.0	–	8.9	10.0	<b>4.9</b>	<b>3.2</b>	<b>-1.7</b>
E-cigarettes	–	–	–	–	–	–	–	–	–	–	–	–	3.9	18.0 <sup>g</sup>	<b>12.7</b>	<b>21.2</b>	<b>8.5</b>
Candy flavor tobacco products	–	–	–	–	–	–	–	–	–	–	–	10.6	9.4	9.1	–	–	–
Marijuana	–	10.6	13.2	23.0	26.6	24.3	21.9	18.3	17.1	18.3	19.1	20.0	19.3	18.1 <sup>f</sup>	17.2	17.9	0.7
Other illegal drugs** (not alcohol, tobacco or marijuana)	–	–	–	–	–	–	–	–	5.7	7.2	7.0	6.5	5.1	4.4	<b>5.6</b>	5.9	0.3
Hallucinogens (psychedelics)	–	–	–	–	5.8 <sup>2,c</sup>	–	5.8 <sup>3,c</sup>	4.0	–	–	–	–	–	–	–	–	–
Inhalants	–	–	–	5.4 <sup>2,d</sup>	3.9	5.7 <sup>d</sup>	3.6 <sup>3,d</sup>	3.8	–	5.7	5.6	–	–	–	–	–	–
Cocaine	–	2.1	2.1	3.2	3.2	2.7	2.6	2.7	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	1.3	–	1.0	–	–	–	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	5.6	–	4.5	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	–	–	–	3.8	–	2.6	2.9	2.9	2.9	3.6	–	–	–	–	–	–
Party drugs	–	–	–	–	–	–	6.2	–	–	–	–	–	–	–	–	–	–
Ecstasy	–	–	–	–	–	–	–	3.2	2.7	–	–	–	–	–	–	–	–
Ritalin	–	–	–	–	–	–	–	–	4.2	5.0	4.9	–	2.8	–	–	–	–
Pain killers to get high	–	–	–	–	–	–	–	–	–	10.0	9.5	8.3	6.0	4.6	4.4	3.6	-0.8
Prescription, not prescribed	–	–	–	–	–	–	–	–	–	–	–	–	–	4.2	5.2	5.6	0.4
Stimulant, like Adderall or Ritalin	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2.1	–

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Painkiller, like Vicodin, OxyContin, or Percocet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-
Tranquilizer, like Valium or Xanax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
Other kind of prescription drug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-
Over-the-counter drug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0	-

Notes:

- \* Binge drinking in the past two weeks (not in the past 30 days)
- \*\* Other illegal drugs do not include alcohol, tobacco, or marijuana.
- Dashes (-) indicate a substance was not represented on that particular year's survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 59.

Source: SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



**Table 11: Current (30-Day) Substance Use by Year, Grade 12**

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Alcohol	–	52.0 <sup>1,a</sup>	51.8	44.8	52.0	49.0 <sup>3,a</sup>	46.8 <sup>a</sup>	42.8	42.6	42.1	40.8	40.0	36.1	32.9	32.0	<b>27.9</b>	<b>-4.1</b>
Binge Drinking*	–	27.8	27.3	26.6	32.7	–	31.8	27.3	25.8	26.1	25.9	24.9	21.8	19.2	18.0	<b>15.2</b>	<b>-2.8</b>
Cigarettes	–	20.7	22.3	24.1	28.6	35.2	27.6	22.7	19.7	20.0	20.0	19.6	15.6	13.0	11.0	<b>8.0</b>	<b>-3.0</b>
Tobacco, chewing	–	–	–	18.2 <sup>2,b</sup>	12.4	11.1 <sup>3,b</sup>	8.8 <sup>b</sup>	7.5 <sup>b</sup>	7.6	8.9	8.6	8.9	7.6	5.1	5.5	<b>3.7</b>	<b>-1.8</b>
Cigars	–	–	–	–	–	21.2	13.1	15.2	18.3	24.3	20.9	17.4	13.7	10.2	8.9	<b>6.7</b>	<b>-2.2</b>
Tobacco in a pipe	–	–	–	–	–	–	1.7	5.0	5.0	9.1	6.8	–	–	–	–	1.7	–
Bidis	–	–	–	–	–	–	6.5	8.3	8.3	11.8	10.1	–	–	–	–	–	–
Cloves	–	–	–	–	–	–	–	5.5	5.5	8.9	7.0	–	–	–	–	–	–
Tobacco in a hookah	–	–	–	–	–	–	–	–	–	–	13.1	–	16.7	14.8	7.0	<b>4.4</b>	<b>-2.6</b>
E-cigarettes	–	–	–	–	–	–	–	–	–	–	–	–	6.7	23.1 <sup>g</sup>	<b>19.9</b>	<b>29.6</b>	<b>9.7</b>
Candy flavor tobacco products	–	–	–	–	–	–	–	–	–	–	–	18.8	16.1	15.1	–	–	–
Marijuana	–	15.9	17.3	23.3	28.7	28.0	24.4	24.7	19.5	21.6	23.4	26.3	26.7 <sup>f</sup>	26.4	26.2	–	-0.2
Other illegal drugs** (not alcohol, tobacco or marijuana)	–	–	–	–	–	–	–	–	6.8	8.6	8.1	7.5	7.3	6.6	<b>8.5</b>	6.8	-1.7
Hallucinogens (psychedelics)	–	–	–	–	6.0 <sup>2,c</sup>	–	6.5 <sup>3,c</sup>	5.1	–	–	–	–	–	–	–	–	–
Inhalants	–	–	–	2.7 <sup>2,d</sup>	2.3	6.3 <sup>d</sup>	2.4 <sup>3,d</sup>	3.0	–	3.5	4.5	–	–	–	–	–	–
Cocaine	–	2.6	2.0	1.9	2.7	2.8	2.8	4.4	–	–	–	–	–	–	–	–	–
Heroin	–	–	–	–	0.7	–	0.8	–	–	–	–	–	–	–	–	–	–
Amphetamines	–	–	–	–	3.6	–	4.0	–	–	–	–	–	–	–	–	–	–
Methamphetamines	–	–	–	–	2.9	–	2.9	3.3	2.7	2.7	3.8	–	–	–	–	–	–
Party drugs	–	–	–	–	–	–	6.8	–	–	–	–	–	–	–	–	–	–
Ecstasy	–	–	–	–	–	–	–	3.6	2.7	–	–	–	–	–	–	–	–
Ritalin	–	–	–	–	–	–	–	–	3.6	5.2	5.4	–	4.9	–	–	–	–
Pain killers to get high	–	–	–	–	–	–	–	–	–	11.6	12.0	7.9	7.5	5.6	5.4	<b>3.8</b>	<b>-1.6</b>
Prescription, not prescribed	–	–	–	–	–	–	–	–	–	–	–	–	–	4.2	5.2	<b>5.6</b>	<b>0.4</b>
Stimulant, like Adderall or Ritalin	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2.3	–

Substance	Percent of Students																2016-2018 Change
	1988	1990	1992	1995	1998	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	
Painkiller, like Vicodin, OxyContin, or Percocet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-
Tranquilizer, like Valium or Xanax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
Other kind of prescription drug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
Over-the-counter drug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	-

Notes:

- \* Binge drinking in the past two weeks (not in the past 30 days)
- \*\* Other illegal drugs do not include alcohol, tobacco, or marijuana.
- Dashes (-) indicate a substance was not represented on that particular year's survey.
- Change column provides the percentage point change from 2016 to 2018. Changes that are statistically significant at the 95 percent confidence level are bolded.
- The superscript numbers and letters are used to describe the changes in questions over time. Details are available on page 59.

Source: SADUS 1988 and 1990; WSSAHB 1992 and 1995; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Alcohol Use

Alcohol has been consistently reported as the substance most frequently used by Washington’s youth. However, the prevalence of past 30-day use of alcohol has steadily declined nationally (Monitoring the Future, 2016) and in Washington State since 2000. As age-specific survey data illustrate, the number of youth using alcohol increases sharply with each grade. The number of Grade 6 and 8 students who report any lifetime use is of particular concern because of the strong association between age of initiation and subsequent alcohol abuse and dependence.

### Lifetime Alcohol Use

In 2018, 24 percent of Grade 6 students, 32 percent of Grade 8 students, 49 percent of Grade 10 students, and 63 percent of Grade 12 students reported having tried more than a sip or two of alcohol sometime in their lives (lifetime use).

#### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to report they drank more than a sip or two of alcohol in their lifetime.

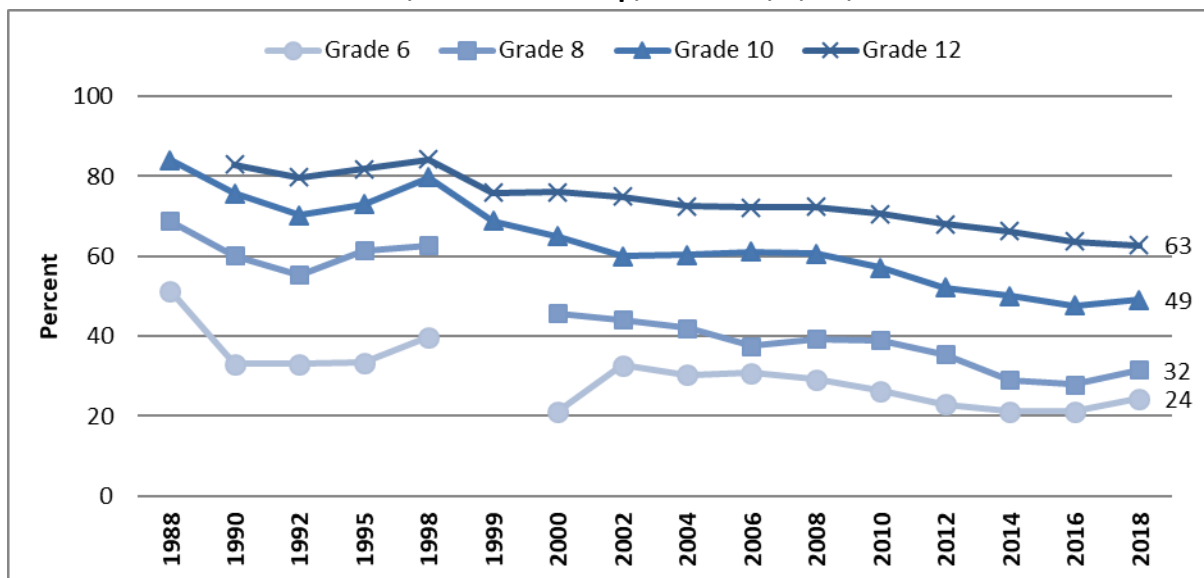
#### Differences by gender:

- Grade 6 males were more likely than females to report they drank more than a sip or two of alcohol in their lifetime.
- Grade 10 and 12 females were more likely than males to report they drank more than a sip or two of alcohol in their lifetime.

#### Differences over time:

- Among Grade 6 and 8 students, there were increases in lifetime alcohol use from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were decreases in lifetime alcohol use from 2002 through 2018.

**Chart 53: Lifetime Alcohol Use, More than a Sip, Grades 6, 8, 10, and 12 from 1988–2018**



*Survey Questions:*

- How old were you the first time you: Had more than a sip or two of beer, wine, or hard liquor (for example: vodka, whiskey, or gin)?
- Have you ever, even once in your lifetime: Had more than a sip or two of beer, wine, or hard liquor (for example: vodka, whiskey, or gin)?

*Note:* Percentages represent students who had ever had more than a sip of alcohol at any age in their life (Grades 8, 10 and 12) or had ever had a sip of alcohol in their life (Grade 6).

*Source:* SADUS 1988 and 1990; WSSAHB 1992, 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018

## 30-Day Alcohol Use

In 2018, 2 percent of Grade 6 students, 8 percent of Grade 8 students, 18 percent of Grade 10 students, and 28 percent of Grade 12 students reported drinking alcohol in the past 30 days.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to have used alcohol in the past 30 days.

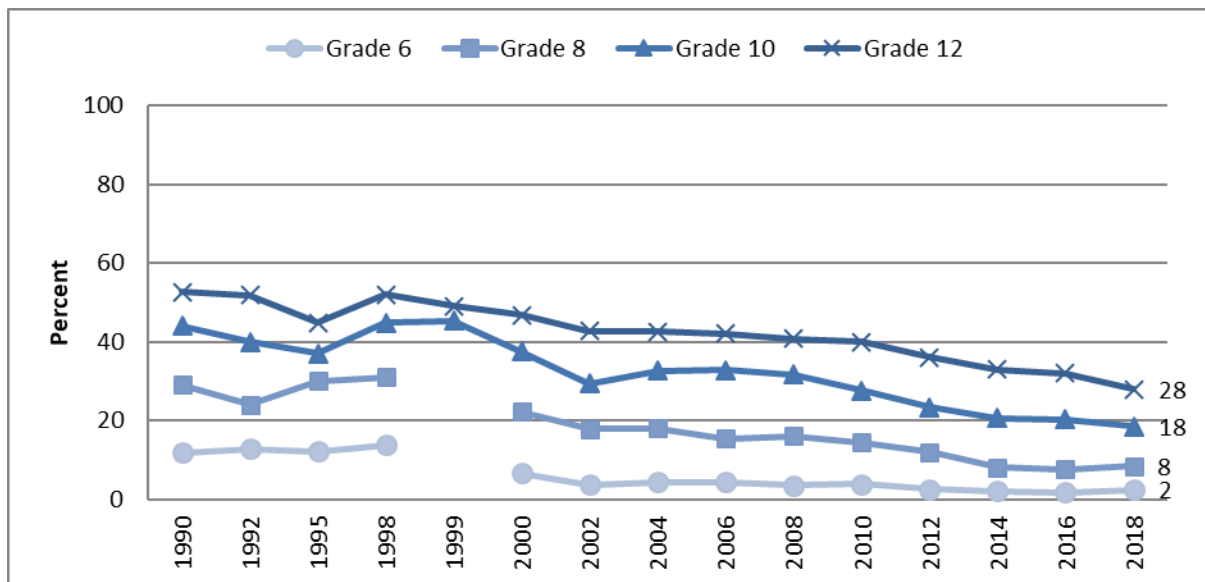
### Differences by gender:

- Grade 8 and 12 females were more likely than males to have used alcohol in the past 30 days.

### Differences over time:

- Among Grade 6 there was an increase in 30-day alcohol use from 2016 to 2018.
- Among Grade 12 there was a decrease in 30-day alcohol use from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were decreases in 30-day alcohol use from 2002 through 2018.

**Chart 54: 30-Day Alcohol Use, Grades 6, 8, 10, and 12 from 1990–2018**



*Survey Question:* 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)?

*Note:* Percentages represent students who reported that they drank alcohol on any days in the past 30 days.

*Source:* SADUS 1990; WSSAHB 1992, 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Binge Drinking

The survey question on binge drinking (framed as five or more drinks in a row during the previous two weeks) may underestimate excessive alcohol consumption. Low-weight and inexperienced drinkers suffer negative effects from fewer than five drinks, and students may underestimate the amount of alcohol they consume in a “drink.” In addition, the new recommended measurement of binge drinking for women is 4 drinks or more in one occasion (Chavez, 2011).

In 2018, 2 percent of Grade 6 students, 5 percent of Grade 8 students, 10 percent of Grade 10 students, and 15 percent of Grade 12 students reported binge drinking in the past two weeks.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to report binge drinking.

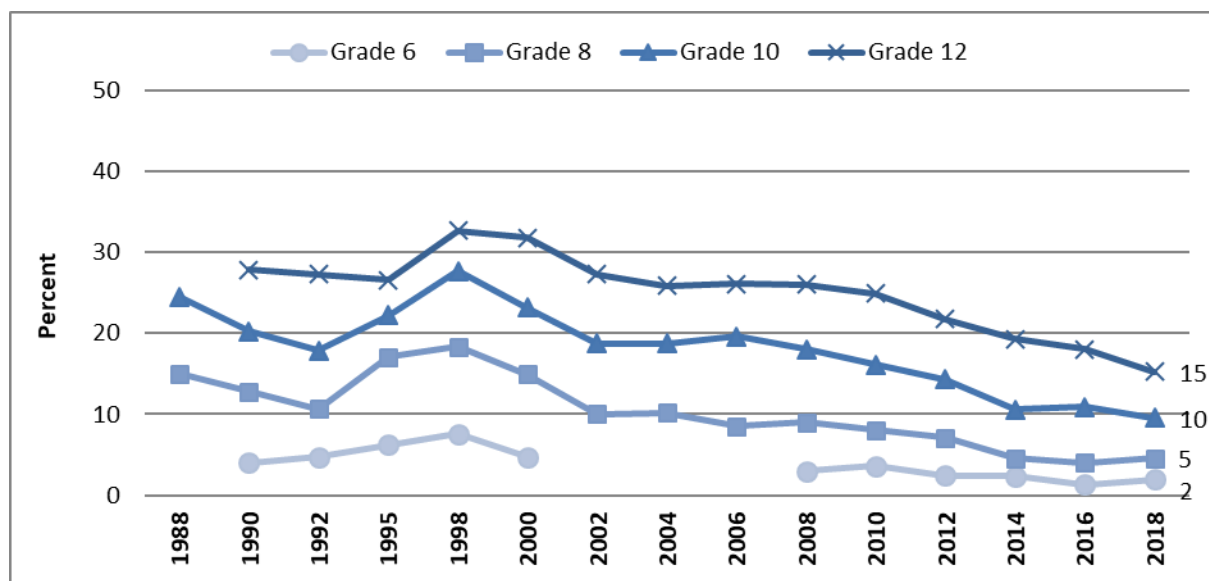
### Differences by gender:

- Grade 10 males were more likely than females to report binge drinking.

### Differences over time:

- Among Grade 6 students, there was an increase in binge drinking from 2016 to 2018.
- Among Grade 12 students, there was a decrease in binge drinking from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were decreases in binge drinking from 2002 through 2018.

**Chart 55: Binge Drinking, Grades 6, 8, 10, and 12 from 1988–2018**



*Survey Question:* Think back over the last 2 weeks. How many times have you had five or more drinks in a row? (A drink is a glass of wine, a bottle of beer, a shot glass of liquor, or a mixed drink.)

*Note:* Percentages represent students who reported that they had five or more drinks in a row any number of times in the past two weeks.

*Source:* SADUS 1988 and 1990; WSSAHB 1992, 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Average Age of First Alcohol Use

Some youth begin experimenting with alcohol and other drugs at an early age. Early (age 12-14) and late (age 15-17) adolescence initiation and use of alcohol are associated with alcohol related problems in adulthood (Buchman, 2009; McCambridge, 2011). The younger the age of drinking onset, the greater the chance that an individual will develop a clinically-defined alcohol disorder at some point in their life (National Center on Addiction and Substance Abuse, 2011).

The following summarizes the average age when students first tried more than a sip or two of alcohol, and the average age when students began drinking regularly in 2018:

- Among Grade 10 students who have had more than a sip or two of beer, wine, or hard liquor, the average age of first use was 12.8 years.
- Among Grade 10 students who drink alcoholic beverages at least once or twice a month, the average onset of regular use was 13.8 years of age.
- These results are similar to the results from previous years.

**Table 12: Average Age of First Use and Regular Use of Alcohol in 2018**

Behavior	Mean Age of First Reported Use		
	Grade 8	Grade 10	Grade 12
Had more than a sip of beer, wine, or hard liquor	11.3 (± 0.05)	12.8 (± 0.1)	14.0 (± 0.1)
Began drinking regularly, at least once or twice a month	12.3 (± 0.1)	13.8 (± 0.2)	15.2 (± 0.2)

*Survey Questions:*

- How old were you the first time you had more than a sip or two of beer, wine, or hard liquor (for example: vodka, whiskey, or gin)?
- How old were you the first time you began drinking alcoholic beverages regularly, that is, at least once or twice a month?

*Notes:*

- Age of first use is calculated by excluding students who responded that they “never had” drank alcohol, and calculating the mean age of first use among those who drank at any age.
- Age of first regular use is calculated by excluding students who responded that they “never had” drank alcohol regularly, and calculating the mean age of regular use among those who drank regularly at any age.

*Source: HYS 2018.*

## Levels of Problem Drinking: Composite Scale

The level of drinking is an important consideration in the design of prevention and intervention strategies. The definitions of experimental, problem, and heavy drinking combine frequency of drinking and episodes of binge drinking (see Notes below) (Courtney et al., 2009). Students reported the following levels of drinking in 2018:

- Experimental drinking: 4 percent of Grade 8, 9 percent of Grade 10, and 11 percent of Grade 12 students.
- Problem drinking: 3 percent of Grade 8, 5 percent of Grade 10, and 9 percent of Grade 12 students.
- Heavy drinking: 2 percent of Grade 8, 6 percent of Grade 10, and 10 percent of Grade 12 students.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to report experimental drinking, problem drinking, and heavy drinking.

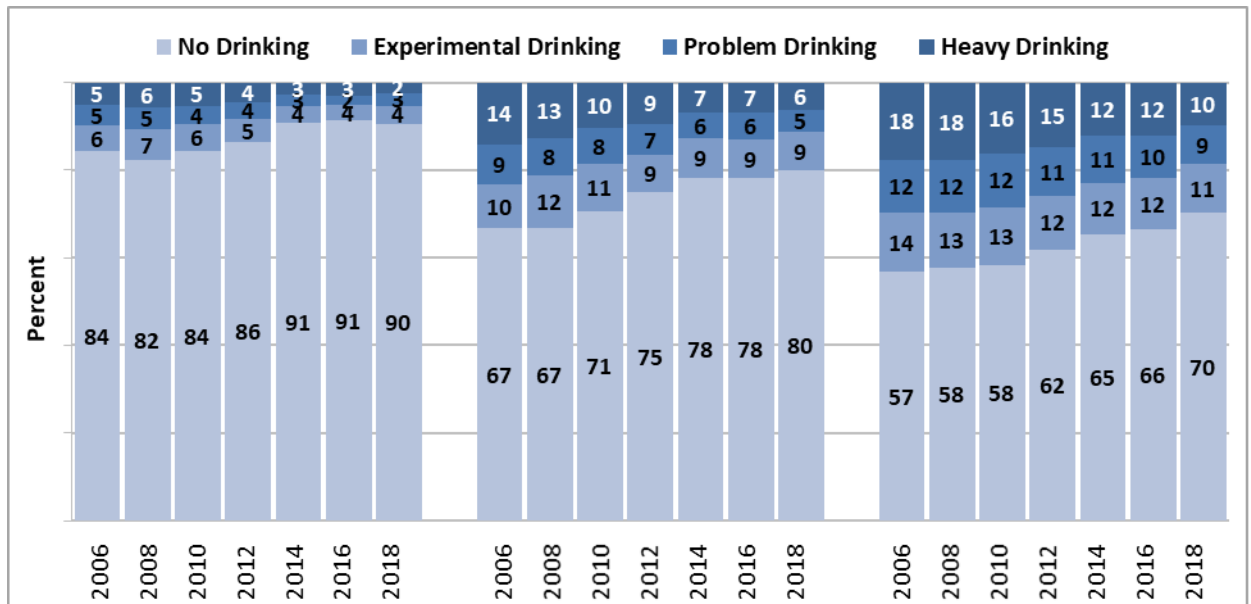
### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to report experimental drinking.
- There were no differences in problem drinking by gender for any grade.
- Grade 10 males were more likely than females to report heavy drinking.

### Differences over time:

- Among Grade 8 students, there was an increase in problem drinking from 2016 to 2018.
- Among Grade 10 students there was a decrease in problem drinking from 2016 to 2018.
- Among Grade 12 students, there were decreases in problem drinking and heavy drinking from 2016 to 2018.
- Among Grade 8, 10, and 12 students, there were decreases in experimental, problem, and heavy drinking from 2006 to 2018.

**Chart 56: Levels of Problem Drinking, Grades 8, 10, and 12, from 2006 through 2018**





*Survey Questions:*

- During the past 30 days, on how many days did you: Drink a glass, can or bottle of alcohol?
- Think back over the last 2 weeks. How many times have you had five or more drinks in a row?

*Notes:*

- Experimental drinking represents drinking 1–2 times in the past 30 days and no binge drinking in the past two weeks.
- Problem drinking represents drinking 3–5 times in the past 30 days and/or binge drinking 1 time in the past two weeks.
- Heavy drinking represents drinking 6 or more times in the past 30 days and/or binge drinking 2 or more times in the past two weeks.

*Source: HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

## Perception of Access to Alcohol

In spite of the laws that seek to prevent underage drinking, a high percentage of youth do not find it hard to obtain alcohol. The perception of easy access to alcohol is lower among Washington State youth than the national average (Johnston, 2015).

In 2018, 71 percent of Grade 6 students, 45 percent of Grade 8 students, 26 percent of Grade 10 students, and 19 percent of Grade 12 students reported that alcohol would be very hard to get.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was less likely to perceive that alcohol would be very hard to get.

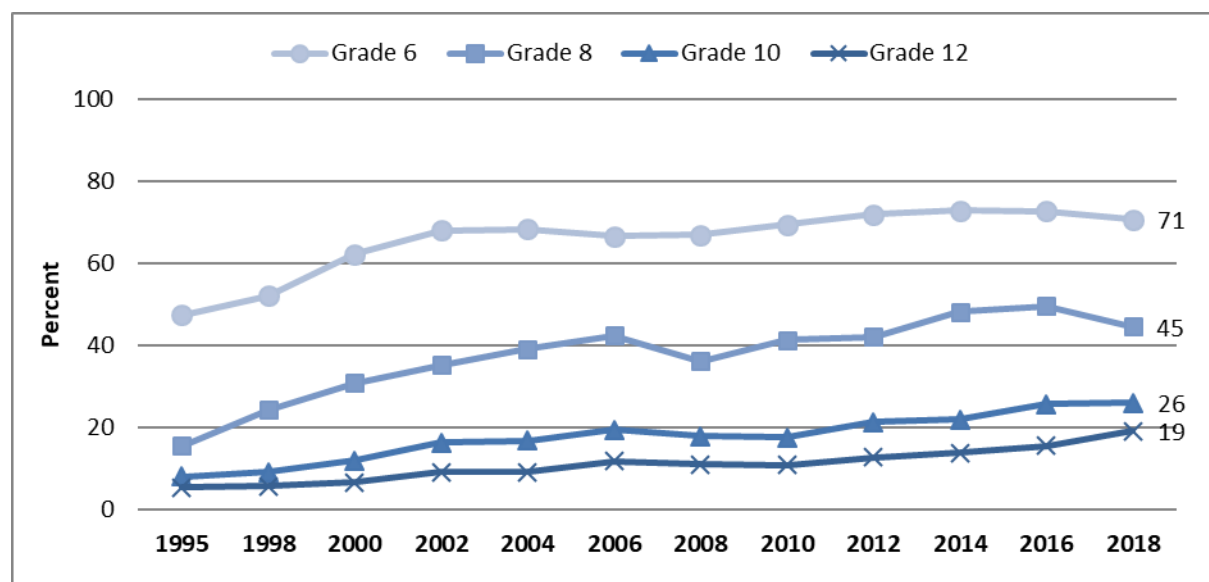
### Differences by gender:

- Grade 6 males were less likely than females to perceive that alcohol would be very hard to get.
- Grade 8 and 10 females were less likely than males to perceive that alcohol would be very hard to get.

### Differences over time:

- Among Grade 6 and 8 students, there were decreases in the perception that alcohol would be very hard to get from 2016 to 2018.
- Among Grade 12 students, there was an increase in the perception that alcohol would be very hard to get from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were increases in the perception that alcohol would be very hard to get from 2002 through 2018.

**Chart 57: Perception That Access to Alcohol is Very Hard, Grades 6, 8, 10, and 12 from 1995 - 2018**



*Survey Question:* 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?

*Note:* Percentages represent students who reported it would be “very hard” to get alcohol if they wanted some.

*Source:* WSSAHB 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Usual Sources of Alcohol

Younger students are more likely to get alcohol from home, while older students are more likely to get alcohol from friends, at parties, and to give money to someone to buy it for them. The following chart represents where they usually obtained alcohol, among students who used alcohol in the past 30 days.

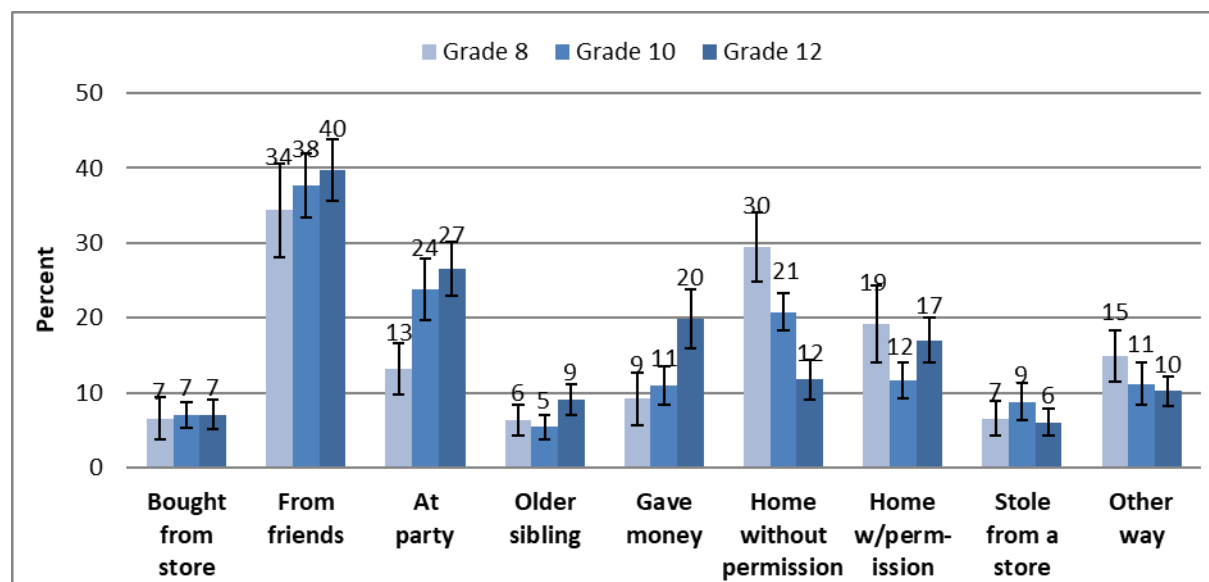
### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to get alcohol at a party.
- Grade 12 students were more likely than Grade 10 students to get alcohol from a sibling.
- Grade 12 students were more likely than Grade 8 and 10 students to give someone money to get alcohol.
- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was less likely to get alcohol at home without parental permission.
- Grade 8 and 12 students were more likely than Grade 10 students to get alcohol at home with parental permission.
- Grade 8 students were more likely than Grade 12 students to get alcohol some other way.

### Differences by gender:

- Grade 10 and 12 males were more likely than females to buy alcohol from a store and to steal alcohol from a store.
- Grade 10 females were more likely than males to get alcohol from friends, to get alcohol at a party, and to give someone money to get alcohol.
- Grade 8 and 10 females were more likely than males to get alcohol and from home without parental permission.
- Grade 12 females were more likely than males to get alcohol and from home with parental permission.

**Chart 58: Usual Sources of Alcohol among Current Alcohol Drinkers, Grades 8, 10, and 12 in 2018**



*Survey Question:* During the past 30 days, how did you usually get alcohol (beer, wine, or hard liquor)? Choose all that apply.

*Notes:* Students could check multiple responses.

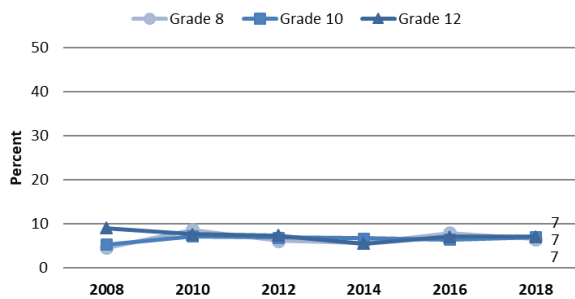
- Stealing alcohol from a store was not asked until 2014.
- Students who reported that they “did not get alcohol in the past 30 days” were not included in the results.
- The sample sizes for the 2018 results in these figures are: 349 Grade 8; 626 Grade 10; and 647 Grade 12 students.
- Source: HYS 2018.

*Differences over time:*

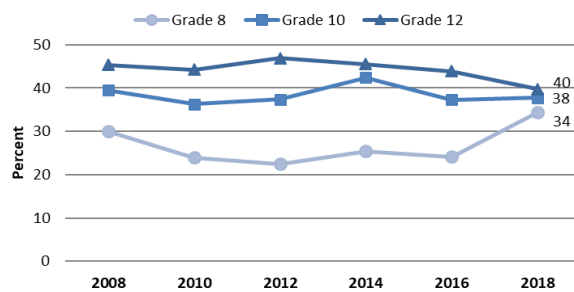
- Among Grade 8 students, there was an increase in getting alcohol from friends from 2016 to 2018.
- Among Grade 8 students, there was a decrease in getting alcohol from another source from 2016 to 2018.
- Among Grade 8 students, there was an increase in getting alcohol at home with parental permission from 2008 through 2018.
- Among Grade 10 students, there was a decrease in getting alcohol by giving someone money from 2008 through 2018.
- Among Grade 12 students, there was an increase in getting alcohol at home without permission from 2008 through 2018.

**Chart 59: Trends for Usual Source of Alcohol Among Current Alcohol Drinkers, Grades 8, 10, and 12 from 2002 – 2018**

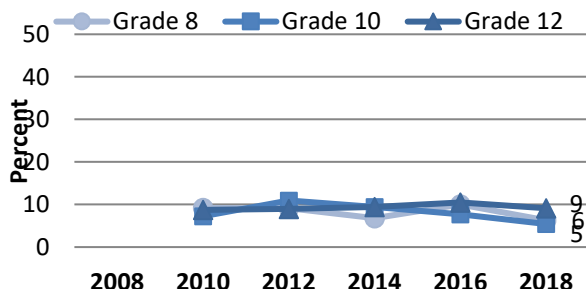
**Bought It from a Store**



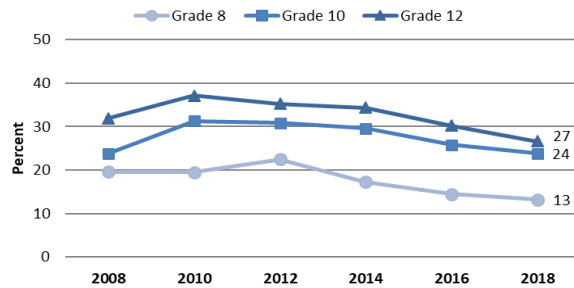
**Got it From Friends**



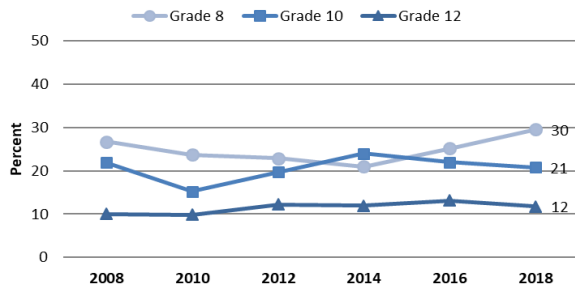
**Got It at a Party**



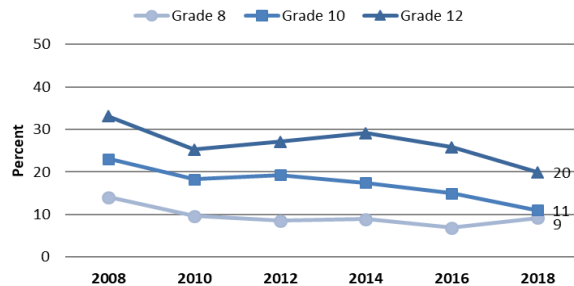
**Got it from Older Siblings**



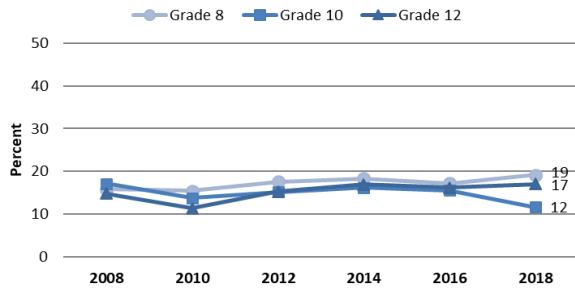
**Gave Money to Someone**



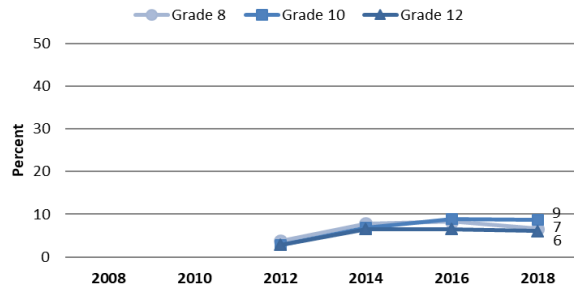
**At Home without Parental Permission**



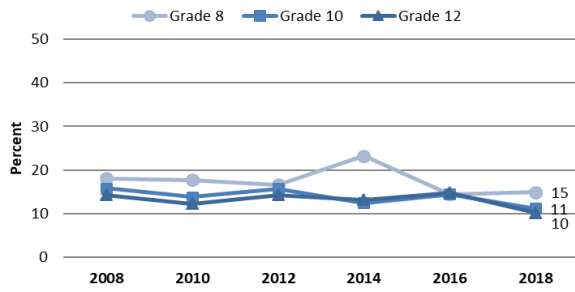
### At Home with Parental Permission



### Stole It from a Store



### Some Other Way



Source: HYS 2008, 2010, 2012, 2014, 2016, and 2018.

## Perception of Risk from Daily Alcohol Consumption

Because alcohol use is so widely accepted in our culture, it is not surprising that youth do not appreciate the possible harmful effects of alcohol consumption.

In 2018, 32 percent of Grade 6 students, 37 percent of Grade 8 students, 41 percent of Grade 10 students, and 39 percent of Grade 12 students perceived “great risk” in having one or two drinks of an alcoholic beverage every day.

### Differences by grade level:

- Grade 6 students were less likely than Grades 8, 10, and 12 students to perceive great risk in having one or two drinks of alcohol every day.
- Grade 8 students were less likely than Grade 10 students to perceive great risk in having one or two drinks of alcohol every day.

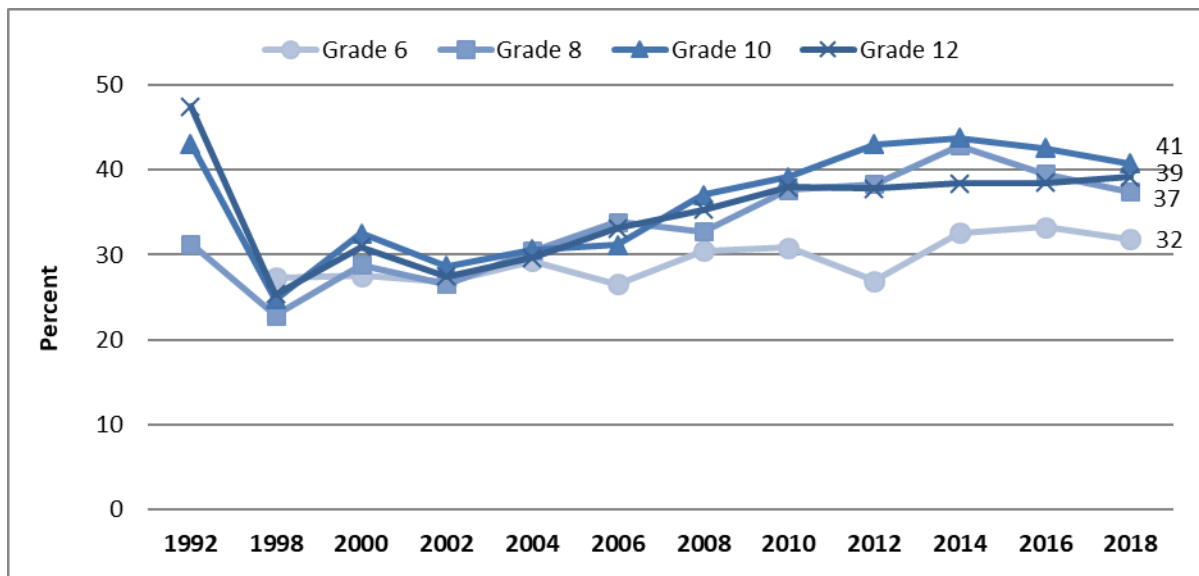
### Differences by gender:

- Grade 6, 8, 10, and 12 males were less likely than females to perceive great risk in having more than one or two drinks of alcohol every day.

### Differences over time:

- There were no changes in the perception of great risk in having one or two drinks of alcohol every day for any grade from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were increases in the perception of great risk in having one or two drinks of alcohol every day from 2002 through 2018.

**Chart 60: Perception of Great Risk from Daily Alcohol Consumption, Grades 6, 8, 10, and 12 from 1992 to 2018**



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

*Note:* Percentages represent students who reported that there is great risk from daily alcohol consumption.

*Source:* WSSAHB 1992, 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## ***Tobacco Use***

Historically, cigarettes have been the most popular tobacco product used by youth. Youth cigarette smoking rates peaked in the late 1990s, but have dropped significantly since.

Despite this progress, tobacco use remains the leading cause of preventable death in Washington State and the nation. About 14 percent of adults and 5 percent of youth (10th graders) still smoke cigarettes, which results in devastating consequences to our state’s health and economy. About 104,000 youth alive today will die prematurely from smoking. (Tobacco Free Kids, 2019, <https://www.tobaccofreekids.org/problem/toll-us/washington>). Additionally, the vapor product industry continues to modernize its products, expanding options for nicotine addiction and contributing to the overall rate of youth nicotine use. Vapor products produce aerosol by heating a liquid solution, which is inhaled as an aerosol. The process is referred to as “vaping”. Vapor products often contain nicotine. They also may include flavors or other substances. There are many names for vapor products, including electronic nicotine delivery systems (ENDS), electronic cigarettes (e-cigarettes), JUULs or vape pens. The Surgeon General states that e-cigarette use is strongly associated with the use of other tobacco products among youth and young adults, particularly the use of combustible tobacco products. (U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.)

## Lifetime Cigarette Smoking

In 2018, 11 percent of Grade 8 students, 17 percent of Grade 10 students, and 25 percent of Grade 12 students reported ever having smoked a cigarette, even just a puff.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to have ever smoked a cigarette, even just a puff.

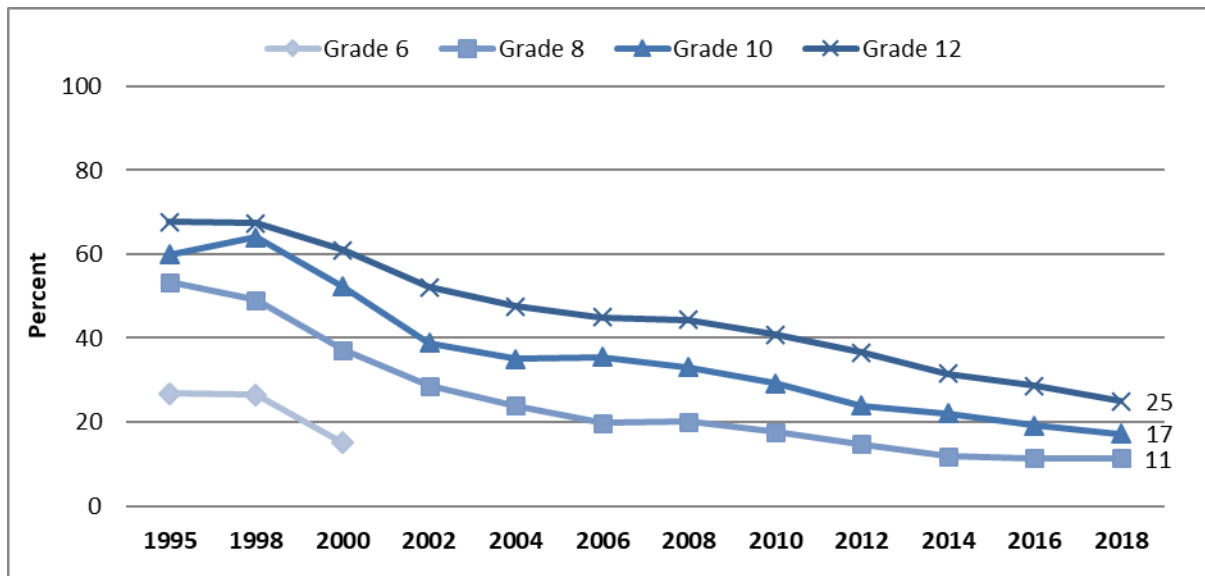
### Differences by gender:

- Grade 10 and 12 males were more likely than females to have ever smoked a cigarette, even just a puff.

### Differences over time:

- Among Grade 12 students, there was a decrease in ever smoking cigarettes from 2016 to 2018.
- Among Grade 8, 10, and 12 students, there were decreases in ever smoking a cigarette from 2002 through 2018.

**Chart 61: Lifetime Cigarette Use - Even Just a Puff, Grades 6, 8, 10, and 12 from 1995 - 2018**



*Survey Question:* How old were you the first time you smoked a cigarette, even just a puff?

*Note:* Lifetime percentages represent students who had ever smoked even just a puff of a cigarette at any age in their life.

*Source:* WSSAHB 1995, 1998 and 2000, HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



## 30-Day Cigarette Smoking

In 2018, 1 percent of Grade 6 students, 3 percent of Grade 8 students, 5 percent of Grade 10 students, and 8 percent of Grade 12 students reported smoking a cigarette in the past 30 days.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to have smoked cigarettes in the past 30 days.

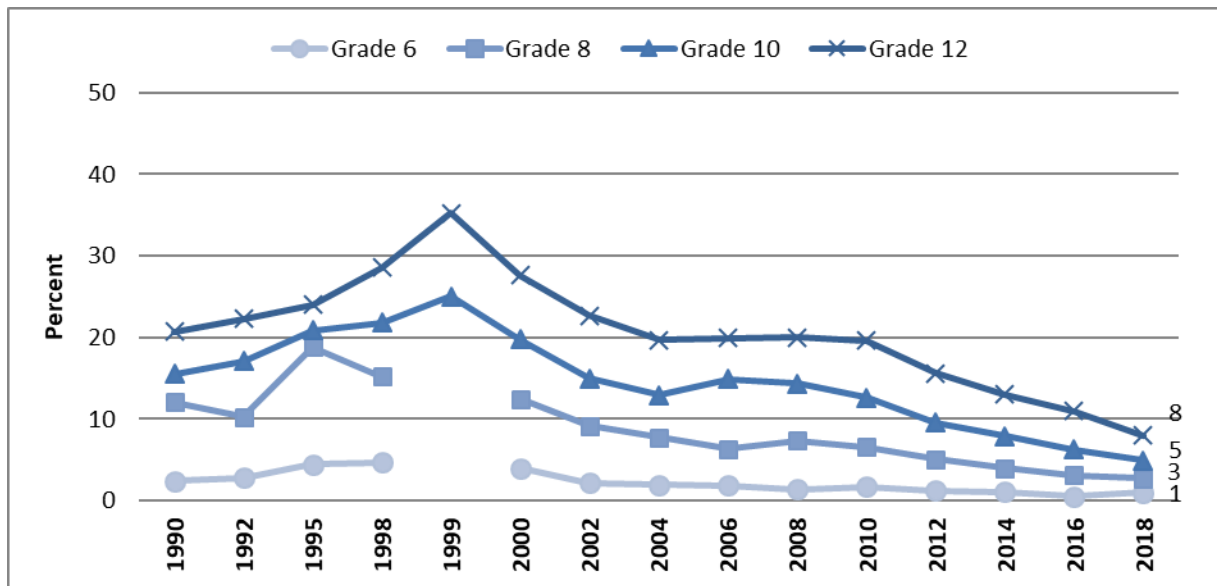
### Differences by gender:

- Grade 6 and 12 males were more likely than females to have smoked cigarettes in the past 30 days.

### Differences over time:

- Among Grade 6 students, there was an increase in 30-day cigarette smoking from 2016 to 2018.
- Among Grade 10 and 12 students, there were decreases in 30-day cigarette smoking from 2016 to 2018.
- Among Grade 6, 8, 10 and 12 students, there were decreases in 30-day cigarette smoking from 2002 through 2018.

**Chart 62: 30-Day Cigarette Use, Grades 6, 8, 10, and 12 from 1990 - 2018**



*Survey Question:* During the past 30 days, on how many days did you: Smoke cigarettes?

*Note:* Percentages represent students who smoked cigarettes on any days in the past 30 days.

*Source:* SADUS 1990; WSSAHB 1992, 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Average Age of First Cigarette Smoking

Table 13 shows the average age of first use for students who had ever tried a cigarette, even just a puff.

The earlier youth begin smoking cigarettes, the more likely they are to become strongly addicted to nicotine. About nine out of ten adult smokers began smoking when they were teens or earlier (Surgeon General Report 2012).

Among Grade 10 students who have smoked at least a puff of a cigarette, the average age of first use was 12.8 years.

**Table 13: Average Age of First Cigarette Use in 2018**

Behavior	Mean Age of First Reported Use		
	Grade 8	Grade 10	Grade 12
Smoked a cigarette, even just a puff	11.3 ( $\pm 0.1$ )	12.8 ( $\pm 0.1$ )	14.0 ( $\pm 0.1$ )

*Survey Question:* How old were you the first time you smoked a cigarette, even just a puff?

*Note:* Age of first use is calculated by excluding students who responded that they “never had” smoked a puff of a cigarette and calculating the mean age of use among those who smoked at any age.

*Source:* HYS 2018.

## 30-Day Chewing Tobacco Use

Using chewing tobacco represents a significant health risk and is not a safe substitute for smoking cigarettes. Chewing tobacco causes cancers of the mouth, pharynx, and esophagus; gum recession; and an increased risk for heart disease and stroke. Youth chewing tobacco use can lead to a lifetime of addiction to nicotine, and frequently leads to cigarette smoking (U.S. Department of Health and Human Services, 1994; National Cancer Institute, 1992; World Health Organization, 2007; and Tomar, 2003).

In 2018, use of chewing tobacco in the past 30 days was reported by 1 percent of Grade 6 and 8 students, 2 percent of Grade 10 students, and 4 percent of Grade 12 students.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 6 students to have used chewing tobacco in the past 30 days.
- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to have used chewing tobacco in the past 30 days.

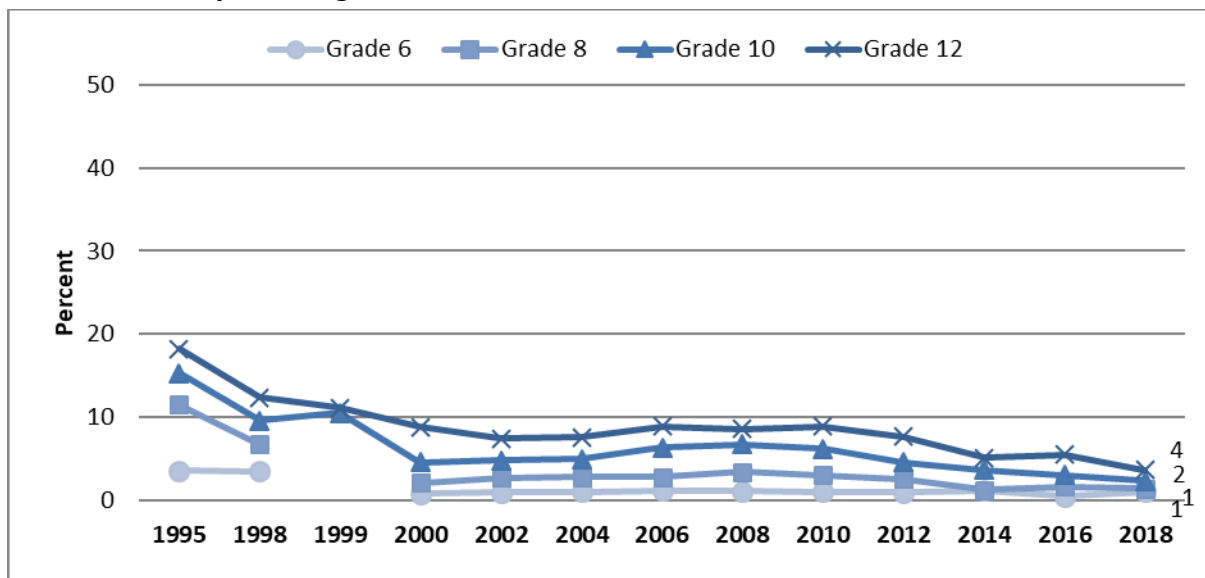
### Differences by gender:

- Grade 6, 10, and 12 males were more likely than females to have used chewing tobacco in the past 30 days.

### Differences over time:

- Among Grade 6 students, there was an increase in 30-day chewing tobacco use from 2016 to 2018.
- Among Grade 12 students, there was a decrease in 30-day chewing tobacco use from 2016 to 2018.
- Among Grade 10 and 12 students, there were decreases in 30-day chewing tobacco use from 2002 through 2018.

**Chart 63: 30-Day Chewing Tobacco Use, Grades 6, 8, 10 and 12 from 1995 - 2018**



*Survey Question:* During the past 30 days, on how many days did you: Use chewing tobacco, snuff, or dip?

*Note:* Percentages represent students who reported that they had used chewing tobacco on any days in the past 30 days.

*Source:* WSSAHB 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## 30-Day Cigar, Cigarillo or Little Cigar Smoking

In 2018, cigar smoking in the past 30 days was reported by 2 percent of Grade 8 students, 3 percent of Grade 10 students, and 7 percent of Grade 12 students.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to have smoked cigars in the past 30 days.

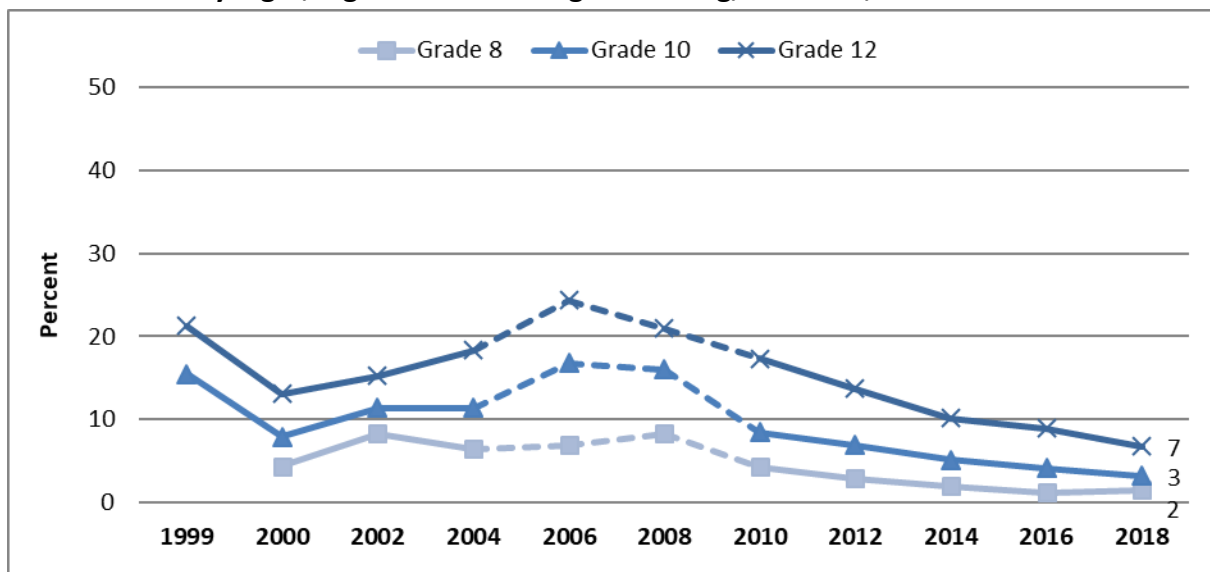
### Differences by gender:

- Grade 12 males were more likely than females to have smoked cigars in the past 30 days.

### Differences over time:

- Among Grade 12 students, there was a decrease in 30-day cigar smoking from 2016 to 2018.
- Among Grade 8, 10, and 12 students, there were decreases in 30-day cigar smoking from 2002 through 2018.

**Chart 64: 30-Day Cigar, Cigarillo or Little Cigar Smoking, Grades 8, 10 and 12 from 1999 - 2018**



*Survey Question:* During the past 30 days, on how many days did you: Smoke cigars, cigarillos or little cigars?

### Notes:

- Percentages represent students who reported that they had smoked cigars on any days in the past 30 days.
- In 2006 and 2008 HYS administrations, the question about cigar use was asked on the tear-off portion of the survey. The dashed lines in the chart represent the possible break in trend.

*Source:* YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## 30-Day Electronic Cigarettes, E-cigs or Vape Pen Use

In 2018, e-cig or vape pen use in the past 30 days was reported by 3 percent of Grade 6 students, 10 percent of Grade 8 students, 21 percent of Grade 10 students, and 30 percent of Grade 12 students.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to have used an e-cig or vape pen in the past 30 days.

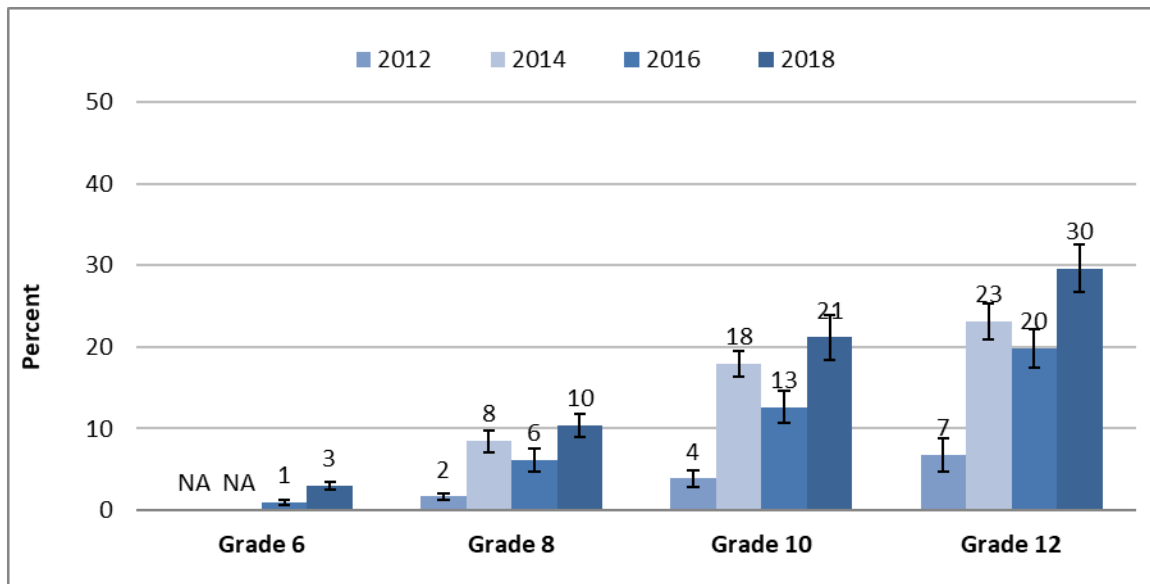
### Differences by gender:

- Grade 6 males were more likely than females to have used an e-cig or vape pen in the past 30 days.
- Grade 8 females were more likely than males to have used an e-cig or vape pen in the past 30 days

### Differences over time:

- Among Grade 6, 8, 10, and 12 students, there were increases in 30-day e-cig or vape pen use from 2016 to 2018.

**Chart 65: 30-Day Electronic Cigarettes, E-cigs, or Vape Pen Use, Grades 6, 8, 10, and 12 in 2012, 2014, 2016, and 2018**



*Survey Question:* During the past 30 days, on how many days did you: Use an electronic cigarette, also called e-cigs, or vape pens?

### Notes:

- Percentages represent students who reported that they had used an electronic cigarette, also called e-cigs, or vape pens, on any days in the past 30 days.
- A question about 30-day electronic cigarettes and e-cigs was asked in 2012, but the question did not include the term “vape pens.”
- More response options were added in 2016.

*Source:* HYS 2012, 2014, 2016, and 2018.

## Susceptibility to Cigarette Smoking

Youth who have not made a firm commitment against smoking cigarettes are considered susceptible to smoking. They may or may not have smoked recently or in their lifetime, but their susceptibility predicts that given the opportunity or an accepting environment they may initiate smoking. This measure was developed by Pierce, Gilpin, Farkas, and Merritt (1996) and has been found to predict progression to smoking within a longitudinal study of youth behaviors.

Susceptibility to cigarette smoking is a composite measure, using the results from two questions: “If one of your best friends offered you a cigarette, would you smoke it?” and, “Do you think that you will smoke a cigarette anytime in the next year?” If a student does not respond “definitely not” to both questions, then he or she is considered to be susceptible to smoking.

In 2018, 24 percent of Grade 8 students, 26 percent of Grade 10 students, and 29 percent of Grade 12 students were susceptible to smoking.

### Differences by grade level:

- Grade 12 students were more likely than Grade 8 students to be susceptible to cigarette smoking.

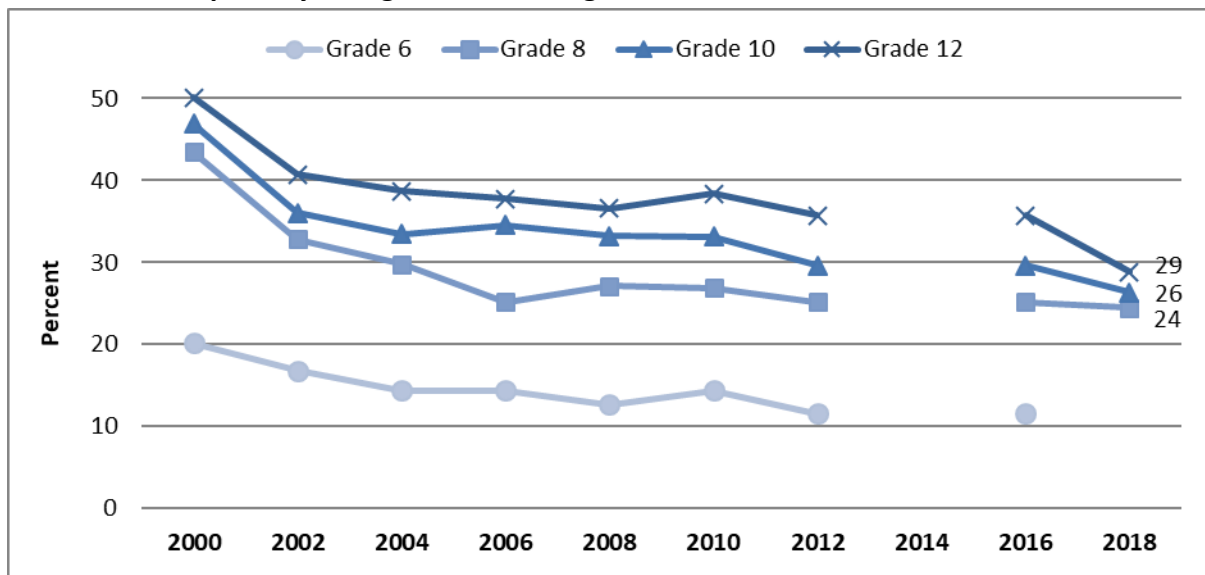
### Differences by gender:

- Grade 12 males were more likely than females to be susceptible to cigarette smoking.

### Differences over time:

- Among Grade 10 and 12 students, there were decreases in susceptibility to cigarette smoking from 2016 to 2018.
- Among Grades 8, 10, and 12, there were decreases in susceptibility to cigarette smoking from 2002 through 2018.

**Chart 66: Susceptibility to Cigarette Smoking, Grades 6, 8, 10, and 12 from 2000 - 2018**



*Survey Questions:*

- If one of your best friends offered you a cigarette, would you smoke it?
- Do you think that you will smoke a cigarette anytime in the next year?

*Note:* Susceptibility to cigarette smoking is a composite measure, using the results of the two questions above. If a student does not respond “definitely not” to both questions, then they are susceptible to smoking.

*Source:* WSSAHB 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2016, and 2018. Questions were not asked in 2014.

## Secondhand Smoke Exposure

Secondhand smoke exposure causes disease and premature death in children and adults who do not smoke. Scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke (U.S. Department of Health and Human Services, 2014).

In 2018, 18 percent of Grade 6 students, 22 percent of Grade 8 students, 24 percent of Grade 10 students, and 28 percent of Grade 12 students reported being exposed to secondhand smoke in a room in the past week.

### Differences by grade level:

- Grade 12 students are more likely than Grade 6 and 8 students to have been exposed to secondhand smoke in a room in the past week.
- Grade 10 students are more likely than Grade 6 students to have been exposed to secondhand smoke in a room in the past week.
- Grade 8 students are more likely than Grade 6 students to have been exposed to secondhand smoke in a room in the past week.

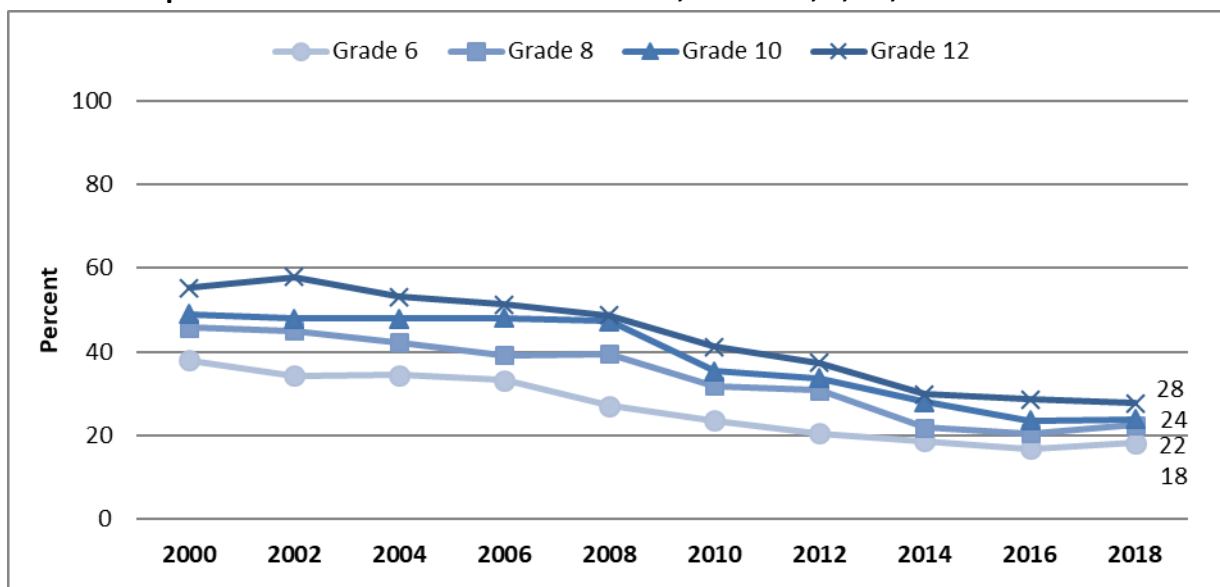
### Differences by gender:

- Grade 6 and 8 females were more likely than males to have been exposed to secondhand smoke in a room in the past week.

### Differences over time:

- There were no changes in exposure to secondhand smoke in a room in the past week for any grade from 2016 to 2018.
- Among Grades 6, 8, 10, and 12, there were decreases in exposure to secondhand smoke in a room in the past week from 2002 through 2018.

**Chart 67: Exposure to Secondhand Smoke in Room, Grades 6, 8, 10, and 12 from 2000 - 2018**





*Survey Question:* During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?

*Note:* Percentages represent students who reported they had been exposed to secondhand smoke in a room in the past week.

*Source:* WSSAHB 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Perception of Access to Cigarettes

There is strong evidence that community mobilization, along with additional interventions such as strong local laws for tobacco retailers, active enforcement of retailer sales laws, and retailer education with reinforcement are effective in reducing youth tobacco use and access to tobacco products from commercial sources (Task Force on Community Preventive Services, 2005).

In 2018, 77 percent of Grade 6 students, 58 percent of Grade 8 students, 38 percent of Grade 10 students, and 26 percent of Grade 12 students reported that it would be very hard to get cigarettes.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was less likely to perceive that cigarettes would be very hard to get.

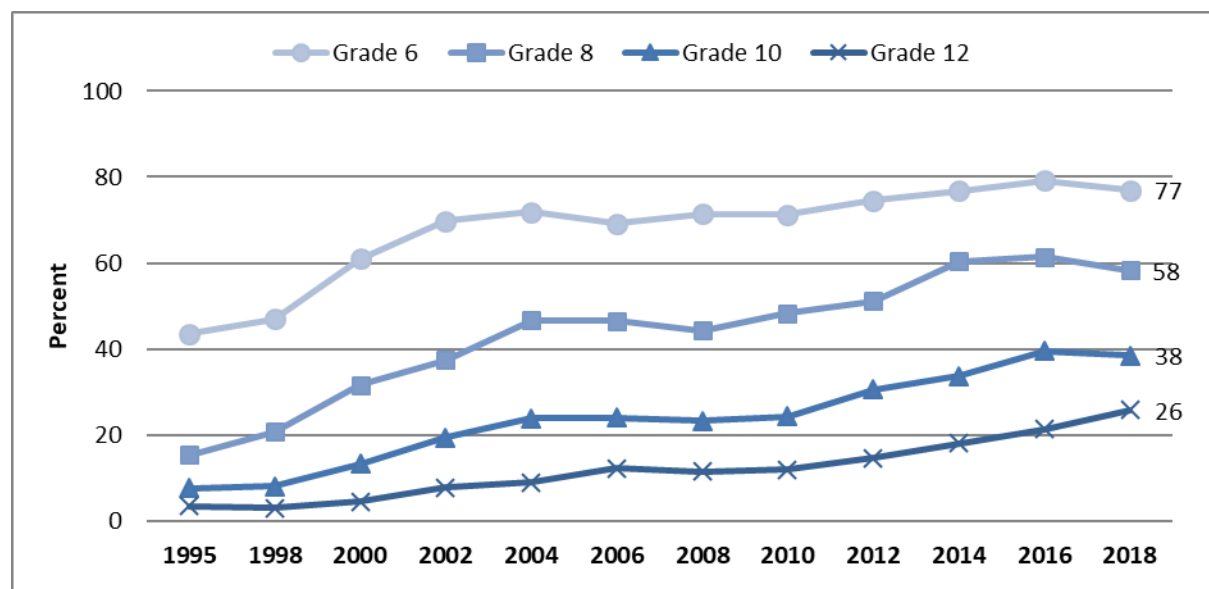
### Differences by gender:

- Grade 12 females were more likely than males to perceive that cigarettes are very hard to get.

### Differences over time:

- Among Grade 6 and 8 students, there were decreases in the perception that it would be very hard to get cigarettes from 2016 to 2018.
- Among Grade 12 students, there was an increase in the perception that it would be very hard to get cigarettes from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were increases in the perception that it would be very hard to get cigarettes from 2002 through 2018.

**Chart 68: Perception of Access to Cigarettes as Very Hard, Grades 6, 8, 10, and 12 from 1995 - 2018**



*Survey Question:* If you wanted to get some cigarettes, how easy would it be for you to get some?

*Note:* Percentages represent students who reported it would be “very hard” to get cigarettes if they wanted some.

*Source:* WSSAHB 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Perception of Risk from Heavy Cigarette Smoking (Pack or More Daily)

In 2018, 62 percent of Grade 6 students, 72 percent of Grade 8 students, 74 percent of Grade 10 students, and 77 percent of Grade 12 students reported there was great risk in smoking a pack or more of cigarettes a day.

### Differences by grade level:

- Grade 6 students were less likely than Grade 8, 10, and 12 students to perceive great risk in smoking a pack or more of cigarettes a day.
- Grade 8 students were less likely than Grade 12 students to perceive great risk in smoking a pack or more of cigarettes a day.

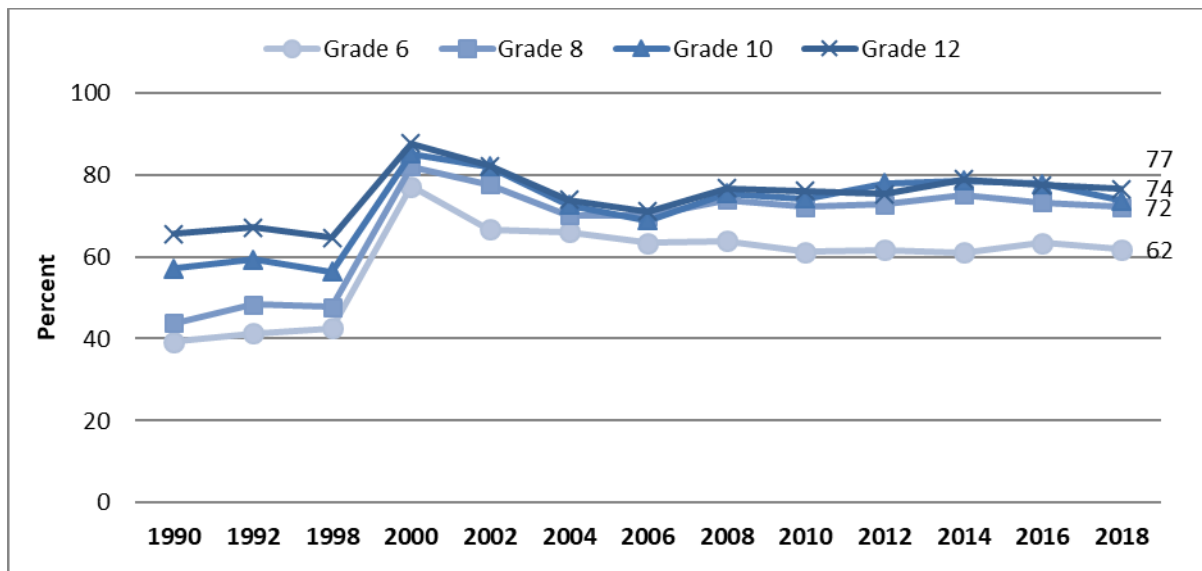
### Differences by gender:

- Grade 8, 10, and 12 males were less likely than females to perceive great risk in smoking a pack or more of cigarettes a day.

### Differences over time:

- Among Grade 10 students, there was a decrease the perception of great risk from smoking a pack of cigarettes or more a day from 2016 to 2018.
- Among Grade 6 students, there was a decrease in the perception of great risk from smoking a pack of cigarettes or more a day from 2002 through 2018.

**Chart 69: Perception of Great Risk from Heavy Cigarette Smoking, Grades 6, 8, 10, and 12 from 1990 - 2018**



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

*Note:* Percentages represent students who reported there is “great risk” from smoking a pack or more of cigarettes a day.

*Source:* WSSAHB 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Perception of Risk from Electronic Cigarettes (Almost Daily)

In 2018, 42 percent of Grade 8 students, 35 percent of Grade 10 students, and 31 percent of Grade 12 students reported there was great risk in using an electronic cigarette almost daily.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was less likely to perceive great risk in almost daily electronic cigarette use.

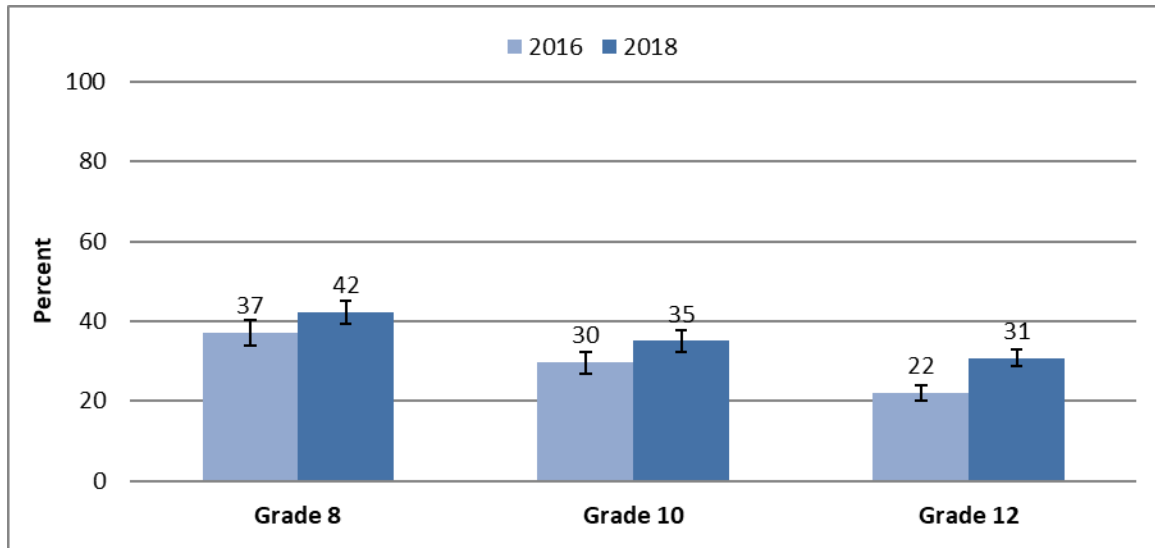
### Differences by gender:

- Grade 8, 10, and 12 males were less likely than females to perceive great risk in almost daily electronic cigarette use.

### Differences over time:

- Among Grade 8, 10, and 12 students, there were increases the perception of great risk from smoking a pack of cigarettes or more a day from 2016 to 2018.

**Chart 70: Perception of Great Risk from Almost Daily Electronic Cigarette Use, Grades 8, 10, and 12, 2016 and 2018**



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

*Note:* Percentages represent students who reported there is great risk from almost daily electronic cigarette use.

*Source:* HYS 2016 and 2018.

## Usual Sources of Tobacco

Despite laws restricting access to tobacco, youth still obtain it from a variety of sources. Younger youth who are experimenting with tobacco usually get it from friends or parents. Older, more addicted youth usually purchase their tobacco or ask friends over 18 to buy it for them.

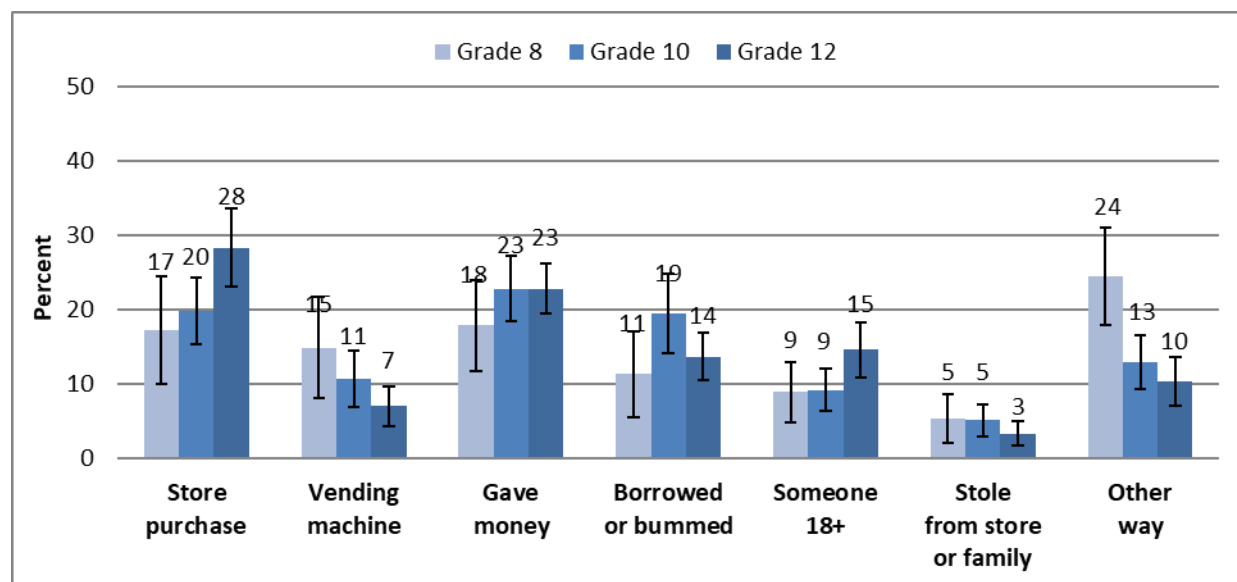
### Differences by grade level:

- Grade 12 students were more likely than Grade 8 and 10 students to purchase tobacco from a store.
- Grade 8 students were more likely than Grade 12 students to purchase tobacco from a vending machine.
- Grade 12 students were more likely than Grade 10 students to get tobacco from someone 18 or older.
- Grade 8 and Grade 10 students were more likely than Grade 12 students to get tobacco some other way.

### Differences by gender:

- Grade 12 males were more likely than females to purchase tobacco from a store.
- Grade 8 males were more likely than females to purchase tobacco from a vending machine.
- Grade 10 and 12 females were more likely than males to steal tobacco from a store or family member.

**Chart 71: Usual Sources of Tobacco among Current Tobacco Users, Grades 8, 10, and 12 in 2018**



*Survey Question:* During the past 30 days, how did you usually get your own tobacco? (Choose only one answer.)

### Notes:

- Proportions represent students who smoked cigarettes in the past 30 days and where they usually got their tobacco.
- Students who reported that they “did not get tobacco in the past 30 days” were not included in the results.
- The sample sizes for the 2018 results in this figure are 168 for Grade 8; 272 for Grade 10; and 329 for Grade 12 students.

*Source:* HYS 2018.

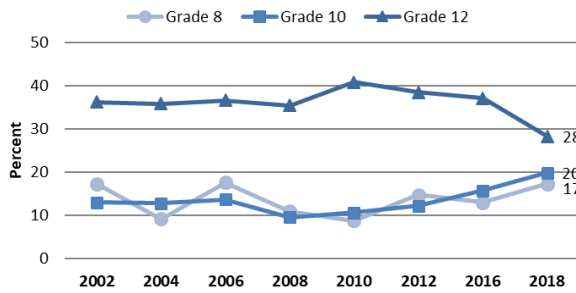
### Differences over time:

- Among Grade 12 students, there was a decrease in purchasing tobacco from a store from 2016 to 2018.
- Among Grade 8 students, there was a decrease in stealing tobacco from a store or a family member from 2016 to 2018.

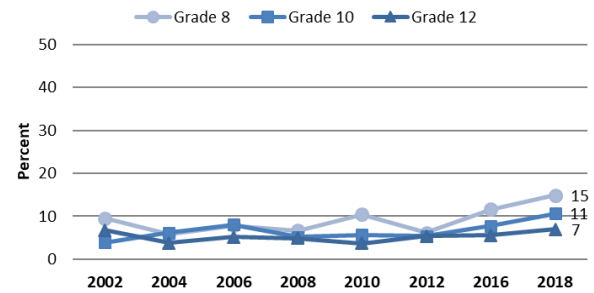
- Among Grade 10 students, there was an increase in getting tobacco some other way from 2016 to 2018.
- Among Grade 12 students, there was a decrease in borrowing or bumming tobacco from 2002 through 2018.
- Among Grade 12 students, there was an increase in stealing tobacco from a store or a family member from 2002 through 2018.

**Charts 72: Trends for Usual Source of Tobacco Among Current Tobacco Users, Grades 8, 10, and 12 from 2008 – 2018**

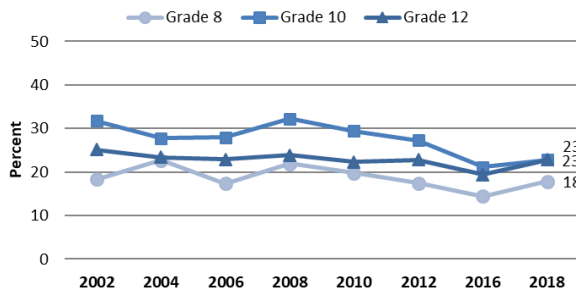
**Brought from a Store**



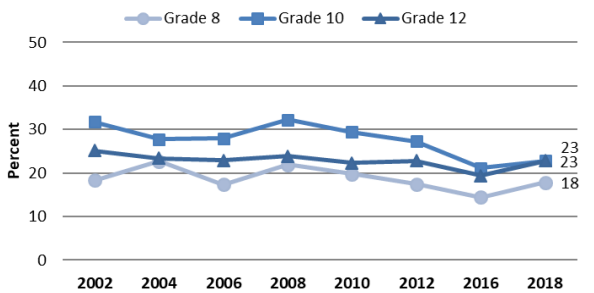
**Bought from a Vending Machine**



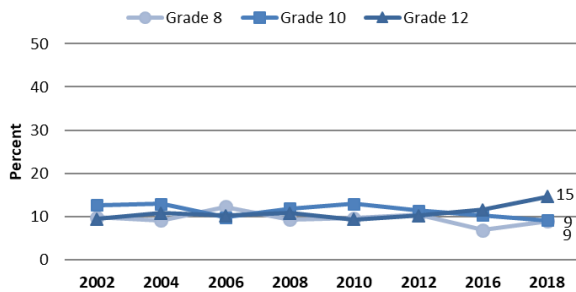
**Gave Someone Money to Buy Them**



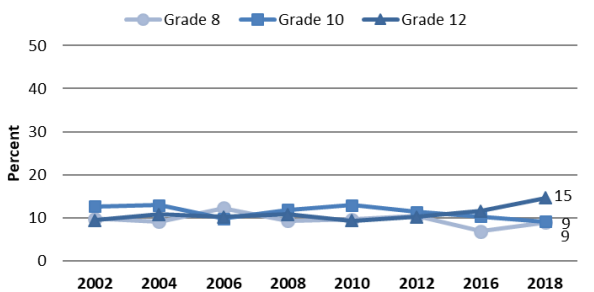
**Borrowed or Bummed Them**



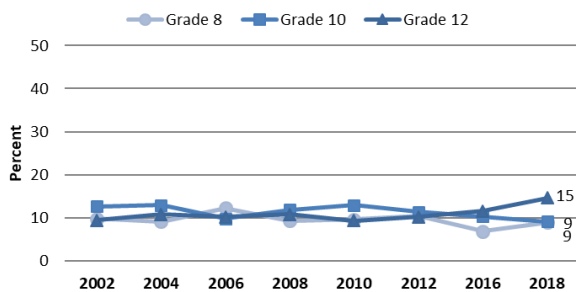
**From A Person 18 Years or Older**



**Took Them from a Store or Family Member**



**Some Other Way**



Source: HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Usual Sources of Electronic Vapor Products

The emergence of electronic cigarettes/vapor products and the rise in use among youth nationally has raised serious concern. About half of middle and high school students in the U.S. who used tobacco products in 2015 were current users of two or more types of tobacco products, including e-cigarettes and vapor products (Washington State DOH 2015 Update). Youth also use THC (marijuana) in e-cigarettes and vapor products, and some use “flavor only” (no substance).

### *Differences by grade level:*

- Grade 12 students were more likely than Grade 8 and 10 students to purchase vape products from a store.
- Grade 10 students were more likely than Grade 12 students to borrow or “bum” vape products.
- Grade 8 students were more likely than Grade 10 and 12 students to steal vape products from a store or family member.
- Grade 8 and 10 students were more likely than Grade 12 students to get vape products some other way.

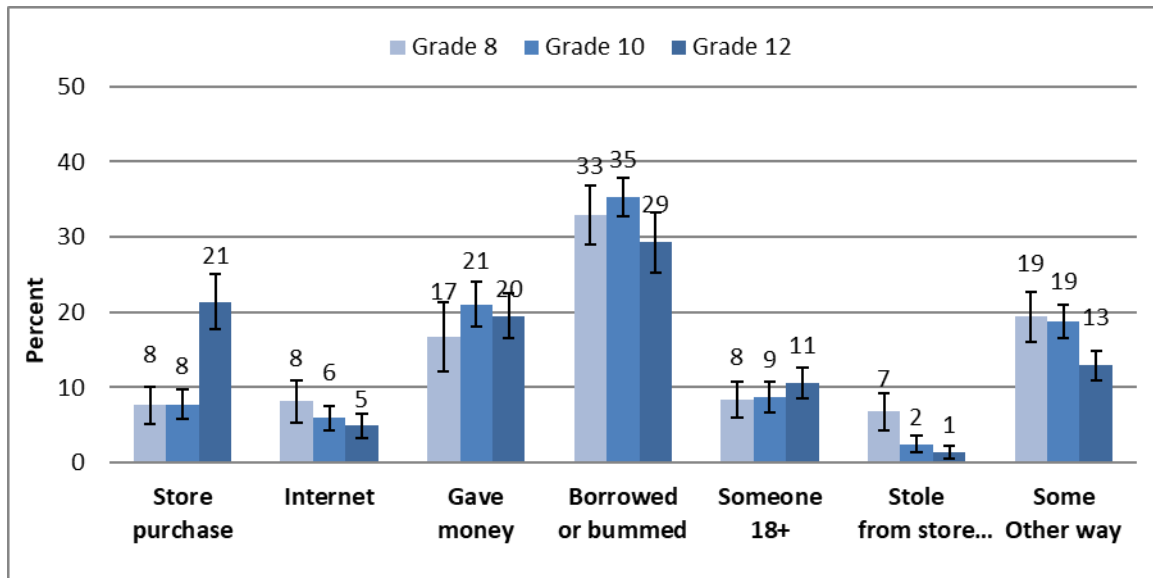
### *Differences by gender:*

- Grade 8, 10, and 12 males were more likely than females to purchase vape products from a store.
- Grade 8 and 10 males were more likely than females to purchase vape products from a vending machine.
- Grade 8 and 12 females were more likely than males to borrow or “bum” vape products.
- Grade 10 and 12 females were more likely than males to get vape products from someone 18 or older.
- Grade 12 males were more likely than females to get vape products some other way.

### *Differences over time:*

- Among Grade 8 and 12 students, there were increases in purchasing vape products from a store from 2016 to 2018.
- Among Grade 10 and 12 students, there were decreases in purchasing vape products from a vending machine from 2016 to 2018.
- Among Grade 10 and 12 students, there were increases in giving someone money for vape products from 2016 to 2018.
- Among Grade 8, 10 and 12 students, there were increases in borrowing or “bumming” vape products from 2016 to 2018.
- Among Grade 10 students, there was a decrease in stealing vape products from a store or family member from 2016 to 2018.

**Chart 73: Usual Sources of Electronic Vapor Products among Current Vape Product Users, Grades 8, 10, and 12 in 2018**



*Survey Question:* During the past 30 days, how did you usually get your own electronic vapor products? (Choose only one answer.)

*Notes:*

- Proportions represent students who used electronic vapor products in the past 30 days and where they usually got their vapor products.
- Students who reported that they “did not use electronic vapor products in the past 30 days” were not included in the results.
- The sample sizes for the 2018 results in this figure are 443 for Grade 8; 812 for Grade 10; and 799 for Grade 12 students.

*Source:* HYS 2018.



## Type of Substance Used in an Electronic Cigarette

In 2018, students were asked if they used an electronic cigarette and what type of substance they used in it during the past 30 days. Among those who said they used an electronic cigarette:

- 36 percent of Grade 8 students, 49 percent of Grade 10 students, and 58 percent of Grade 12 students used liquid with nicotine.
- 18 percent of Grade 8 students and 23 percent of Grade 10, and 12 students used liquid with TCH (marijuana).
- 43 percent of Grade 8 students, 35 percent of Grade 10 students, and 28 percent of Grade 12 students used liquid with flavor only (no nicotine or THC).
- 14 percent of Grade 8 students, 10 percent of Grade 10 students, and 8 percent of Grade 12 students did not know what type of substance they used.

### *Differences by grade level:*

- Grade 10 and 12 students were more likely than Grade 8 students to use liquid with nicotine.
- Grade 12 students were more likely than Grade 8 students to use liquid with THC.
- As grade levels decrease, students were more likely to use liquid with flavor only (no nicotine or THC).
- Grade 8 students were more likely than Grade 10 and 12 students to not know what type of substance they used.

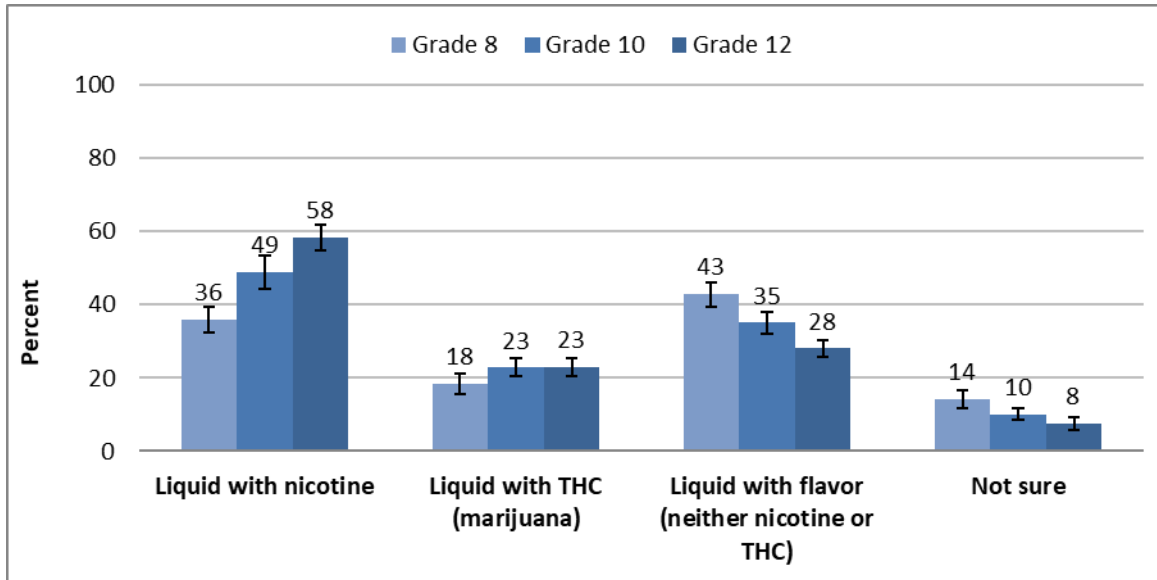
### *Differences by gender:*

- Grade 10 females were more likely than males to use liquid with flavor only (no nicotine or THC).
- Grade 10 males were more likely than females to not know what type of substance they used.

### *Differences over time:*

- Among Grade 8, 10, and 12 students, there were increases in using liquid with nicotine from 2016 to 2018.
- Among Grade 10 students, there was an increase in using liquid with THC from 2016 to 2018.
- Among Grade 10 students, there was decrease in using liquid with flavor only from 2016 to 2018.

**Chart 74: Type of Substance Use in an Electronic Cigarette Among Those Who Vaped, Grades 8, 10, and 12, 2018**



*Survey Question:* 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.

*Notes:*

- Percentages represent students who reported that they used any type of substance(s) in an electronic cigarette.
- Students who reported “did not use an electronic cigarette in the past 30 days” were not included in the results.
- The sample sizes for the 2018 results in this figure are: 773 Grade 8; 1,484 Grade 10; and 1,548 Grade 12 students.

*Source:* HYS 2018

# Marijuana Use

Marijuana has been the most widely used drug since the state’s first survey of youth substance use in 1988. It is also by far the primary drug used by youth entering treatment. National trends in use have been associated with youth perception of the risk of marijuana use—that is, as perception of risk declined during the 1990s, the prevalence of marijuana use grew.

## Lifetime Marijuana Use

In 2018, 4 percent of Grade 6 students, 11 percent of Grade 8 students, 29 percent of Grade 10 students, and 43 percent of Grade 12 students reported having used marijuana at some time in their life.

*Differences by grade level:*

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to have used marijuana in their lifetime.

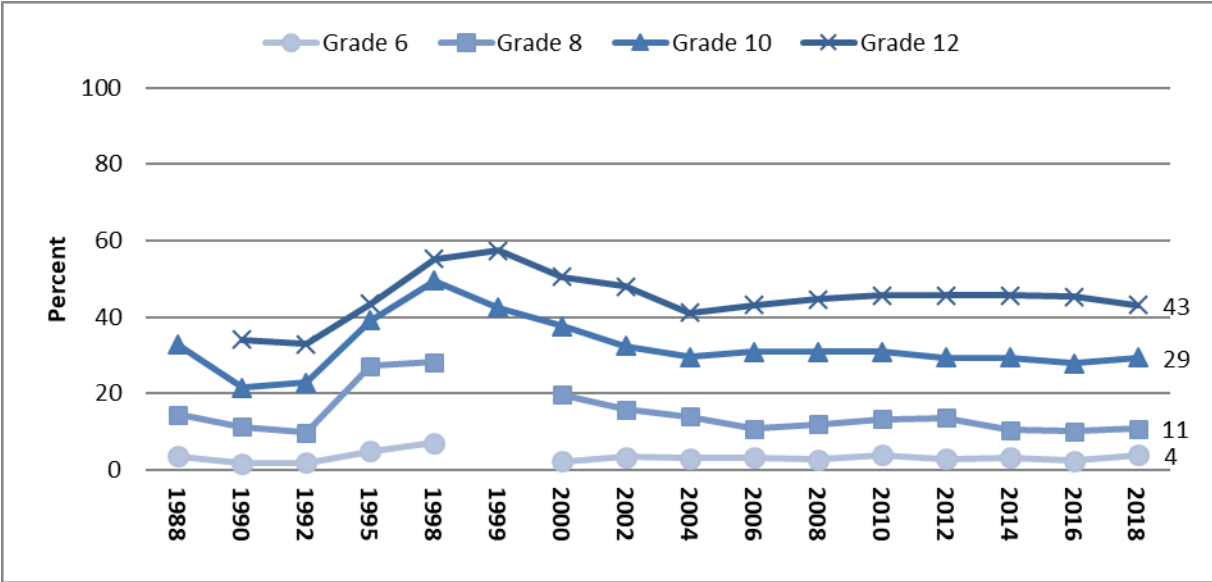
*Differences by gender:*

- Grade 8 males were more likely than females to have used marijuana in their lifetime.

*Differences over time:*

- Among Grade 6 students, there was an increase in lifetime marijuana use from 2016 to 2018.
- Among Grade 8 and 10 students, there were decreases in lifetime marijuana use from 2002 through 2016.

**Chart 75: Lifetime Marijuana Use, Grades 6, 8, 10 and 12 from 1988 -2018**



*Survey Question:*

- How old were you the first time you: Used marijuana?
- Have you ever, even once in your lifetime: Used marijuana?

*Notes:*

- Percentages represent students who had ever used marijuana at any age in their life (Grades 8, 10, and 12) or had ever used marijuana in their life (Grade 6).
- For both questions, the word “smoked” was changed to “used” in 2014.

*Source:* SADUS 1988 and 1990; WSSAHB 1992, 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## 30-Day Marijuana Use

In 2018, 1 percent of Grade 6 students, 7 percent of Grade 8 students, 18 percent of Grade 10 students, and 26 percent of Grade 12 students reported using marijuana in the past 30 days.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was more likely to have used marijuana in the past 30 days.

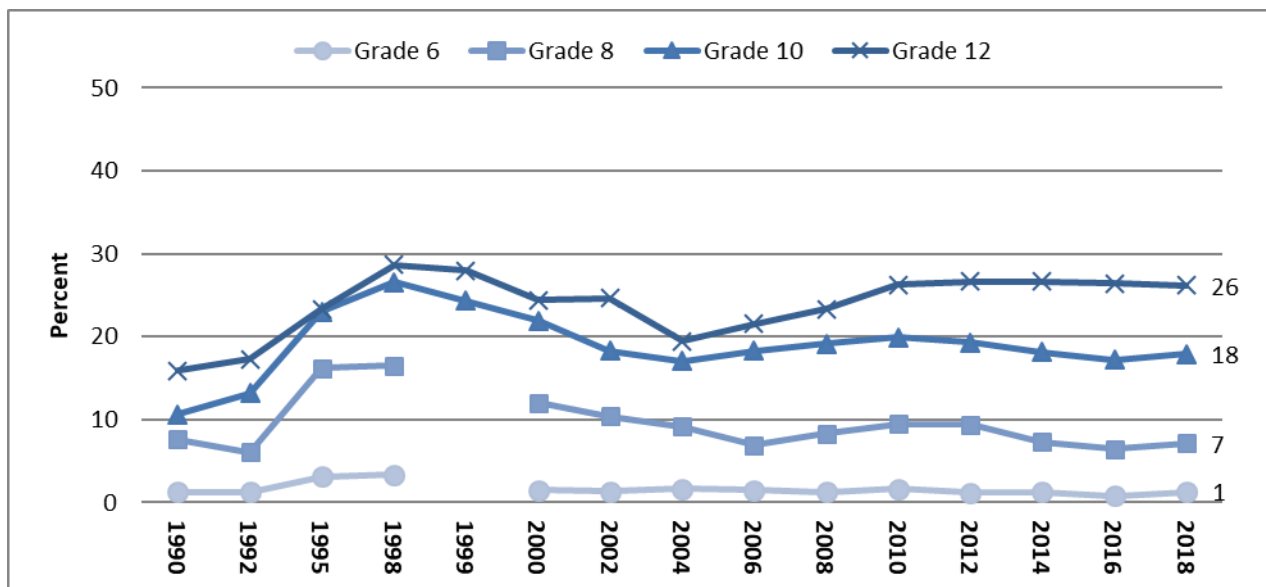
### Differences by gender:

- Grade 6 males were more likely than females to have used marijuana in the past 30 days.

### Differences over time:

- Among Grade 6 students, there was a decrease in 30-day marijuana use from 2016 to 2018.
- Among Grade 6 and 8 students, there were decreases in 30-day marijuana use from 2002 through 2018.

**Chart 76: 30-Day Marijuana Use, Grades 6, 8, 10 and 12 from 1990 - 2018**



*Survey Question:* During the past 30 days, on how many days did you: Use marijuana or hashish (weed, hash, pot)?

### Notes:

- Percentages represent students who used marijuana on any days in the past 30 days.
- In 2014, “smoked marijuana” was changed to “used marijuana”.
- The description of marijuana changed from “grass, hash, pot” to “weed, hash, pot” in 2014.
- More response options were added in 2016.

*Source:* SADUS 1990; WSSAHB 1992, 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Levels of Marijuana Use

Students reported the following levels of marijuana use in 2018:

- Experimental use: about 3 percent of Grade 8 students, 7 percent of Grade 10 students, and 9 percent of Grade 12 students.
- Occasional use: about 1 percent of Grade 8 students, 4 percent of Grade 10 students, and 5 percent of Grade 12 students.
- Regular use: about 3 percent of Grade 8 students, 7 percent of Grade 10 students, and 12 percent of Grade 12 students.

*Differences by grade level:*

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to report experimental, occasional, and regular marijuana use.

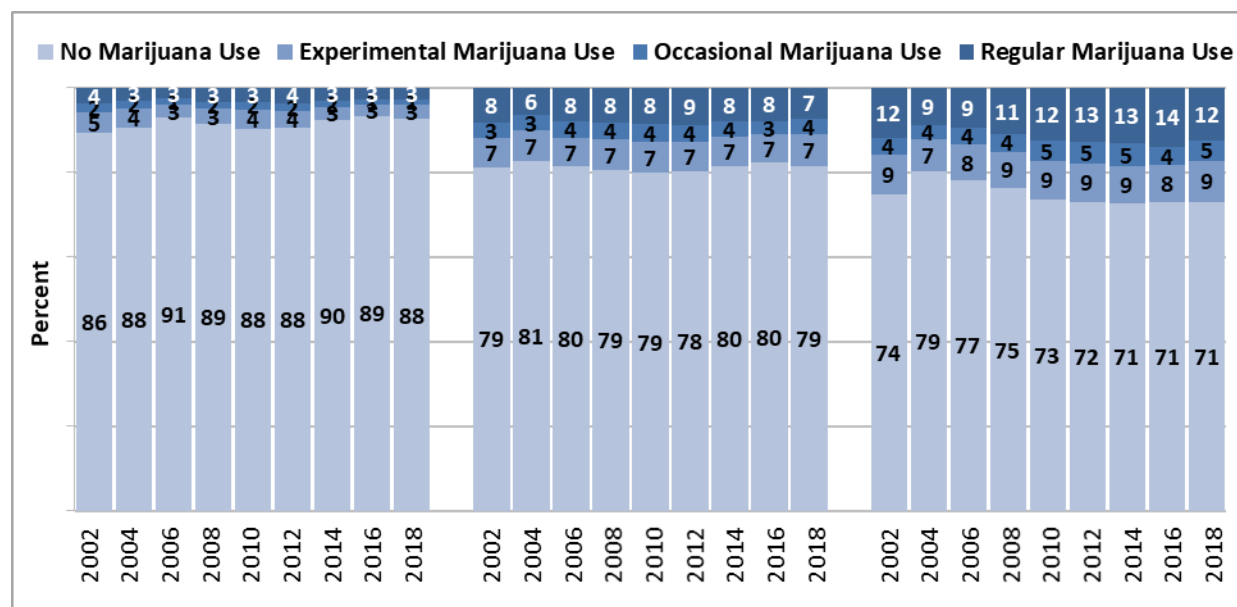
*Differences by gender:*

- Grade 12 females were more likely than males to report experimental marijuana use.
- Grade 10 and 12 males were more likely than females to report regular marijuana use.

*Differences over time:*

- Among Grade 8 students, there was a decrease in occasional marijuana use from 2002 through 2018.
- Among Grade 12 students, there was an increase in occasional marijuana use from 2002 through 2018.
- Among Grade 12 students, there was an increase in regular marijuana use from 2006 through 2018.

**Chart 77: Levels of Marijuana Use, Grades 8, 10, and 12, from 2002 through 2018**



*Survey Question:* During the past 30 days, on how many days did you: Use marijuana or hashish (weed, hash, pot)?

*Notes:*

- Experimental marijuana use represents 1-2 days of use in the past 30 days.
- Occasional marijuana use represents 3-5 days of use in the past 30 days.
- Regular marijuana use represents 6 or more days of use in the past 30 days.
- In 2014, “smoked marijuana” was changed to “used marijuana”.
- The description of marijuana changed from “grass, hash, pot” to “weed, hash, pot” in 2014.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Average Age of First Marijuana Use

Some students begin experimenting with marijuana at an early age. Early (12-14 years of age) initiation of drug use, such as marijuana, is associated with a greater risk of developing an addiction and drug abuse than initiation during adulthood (Chen, 2009).

Among Grade 10 students who reported having ever used marijuana, the average age of first use was 13.8 years.

**Table 14: Average Age of First Marijuana Use in 2018**

Behavior	Mean Age of First Reported Use		
	Grade 8	Grade 10	Grade 12
Used marijuana	12.2 ( $\pm 0.09$ )	13.8 ( $\pm 0.1$ )	15.2 ( $\pm 0.1$ )

*Survey Question:* How old were you the first time you used marijuana?

*Notes:*

- Age of first use is calculated by excluding students who responded that they “never had” used marijuana and calculating the mean age of use among those who used marijuana at any age.
- In 2014, “smoked marijuana” was changed to “used marijuana”.

*Source:* HYS 2018.

## Perception of Access to Marijuana

A study based on a national survey (Caulkins and Pacula, 2006) found that among people of all ages, most marijuana users obtain the drug for free (59 percent), from a friend or relative (88 percent), and through indoor transactions (87 percent). Only 6 percent reported purchasing marijuana from a stranger. The perceived ease of availability of marijuana among Washington State youth has been consistently below the national average (Monitoring the Future, 2016).

In 2018, 85 percent of Grade 6 students, 62 percent of Grade 8 students, 33 percent of Grade 10 students, and 22 percent of Grade 12 students reported that it would be very hard to get marijuana.

### Differences by grade level:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was less likely to perceive that marijuana would be very hard to get.

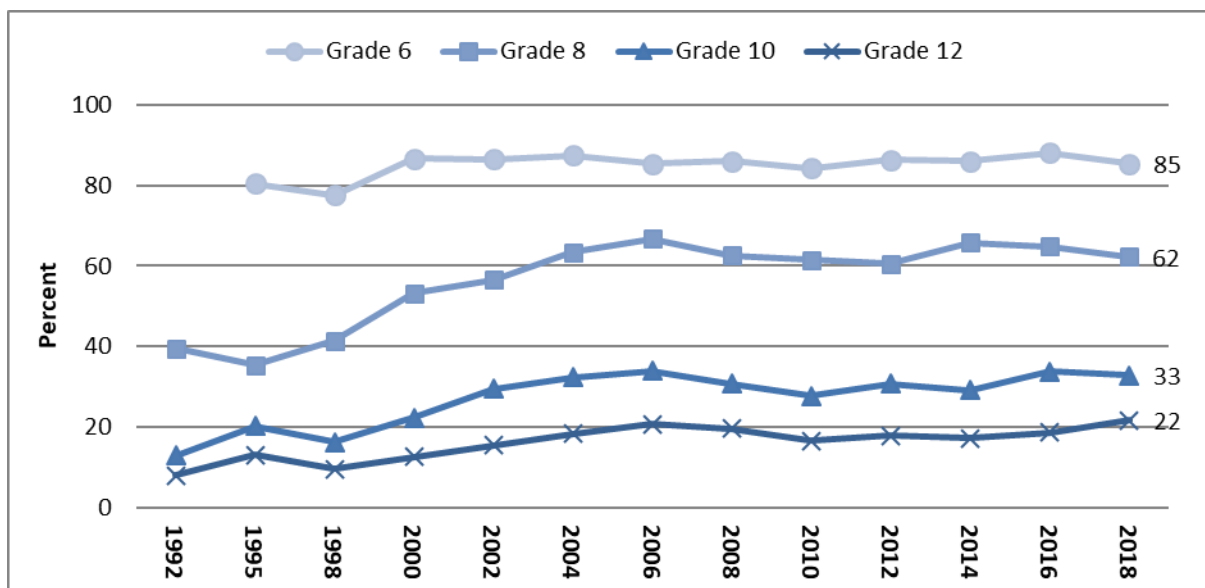
### Differences by gender:

- Grade 8 and 10 females were less likely than males to perceive that marijuana would be very hard to get.
- Grade 6 males were less likely than females to perceive that marijuana would be very hard to get.

### Differences over time:

- Among Grade 6 students, there was a decrease in the perception that getting marijuana would be very hard from 2016 to 2018.
- Among Grade 12 students, there was an increase in the perception that getting marijuana would be very hard from 2016 to 2018.
- There were no trends in the perception that getting marijuana would be very hard for any grade from 2002 through 2018.

**Chart 78: Perception of Access to Marijuana as Very Hard, Grades 6, 8, 10 and 12 from 1992 - 2018**





*Survey Question:* If you wanted to get some marijuana, how easy would it be for you to get some?

*Note:* Percentages represent students who reported that it would be “very hard” to get marijuana if they wanted some.

*Source:* WSSAHB 1992, 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Perception of Risk from Regular Marijuana Use

Long-term trend data from Monitoring the Future suggests that perceived risk of marijuana use is a leading indicator of actual use. That is, during the 1970s, and again in the 1990s, as the perception of risk fell, the use of marijuana rose (Johnston, O’Malley, Bachman, and Schulenberg, 2007).

In 2018, 49 percent of Grade 6 students, 43 percent of Grade 8 students, 31 percent of Grade 10 students, and 25 percent of Grade 12 students reported there was great risk in using marijuana regularly.

### Differences by grade:

- Among Grade 6, 8, 10, and 12 students, as grade levels increase, each grade was less likely to perceive great risk in regular marijuana use.

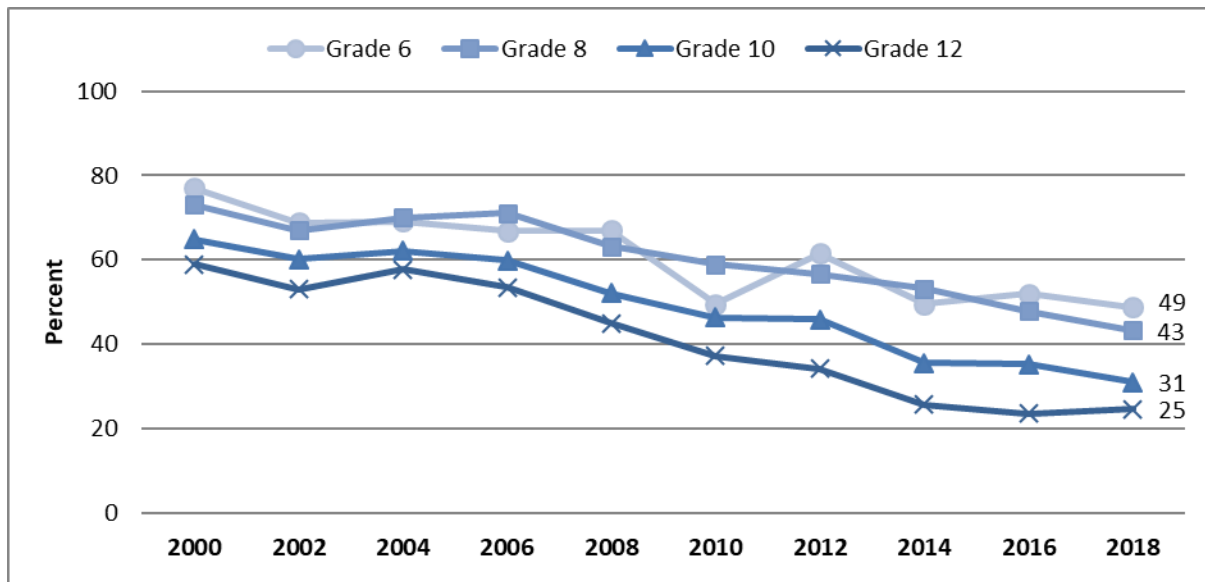
### Differences by gender:

- Grade 8, 10, and 12 females were more likely than males to perceive great risk in regular marijuana use.

### Differences over time:

- Among Grade 8 students, there was a decrease in the perception of great risk from using marijuana regularly from 2016 to 2018.
- Among Grade 6, 8, 10, and 12 students, there were decreases in the perception of great risk from using marijuana regularly from 2002 through 2018.

**Chart 79: Perception of Great Risk from Regular Marijuana Smoking, Grades 6, 8, 10, and 12 from 2000 - 2018**



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

### Notes:

- Percentages represent students who reported there is “great risk” from regular marijuana use.
- The word “smoke” was changed to “use” in 2014.

*Source:* WSSAHB 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Usual Sources of Marijuana

Most students got marijuana from friends. Younger students are more likely to get marijuana from home, while older students are more likely to get marijuana from friends, at parties, and to give money to someone to buy it for them. The following chart represents where they usually obtained marijuana, among students who used marijuana in the past 30 days.

### *Differences by grade level:*

- Grade 10 and 12 students were more likely than Grade 8 students to get marijuana at a party.
- Grade 12 students were more likely than Grade 10 students to get marijuana from a sibling.
- Grade 10 and 12 students were more likely than Grade 8 students give money to someone for marijuana.
- Grade 12 students were more likely than Grade 8 and 10 students to get marijuana from home without permission.
- Grade 12 students were more likely than Grade 10 students to get marijuana from home with permission.

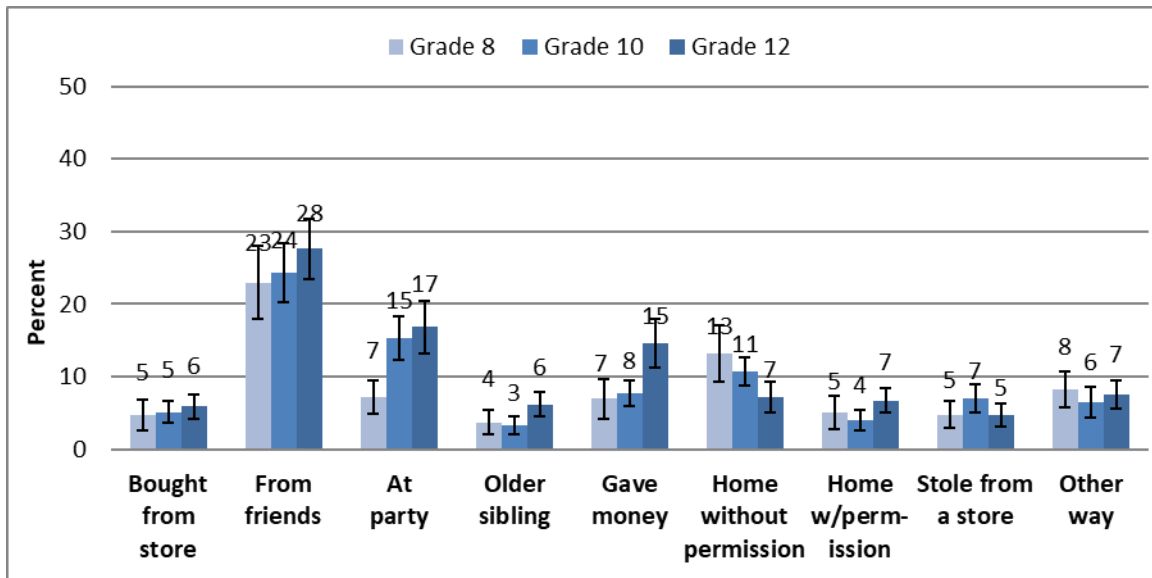
### *Differences by gender:*

- Grade 10 and 12 males were more likely than females to buy marijuana from a store and to steal marijuana from a store.
- Grade 10 females were more likely than males get marijuana from friends.
- Grade 10 females were more likely than males to give money to someone for marijuana.
- Grade 8 and 10 females were more likely than males to get marijuana at home without permission.
- Grade 10 and 12 males were more likely than females to steal marijuana from a store.

### *Differences over time:*

- Among Grade 12 students, there were decreases in getting marijuana from a party from 2016 to 2018.
- Among Grade 10 and 12 students, there were decreases giving money to someone for marijuana from 2016 to 2018.
- Among Grade 10 and 12, there were decreases in getting marijuana some other way.

**Chart 80: Usual Sources of Marijuana among Current Marijuana Users, Grades 8, 10, and 12 in 2018**



*Survey Question:* During the past 30 days, how did you usually get marijuana? Choose all that apply.

*Notes:*

- Students could check multiple responses.
- Students who reported that they “did not get marijuana in the past 30 days” were not included in the results.
- The sample sizes for the 2018 results in this figure are: 401 Grade 8; 725 Grade 10; and 681 Grade 12 students.

*Source:* HYS 2018.

## Usual Type of Marijuana

In 2018, students were asked if they used marijuana, and how they usually used it. Among those who said they used marijuana:

- 54 percent of Grade 8 students, 62 percent of Grade 10 students, and 58 percent of Grade 12 students usually smoked it.
- 16 percent of Grade 8 students, 12 percent of Grade 10 students, and 9 percent of Grade 12 students usually ate it.
- 6 percent of Grade 8 students, 4 percent of Grade 10 students, and 3 percent of Grade 12 students usually drank it.
- 7 percent of Grade 8 and Grade 10 students and 9 percent of Grade 12 students usually vaporized it.
- 13 percent of Grade 8 and Grade 10 students and 19 percent of Grade 12 students usually dabbed it.
- 4 percent of Grade 8 students, 3 percent of Grade 10 students, and 2 percent of Grade 12 students usually used it some other way.

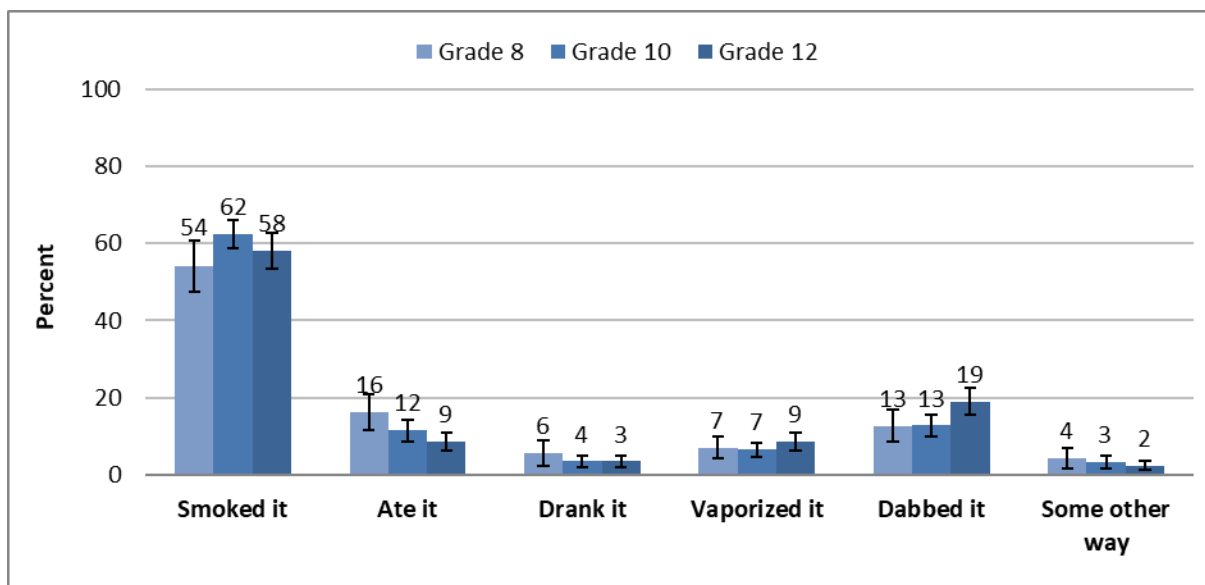
### Differences by grade level:

- Grade 8 students were more likely than Grade 12 students to usually eat it.
- Grade 10 students were more likely than Grade 8 students to usually smoke it.
- Grade 12 students were more likely than Grade 8 and 10 students to usually dab it.

### Differences by gender:

- Grade 10 males were more likely than females to usually drink it.
- Grade 10 males were more likely than females to vaporize it.

**Chart 81: Usual Type of Marijuana Used among Marijuana Users, Grades 8, 10, and 12 in 2018**



*Survey Question:* During the past 30 days, if you used marijuana, how did you usually use it?

*Notes:*

- Percentages represent students who reported that they used marijuana in one of the specified ways.
- Students who reported that they “did not use marijuana in the past 30 days” were not included in the results.
- The sample sizes for the 2018 results in this figure are: 284 Grade 8; 658 Grade 10; and 633 Grade 12 students.
- “Dabbed it” was added as a response option in 2018.

*Source:* HYS 2018.

## ***Other Drugs Not Including Alcohol, Tobacco, or Marijuana***

The Healthy Youth Survey also tracks drugs that are less common than alcohol, tobacco, and marijuana. The drugs that are included in the survey can change over time. For instance, early surveys included prescription drugs, but they were eliminated as concerns about party drugs grew. In 2016, several new questions regarding prescription drug abuse and misuse were added in response to heightened national and local awareness of this issue among youth.

### **30-Day Other Drug Use (Not Including Alcohol, Tobacco, or Marijuana)**

In 2018, 1 percent of Grade 6 students, 3 percent of Grade 8 students, 6 percent of Grade 10 students, and 7 percent of Grade 12 students reported using an illegal drug other than alcohol, tobacco, or marijuana in the past 30 days.

#### *Differences by grade level:*

- Grade 8 students were more likely than Grade 6 students to use other illegal drugs in the past 30 days.
- Grade 10 and 12 students were more likely than Grade 6 and 8 students to use other illegal drugs in the past 30 days.

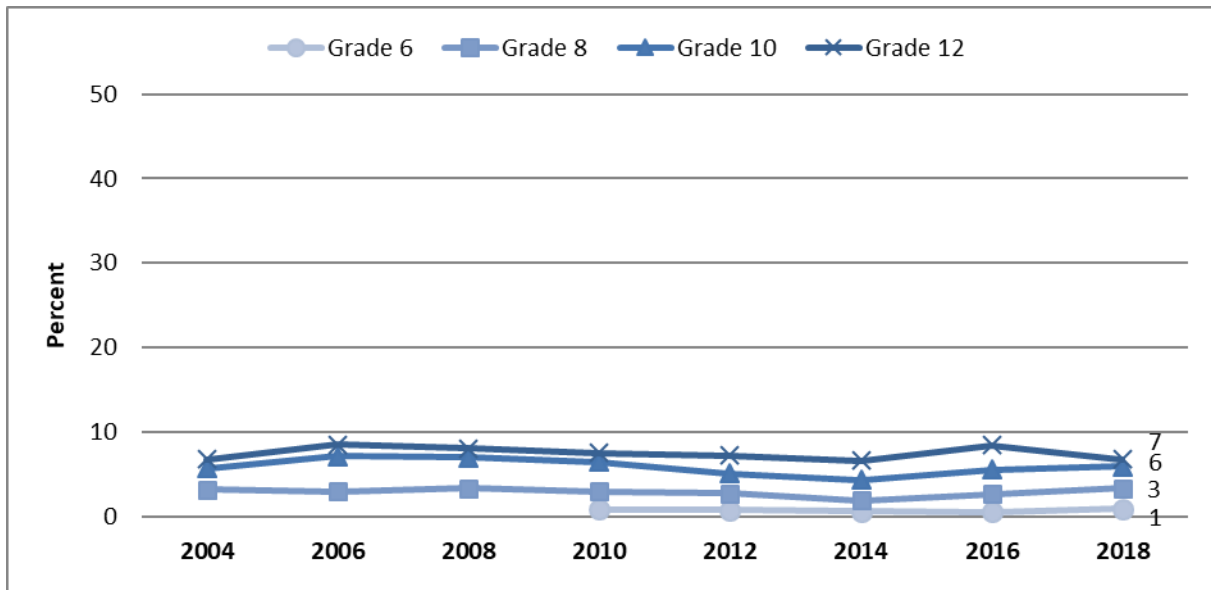
#### *Differences by gender:*

- Grade 6, 10, and 12 males were more likely than females to use other illegal drugs in the past 30 days.

#### *Differences over time:*

- Among Grade 6 students, there were increases in 30-day other illegal drug use from 2016 to 2018.
- Among Grade 8, there was a decrease in 30-day other illegal drug use from 2004 through 2014.

**Chart 82: 30-Day Other Drug Use (Not Including Alcohol, Tobacco, or Marijuana), Grades 6, 8, 10, and 12 from 2004 - 2018**



*Survey Question:* During the past 30 days, on how many days did you: Not counting alcohol, tobacco, or marijuana, use another illegal drug?

*Note:* Percentages represent students who used other illegal drugs on any days in the past 30 days.

*Source:* HYS 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



## Opiate (Painkiller) Use

Awareness and concern are growing regarding the use of painkillers that young people are using to get high. Using painkillers (namely for nonmedical reasons, i.e., to get high) puts adolescents at risk for various dangers directly related to the drugs themselves, such as overdose and death. Furthermore, prescription opioid use (and abuse) is a risk-factor for heroin initiation among adolescents (Palamar, Shearston, Dawson, Mateu-Gelabert, and Ompad, 2016) (Monitoring the Future, 2013). This can lead to heroin dependency, which not only carries its own risks of overdose and death, but of contracting Hepatitis C and HIV/AIDS, among other issues.

In 2018, painkiller use “to get high” in the past 30 days was reported by 2 percent of Grade 8 students, 4 percent of Grade 10 and 12 students.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have used painkillers to get high in the past 30 days.

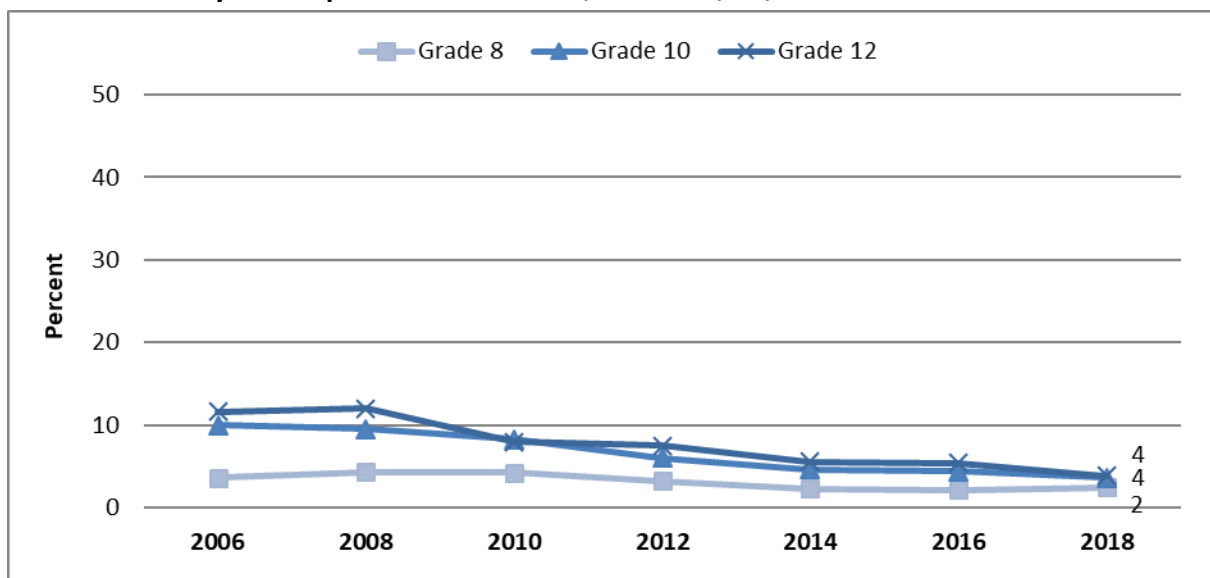
### Differences by gender:

- Grade 10 and 12 males were more likely than females to have used painkillers to get high in the past 30 days.

### Differences over time:

- Among Grade 12 students, there was a decrease in using painkillers to get high in the past 30 days from 2016 to 2018.
- Among Grade 8, 10, and 12 students, there were decreases in using painkillers to get high in the past 30 days from 2006 through 2018.

**Chart 83: 30-Day Prescription Painkiller Use, Grades 8, 10, and 12 from 2006 - 2018**



*Survey Question:* 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)?

*Note:* Percentages represent students who reported using painkillers to get high on any days in the past 30 days.

*Source:* HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Prescription Drug Misuse

In 2018, using non-prescribed prescription drugs in the past 30 days was reported by 6 percent of Grade 8 students, and 7 percent of Grade 10 and 12 students.

### Differences by grade level:

- There were no differences in using non-prescribed prescription drugs in the past 30 days by grade level.

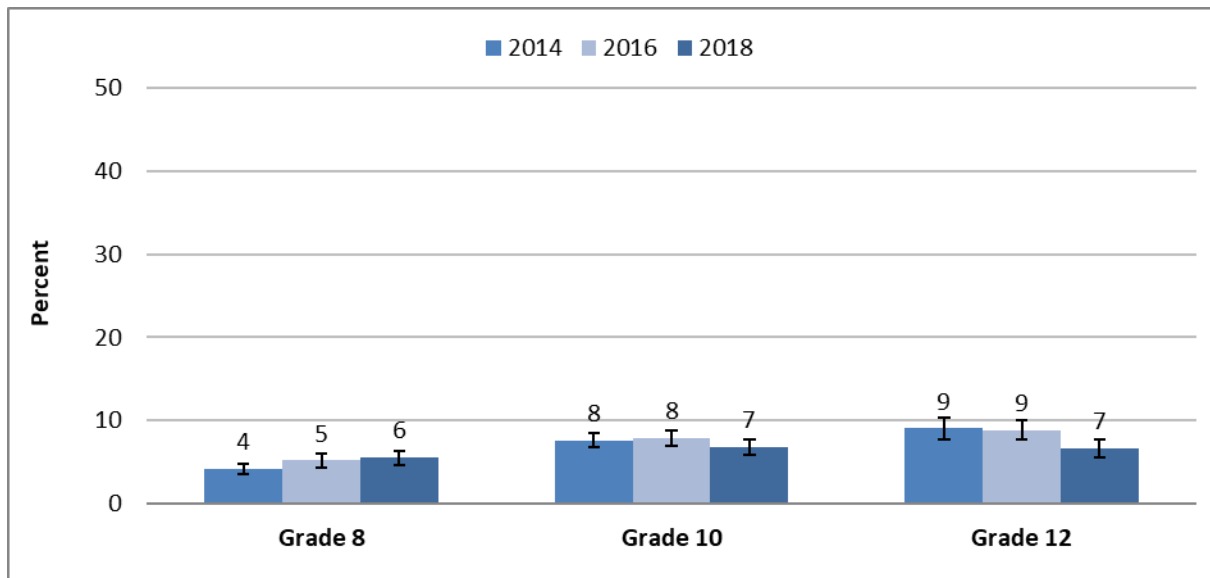
### Differences by gender:

- Grade 8 females were more likely than males to use non-prescribed prescription drugs in the past 30 days.
- Grade 10 males were more likely than females to use non-prescribed prescription drugs in the past 30 days.

### Differences over time:

- Among Grade 12 students, there was a significant decrease in using non-prescribed prescription drugs in the past 30 days from 2016 to 2018.

**Chart 84: 30-Day Use of Non-prescribed Prescription Drugs, Grades 8, 10, and 12 in 2014, 2016, and 2018**



*Survey Question:* During the past 30 days, on how many days did you: Use prescription drugs not prescribed to you?

*Note:* Percentages represent students who reported using non-prescribed prescription drugs on any days in the past 30 days.

*Source:* HYS 2014, 2016, and 2018.

## Lifetime Methamphetamine Use

Methamphetamine, a subclass of amphetamines, was at one time called “speed.” During the past several years, media reports have sometimes referred to methamphetamine use as an epidemic. This reflects the environmental and familial consequences of methamphetamine production. Nationally, methamphetamine use has been declining, including most recently among young adults (Substance Abuse and Mental Health Services Administration, 2009).

In 2018, 2 percent of Grade 8 students, and 3 percent of Grade 10 and 12 students reported having used methamphetamine at least once in their lifetime.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have used methamphetamines in their lifetime.

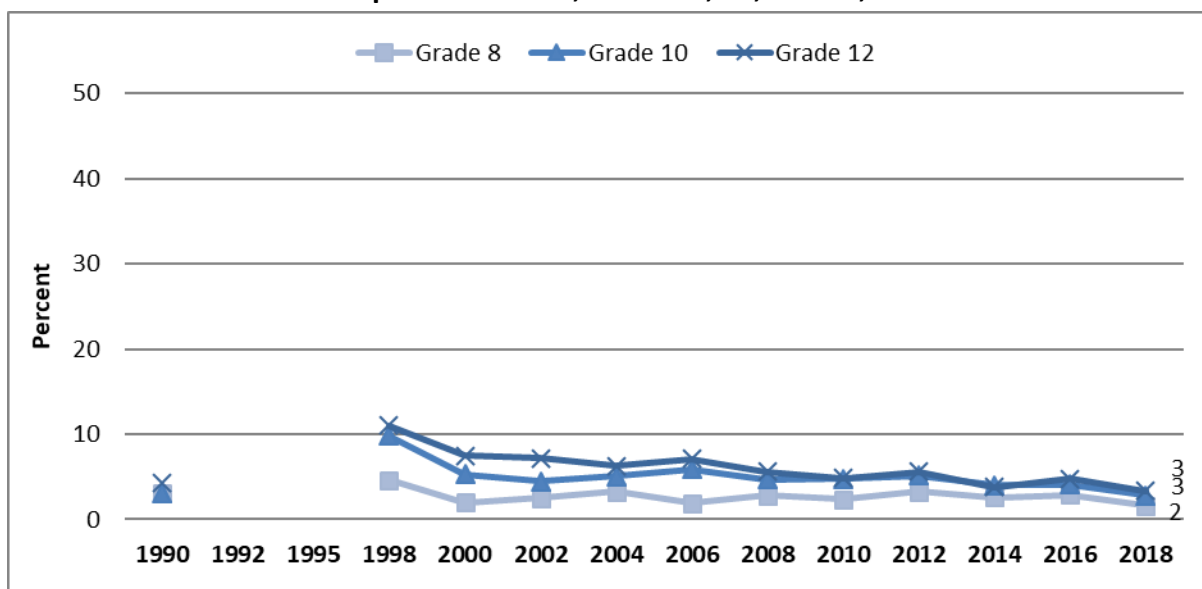
### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to have used methamphetamines in their lifetime.

### Differences over time:

- Among Grade 8, 10, and 12 students, there were decreases in lifetime methamphetamine use from 2016 to 2018.
- Among Grade 12 students, there was a decrease in lifetime methamphetamine use from 2002 through 2018.

**Chart 85: Lifetime Methamphetamine Use, Grades 8, 10, and 12, from 1990-2018**



*Survey Question:* Have you ever, even once in your lifetime, used any of the following drugs? Methamphetamines (meth, crystal meth, ice, crank) Do not include other types of amphetamines.

*Notes:* Percentages represent students who had ever used methamphetamines in their life.

*Source:* WSSAHB 1990, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018. Question was not asked in 1992 or 1995.

## Lifetime Inhalant Use

Inhalants are fumes or gases that can be inhaled for the purpose of getting high. Inhalants include common household products such as glue, gasoline, and nail polish remover, as well as propellants in certain products such as whipped cream dispensers (often referred to, in this context, as “whip-its”).

In 2018, 3 percent of Grade 6 students, 6 percent of Grade 8 students, and 8 percent of Grade 10 and 12 students reported having used inhalants at least once in their lifetime.

### Differences by grade level:

- Grade 8, 10, and 12 students were more likely than Grade 6 students to have used inhalants in their lifetime.
- Grade 10 and 12 students were more likely than Grade 8 students to have used inhalants in their lifetime.

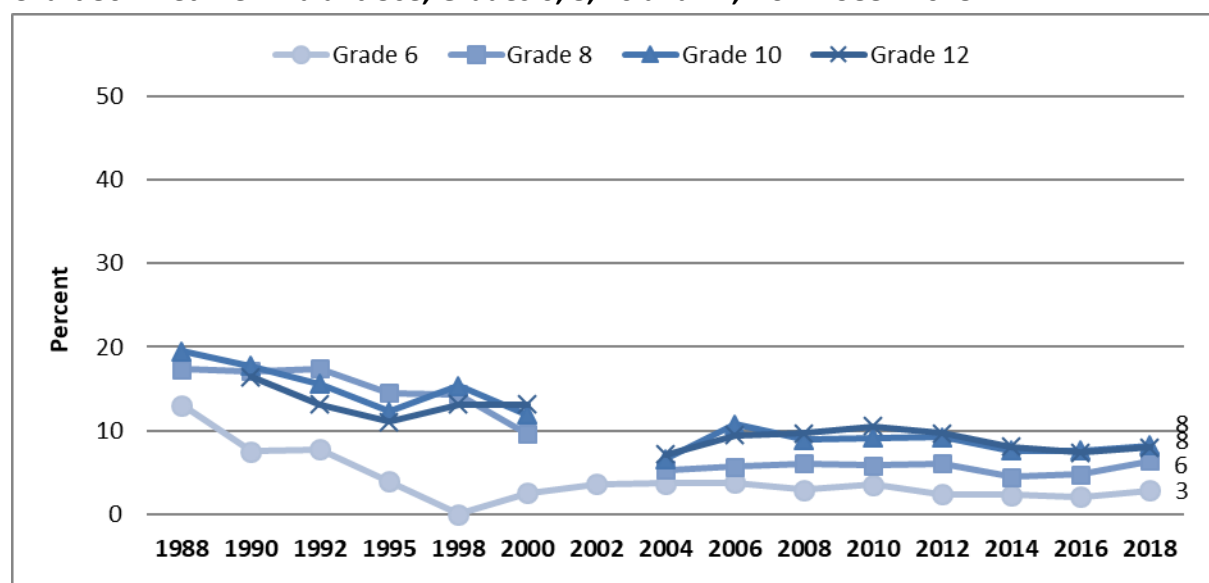
### Differences by gender:

- Grade 10 and 12 males were more likely than females to have used inhalants in their lifetime.

### Differences over time:

- Among Grade 6 and 8 students, there was increases in lifetime inhalant use from 2016 to 2018.
- Among Grade 6 students, there was a decrease in lifetime inhalant use from 2002 through 2018.

**Chart 86: Lifetime Inhalant Use, Grades 6, 8, 10 and 12, from 1988 - 2018**



### Survey Questions:

- How old were you the first time you: Used inhalants?
- Have you ever, even once in your lifetime, used inhalants (things you sniff to get high)?

*Note:* Percentages represent students who had ever used inhalants at any age in their life (Grades 8, 10, and 12) or had ever used inhalants once in their life (Grade 6).

*Source:* SADUS 1988 and 1990; WSSAHB 1992, 1995, 1998, and 2000; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Lifetime Heroin Use

In 2018, 2 percent of Grade 8 students, and 3 percent of Grade 10 and 12 students reported having used heroin at least once in their lifetime.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have used heroin in their lifetime.

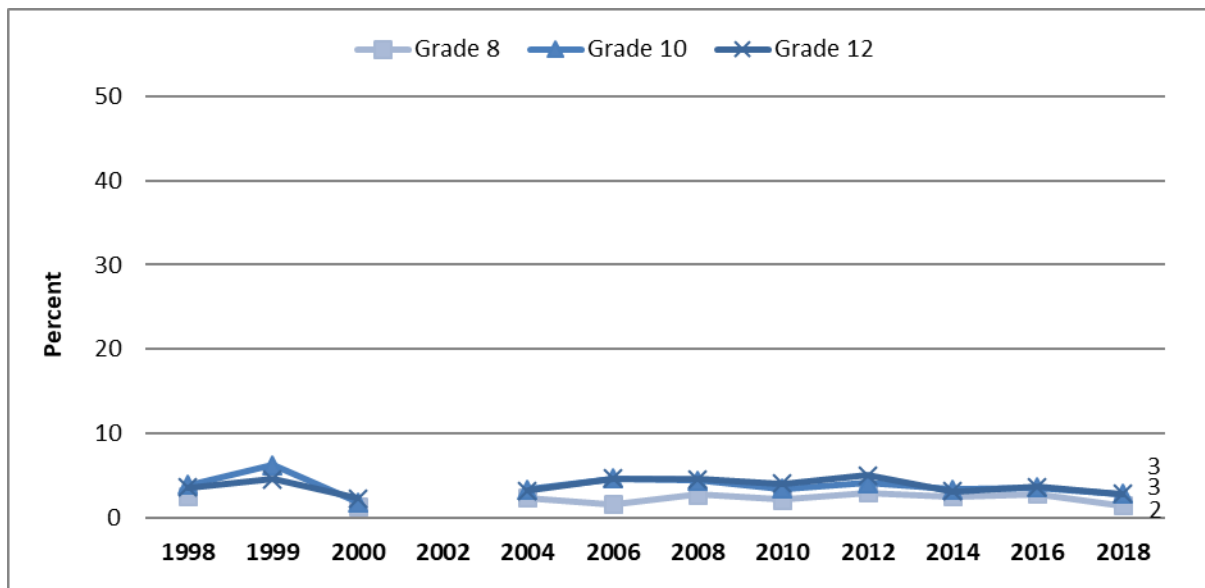
### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to have used heroin in their lifetime.

### Differences over time:

- Among Grade 8 students, there was a decrease in lifetime heroin use from 2016 to 2018.
- There were no trends in lifetime heroin use for any grade from 2004 through 2018.

**Chart 87: Lifetime Heroin Use, Grades 8, 10, and 12, from 1998-2018**



*Survey Question:* Have you ever, even once in your lifetime, used any of the following drugs: Heroin?

*Note:* Percentages represent students who had ever used heroin in their life.

*Source:* WSSAHB 1998 and 2000; YRBS 1999; HYS 2006, 2008, 2010, 2012, 2014, 2016, and 2018. Question was not asked in 2002.

## Lifetime Cocaine Use

In 2018, 2 percent of Grade 8 students, 4 percent of Grade 10 students, and 6 percent of Grade 12 students reported using cocaine at least once in their lifetime.

### Differences by grade level:

- Among Grade 8, 10, and 12 students, as grade levels increase, each grade was more likely to have used cocaine in their lifetime.

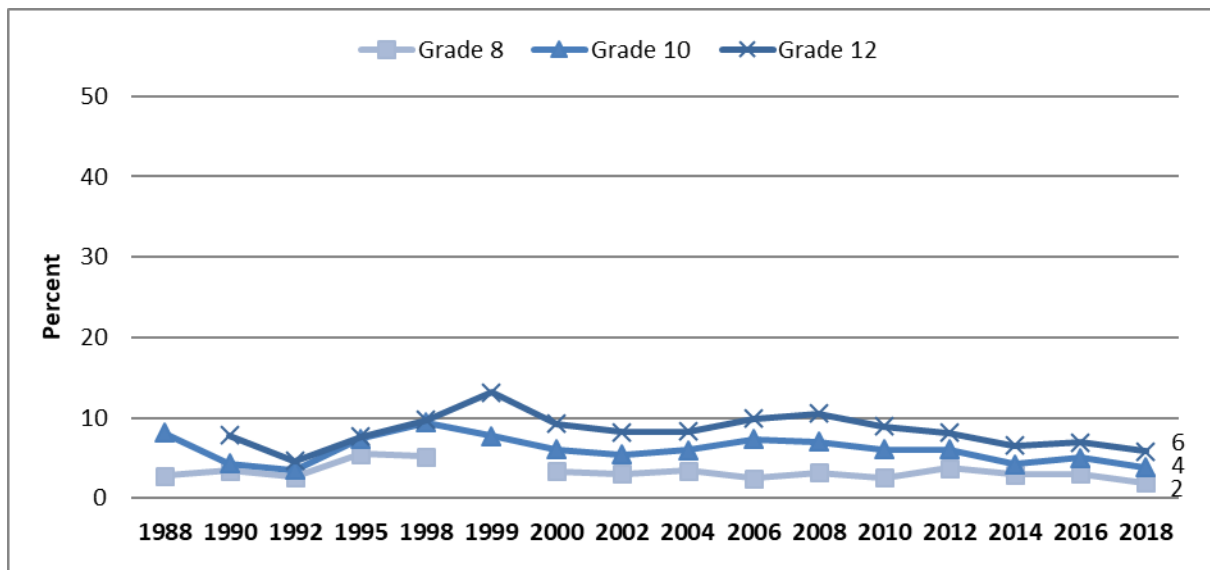
### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to use cocaine in their lifetime.

### Differences over time:

- Among Grade 8 students, there was a decrease in lifetime cocaine use from 2016 to 2018.
- Among Grade 10 students, there was a decrease in lifetime cocaine use from 2006 through 2018.

**Chart 88: Lifetime Cocaine Use, Grades 8, 10, and 12 from 1988 - 2018**



*Survey Question:* Have you ever, even once in your lifetime, used any of the following drugs: Cocaine?

*Note:* Percentages represent students who had ever used cocaine in their life.

*Source:* WSSAHB 1988, 1990, 1992, 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Lifetime Steroid Use

In 2018, 2 percent of Grade 8 students, and 3 percent of Grade 10 and 12 students reported having used steroids without a doctor's prescription at least once in their lifetime.

### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have used steroids without a prescription in their lifetime.

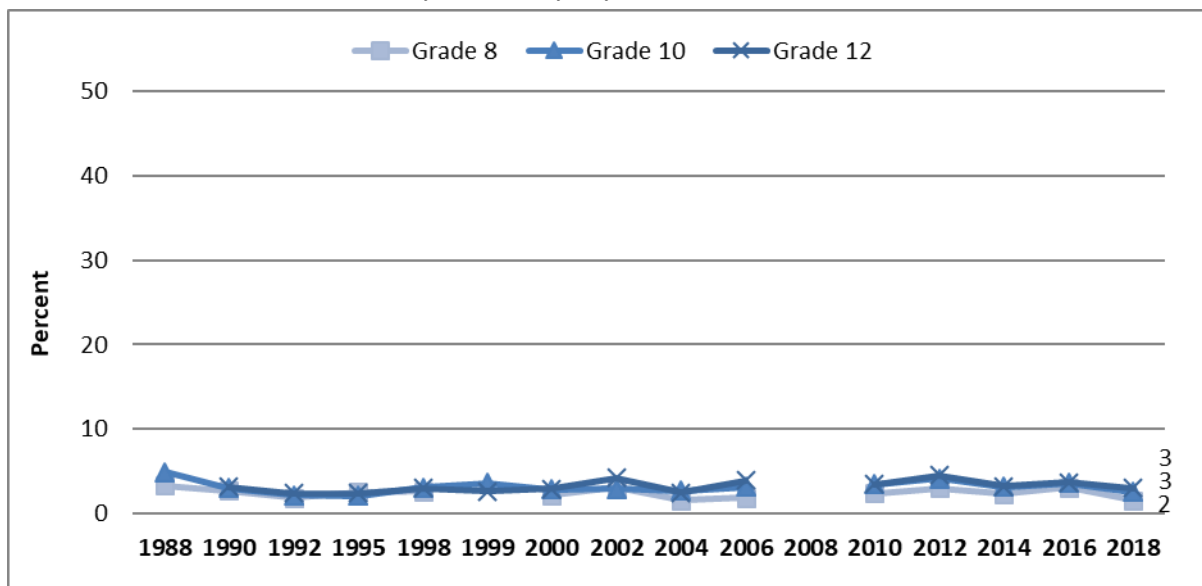
### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to have used steroids without a prescription in their lifetime.

### Differences over time:

- Among Grade 8 and 10 students, there were decreases in lifetime use of steroids without a prescription from 2016 to 2018.
- There were no trends in lifetime use of steroids without a prescription for any grade from 2002 through 2018.

**Chart 89: Lifetime Steroids Use, Grades 8, 10, and 12 from 1988-2018**



*Survey Question:* Have you ever, even once in your life, used steroids (muscle builders) without a doctor's prescription?

*Note:* Percentages represent students who had ever used steroids, without a doctor's prescription, in their life.

*Source:* WSSAHB 1988, 1990, 1992, 1995, 1998, and 2000; YRBS 1999; HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## 30-Day Prescription Drug Use for Non-Medical Use

In 2018, an additional question about using different types of prescription drugs for non-medical use found that:

- One percent of Grade 8 students and 2 percent of Grade 10 and 12 students used a non-prescribed stimulant, like Adderall or Ritalin.
- Two percent of Grade 8 and 10 students and 3 percent of Grade 12 students used a non-prescribed painkiller, like Vicodin, OxyContin, or Percocet.
- One percent of Grade 8 students and 2 percent of Grade 10 and 12 students used a non-prescribed tranquilizer, like Valium or Xanax.
- Two percent of Grade 8, 10, and 12 students used another kind of non-prescribed prescription drug.
- Six percent of Grade 8 students, 5 percent of Grade 10 students, and 4 percent of Grade 12 students used an over-the-counter drug, like cough syrup or cold medicine.

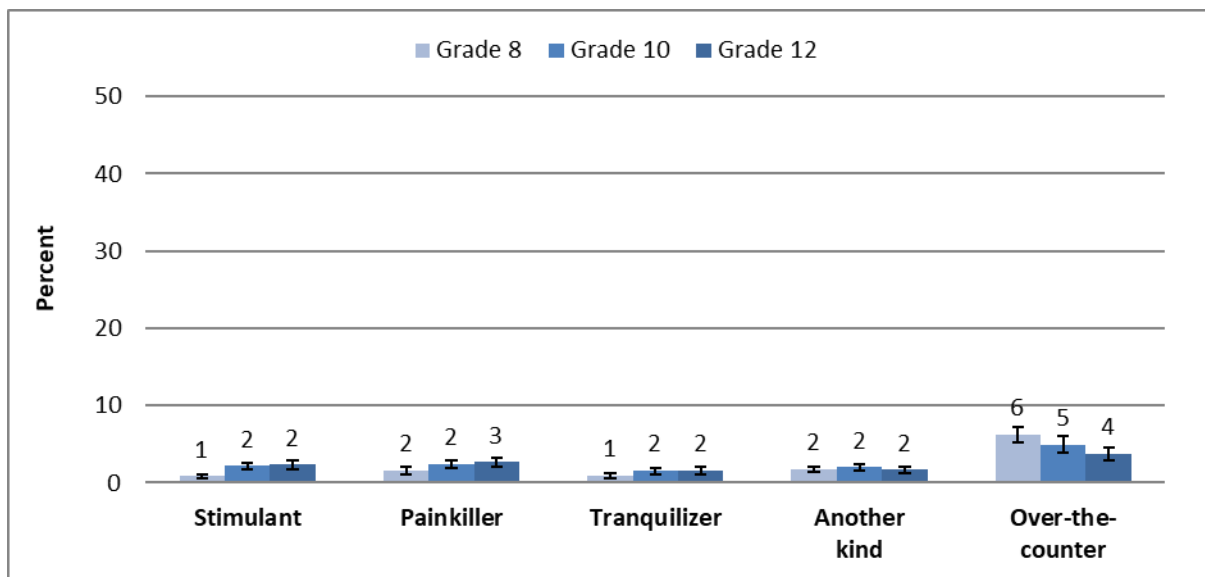
### Differences by grade level:

- Grade 10 and 12 students were more likely than Grade 8 students to have used steroids without a prescription in their lifetime.

### Differences by gender:

- Grade 8, 10, and 12 males were more likely than females to have used steroids without a prescription in their lifetime.

**Chart 90: 30-Day Prescription Drug Use for Non-Medical Reasons by Type of Drug, Grades 8, 10, and 12, 2018**



*Survey Question:* During the past 30 days, which of the following have you used for non-medical reasons? Select all that apply. Response options: I did not take any of these for non-medical reasons; I used a stimulant, like Adderall or Ritalin; I used a painkiller, like Vicodin, OxyContin, or Percocet; I used a tranquilizer, like Valium or Xanax; I used another kind of prescription drug; I used an over-the-counter drug, like cough syrup or cold medicine?

*Note:* Percentages represent students who used prescription drugs for non-medical use.

*Source:* HYS 2018.



## 13. Risk and Protective Factors

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This chapter covers a broad set of questions about health behaviors and about the risk factors and protective factors associated with them. Risk factors are characteristics of individuals and their families, schools, and communities that make them more vulnerable to ill health and poor lifestyle choices. Similarly, protective factors exert a positive influence or buffer against the negative influence of risk in these social environments. The Healthy Youth Survey includes many questions directly related to health, but most of the risk and protective factors measured in the survey are associated with behaviors such as substance use, violence, and dropping out of school. The presence of multiple risk factors predicts an increased likelihood that an individual will engage in these behaviors, whereas the presence of protective factors helps to diminish the effect of risk factors and increase the individual's resilience.

Research over several decades has identified risk factors that are associated with increased likelihood of health risk behaviors including alcohol, tobacco, and other drug abuse (Dryfoos, 1991; Hawkins et al., 1992; Kandel, Daview, Karus, and Yamagucchi, 1986); violence and delinquent behaviors (Bensley, Speicher, VanEenwyk, and Schoder, 1999; Brewer, Hawkins, Catalano, and Beckerman, 1995; Hereinto, Chung, and Catalano, 2004; Wasserman et al., 2003); and driving after drinking (Sabel, Bensley, and VanEenwyk, 2004).

Another body of research has focused on young people's ability to overcome the odds that challenge them (Werner and Smith, 1989) and to succeed in spite of a preponderance of risk in their environments. Benard (1991) summarized this literature on protective factors, citing the longitudinal research of Werner and Smith and Rutter (1979) in the formulation of a construct termed resilience. Resnick et al. (1997), found that parent-family connectedness and perceived school connectedness were protective against every health risk behavior measured in their study except history of pregnancy. Parental expectations regarding school achievement and school connectedness were also associated with lower levels of health risk behaviors (except in the case of suicide, in which only parent-family connectedness was protective).

Using these multiple strands of research, Hawkins and Catalano at the University of Washington's Social Development Research Group developed a theoretical framework based on a model of social development which hypothesizes that strong bonds serve as protective factors against behaviors that violate socially accepted standards. Attachment (a positive emotional link) and commitment (a personal investment) are the components of the social bond. The theory hypothesizes that when social groups produce strong bonds of attachment and commitment in members, and promote clear standards for behavior, these groups increase behavior consistent with those standards and prevent behavior that violates them (Hawkins, Guo, Hill, Battin-Pearson, and Abbott, 2001).

By addressing risk and protective factors, families, schools, and communities can help promote positive social development. Early and sustained intervention through the elementary grades should put children on a developmental trajectory leading to more positive outcomes and fewer problem behaviors over the long term. These risk and protective factors represent promising inputs for prevention and intervention programs and policies.

The data presented in this chapter represent Washington State as a whole. The level of these indicators of risk and protection likely vary by community. Communities can compare community-level data to state-level data—and to county-level data, where available—to determine which risk and protective factors are priorities for their communities to address. Communities can then implement prevention services for specific populations or geographical areas where risk exposure is high and protection is low.

The 1995, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018 survey administrations in Washington included substantial coverage of risk and protective factors using standardized assessment tools developed by the Social Development Research Group (Arthur et al., 1998; Arthur, Hawkins, Pollard, Catalano, and Baglioni, 2002) and published in their *Communities That Care* survey. These risk and protective factors are organized into four domains of influence: community, school, peer-individual, and family.

More information on the risk and protective factors used in the HYS is available at: <http://www.askhys.net/Reports/Additional>

HYS 2018 assessed six risk factors among students in Grade 6, and 11 risk factors among students in Grades 8, 10, and 12 (see Table 15).

**Table 15: Risk Factors Included in 2018**

Domain	Risk Factor
Community	Laws and norms favorable toward drug use
	Perceived availability of drugs
	Perceived availability of handguns <sup>S</sup>
School	Academic failure
	Low commitment to school
Peer-Individual	Perceived risk of drug use
	Early initiation of drug use <sup>S</sup>
	Favorable attitudes toward drug use
	Friends' use of drugs <sup>S</sup>
Family	Poor family management <sup>S</sup>
	Parental attitudes favorable towards drug use <sup>S</sup>

<sup>S</sup> Included only on the secondary version of the survey (Grades 8, 10, and 12).

The HYS 2018 administration also assessed four protective factors among students in Grade 6 and five protective factors among students in Grades 8, 10, and 12 (see Table 16).

**Table 16: Protective Factors Included in 2018**

Domain	Protective Factor
Community	Opportunities for prosocial involvement <sup>S</sup>
	Rewards for prosocial involvement <sup>E</sup>
School	Opportunities for prosocial involvement <sup>S</sup>
	Rewards for prosocial involvement
Peer-Individual	Social skills <sup>S</sup>
Family	Opportunities for prosocial involvement
	Rewards for prosocial involvement <sup>E</sup>

<sup>S</sup> Included only on the secondary version of the survey (Grades 8, 10, and 12).

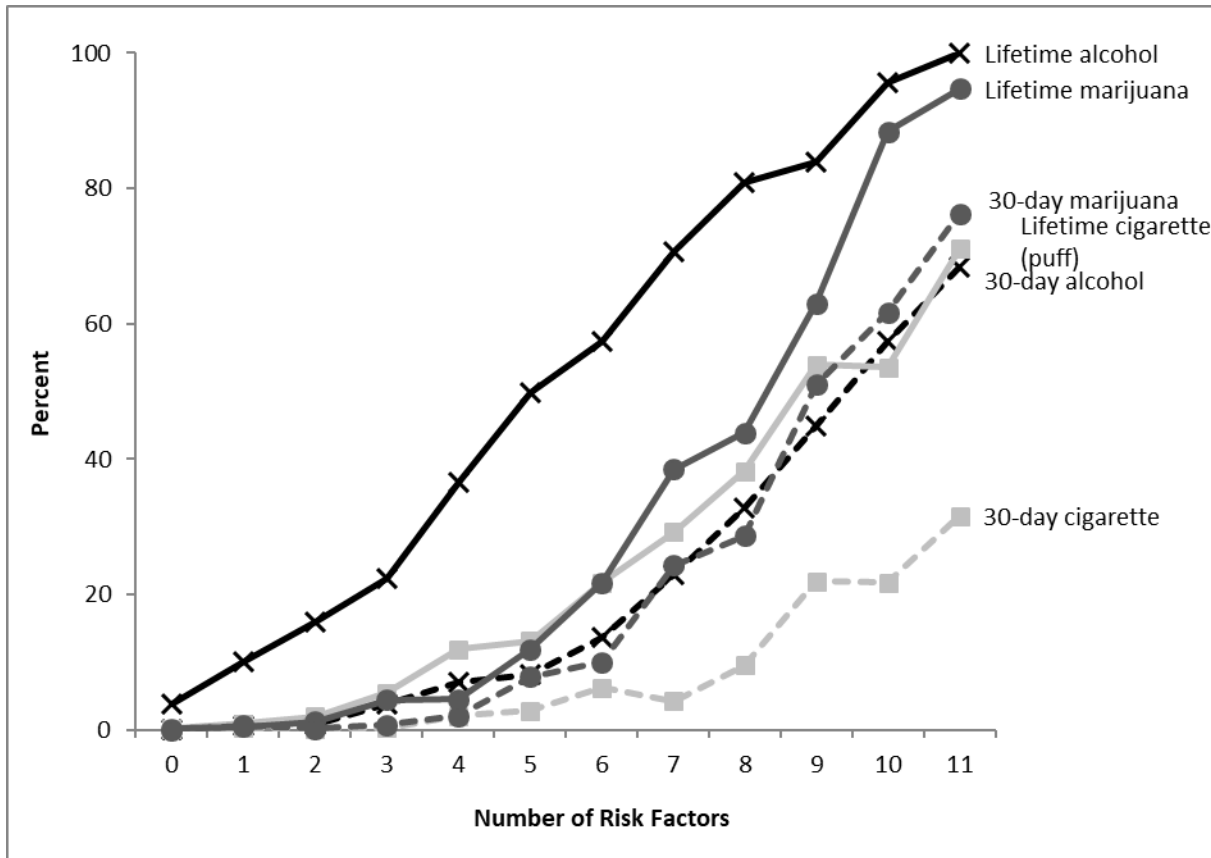
<sup>E</sup> Included only on the elementary version of the survey (Grade 6).

This chapter presents HYS 2018 results for the assessment of risk and protection at each grade level in the peer-individual, family, school, and community domains. The relationships between risk and protective factors and the major health risk behaviors of substance use and violent and delinquent behavior are also presented. Readers should remember that all results are based on student self-report and therefore represent perceptions of risk and protection which might not be accurate. Furthermore, the statistical relationships between risk and protective factors and health risk behaviors are not necessarily causal. Rather, the statistical relationships indicate an association or co-occurrence of these factors and behaviors. Both the risk factor and the behavior may be associated with a third factor such as poverty or other factors that were not addressed in this study. Each risk and protective factor scale is calculated as the average score of the students' responses to one or more questions. Students whose scores placed them above a cut point, determined by the Social Development Research Group's research, were considered "at risk" on a given risk factor, or "resilient" on a given protective factor.

Research has also suggested a cumulative effect in the influence of risk and protection on these health risk behaviors (Bry, McKeon, and Pandina, 1982; Newcomb, Maddahian, and Skager, 1987; Werner and Smith, 1989). In addition to examining the specific influence of a given risk or protective factor, examining the relationship between multiple risk or protective factors and these behaviors is important. This examination helps illustrate whether students who are at high risk on more risk factors are more likely to engage in health risk behaviors than students who are at high risk on fewer factors. An examination of the relationship between multiple risk or protective factors and health risk behaviors also helps show whether students who are well protected are less likely to engage in these behaviors than students who are less protected.

The following chart shows the relationship between the number of risk factors present and the use of alcohol, cigarettes, and marijuana for Grade 8 students. This relationship also holds true for Grade 10 and 12 students. The most obvious interpretation is the clear, linear relationship between the number of risk factors present and the prevalence of lifetime and 30-day alcohol, cigarette, and marijuana use. As the number of risk factors for individual students increased, so did the likelihood that they would use alcohol, cigarettes, and marijuana. These findings are consistent with the findings from the 1995, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018 survey administrations.

**Chart 91: Relationship Between Substance Use and Number of Risk Factors, Grade 8, 2018**

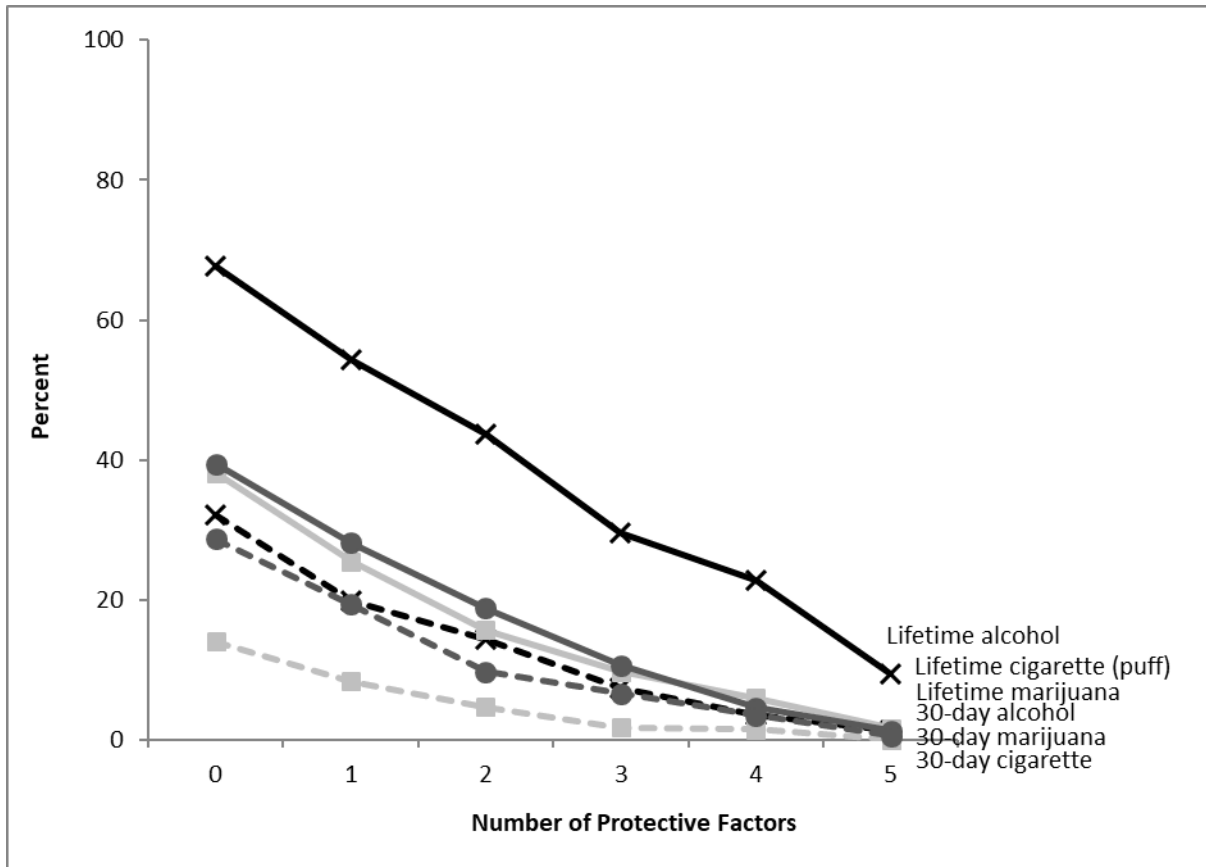


Note: Percentages represent students who reported using alcohol, cigarettes, or marijuana in their lifetime or in the past 30 days according to each number of risk factors (0 through 11).

Source: HYS 2018.

The following chart is a similar display, relating the presence of protective factors to the use of alcohol, cigarettes, and marijuana for Grade 8 students. This relationship also holds true for Grade 10 and 12 students. Again, the overall relationship is strong: increased levels of protection were clearly associated with lower rates of alcohol, cigarette, and marijuana use. Protective factors have also been found to have a buffering effect on the presence of risk factors (DeWit, Silverman, Goodstadt, and Stoduto, 1995; Gabriel, Deck, Einspruch, and Nickel, 1997; Jessor, Van den Bos, Vanderryn, Costa, and Trubin, 1995). These findings are consistent with the findings from the 1995, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018 survey administrations.

**Chart 92: Relationship Between Substance Use and Number of Protective Factors, Grade 8, 2018**



*Note:* Percentages represent students who reported using alcohol, cigarettes, or marijuana in their lifetime or in the past 30 days according to each number of protective factors (0 through 5).

*Source:* HYS 2018.



## Community Domain: Risk Factors

HYS 2018 assessed two risk factors in the community domain:

- *Laws and norms favorable toward drug use.* The policies a community holds in relation to health and problem behaviors are communicated through laws, social practices, and expectations, and are related to drug use.
  - *There were no changes in laws and norms favorable towards drug use for any grade from 2016 to 2018.*
  - *Among Grade 6 students, there was a decrease in laws and norms favorable towards drug use from 2002 through 2014.*
  - *Among Grade 8, 10, and 12 students, there were decreases in laws and norms favorable towards drug use from 2002 through 2018.*
  
- *Perceived availability of drugs.* Perceptions of the availability of alcohol and other drugs have been shown to predict use of these substances.
  - *Among Grade 6 students, there was an increase in the perceived availability of drugs from 2016 to 2018.*
  - *Among Grade 6, 8, 10, and 12 students, there were decreases in the perceived availability of drugs from 2002 through 2018.*

**Table 17: Profile of Community Risk Factors, Percent of Youth at Risk, Grades 6, 8, 10, and 12 from 2002 - 2018**

Risk Factor	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Laws and norms favorable toward drug use	6	37.1	37.1	37.0	35.9	36.5	36.5	33.9	34.0	36.6
	8	33.0	29.8	28.2	28.3	27.7	26.4	<b>23.1</b>	23.7	24.3
	10	38.7	40.1	39.1	36.7	34.5	31.4	31.7	28.0	29.5
	12	39.3	37.3	35.8	34.4	32.5	32.4	31.2	31.2	28.0
Perceived availability of drugs	6	23.6	<b>22.5</b>	<b>24.6</b>	23.5	22.6	<b>19.5</b>	18.7	<b>16.4</b>	<b>19.4</b>
	8	29.3	23.0	20.9	<b>24.8</b>	24.1	22.8	<b>17.1</b>	16.4	17.9
	10	35.5	31.8	32.7	34.2	34.4	<b>28.4</b>	26.5	<b>22.9</b>	22.3
	12	45.2	40.5	38.1	39.4	38.1	36.2	<b>31.7</b>	30.2	27.2

*Notes:*

- Percentages represent students who are at risk based upon their risk factor scale scores.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Community Domain: Protective Factors

HYS 2018 assessed two protective factors in the community domain (only one for Grade 6 and only one for Grades 8, 10, and 12).

- *Opportunities for prosocial involvement.* Youth need opportunities to participate meaningfully in activities in the community. Note: in 2002, the items in this scale were modified for the Healthy Youth Survey and are therefore different than those used by the Social Development Research Group.
  - *There were no changes in opportunities for prosocial involvement for any grade from 2016 to 2018*
  - *There were no trends in opportunities for prosocial involvement for any grade from 2002 to 2018*
  
- *Rewards for prosocial involvement.* Youth need rewards for positive participation in prosocial activities.
  - *Among Grade 6 students, there was a decrease in rewards for prosocial involvement from 2016 to 2018.*
  - *Among Grade 6 students, there was a decrease in rewards for prosocial involvement from 2002 through 2018.*

**Table 18: Profile of Community Protective Factors, Percent of Youth Protected, Grades 6, 8, 10, and 12 from 2002–2018**

Protective Factors	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Opportunities for prosocial involvement	6	25.8	–	–	–	–	–	–	–	–
	8	50.7	72.3	69.2	66.6	67.5	<b>73.2</b>	75.3	72.3	72.4
	10	46.6	72.4	<b>66.1</b>	69.2	71.1	75.2	75.4	75.9	71.2
	12	42.7	70.9	69.3	71.3	76.0	76.3	77.7	76.6	73.6
Rewards for prosocial involvement	6	48.0	<b>38.6</b>	37.9	36.4	35.9	37.4	36.9	<b>34.6</b>	<b>30.1</b>
	8	54.9	56.6	54.0	54.0	–	–	–	–	–
	10	60.3	60.4	<b>56.2</b>	<b>62.2</b>	–	–	–	–	–
	12	55.1	56.6	56.8	<b>62.0</b>	–	–	–	–	–

*Notes:*

- Percentages represent students who are protected based upon their protective factor scale scores.
- Dashes (–) indicate that the protective factor was not included in the survey that year.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.
- Opportunities for prosocial involvement was asked differently in 2002, so it is not included in the trend analysis.
- *Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.



## School Domain: Risk Factors

HYS 2018 assessed two risk factors in the school domain. Readers should note that the items used to create the low commitment to school risk factor changed slightly in 2002.

- *Academic failure.* Children fail in school for many reasons, but research indicates that the very experience of failure—regardless of whether the failure is linked to the students’ abilities—places them at higher risk for negative behavior.
  - *Among Grade 6 students, there was an increase in academic failure from 2016 to 2018.*
  - *Among Grade 8 students, there was a decrease in academic failure from 2002 through 2018.*
  
- *Low commitment to school.* When young people cease to see the school role as viable, they are at higher risk of engaging in the health risk behaviors.
  - *Among Grade 6, 8, and 10 students, there were increases in low commitment to school from 2016 to 2018.*
  - *There were no trends for low commitment to school for any grade from 2002 through 2018.*

**Table 19: Profile of School Risk Factors, Percent of Youth at Risk, Grades 6, 8, 10, and 12 from 2002–2018**

Risk Factors	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Academic failure	6	41.2	40.6	41.5	42.4	41.9	<b>37.8</b>	39.5	38.3	<b>43.6</b>
	8	47.3	48.2	45.9	47.5	46.8	45.3	43.9	45.4	44.8
	10	46.8	47.2	<b>50.6</b>	48.2	47.7	45.3	46.4	47.4	47.9
	12	48.5	46.6	50.1	51.4	49.1	47.5	49.2	51.4	50.8
Low commitment to school	6	40.5	44.4	<b>52.0</b>	<b>43.0</b>	<b>38.9</b>	36.8	38.1	<b>40.6</b>	50.5
	8	34.4	37.1	36.2	38.6	35.6	<b>31.8</b>	31.9	<b>35.1</b>	43.2
	10	37.3	40.7	39.9	38.2	37.8	<b>33.1</b>	<b>38.3</b>	39.2	44.4
	12	37.6	42.2	40.8	41.4	36.5	36.1	<b>40.4</b>	41.4	41.7

*Notes:*

- Percentages represent students who are at risk based upon their risk factor scale scores.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.

*Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## School Domain: Protective Factors

HYS 2018 assessed two protective factors in the school domain (only one for Grade 6).

- *Opportunities for prosocial involvement.* When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in problem behaviors.
  - *There were no changes in opportunities for prosocial involvement for any grade from 2016 to 2018.*
  - *Among Grade 8, 10, and 12 students, there were increases in opportunities for prosocial involvement from 2002 through 2018.*
  
- *Rewards for prosocial involvement.* When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in health risk behaviors.
  - *Among Grade 6, 8, and 10 students, there were decreases in rewards for prosocial involvement from 2016 to 2018.*
  - *Among Grade 6 and 12 students, there was a decrease in rewards for prosocial involvement from 2002 through 2018.*

**Table 20: Profile of School Protective Factors, Percent of Youth Protected, Grades 6, 8, 10, and 12 from 2002–2018**

Protective Factors	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Opportunities for prosocial involvement	6	–	–	–	–	–	–	–	–	–
	8	62.6	62.2	64.0	<b>59.8</b>	<b>62.6</b>	65.7	<b>70.0</b>	69.6	67.1
	10	59.6	58.5	57.7	59.0	61.8	<b>66.5</b>	65.2	67.5	63.9
	12	63.5	61.2	61.6	60.7	64.0	65.5	68.3	67.8	68.5
Rewards for prosocial involvement	6	50.5	52.3	52.8	<b>49.8</b>	49.5	49.6	<b>44.9</b>	45.2	<b>37.7</b>
	8	52.1	53.4	56.5	<b>53.1</b>	<b>49.0</b>	51.1	52.8	52.3	<b>47.8</b>
	10	61.4	61.2	61.1	63.5	58.4	60.1	57.5	58.2	<b>52.7</b>
	12	45.8	44.6	45.4	46.8	45.3	46.2	43.2	42.7	39.9

*Notes:*

- Percentages represent students who are protected based upon their protective factor scale scores.
- Dashes (–) indicate that the protective factor was not included in the survey that year.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.

*Source: HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

## Peer-Individual Domain: Risk Factors

HYS 2018 assessed four risk factors in the peer-individual domain (only two for Grade 6).

- *Early initiation of drug use.* Research shows that the earlier an individual begins using alcohol, tobacco, and other drugs, the more likely he or she is to develop drug use problems as an adult.
  - *Among Grade 12 students, there was a decrease in early initiation of drug use from 2016 to 2018.*
  - *Among Grade 8, 10, and 12 students, there were decreases in early initiation of drug use from 2002 through 2018.*
- *Favorable attitudes toward drug use.* Young people who have positive or accepting attitudes toward drug use are more likely to engage in a variety of health risk behaviors.
  - *Among Grade 6 and 8 students, there were increases in favorable attitudes towards drug use from 2016 to 2018.*
  - *Among Grade 12 students, there was a decrease in favorable attitudes towards drug use from 2016 to 2018.*
  - *Among Grade 6 students, there was an increase in favorable attitudes towards drug use from 2014 through 2018.*
  - *Among Grade 10 students, there was a decrease in favorable attitudes towards drug use from 2002 through 2018.*
- *Perceived risk of use.* Young people who do not perceive a risk in using alcohol, tobacco, and other drugs are at higher risk of engaging in substance use.
  - *Among Grade 8 students, there was an increase in perceived risk of drug use from 2016 to 2018.*
  - *Among Grade 6, 8, 10, and 12 students, there were increases in perceived risk of drug use from 2002 through 2018.*
- *Friends' use of drugs.* Young people whose friends use drugs are more likely to engage in health risk behaviors.
  - *Among Grade 8 and 10 students, there were increases in friends' use of drugs from 2016 to 2018.*
  - *Among Grade 8, 10, and 12 students, there were decreases in friends' use of drugs from 2002 through 2018.*

**Table 21: Profile of Peer-Individual Risk Factors, Percent of Youth at Risk, Grades 6, 8, 10, and 12 from 2002–2018**

Risk Factor	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Early initiation of drug use	6	–	–	–	–	–	–	–	–	–
	8	27.4	24.6	<b>19.8</b>	20.8	20.1	18.2	<b>13.7</b>	14.2	15.3
	10	32.5	29.2	31.4	29.3	26.6	<b>22.2</b>	20.5	18.9	18.0
	12	37.5	33.0	32.9	32.3	27.9	26.4	22.8	22.4	<b>19.0</b>
Favorable attitudes towards drug use	6	22.6	22.2	21.4	20.9	20.9	<b>18.3</b>	19.6	18.9	<b>24.1</b>
	8	27.8	27.2	<b>22.9</b>	24.8	24.5	26.6	23.8	24.8	<b>28.7</b>
	10	37.6	35.0	37.2	37.2	36.7	37.0	<b>41.0</b>	38.7	39.1
	12	40.8	36.7	34.8	37.7	37.9	40.0	39.9	39.5	<b>34.9</b>
Perceived risk of drug use	6	32.3	30.3	<b>32.7</b>	31.9	<b>40.3</b>	37.7	40.7	40.2	43.1
	8	38.3	35.0	33.0	33.9	37.7	39.2	37.9	42.3	<b>46.8</b>
	10	34.8	33.7	35.0	35.6	39.0	38.1	41.2	41.3	43.8
	12	43.4	38.4	40.6	43.3	48.0	49.4	52.8	52.9	52.7
Friends' use of drugs	6	–	–	–	–	–	–	–	–	–
	8	28.5	27.2	<b>22.8</b>	25.6	24.1	23.2	<b>15.3</b>	15.3	<b>19.9</b>
	10	30.7	27.6	29.7	28.8	29.0	<b>25.1</b>	23.0	<b>18.6</b>	<b>22.2</b>
	12	36.9	25.9	26.5	27.2	28.5	25.5	22.5	20.5	20.8

*Notes:*

- Percentages represent students who are at risk based upon their risk factor scale scores.
- Dashes (–) indicate that the risk factor was not included in the survey that year.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.
- *Source:* HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.

## Peer-Individual Domain: Protective Factors

HYS 2018 assessed four protective factors in the peer-individual domain (only one for Grade 6).

- *Social skills.* Young people who are socially competent and engage in positive interpersonal relationships with their peers are less likely to participate in negative health risk behaviors.
  - *Among Grade 8 students, there was a decrease in social skills from 2016 to 2018.*
  - *Among Grade 12 students, there was a decrease in social skills from 2002 through 2018.*
  
- *Belief in the moral order.* Young people who have a belief in what is right or wrong are at lower risk for engaging in problem behaviors.
  - *There were no changes in belief in the moral order for any grade from 2016 to 2018.*
  - *There were no trends in belief in the moral order for any grade from 2002 to 2016.*

**Table 22: Profile of Peer-Individual Protective Factors, Percent of Youth Protected, Grades 6, 8, 10, and 12 from 2002–2018**

Risk Factor	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Social skills	6	–	–	–	–	–	–	–	–	–
	8	69.2	70.7	71.1	68.8	65.0	66.9	<b>73.8</b>	72.4	<b>68.9</b>
	10	64.0	60.8	<b>56.9</b>	58.0	53.8	<b>58.8</b>	61.1	62.4	60.5
	12	67.2	70.3	67.1	68.4	47.5	<b>53.0</b>	54.9	56.0	56.0
Believe in the moral order	6	–	–	–	–	–	–	–	–	–
	8	66.1	64.2	65.5	<b>61.2</b>	<b>64.1</b>	67.2	<b>71.8</b>	68.9	–
	10	71.4	68.6	<b>65.5</b>	66.8	69.5	<b>74.7</b>	72.9	73.5	–
	12	55.7	55.4	53.2	53.2	54.0	<b>57.9</b>	55.4	54.7	–

*Notes:*

- Percentages represent students who are protected based upon their protective factor scale scores.
- Dashes (–) indicate that the protective factor was not included in the survey that year.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.
- *Source: HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

## Family Domain: Risk Factors

HYS 2018 assessed two risk factors in the family domain (both only for Grades 8, 10, and 12).

- *Poor family management.*
  - *There were no changes in poor family management from 2016 to 2018.*
  - *Among Grade 8, 10, and 12 students, there were decreases in poor family management from 2002 through 2018.*
  
- *Parental attitudes favorable towards drug use.*
  - *There were no changes in parental attitudes favorable towards drug use from 2016 to 2018.*
  - *There were no trends in parental attitudes favorable towards drug use for any grade from 2004 through 2016.*

**Table 23: Profile of Family Risk Factors, Percent of Youth at Risk, Grades 6, 8, 10, and 12 from 2002–2018**

Risk Factor	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Poor family management	6	–	–	–	–	–	–	–	–	–
	8	39.2	38.4	37.4	39.2	36.0	33.7	30.6	33.4	34.6
	10	36.6	38.7	<b>42.5</b>	42.8	39.3	23.3	32.8	31.8	34.1
	12	43.8	42.6	43.4	43.5	<b>38.8</b>	38.2	<b>34.4</b>	34.8	32.5
Parental attitudes favorable towards drug use	6	–	–	–	–	–	–	–	–	–
	8	–	31.2	–	26.6	<b>21.5</b>	23.9	22.2	24.0	25.3
	10	–	41.8	–	44.4	<b>36.8</b>	37.1	<b>40.5</b>	38.4	38.9
	12	–	41.7	–	44.2	<b>36.4</b>	41.2	41.3	42.3	39.5

*Notes:*

- The family domain was measured on an optional tear-off page prior to the 2014 HYS. Not all of the participating schools asked these questions, and the number of students who answered the questions in this domain was smaller than the numbers of respondents for the other domains from 2002 to 2012.
- Percentages represent students who are at risk based upon their risk factor scale scores.
- Dashes (–) indicate that the risk factor was not included in the survey that year.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.
- *Source: HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

## Family Domain: Protective Factors

HYS 2018 assessed two protective factors in the family domain.

- *Opportunities for prosocial involvement.*
  - *Among Grade 6 and 10 students, there were decreases in opportunities for prosocial involvement from 2016 to 2018.*
  - *Among Grade 6 students, there was a decrease in opportunities for prosocial involvement from 2002 through 2018.*
- *Rewards for prosocial involvement.*
  - *Among Grade 6 students, there was a decrease in prosocial involvement from 2016 to 2018.*
  - *Among Grade 6 students, there was a decrease in prosocial involvement from 2002 to 2018.*

**Table 24: Profile of Family Protective Factors, Percent of Youth Protected, Grades 6, 8, 10, and 12 from 2002–2018**

Protective Factor	Grade	2002	2004	2006	2008	2010	2012	2014	2016	2018
Opportunities for prosocial involvement	6	58.1	58.5	<b>54.2</b>	54.8	53.2	55.6	52.6	54.1	<b>50.5</b>
	8	63.4	–	66.6	61.3	63.6	66.3	68.5	67.2	65.7
	10	56.7	–	<b>53.5</b>	51.7	55.6	58.7	57.8	59.1	<b>53.4</b>
	12	56.7	–	53.6	53.4	<b>53.7</b>	55.8	57.8	55.3	54.1
Rewards for prosocial involvement	6	62.2	62.5	<b>58.2</b>	58.6	56.8	57.4	<b>53.6</b>	56.4	<b>52.3</b>
	8	66.0	–	69.6	60.6	<b>62.3</b>	61.6	–	–	–
	10	60.3	–	54.9	51.5	<b>52.7</b>	54.9	–	–	–
	12	57.1	–	<b>52.7</b>	52.3	<b>49.7</b>	50.8	–	–	–

*Notes:*

- The family domain was measured on an optional tear-off page prior to the 2014 HYS. Not all of the participating schools asked these questions, and the number of students who answered the questions in this domain was smaller than the numbers of respondents for the other domains from 2002 to 2012.
- Percentages represent students who are protected based upon their protective factor scale scores.
- Dashes (–) indicate that the protective factor was not included in the survey that year.
- Changes that are statistically significant at the 95 percent confidence level from the previous year are bolded.
- *Source: HYS 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018.*

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## Appendix: Statewide Results

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