THE 2019-2020 HAWAIʻI STUDENT ALCOHOL, TOBACCO, AND OTHER DRUG USE (ATOD) SURVEY

STATEWIDE REPORT

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The findings from the ATOD Survey disseminated here are solely the views presented by the authors and do not necessarily represent the views of the sponsoring or partnering agencies.

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Chapter 1 Introduction on How to Use this Report

Format and Sections of the Report

This report has been formatted into main sections or Chapters to provide details on the background, design and method, results and implications, and recommendations of the 2019-2020 Hawaiʻi Student Alcohol, Tobacco, and Other Drug Use (ATOD) Survey.

This report has been optimized for ease of navigation in its digital format using hyperlinks and bookmarked sections in enabled navigation panes. The Table of Contents may be used to easily navigate the reader to the section of interest. A Table of Tables, and a Table of Figures have also been provided for convenience to the reader. The Appendix contains additional detailed tables or figures that are not otherwise included in the narrative sections of the report.

For an abbreviated version of the main highlights of the statewide report, please also see the Executive Summary report. Separate regional level reports for county or community regions also accompany this statewide report for Hawaiʻi County, Maui County, Honolulu County, Kauaʻi County and Community Region, East Hawaiʻi Community Region, West Hawaiʻi Community Region, Maui Community Region, Canoe Community Region, Honolulu Community Region, Windward Oʻahu Community Region, Leeward Oʻahu Community Region, Central Oʻahu Community Region. All public reports from the 2019-2020 Hawaiʻi Student Alcohol, Tobacco, and Other Drug Use (ATOD) Survey may be found at the Hawaiʻi State Department of Health Alcohol and Drug Abuse Division website.

Data-driven Planning for Substance use Prevention & Treatment

Planning for youth substance use prevention and treatment may be best informed by data that is current and relevant. Although health surveys such as the ongoing Youth Risk Behavior Survey (YRBS) are a valuable surveillance tool to assess trends over time for participating states and nationally, items are usually only a limited set of questions that ask about substance use. The Hawaiʻi Student ATOD Survey historically provided a more comprehensive assessment on youth substance use and related risk and protective factors until the last previous administration in 2007-2008. In order to provide updated data to the State of Hawaiʻi on youth substance use from a comprehensive approach, the Hawaiʻi Student ATOD Survey was conducted in 2019-2020 to provide some continuity to the 2007-2008 ATOD Survey but also to embrace opportunity for change and innovation in design, assessment methods, and survey items in order to be responsive to current needs around prevention and treatment in the current decade.

As in prior Hawaiʻi Student ATOD Surveys, the 2019-2020 ATOD Survey includes prevalence data on current and lifetime use of major substance use categories, with updated definitions for indicators of binge drinking, frequent moderate-heavy use, and early initiation of substances. The most widely used substances have been emphasized throughout the report – alcohol, tobacco, vaping, and marijuana – although data on other prescription and illicit

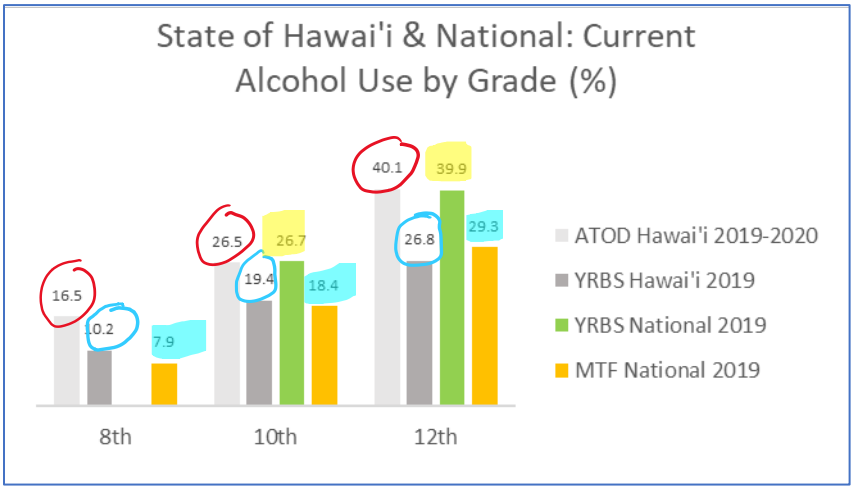
drug use are presented. Additionally, prioritization of risk and protective factors for prevention and intervention in survey items are reflected in this report with through modeling approaches not available a decade ago. With the advancements in the field of statistical modeling and youth substance use, we introduce some of applications that inform predicting substance use in a more contemporary approach than in previously reported risk and protective factors correlated to problem substance use or were examined by demographic groups. Contexts around youth substance use in Hawai'i may also be important to consider for various stakeholders that represent youth-serving organizations, policymakers, and our state's educational and health systems.

Understanding Data: Walk-through of Sample Table and Figure

Although some infographics (information presented in a graphic style) are interspersed throughout this report, much of the data are represented with percentages in a Table or Figure to show some type of comparison. In the Sample Table below, the indicator of interest to a reader is likely the percent within the "Yes" column (circled in **red**) that screened as having a probable substance use disorder (SUD) on the CRAFFT. The Table shows that *overall*, 11.1% of the state sample screened as having a probable SUD (highlighted in yellow), but when looking at the percent *by grade level*, the probable SUD screen rate increases from 6.6% among 8th graders, to 11.9% in 10th graders, and 15% in 12th graders (highlighted in blue), suggesting that problem substance use increases as students move up in grade or get older. Other columns contain information about the estimated number or counts (n) or may also include the range for an estimated 95% confidence interval (CI95%) next to the calculated percent. The notation "weighted percents" means that the data were weighted to adjust for enrollments to lessen the effects of a sample bias. For more about weighted data, see Chapter 3 section on Sample Description.

Probable Abuse or Dependence of any Substance, Based on the CRAFFT, for Gender, Grade Level, and Ethnicity (weighted percents)					
	No		Yes		T
	n	% (CI95%)	n	% (CI95%)	
Overall Total	6,971	88.9 (88.2, 89.6)	870	11.1 (10.4, 11.8)	
Gender					
Male	3,889	89.3 (88.4, 90.2)	466	10.7 (9.8, 11.6)	
Female	3,045	86.7 (85.6, 87.8)	466	13.3 (12.2, 14.4)	
Transgender & Other Gender Minority	127	75.6 (69.1, 82.1)	41	24.4 (17.9, 30.9)	
Grade					
8th Grade	2,438	93.4 (92.4, 94.4)	172	6.6 (5.6, 7.6)	
10th Grade	2,474	88.1 (86.9, 89.3)	335	11.9 (10.7, 13.1)	
12th Grade	2,058	85.0 (83.6, 86.4)	362	15.0 (13.6, 16.4)	

In the sample Figure below , percent by grade level is also labeled for each data source (color coded as shown in the legend). The 2019-2020 ATOD Survey data (circled in **red**) shows that 16.5% of 8th graders, 26.5% of 10th graders, and 40.1% of 12th graders reported drinking alcohol in the past 30 days. While there was no similar data available for the Youth Risk Behavior Survey (YRBS) for 8th graders nationally, the data from Hawai'i YRBS (circled in **blue**) which asked a similar question about alcohol use in the past 30 days also showed an increasing pattern of use from 8th to 12th grade, but at lower rates than the 2019-2020 ATOD Survey. The data from the national YRBS for 10th and 12th grades (highlighted in yellow) were more like the 2019-2020 ATOD Survey, while the data from the national Monitoring the Future (MTF) survey (highlighted in blue) were more similar to the Hawai'i YRBS.



Although not all figures include a comparison of other data sources, many of the figures on substance use are shown for comparisons by demographic factors (i.e., by grade, by gender, or by primary race/ethnicity).

It may be helpful to navigate to a table or figure of interest using the Table of Tables, or Table of Figures, and then read the accompanying narrative in that section.

Key Takeaways and Recommendations

There are several key takeaways (Chapter 8) and recommendations (Chapter 9) offered in the report. However, they generally highlight implications from the main findings from the survey. There may be additional implications from the data that are relevant and useful to help inform program planning and policy directions for a broad range of audiences. As mentioned above, the findings for county and community regions may be used to describe youth substance use and risk and protective factors for a geographic region. Taken together with the overall state level findings, these county and community region reports may show similarities and differences in prevention and treatment needs in different ways that may have implications for programs and practice for our respective communities.

Chapter 2 Background & Significance of the ATOD Survey

The **Hawai'i Student Alcohol, Tobacco, and Other Drug Use (ATOD) Survey** has been part of an ongoing project to guide prevention programs and treatment policy for adolescent substance use in Hawai'i for the past several decades. The long-term effort began with a study conducted from 1987-1993, by the Hawai'i State Department of Education **(DOE)** and the Northwest Regional Educational Laboratory. From 1996-2003 the survey was administered about every two years by the State of Hawai'i Department of Health, Alcohol and Drug Abuse Division **(ADAD)** in collaboration with the University of Hawai'i Speech Department. From 2006-2008, including a pilot study from 2006-2007, the survey was administered in collaboration between ADAD and University of Hawai'i Department of Psychiatry **(DOP)** to participating public school students within grades 6, 8, 10, and 12 who had written parental consent to take part in the study. The statewide Hawai'i Student Alcohol, Tobacco, and Other Drug Use Study was last conducted in 2007-2008 to comprehensively assess prevention and treatment needs and measure substance use and risk and protective factors among sampled students in Hawai'i (Goebert et al., 2010). For a summary of differences between the 2007-2008 and 2019-2020 ATOD Surveys see Table 1 at the end of this chapter – for more detail on the updated survey design and method for the 2019-2020 ATOD Survey see Chapter 3.

Risk and Protective Factor Approach/framework

The most recent iteration of the Hawai'i Student ATOD Survey, administered in 2019-2020, continued to assess treatment and prevention needs utilizing the **risk and protective factors framework**, as recommended by the Center for Substance Abuse Prevention (Pearson, 2004). Research on risk and protective factors have focused on multiple domains, notably family, school, community, peer, and individual (Hawkins et al., 1992; Newcomb, 1995; Newcomb & Felix-Ortiz, 1992; Scheier et al., 1994).

Risk factors in this report are defined as "those characteristics, variables, or hazards that, if present for a given individual, make it more likely that this individual, rather than someone selected at random from the general population, will develop a disorder" (Institute of Medicine, 1994). **Protective factors** are defined as characteristics that reduce the "likelihood of problem behavior either directly or by mediating or moderating the effect of exposure to risk factors" (Arthur et al., 2002). Risk factors are often the precursors to drug and alcohol problems and protective factors are often the insulating components that minimize risk by improving coping, adaptation, and individual competence to resist temptation to use substances. Unique to this study is an approach that does not emphasize one risk or protective factor over another. The position of this study is that youths' vulnerability to use and abuse of various substances is the result of numerous risk factors to which an adolescent is exposed, and no single predictor can best explain a given behavior. Conversely, protective psychosocial factors can directly limit or reduce ATOD involvement (Newcomb & Felix-Ortiz, 1992) or can act as a buffer to moderate the association between risk factors and ATOD use (Institute of Medicine, 1994; Newcomb & Felix-Ortiz, 1992).

The need for prevention research and interventions is challenging as substance use or abuse has been causally related to depression, suicide, teen pregnancy, delinquency, and violence among adolescents (Dryfoos, 1990). Substance use has also been shown to be associated with conduct problems (Mason et al., 2008). Reducing risk and enhancing protection across these domains could positively impact a wide range of behavioral outcomes.

Risk factors need not be directly manipulated. Instead, they may be moderated by certain protective factors within the same domain. These moderating protective factors may operate directly on a previous risk factor or indirectly by mediating the relationship between the factor and a potential outcome (Institute of Medicine, 1994). Identified protective factors can inhibit drug use among those at risk and prevention approaches may mediate or moderate the effects of exposure to risk. Protection against ATOD use is associated with rewards to adolescents for pro-social involvement in family, school, and community domains as well as the development of effective social skills among peers and bonding with significant adults (Hawkins et al., 1992; Rutter, 1987; Werner, 1989). Examining protective factors reveals how these factors operate to simply reduce the number of individual related risk factors (Sher, 1994). Consequently, protective factors are critical when risk factors for adolescent ATOD use are not amenable to change (Hawkins et al., 1992). Put simply, strengthening protective factors is a viable means of working with youth who are at a high risk for substance use.

Several diverse factors predict substance abuse, often with greater risk of substance abuse associated with increasing numbers of multiple risk factors. The presence of one or more protective processes reduces the probability of negative outcomes associated with risk exposure. An overview of risk and protective factors for domains from a social-ecological perspective is described in Chapter 3. Assessing risk and protective factors in various domains through an epidemiological approach will be useful in guiding prevention policy. Where resources are limited, these data may inform how best to prioritize targeted risk and protective factors as the focus for prevention intervention, particularly in communities with high needs but few resources. **The 2019-2020 ATOD Survey project examined these important risk and protective factors as well as the prevalence and severity of ATOD use in youths to assist ADAD and a broad range of stakeholders in planning prevention and treatment efforts aimed at decreasing this problem in the State of Hawai‘i .**

Contexts Related to Substance Use

As an important layer to examining risk and protective factors, because of the ethno-racial, geographic, and cultural diversity within our State, attention has been increasing on **cultural contexts** related to risk and protective factors and substance use and prevention (Jeffries, 1999; Nishimura et al., 2005; Unger et al., 2004). Factors such as acculturation (Chedebois et al., 2009; Saint-Jean et al., 2008), and differential rates of substance use and risk among ethno-racial groups (Price et al., 2002) or rural-urban differences in risk factors (Martino et al., 2008) may need to be considered in guiding culturally appropriate substance abuse prevention and treatment programs (Catalano et al., 1993).

Study Objective

The primary objective of this study was to provide a needs assessment of middle and high school students to build upon Hawai'i's past efforts in youth substance use research. The report provides an assessment of the nature and scope of alcohol, tobacco, and other drug use among participating school students in grades 8, 10, and 12 throughout the state of Hawai'i. Additionally, the report contributes to risk and protective factor data that the State of Hawai'i and other sources can use to assist in planning evaluation, prevention, and treatment programs.

Table 1. At-a-glance summary of highlighted differences between the 2007-2008 and 2019-2020 Hawai'i ATOD Surveys

	2007-2008 ATOD Survey	2019-2020 ATOD Survey
Approach	Administered as part of the triad of School Health Surveys (Youth Risk Behavior Survey, Youth Tobacco Survey, and ATOD Survey)	Administered as a single comprehensive survey focused on substance use
Sampling Frame	6th, 8th, 10th, and 12th grades at schools for statewide complex level, in alignment with the Youth Risk Behavior Survey (YRBS) and Youth Tobacco Survey (YTS) sampling	8th, 10th, and 12th grades at schools selected for community region level and island representation, including schools that are high need but in under-resourced communities
Coordination & Administration	UH Team worked with school liaison to coordinate class selection and schedule trainings with teachers who distributed and tracked consent forms, and administered survey to class	UH Team + Community-based Field Site Coordinator worked with school administrators and designated school liaison to coordinate class selection and logistics; UH Team administered survey to class
Parent Consent	Active parent consent (opt-in)	Passive parent consent (opt-out)
Survey Format	Paper and pencil survey	Primarily online + paper and pencil as needed
Survey Items	Lengthy DSM-III-R diagnostic criteria used for substance abuse or dependence; more risk related factors assessed	Updated items for gender, stable place to sleep; items related to culture; briefer CRAFFT screen for probable substance use disorder; inclusion of mental health and attention screens; more protective factor items; assessing vaping behavior separate from smoking tobacco cigarettes
Dissemination	Public state level, county/district reports on ADAD website; confidential school/complex reports for limited schools upon request	Public state level, county, community region reports on ADAD website; confidential school reports returned for all schools that meet participation level criteria + dissemination to school communities as requested; ongoing community dissemination by UH

Chapter 3 Design & Method

Relational Design Approach

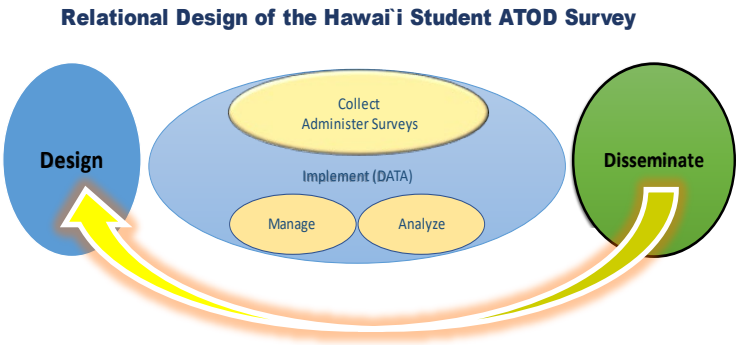


Figure 1. Relational design with dissemination goal as the driver for informing the design of the survey project

The initial design phase of the ATOD survey was informed by preliminary consultation with ADAD. As indicated by the arrow in Figure 1, the survey was designed with the end-goal of the study in mind, i.e., how to disseminate the findings to key stakeholders and decision-makers effectively. Miao and colleagues (Helm et al., 2020) have conceptualized this as a **relational design approach**. In addition to the quantitative school-based needs assessment approach with the 2019-2020 ATOD Survey, a parallel qualitative youth needs assessment was conducted focusing on special populations of youth that may be less likely to complete a school-based survey. This companion report may be found at the Hawai'i State Department of Health Alcohol and Drug Abuse Division website.

Developed in close collaboration with ADAD, the survey instrument was updated to address relevant and timely issues related to youth substance use. The 2019-2020 ATOD study design featured several other significant updates in comparison to earlier administrations of the survey (Figure 2). The survey sampling strategy was designed to **represent community regions including those under-resourced**. A **passive parent consent (opt-out)** protocol was a major accomplishment for the project. Passive consent facilitates a higher rate of student participation by removing the common barrier of lost or missing consent forms that is often associated with an active consent protocol. **Web-based administration** of the survey was promoted to decrease the burden of data management and quality assurance. Paper surveys were still administered on a case-by-case basis, as a response to concerns such as inconsistent internet service at certain schools. Finally, the current design introduced a new practice intended to strengthen community-school partnerships and reduce the burden that the survey might pose to classroom teachers. **Community-based field site coordinators** were hired and trained to serve as project liaisons to the schools, leading the communications and coordination, and proctoring the surveys with students in participating classes. As intended in the relational design approach, field site coordinators were also important in actively tailoring dissemination efforts by providing

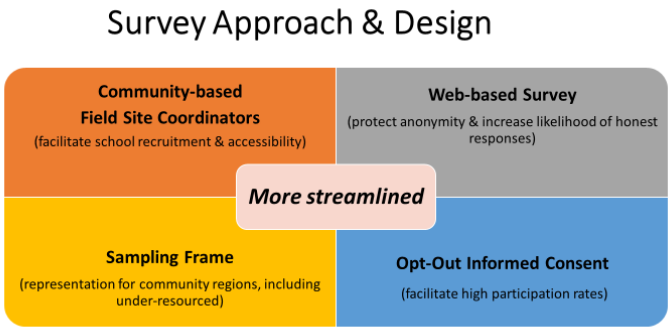


Figure 2. The 2019-2020 ATOD Survey approach was designed to include innovation and improvements.

feedback around the survey findings and reports, as well as for close coordination with school administrators, e.g., to provide presentations of the findings back to participating schools and broader stakeholder communities.

Survey Sampling Strategy

The sampling strategy for the 2019-2020 Survey included survey middle & intermediate school students (8th graders) and high school students (10th and 12th graders). Previous studies in Hawai'i have shown low rates of substance use among 6th graders (Goebert et al., 2010). In addition, sixth grade is not uniformly matriculated in middle or intermediate schools, but also includes elementary schools. Taking these two points into account, the survey and methodology was streamlined by omitting 6th grade students from the sampling frame. Therefore, the **2019-2020 ATOD Survey was conducted using a two-stage cluster sample design, aimed at obtaining a representative sample for 8th, 10th, and 12th graders in each community region**. Community regions were defined to ensure not only district, but also island representation (Figure 3). Kauai County is considered one community region. On Oahu, there are four community regions identified by district, including Central, Honolulu, Leeward, and Windward. Maui County was represented by two regions — Canoe, which included Lanai, Moloka'i and Hana communities; and the Maui community region. Hawai'i Island was divided into two community regions—East Hawai'i and West Hawai'i. Furthermore, communities which had demonstrated high need and few resources and were not originally selected in the sampling frame were additionally included as a subgroup of interest.

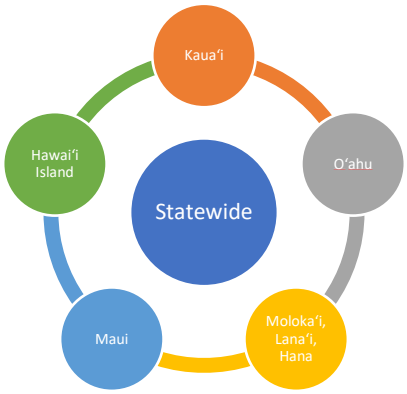


Figure 3. Community region sampling frame

In the **first stage of sampling**, schools within each community region were randomly selected by grade level with replacement. "With replacement" means that high schools selected for the 10th grade may or may not have been the same schools selected for the 12th grade. Additionally, schools that were not selected but which have demonstrated high need and few resources will be included. This resulted in 44 schools included in the sample out of a total of 87. The geographic distribution of schools, community regions, and selections were reviewed and approved by ADAD. Public reports do not identify individual schools. Public reports are available at the statewide, county, and community region levels.

In the **second stage of sampling**, classrooms were selected in each grade for a chosen school to include approximately 75 students per grade level (about 3 classes per school based on an average class size for high response rates) for the survey data. All randomly selected schools and high need/low access school-communities were invited to participate.

A recruitment letter was sent to principals in summer 2019, introducing the research team, briefly explaining the study, and requesting the school's participation and a contact person to be designated as the school liaison. A follow up meeting was proposed to the school to provide the same information in the introductory letter and to request participation. For schools that agreed to participate, the designated school liaison was later contacted by

phone or in-person by one of the DOP staff members. The meeting by phone or face-to-face provided more details of the study, how the survey would be administered, determined if the survey would be administered online or by paper-pencil, and initiated the procedures for grade/classroom selection. While participation was at the discretion of the school administrator, facilitators of participation included: the existing State of Hawaiʻi interagency collaboration between ADAD and DOE; outreach to the schools by either the ATOD Survey Principal Investigator (PI), Co-PI, or Investigator and the field site coordinator to encourage participation; and small tokens of appreciation (e.g., school supplies) for the school.

Sample Description

Overall participation rate for the 2019-2020 ATOD Survey was 88.5%, which was a considerable improvement over the 58.7% participation rate from the 2007-2008 ATOD Survey (Table 2). Participation rates by grade and county were also generally high.

Table 2. 2019-2020 Hawaiʻi Student ATOD Survey Participation Rate by County and Grade

	Participation Rate (%)
Honolulu County	**90.0%**
8th Grade	94.4%
10th Grade	88.1%
12th Grade	83.9%
Hawaiʻi County	**87.7%**
8th Grade	87.8%
10th Grade	87.9%
12th Grade	87.3%
Kauai County	**87.0%**
8th Grade	93.2%
10th Grade	84.9%
12th Grade	77.5%
Maui County	**86.2%**
8th Grade	88.6%
10th Grade	95.5%
12th Grade	71.0%
Statewide	**88.5%**
8th Grade	92.2%
10th Grade	88.7%
12th Grade	82.6%

Data were weighted based on the sampling frame and led to adjustments for enrollments to lessen the effects of a sample bias. A statewide weighted sample was obtained, where weights were applied for each school and grade level using corresponding pre-calculated scores from the academic enrollment prior to the survey year.[1] The **overall weighted sample consisted of 8,225 students** from public middle and high schools in Hawaiʻi who participated in the survey administration. Table 2 summarizes the demographic characteristics of the sample. **Gender** was determined using the survey question asking students their current gender. Students who indicated Other or Transgender were combined into the category of "Transgender and Other Gender Minority (TGGM)" and also categorized as "gender diverse" in this report. **Race/ethnicity** was determined using the survey question asking students which ethnic or racial group(s) they *primarily identified* with. Students who chose more than one response were grouped together into the category of "2 or more ethnicities." Due to relatively small sample sizes for some ethnicities, certain groups were combined. Students who reported their primary identity as Samoan, Chuukese, Marshallese or other Pacific Islander were grouped into the category of "Other Pacific Islander." The category of "Other Asian" included student who reported that they primarily identified as Chinese, Vietnamese, Korean, or other ethnicities from East, South or Southeast Asia. The "Other" ethnicity category

[1] Weighted percentages are reported because the sampling frame was based on a random selection of students from schools and grade included in the sample using the prior academic enrollment counts to generate a corresponding weight score which was to be applied in the analyses to represent estimates for the overall sample.

included students who reported their primary identity as African American, Native American, Alaska Native, or other ethnicities not indicated in Table 3.

Table 3. Characteristics of Survey Participants by Gender, Grade Level, Primary Race/Ethnicity, and Other Demographics (weighted n and %)

Demographic Characteristics		
	n	%
Overall Total	8,225	100.0
Gender		
Male	4,370	53.4
Female	3,628	44.3
Transgender & Other Gender Minority	188	2.3
Grade		
8th Grade	2,764	33.6
10th Grade	2,932	35.6
12th Grade	2,529	30.7
Self-Identified[2] Primary Race/Ethnicity		
Native Hawaiian	811	10.0
Other Pacific Islander	468	5.8
Japanese	733	9.1
Filipino	1,375	17.0
Other Asian	332	4.1
Hispanic/Latino	240	3.0
White/Caucasian	674	8.3
Other	120	1.5
2 or more ethnicities with Native Hawaiian	1,885	23.3
2 or more ethnicities not Native Hawaiian	1,451	17.9
Family member in Active Military, Reserve, or National Guard	1,397	17.2
Self or family member lives on Hawaiian homestead	2,115	26.7
Primary language spoken in household other than English	1,447	17.7
Regular place to sleep other than home	448	5.5
Mother/Guardian's education less than college degree	4,188	51.3
Father/Guardian's education less than college degree	4,234	51.9

[2] While the survey asks students to select a group with which they primarily identify, a large proportion reported primarily identifying with multiple (2 or more) ethnic/racial groups. Among those who selected 2 or more ethnic/racial groups, Native Hawaiian was among the highest therefore, the table shows the percentage of students that selected Native Hawaiian and those that did not.

Survey Administration Procedures

At least one week prior to the scheduled survey administration day, **parent opt-out consent** forms were given to the participating schools for distribution to selected classes to be taken home. On the day of the survey, the field site coordinator(s) worked with the school liaison and teachers of selected classes to verify students on the class roster who were eligible to participate in the study. Students who were opted out from parental consent were asked to complete assigned homework or read quietly or other alternate activity approved by the teacher. Both online and on paper, the **student assent** page explained the purpose of the study, importance of the survey, what the student was being asked to do and how long the survey was expected to take, the nature of the questions, that the information they provided was anonymous and confidential, the right to stop participating at any time without penalty, that there were no direct benefits to the student, and contact information for any questions. Student assent was indicated by clicking on the response "I agree" to continue to the survey. For the paper-pencil format, the student assent page stated that assent was determined to have been given by the student by continuing to the next page and participating in the survey.

Online Survey

The **online survey** was programmed on a web-based platform to maintain the optimal format of the survey while also allowing for the informed assent process and maintaining anonymity and confidentiality of student responses. The 2006-2007 pilot study showed feasibility of administering an online survey, and since that time, many public schools currently have the capacity for classrooms to access the internet for an online survey to be administered. The field site coordinator worked with the school liaison to arrange for the computer facilities and student access to the internet for the day of survey administration.

The field site coordinator(s) briefly explained the importance of the study and how anonymity and confidentiality would be maintained. Students were also informed in the survey that their teachers would remain at the front of the room or another room and would not be allowed to see the completed surveys. Instructions on how to access the website with custom URL and password for the survey were given, and students were taken through the assent form by the field site coordinator(s) before proceeding to allow students to decide whether to participate. Upon completion of the survey, students were instructed to close their web browser, and when the administration period ended, students were thanked and dismissed from class. The online survey webpage was closed after each class was finished with the survey.

Paper-pencil Format

The **paper-pencil version** of the survey was supplied by the field site coordinator prior to or on the date of the survey administration, as arranged with the school liaison. The field site coordinator worked with the respective teachers to verify students on the class roster who were eligible to participate in the survey. Students who were opted out of parental consent were asked to complete assigned homework or read quietly or other alternate activity approved by the teacher. As with the online version of the survey, the field site coordinator briefly explained the importance of the study and how anonymity and confidentiality

would be maintained. Students are also informed in the survey that their teachers would remain at the front of the room or another room and would not be allowed to see the completed surveys. Instructions on how to fill out the survey were given, and students were taken through the assent process. Completed surveys were collected into a large envelope and sealed by the field site coordinator and returned to the Department of Psychiatry. When the administration period ended, students were thanked and dismissed from class.

Confidentiality and Anonymity

Surveys were collected **anonymously**, meaning students' names were not collected. Students' responses were **confidential**, meaning that individuals' responses were not shared, but would be reported in aggregate to the extent possible. Anonymity and confidentiality are important because of the sensitive nature of the information collected in this study, and the need for accurate and candid responses by the students.

Student names or other identifying information were not placed on surveys. On the day of the survey administration, the field site coordinator explained to the students the nature of the study, the importance and value of the survey, and the steps that will be taken to assure confidentiality and anonymity. Since the surveys only contain school and grade identification, there will be no way to link individual surveys to specific students. The online survey data was managed by the University of Hawaiʻi. Paper-pencil surveys will be destroyed after the data are cleaned, merged with the online survey data, and the final report is approved by ADAD. Data are protected on an encrypted server or computer with password protection. Access to the data was limited to the DOP research team, ADAD and connecting parties, and individuals given permission by ADAD.

Data Management

As part of data quality checks, research staff examined each paper-pencil survey prior to transfer to the primary database. Data cleaning also involved checks in the data for responses or patterns that were inconsistent (e.g., said yes in one item, but similar item later said no), or marked multiple responses for a single choice item. If they were not manually correctable at the point of data entry, those questions were omitted in the final data set. All data entry transfers from paper to the data set were quality checked against the paper surveys. The result was a clean, edited data set for analyses.

Collaborative & Iterative Development of Survey Items

Figure 4. Components of the ATOD Survey

Following the Relational Design Approach, the finalized measures for assessing treatment needs were selected through a collaborative and iterative process with ADAD and DOP, including feedback from the field site coordinators and consultation with other stakeholder experts, to determine the most appropriate and relevant components and tools (Figure 4). Innovations and improvements to the survey included an **update of demographic items, better balance of protective and risk factor items, inclusion of mental health and attention screens, items related to culture, and assessing vaping behavior separate from smoking tobacco cigarettes**. (see the Appendix for a copy of The 2019-2020 Hawai'i ATOD Survey)

Measures

Demographic Information

Demographic items included the following: **Age; Grade; Parent or Family in the Military or Reserve/National Guard; Live on a Hawaiian Homestead; Any and Primary Identification for Race/Ethnicity; Primary Language Spoken in Household; Sex assigned at birth; Gender; Place Usually Sleep; Parent/Caregiver Level of Education** (as proxy for socioeconomic status). See above Table 3 with demographic characteristics of the statewide sample.

Culture

Because when combined with other protective factors, expression of the importance of **maintaining one's cultural traditions** and having a **strong sense of belonging to one's ethnic group** may be protective against substance use, these items related to culture were included on the ATOD Survey. Similarly, speaking a **primary language other than English** in the home may increase protection from substance use for middle and high school students, reflecting a protective factor among families which may range from recent immigrants from outside the U.S. to Native Hawaiian families who are intentional about language preservation and cultural perpetuation.

Measures of Treatment Need and Substance use

Treatment Need: CRAFFT

Estimated need for substance use ***treatment*** among adolescents was based on the cutoff score of 4 or higher (Figure 5) on the well-validated CRAFFT instrument [3] (Knight et al., 2002; Knight et al., 1999; Shenoi et al., 2019), indicating probable substance use disorder (abuse/dependence, American Psychiatric Association DSM-IV and DSM-5). The CRAFFT screening tool is also used by the DOE and by ADAD funded providers.

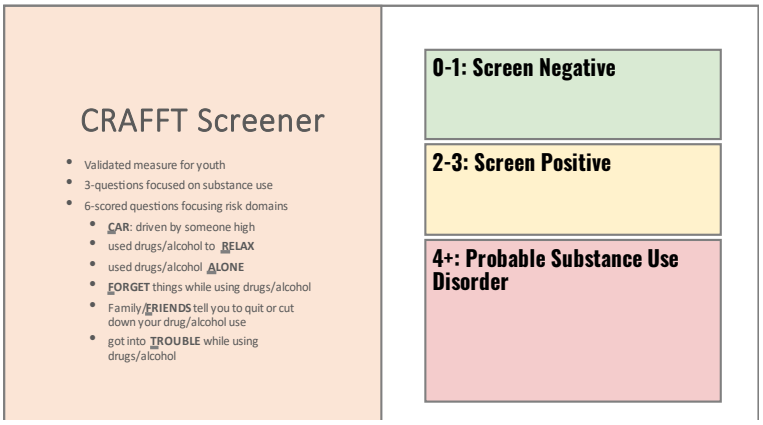


Figure 5. Brief illustration of the validated CRAFFT screen.

Additionally, students were asked if they **received treatment** for substance use in the past 12 months and, if so, if they received treatment from **school** or a **place other than school**. Students were also asked if they ever **thought they should seek help for substance use but did not**.

Substance Use Behaviors

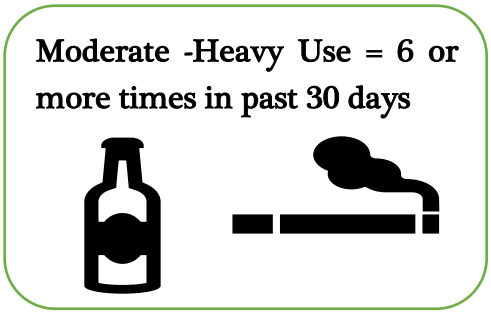


Figure 6. Definition of moderate-heavy use as 6 or more times in the past 30 days.

Substance categories emphasized in this report include the most prevalent **alcohol, tobacco, vape, and marijuana use**. Additionally, use of **opioids, sedatives and other prescription (Rx) drugs, over-the-counter (OTC) drugs, and steroids** are presented. Other drug use included **inhalants, heroin, cocaine, methamphetamine, hallucinogens**, and **other illicit drugs**.

Current use was defined as **any use** (one or more times) of a categorized substance **in the past 30 days**. Frequent or **Moderate-heavy use** was defined as **6 or more times in the past 30 days** (Figure 6) which may include more frequent behaviors that range from an average of weekly to daily. **Binge drinking** definitions (Figure 7) were updated for youth as 3+ standard drinks on one

[3] Knight JR, Shrier LA, Bravender TD, Farrell M, Vander Bilt J, Shaffer HJ. A new brief screen for adolescent substance abuse. Arch Pediatr Adolesc Med. 1999 Jun;153(6):591-6. doi: 10.1001/archpedi.153.6.591. PMID: 10357299.

occasion for all 8th graders, and for 10th and 12th graders assigned female at birth. For students assigned male at birth, binge drinking was defined as 4+ drinks for 10th graders and 5+ drinks for 12th graders (National Institute on Alcohol Abuse and Alcoholism, 2021; Chung et al., 2018).

Figure 7. Binge drinking definition for youth accounts for grade level and sex assigned at birth.

Lifetime use was determined if the student endorsed any first use of a substance category. **Age of initiation** was described as the age when a person first begins using a substance. **Early initiation** indicated that a person's first use occurred at age 13 or younger.

For current and moderate-heavy use, each category of substance was also further examined by grade, gender, and ethnicity.

Mental Health & Attention Screen

In addition to substance use indicators, **mental health distress** and **attentional disorder** were screened respectively using the validated Patient Health Questionnaire PHQ-4[4] , which collects symptoms related to depression and anxiety, and the Pediatric Symptom Checklist[5] Attention Subscale for which a positive screen indicated further assessment for ADD/ADHD.

Risk & Protective Factors: Social Development Model and Social-ecological Domains

Risk and protective factors for substance use among students based on the existing literature were measured for **individual, peer, family, school, and community domains** as well as contextual items from the literature related to substance use. To better understand protective factors and move toward a model for resilience, the 2019-2020 ATOD Survey included a more balanced set of items to query students about protection as well as risk. All youth are exposed to both risk and protective factors that influence engagement in substance use. Youth substance use arises from a complex interaction of individual, family, peer, community, and societal factors (United Nations Office for Drug Control and Crime Prevention, 2000).

As mentioned earlier, risk factors place individuals at greater than average risk for substance use, delinquency, and problem behaviors. (Arthur et al., 2002; Institute of Medicine, 1994) In contrast, the presence of protective

[4] Löwe B, Wahl I, Rose M, Spitzer C, Glaesmer H, Wingenfeld K, Schneider A, Brähler E. A 4-item measure of depression and anxiety: validation and standardization of the Patient Health Questionnaire-4 (PHQ-4) in the general population. J Affect Disord. 2010 Apr;122(1-2):86-95. doi: 10.1016/j.jad.2009.06.019. Epub 2009 Jul 17. PMID: 19616305.

[5] Gardner W, Murphy M, Childs G, et al. The PSC-17: a brief pediatric symptom checklist including psychosocial problem subscales: a report from PROS and ASPN. Ambulatory Child Health. 1999;5:225–236

factors appears to buffer youth from initiating or continuing substance use and decrease vulnerability to subsequent health and social problems (Arthur et al., 2002; Hawkins et al., 1992). With improvements in the survey items and contemporary modeling approaches, one of the innovations of this study includes **factors associated with greater protection from or risk of substance use** among students in Hawai'i which are described in more detail in Chapter Seven Social Ecological Risk & Protective Factor Resilience Model.

Overview of Risk and Protective Factor Domains

Risk and Protective Factors for Alcohol and Other Drug Problems in Adolescence and Early Adulthood: Implications for Substance Abuse Prevention is the seminal report in this field that has guided the majority of subsequent work and research on adolescent substance use (Hawkins et al., 1992). Since publication, this article has been influential in shaping the direction of adolescent substance use research. See Table 18 in the Appendix for the corresponding survey questions and coding for Risk and Protective Factors for each of the following domains.

Individual Domain

The individual domain includes **attitudes toward drug use, antisocial behavior, and other factors such as sensation seeking** have also been linked to alcohol and other drug use among individual adolescents (Hawkins et al., 1992). Favorable attitudes toward drug use, antisocial behavior, and sensation seeking are some factors that have been linked to an increased risk for cigarette, alcohol, and marijuana use (Beyers et al., 2004).

One individual risk factor commonly found to be associated with adolescent substance use **is early initiation of problem behaviors including early use of substances**. The younger individuals are at the initiation of alcohol use, the more likely they are to develop significant alcohol related problems (DeWit et al., 2000). **Negative peer influence, perceptions of the harmfulness of alcohol use, parents' alcohol use, and proactive parenting** measured in the late stages of childhood have been shown to influence the age of alcohol use initiation (Hawkins et al., 1997).

Mental and behavioral health concerns, including antisocial behavior such as impulsivity, aggression, and conduct problems, have been shown to put adolescents at increased risk for substance use (Nation & Heflinger, 2006; Poikolainen, 2002; Swadi, 1999). In adolescence, these issues have been linked to sensation-seeking, reduced perception of risk, and high reward sensitivity to ATOD use (Cleveland et al., 2008; Wagner, 2001).

Not surprisingly, studies have shown that adolescents' **pro-drug beliefs** were one of the best predictors of simultaneous alcohol and marijuana use (Collins et al., 1998). Among adolescents who intended to use substances, their own personal beliefs were more important than the beliefs of other important people in their lives (O'Callaghan & Hannon, 2003). Additionally, O'Connor et al., (2007) showed that as adolescents grow older, they perceive more benefits from alcohol and tobacco use than negative consequences associated with substance use.

Studies of adolescents have shown **perceptions of harmfulness** to be associated with drug and alcohol use. As expected, adolescents who associated harm with substance use were less likely to be users and vice versa (Alter

et al., 2006; Bachman et al., 1998; Danseco et al., 1999; Johnson et al., 2000; O'Callaghan et al., 2006; O'Callaghan & Hannon, 2003).

See Table 18 in the Appendix for the Risk and Protective Factors and Corresponding 2019-2020 Hawai'i Student ATOD Survey Questions and Responses.

Peer Domain

Peer substance use and **peer approval of substance use** put students at a greater risk for substance use and problem use. Peer risk and protective factors have been reported to be strongly associated with both lifetime and recent substance use among adolescents (Cleveland et al., 2008). Exposure to peer substance use and offers of substances from friends have been shown to be important risk factors.

See Table 18 in the Appendix for the Risk and Protective Factors and Corresponding 2019-2020 Hawai'i Student ATOD Survey Questions and Responses.

Family Domain

Risk and protective factors research associated with the family domain has typically focused on the **bond between parents and children** and the outcome of disruptions to this relationship. **Family support, parental supervision and having clear rules and consequences** about substance use have been found as protective factors, while **exposure to family alcohol and other drug use** have been shown to be risk factors for youth substance use (Rusby et al., 2018).

See Table 18 in the Appendix for the Risk and Protective Factors and Corresponding 2019-2020 Hawai'i Student ATOD Survey Questions and Responses.

School Domain

The school domain focuses on **academic performance, educational aspirations, and school engagement** among the surveyed adolescents in Hawai'i. Other major studies have found that students who indicated having strong school protective factors reported less substance use. Additionally, it has been reported that increasing student engagement and attachment to school should be a goal among adolescents as it has been shown to reduce overall substance use (Guo et al., 2001).

See Table 18 in the Appendix for the Risk and Protective Factors and Corresponding 2019-2020 Hawai'i Student ATOD Survey Questions and Responses.

Community Domain

The community domain focuses on adolescents' personal interactions with other individuals in different areas or domains of his or her life distinct from friends (peer domain), teachers and classmates (school domain), and parents, siblings, and other relatives (family domain). Community factors, such as **illegal substance use in the**

neighborhood, drug selling or crime, and ease of access to substances have been shown as risk factors, while protective factors include **adults in the community favoring prosocial non-use of substances by youth and encouragement for youth positive behaviors**.

See Table 18 in the Appendix for the Risk and Protective Factors and Corresponding 2019-2020 Hawai'i Student ATOD Survey Questions and Responses.

Contexts Related to Substance Use

Access to Substances

Access to substances was assessed through questions related to where and from whom substances were obtained or offered. Students were asked to select all that apply to the question *"During the past 12 months, how did you usually get _____ [alcohol, marijuana, tobacco/e-cigarettes, or other drugs]?"* - response options included no use in the past 12 months, store, restaurant/bar/club, a public place, gave money to someone to buy it, got while at school, someone gave it to them, took it from a store, took from a family member, or some other way (open-ended). Open-ended responses were coded to match other categories whenever possible.

Where Usually Use Substances

Location of use for substances was assessed through questions that related to where students usually substances. Students were asked to select all that apply to the question *"During the past 12 month, where did you usually use _____ [alcohol, marijuana, tobacco/e-cigarettes, or other drugs]?"* – response options included no use in the past 12 months, at their home, at another person's home, while riding/driving in a vehicle, at a restaurant/bar/club, at a public place, on school property, at a social event, or somewhere else (open-ended). Open-ended responses were coded to match other categories whenever possible.

Prevention Messages and Knowledge

New in the 2019-2020 ATOD Survey were questions asking students if and how they receive prevention related messages and knowledge about dangers of alcohol and drugs. Personal sources of information about the dangers of alcohol, tobacco, or drug use included friends, parent/guardian, teacher, or someone else (open-ended); sources for public awareness messages included television or internet channels, radio or internet stations, social media or apps/websites, ads on devices, posters/signs/material in public, or other ways (open-ended).

Analyses

Using the weighted sample, descriptive and bivariate analyses were conducted on the data. Estimated treatment need and substance use indicators for alcohol, binge drinking, tobacco cigarette, vape/e-cigarette, and marijuana use were examined in the most detail. These findings are presented in Chapter 4 Youth Substance Use in Hawai'i and in the Appendix.

Note that due to the coronavirus pandemic (COVID-19) shutdown in Spring 2020, data collection during this period was not possible. All data were collected before the pandemic-related closure of schools. Where data were unavailable for a few schools, estimated scores for selected substance use and behavioral health indicators (e.g., treatment need, current use of substances, mental health symptom severity, attention disorder) were substituted using a composite from other selected schools based on knowledge of the community and matching of similar demographic characteristics (i.e., driving distance to major hospital, percent Native Hawaiian, and percent free/reduced lunch) that were shown to be important variables of substance use treatment need from a statistical classification model analysis. For substance use indicators examined by grade, gender or race/ethnicity, no adjustments for missing schools were made, therefore percentages of reporting may be underreported or overreported.

Data were also analyzed for the state, county, and community region levels to describe: (1) treatment needs and in specific subgroups; (2) lifetime, past 30-day, and moderate-heavy use of substances including for some specific subgroups; and (3) risk and protective factors in specific subgroups (grade, ethnicity, and gender), Results were reported in tables and charts to describe various populations on each of the selected variables or indicators. In accordance with the Hawaiʻi State Department of Health guideline, cell sizes with less than ten were suppressed. Comparisons to nationwide reports, where available, were made by comparing the findings in Hawaiʻi with those reported during the closest available data year of the national and Hawaiʻi Youth Risk Behavior Survey (YRBS) and the Monitoring the Future (MTF) Survey. The YRBS and MTF data presented for indicators examined by grade, as those sources were not able to be filtered to include a comparable percentage for combined 8th, 10th, and 12th grades – therefore, gender and race/ethnicity charts do not include these sources.

Data were also analyzed to determine the association between risk and protective factors with prevalence and prevention and treatment needs. Given the advances in statistical modeling approaches, the survey data were also used to build preliminary models for risk and protective factors for predicting problem substance use. See Chapter 6 for details on the protective and risk factors that emerged as important across the social-ecological domains.

The IBM® SPSS© Statistics v.26 software was used to perform the primary analyses for the state, county, and community region reports. Mplus v.8 software was used for structural equation modeling analyses.

Chapter 4 Youth Substance Use in Hawai‘i

Overall Estimates of Treatment Need

CRAFFT (**C**ar, **R**elax, **A**lone, **F**orget, **F**riends or **F**amily, and **T**rouble) is a validated screening tool to assess substance use and dependence for adolescents ages 12-21. A score of **two or three** indicates **positive risk** of developing an SUD. A score of **four or more** indicates a **probable substance use disorder (SUD) and treatment need**. Although the 2019-2020 Hawai‘i Student ATOD Survey utilized a screening instrument compared to the diagnostic criteria from the 2007-2008 ATOD Survey and a different sampling frame, the overall total estimated treatment need across the state ***increased*** to 11.1% from the 7.7% reported estimated need from the previous study more than a decade ago.

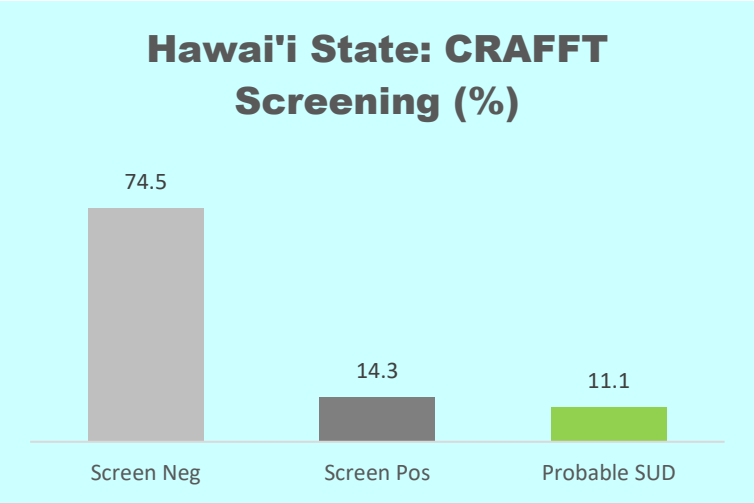


Figure 8. The majority of students in the state sample (74.5%) screened negative, while 14.3% screened positive and 11.1% indicated probable SUD and treatment need.

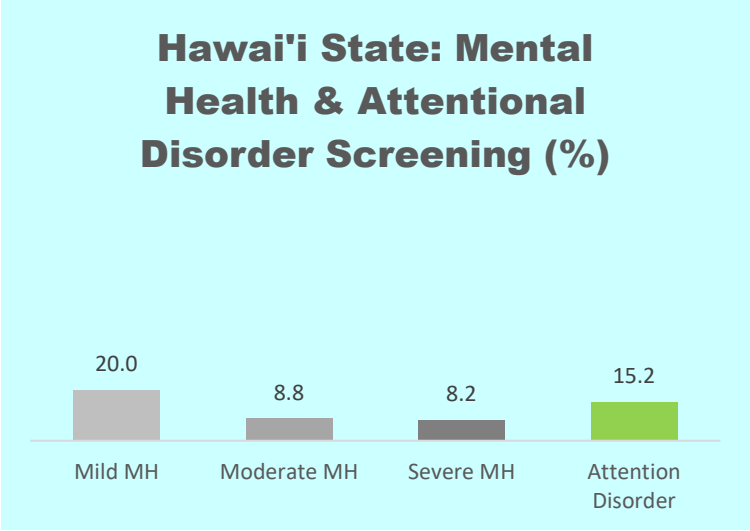


Figure 9. Twenty percent of students screened indicated mild mental health distress, while 8.8% and 8.2% indicated moderate to severe mental health distress, respectively. Screening for attentional disorder was indicated by 15.2% of students in the state sample.

Given the literature on the higher risk of substance use with mental health and attentional behavioral diagnoses, two brief screens were added to the 2019-2020 ATOD Survey. **Mental Health** distress was screened using the validated **PHQ-4**, which collects symptoms related to **depression and anxiety**. A positive screen on the **Pediatric Symptom Checklist Attention Subscale** indicates further assessment for **ADD/ADHD**.

More than a third of students in the statewide sample (37% combined) **reported mild to severe levels of mental health distress** in the past two weeks. Approximately 15% of students statewide also screened positive for a potential attention disorder.

For treatment needs by grade, 6.6% of 8th graders, 12% of 10th graders, and 15% of 12th graders had a probable substance use disorder. Compared to both males (8.8%) and females (13.1%), the inclusion of Transgender and Other Gender Minority (TGGM), while a small group, indicates an elevated proportion of probable substance use disorder (24.4%). Adolescents most likely to have a probable substance use disorder primarily identified themselves as ***Other Pacific Islander (19.7%), Native Hawaiian (15.2%), Hispanic or Latino (16.2%), and of 2 or more ethnicities including Native Hawaiian (13.5%)***.

Table 4. CRAFFT screen percent for probable SUD by demographic factor

Probable Abuse or Dependence of any Substance, Based on the CRAFFT, for Gender, Grade Level, and Ethnicity (weighted percents)					
	No		Yes		Total
	n	% (CI95%)	n	% (CI95%)	
Overall Total	7,172	88.9 (88.2, 89.6)	896	11.1 (10.4, 11.8)	8,068
Gender					
Male	3,902	91.2 (90.4, 92.0)	377	8.8 (8.0, 9.6)	4,279
Female	3,116	86.9 (85.8, 88.0)	471	13.1 (12.0, 14.2)	3,587
Transgender & Other Gender Minority	133	75.6 (69.3, 81.9)	43	24.4 (18.1, 30.7)	176
Grade					
8th Grade	2,527	93.4 (92.5, 94.3)	179	6.6 (5.7, 7.5)	2,706
10th Grade	2,531	88.0 (86.8, 89.2)	346	12.0 (10.8, 13.2)	2,877
12th Grade	2,113	85.0 (83.6, 86.4)	373	15.0 (13.6, 16.4)	2,486
Self-Identified Primary Race/Ethnicity					
Native Hawaiian	671	84.8 (82.3, 87.3)	120	15.2 (12.7, 17.7)	791
Other Pacific Islander	372	80.3 (76.7, 83.9)	91	19.7 (16.1, 23.3)	463
Japanese	681	94.1 (92.4, 95.8)	43	5.9 (4.2, 7.6)	724
Filipino	1,261	92.4 (91.0, 93.8)	103	7.6 (6.2, 9.0)	1,364
Other Asian	316	95.2 (92.9, 97.5)	16	4.8 (2.5, 7.1)	332
Hispanic/Latino	197	83.8 (79.1, 88.5)	38	16.2 (11.5, 20.9)	235
White/Caucasian	600	90.8 (88.6, 93.0)	61	9.2 (7.0, 11.4)	661
Other	101	86.3 (80.1, 92.5)	16	13.7 (7.5, 19.9)	117
2 or more ethnicities with Native Hawaiian	1,589	86.5 (84.9, 88.1)	248	13.5 (11.9, 15.1)	1,837
2 or more ethnicities not Native Hawaiian	1,269	89.3 (87.7, 90.9)	152	10.7 (9.1, 12.3)	1,421

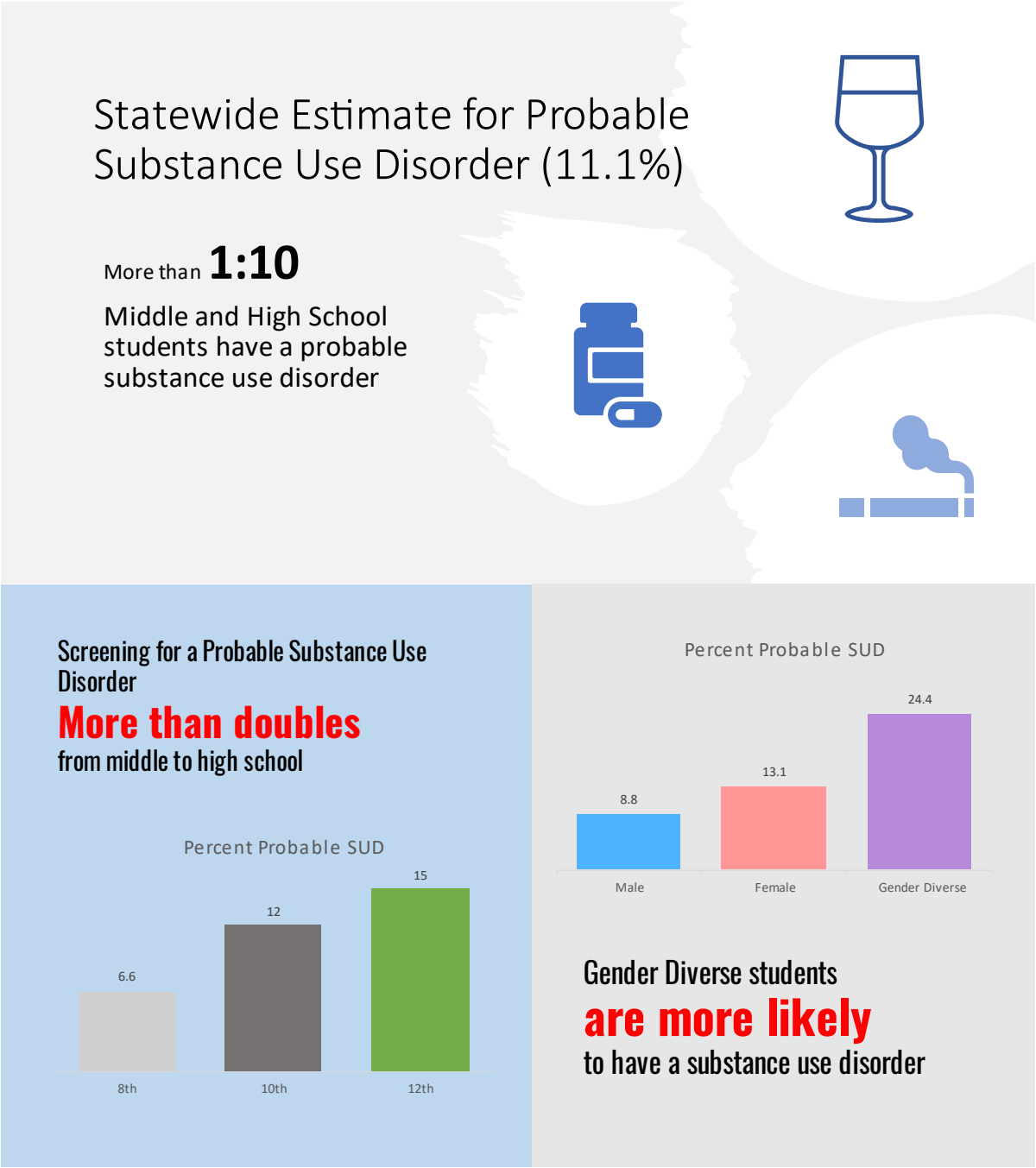


Figure 10. Infographic for statewide estimated probable substance use disorder treatment need for the overall state, by grade, and gender.

Probable SUD by Mental Health and Attention Screen

Given the relationship of mental health disorders and substance use, the CRAFFT screen rates were examined by the mental health distress severity from the PHQ-4 screen. As shown in Figure 11, **the rates of a probable SUD** (score of 4+ on the CRAFFT) **and also for a positive risk screen for an SUD increase** (score 2-3 on the CRAFFT) **with increasing levels of mental health distress severity** (mild 11.2%, moderate 17.9%, severe 25.3% respectively).

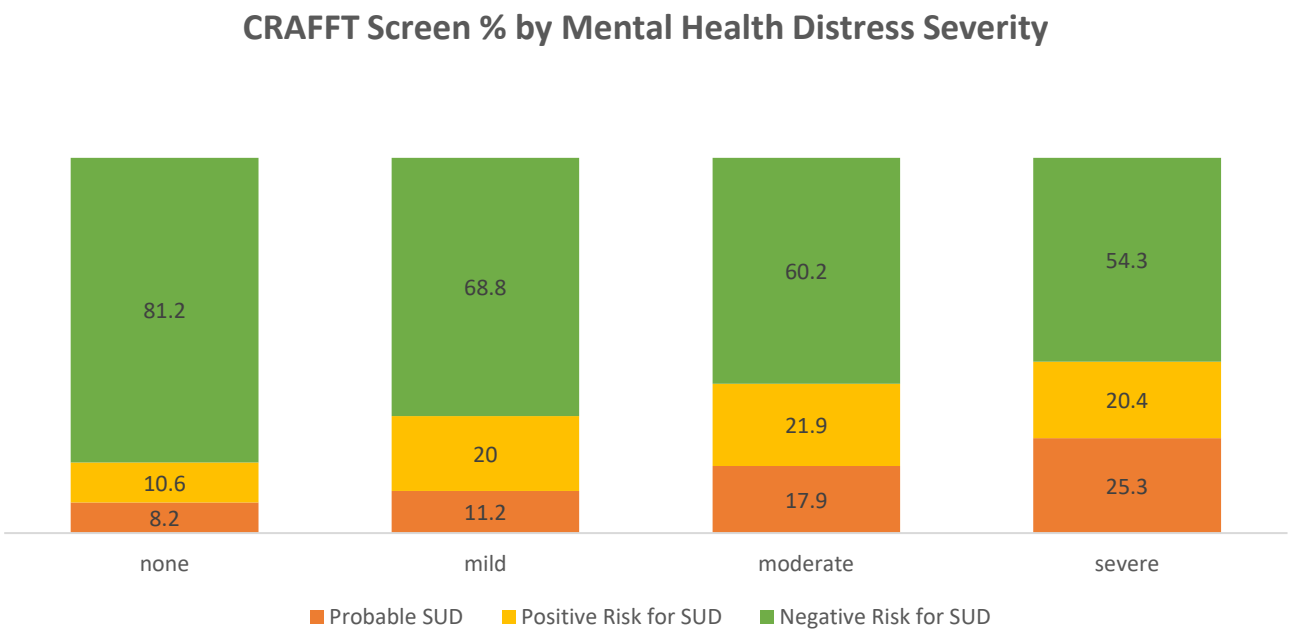


Figure 11. CRAFFT screen percentages increase by PHQ-4 mental health distress severity level.

Screening for **attention related disorders** found youth with a ***positive screen*** (which indicates further assessment for attentional disorders) ***had a percentage (19.5%) of probable substance use disorder, about twice that of those with a negative screen*** (9.6%).

Treatment Need vs. Utilization

Similar to the 2007-2008 ATOD Survey, the 2019-2020 ATOD Survey asked about **receiving help** for substance use problems. Among students that screened in the **probable SUD range** (4+ on the CRAFFT), **only 29% reported getting help.** Of those who screened in the **risk positive range** (2-3 on the CRAFFT), **less than 17% received getting help**. For both the probable and risk for SUD groups, help was received by students at school **and** outside of school for about half, while the remainder were equally likely to have received help at either school **or** outside of school. **A large majority of students that screened as needing treatment or at risk of an SUD were not receiving help even if they thought they should, or they did not think they were in need of help.** In the low or no risk group (0-1 on the CRAFFT), about 4.5% of students reported receiving some help primarily both on **and** off campus. (see Figure 12)

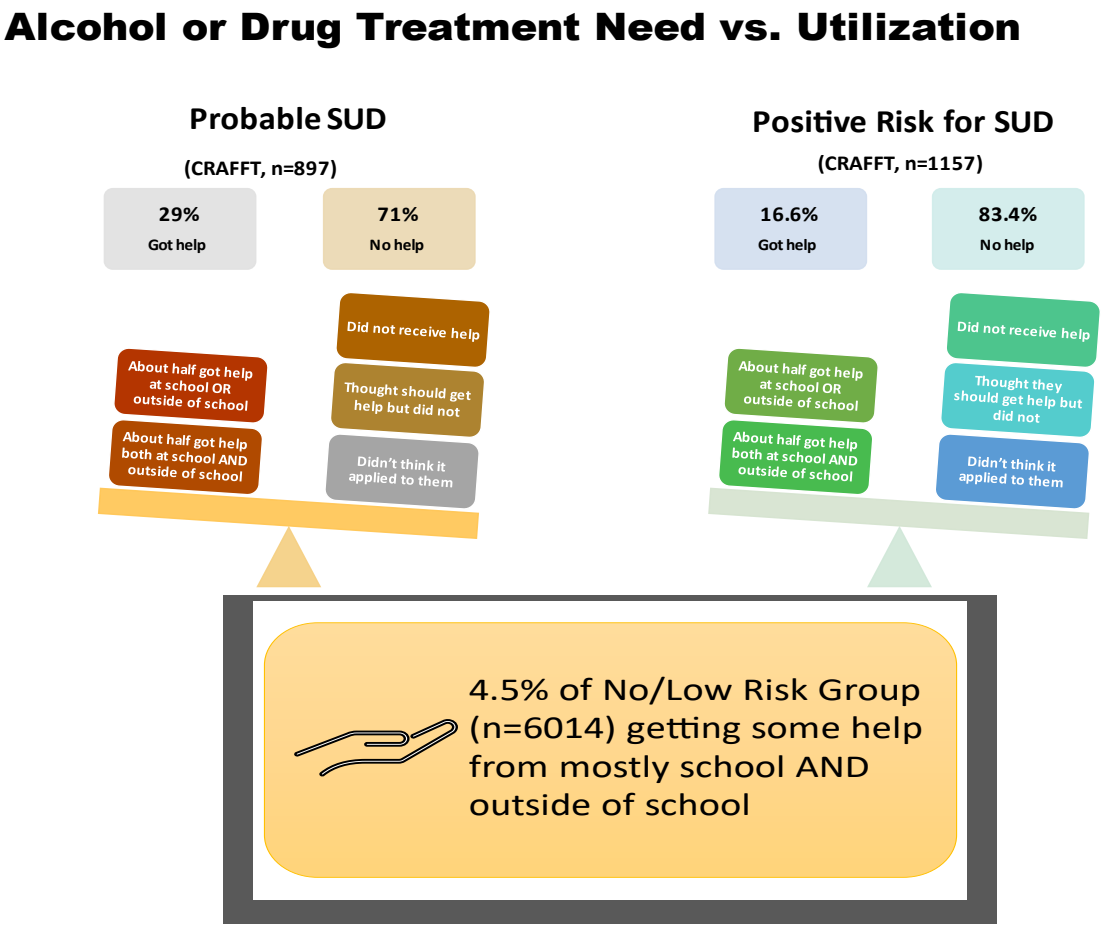
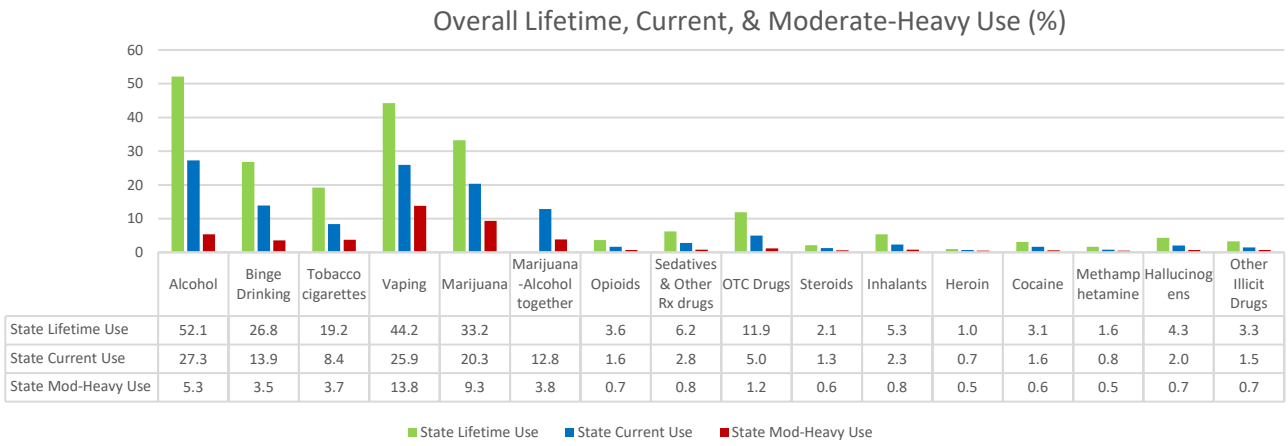


Figure 12.Treatment utilization is a small percentage of the overall treatment need – receiving early prevention interventions for positive risk and low risk students may be even lower than treatment utilization.

Overall Lifetime, Current, & Moderate-Heavy Use of Substances

The 2019-2020 ATOD Survey statewide data (Figure 13) showed the **highest prevalence rates of substance use were reported for both lifetime and 30-day use of alcohol, followed by e-cigarettes/vaping products, marijuana, and tobacco cigarettes**. Alcohol use by binge drinking and concurrent use of alcohol and marijuana use together were also commonly reported current substance use behaviors. Current use of over the counter (OTC) drugs, and sedatives and other prescription drugs without a doctor's instruction, were reported at a higher rate than use of inhalants, opioids, steroids, or other illicit drugs. **The report emphasizes current findings for the above mentioned most prevalent substances used by youth (alcohol, vape/e-cigarettes, tobacco, and marijuana).** Due to differences in the design, method and sampling frame, no direct comparisons can be made between the 2007-2008 and 2019-2020 ATOD Surveys, however, additional tables for the purposes of illustrating historical contextual information from reanalyzed 2007-2008 (excluding 6th grade from the sample) may be found in the Appendix.



	Alcohol	Binge Drinking	Tobacco cigarettes	Vaping	Marijuana	Marijuana -Alcohol together	Opioids	Sedatives & Other Rx drugs	OTC Drugs	Steroids	Inhalants	Heroin	Cocaine	Methamphetamine	Hallucinogens	Other Illicit Drugs
State Lifetime Use	52.1	26.8	19.2	44.2	33.2		3.6	6.2	11.9	2.1	5.3	1.0	3.1	1.6	4.3	3.3
State Current Use	27.3	13.9	8.4	25.9	20.3	12.8	1.6	2.8	5.0	1.3	2.3	0.7	1.6	0.8	2.0	1.5
State Mod-Heavy Use	5.3	3.5	3.7	13.8	9.3	3.8	0.7	0.8	1.2	0.6	0.8	0.5	0.6	0.5	0.7	0.7

Figure 13. Lifetime use, any current use (in past 30 days), and moderate-heavy use (6+ times in the past 30 days) of substance categories. Note: Current Binge drinking uses the new 3/4/5+ drinks definition, while Binge drinking for lifetime and current moderate-heavy use is based on a survey item for 4+ drinks on one occasion; there was no survey item that asked about lifetime concurrent alcohol-marijuana use.

Overall Age of Initiation of Alcohol and Substance Use

The 2019-2020 Hawai'i Student ATOD Study findings provide important and useful information on youth substance use in Hawai'i. Given the recognition of youth substance use as an ongoing public health issue, it is important to note that based on the Hawai'i Student ATOD Study findings, the "gateway drugs" (alcohol, vape/e-cigarettes, and marijuana) were the substances that students were more likely to use prior to the age of 14. Due to the literature showing an association between early onset of substance use and later alcohol and drug problems, it is extremely important for prevention efforts to focus on students younger than 14 years of age. Overall, in the state, the **substances more often reported for early initiation as being used at age 13 or younger, were alcohol, vape/e-cigarettes, and tobacco cigarettes** (Figure 14).

When further examining distributions for age of onset of use by substance, **a peak for early initiation of alcohol occurs at 8 years of age or younger, but also later throughout adolescence**. Patterns are seen for **early initiation of vaping, marijuana and tobacco cigarette use around age 13,** while **binge drinking appears to primarily show a later peak for age of onset around 15-16 years of age** (Figure 15).

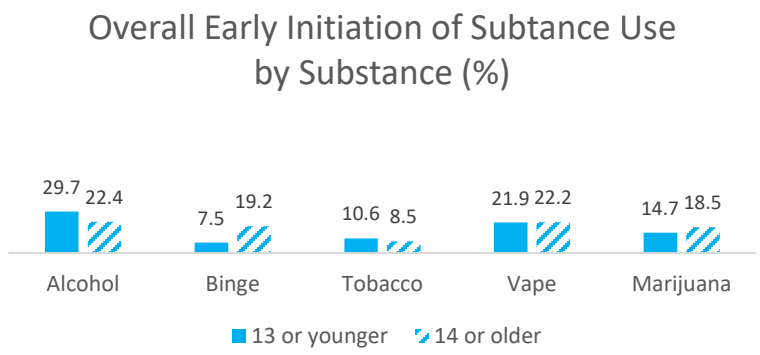
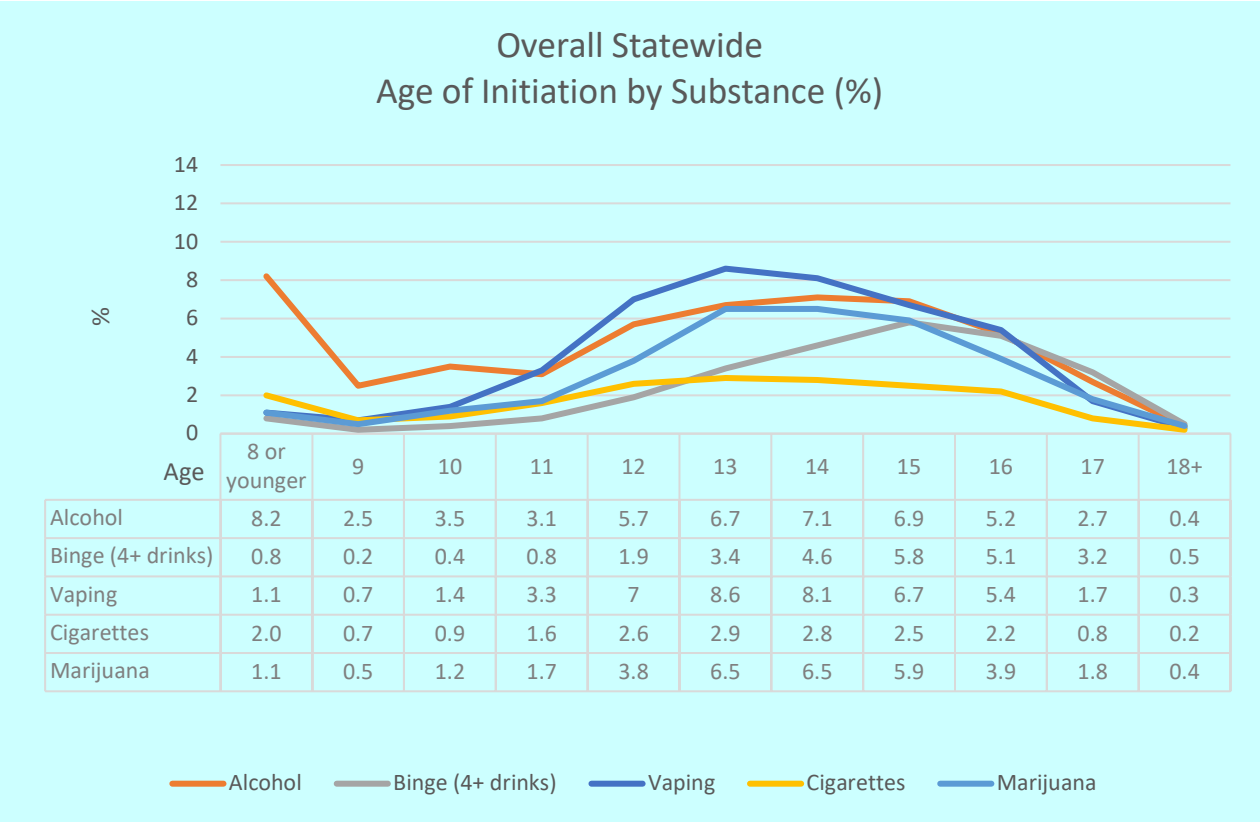


Figure 14. Early initiation of substance use at 13 years or younger is seen most often for alcohol, vaping and tobacco cigarettes.



Age	8 or younger	9	10	11	12	13	14	15	16	17	18+
Alcohol	8.2	2.5	3.5	3.1	5.7	6.7	7.1	6.9	5.2	2.7	0.4
Binge (4+ drinks)	0.8	0.2	0.4	0.8	1.9	3.4	4.6	5.8	5.1	3.2	0.5
Vaping	1.1	0.7	1.4	3.3	7	8.6	8.1	6.7	5.4	1.7	0.3
Cigarettes	2.0	0.7	0.9	1.6	2.6	2.9	2.8	2.5	2.2	0.8	0.2
Marijuana	1.1	0.5	1.2	1.7	3.8	6.5	6.5	5.9	3.9	1.8	0.4

Figure 15. Percent among statewide sample is plotted by age of first use for alcohol and substance use categories.

Alcohol

Consequences of Alcohol Use from the Literature

The negative consequences of adolescent alcohol use can be understood and analyzed at multiple levels. In 2018, the World Health Organization reported that more than a quarter of adolescents between the ages 15-19 were

current consumers of alcohol (World Health Organization, 2019). For the individual, early alcohol use can have neurodevelopmental impacts that affect continue to affect physiological, mental, and behavioral health as an adolescent matures into adulthood (Crews et al., 2016). Adolescents who use alcohol have been found to have higher incidence of depression severity and general anxiety disorder (Dyer et al., 2019; Schleider et al., 2019). Factors protecting youth from substance use have been found to include availability of resources, community involvement, and social support; while self-esteem, refusal skills, personality, and mental health have been identified as factors that can increase risk of substance use (Garza et al., 2018).

A study examining the relationship between ethnocultural identity measures and substance use reinforced the importance of interventions with relevance to a youth's cultural and ethnic background. Interventions grounded in culture have promise to address substance use among adolescents in Hawaiʻi such as the Hoʻouna Pono, developed with attention to the unique strengths and needs of Native Hawaiian students (Helm et al., 2019).

12th graders are 2.5x more likely to drink than 8th graders

Trends / prevalence rates from Alcohol Use Indicators

Any Current Alcohol Use in the Past 30 Days

Grade

Although rates of reported **current use of (any) alcohol in the past 30 days** were higher for the ATOD Survey compared to other national surveys, and Hawaiʻi YRBS, **there was an increase in alcohol use from 8th to 12th grade across all three surveys** (Figure 16). High school students use alcohol at higher rates than middle school students, with 12th graders reporting the highest use in the past 30 days for alcohol. Current alcohol use in Hawaiʻi reported in the ATOD Student Survey among 12th grade students (40.1%) approximated the national Youth Risk Behavior Survey (US YRBS, 39.9%) but was considerably higher than the rate reported by the state YRBS (26.8%). Alcohol use by 8th graders was lower than older students, however 16.5% of middle school students reported drinking in the past 30 days on the 2019-2020 ATOD Survey.

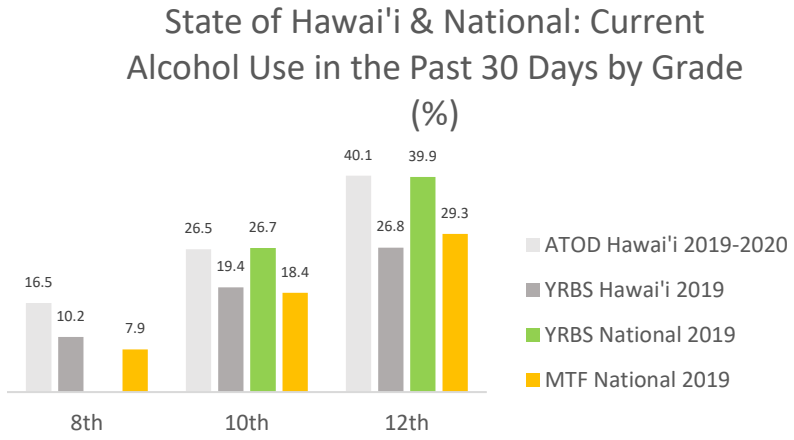


Figure 16. Current use of alcohol in the past 30 days by grade level for ATOD Hawaiʻi compared to national surveys (YRBS and Monitoring the Future). No data were available for 8th grade YRBS National.

Gender

By gender, past 30 day use of alcohol was lowest for male students (23.6%), higher for females (31.1%), and **transgender and other gender minority (TGGM) students reporting the highest rate (37.4%)** of current use (Figure 17).

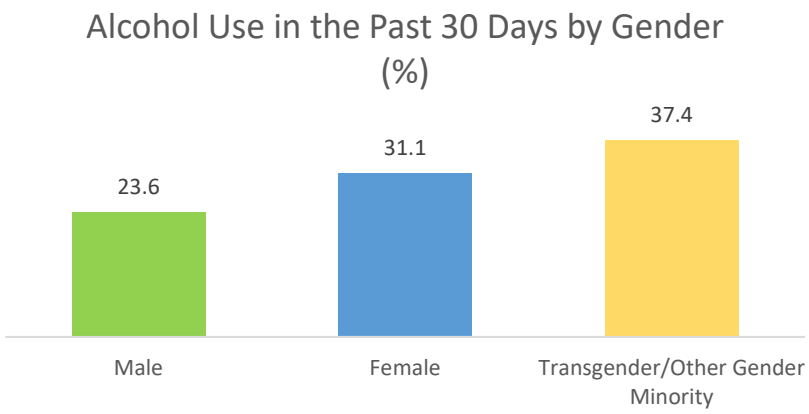


Figure 17. Current any alcohol use in the past 30 days by gender category

Race/Ethnicity

Students who identified primarily as **Native Hawaiian, two or more ethnicities including Native Hawaiian, or Hispanic / Latino** reported current use of alcohol at elevated rates (34.4%, 34.7%, and 37.8%, respectively, in comparison to the overall state of 27.4%).

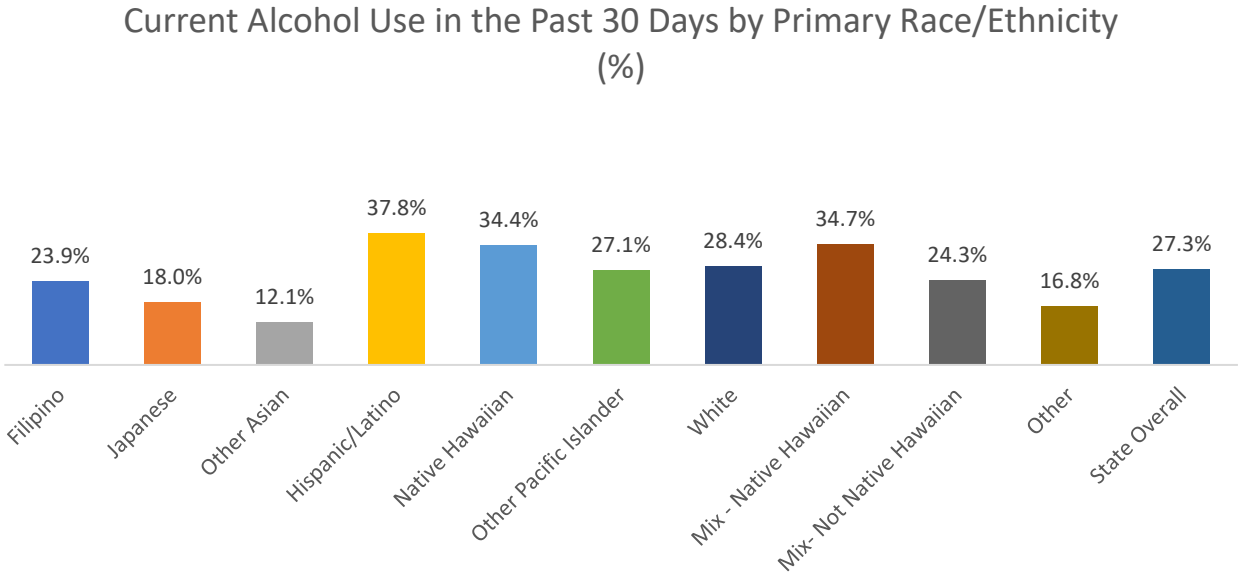


Figure 18. Percentage of current any alcohol use in the past 30 days by primary identification or race/ethnicity and overall state.

Binge Drinking in the Past 30 Days

Binge Drinking was defined as 3+ standard drinks on one occasion for all 8th graders and for 10th and 12th graders assigned female at birth. For students assigned male at birth, binge drinking was defined as 4+ drinks for 10th graders and 5+ drinks for 12th graders.

Grade

Binge drinking in the past 30 days was seen to **increase by grade level**, and most frequently reported among 12th graders (23.8%) from the 2019-2020 ATOD Survey. The 2019-2020 ATOD Survey was most comparable to the national YRBS rates for 10th and 12th grades. Note in the Figure 19 legend that binge drinking definitions varied for each survey.

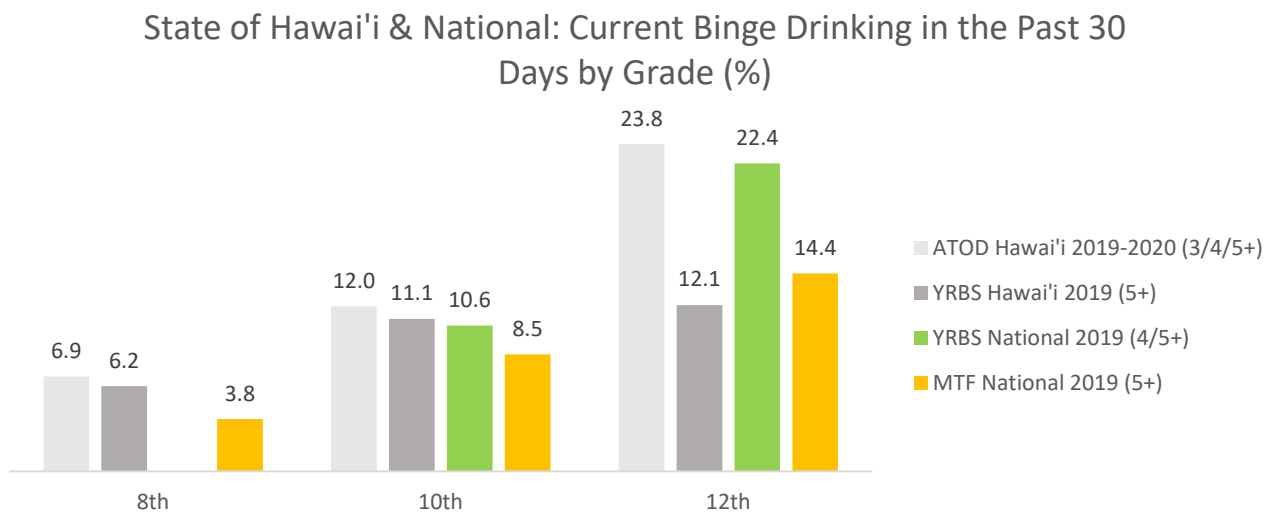


Figure 19. Current binge drinking in the past 30 days by grade level for ATOD Hawai'i compared to national surveys (YRBS and Monitoring the Future). No data were available for 8th grade YRBS National.

Gender

Female students reported a higher rate of current binge drinking than male students (18.3% compared to 9.7%). **Gender diverse students reported the highest rates** of binge drinking (26.2%) compared to their cisgender counterparts (Figure 20).

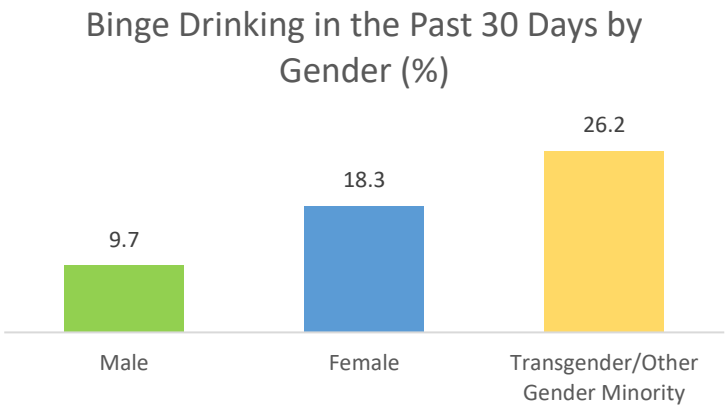


Figure 20. Current any binge drinking in the past 30 days by gender category

Race/Ethnicity

Students who identified primarily as **Native Hawaiian (21.2%), two or more ethnicities including Native Hawaiian (20.1%), Hispanic /Latino (23.5%), or Other Pacific Islander (17.9%)** reported current binge drinking at elevated rates in comparison to the overall state (Figure 21).

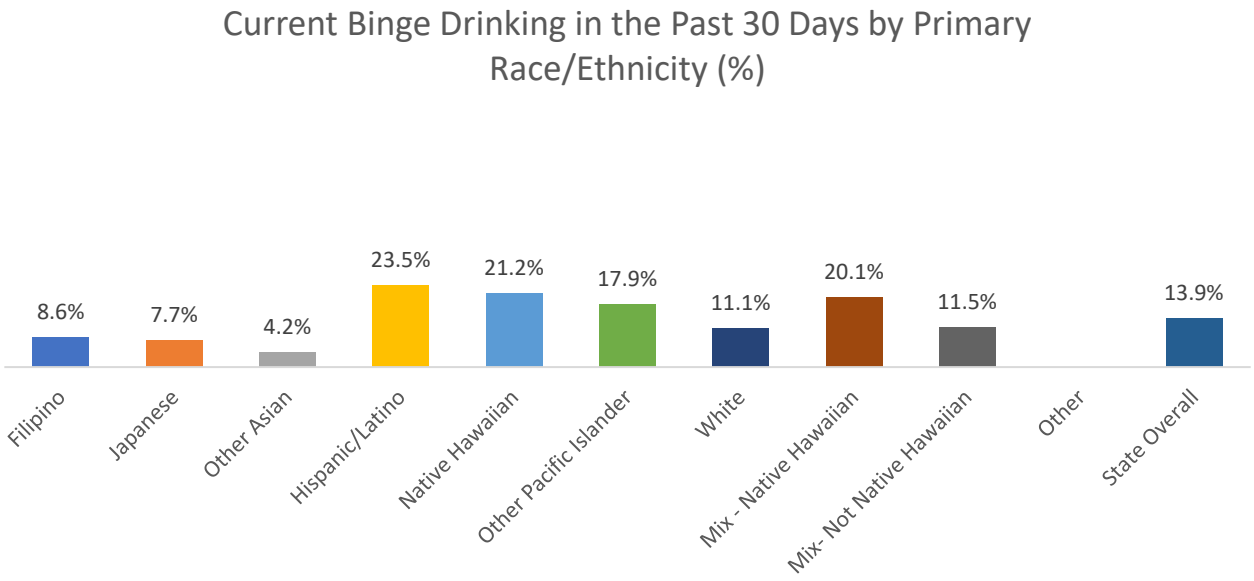


Figure 21. Current any binge drinking in the past 30 days by primary race/ethnicity. (Data suppression for Other category of race/ethnicity)

Moderate-Heavy Alcohol Use in the Past 30 Days

Current moderate-heavy use was defined as 6 or more times in the past 30 days – moderate-heavy use may include more frequent behaviors that range from an average of weekly to daily use in the past 30 days.

Grade

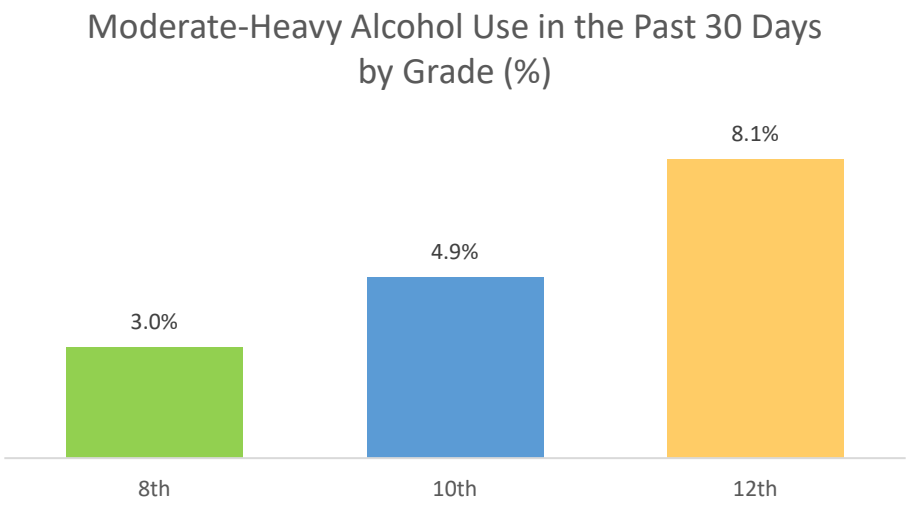


Figure 22. Moderate-heavy alcohol use (6+ times) in the past 30 days by grade level from the 2019-2020 ATOD Survey

Current **moderate-heavy use of alcohol** in the past 30 days from the 2019-2020 ATOD Survey **showed increasing rates by grade level**. As shown in Figure 22, by 12th grade (8.1%) the rate of more frequent use of alcohol has more than doubled from middle school 8th grade (3.0%).

Gender

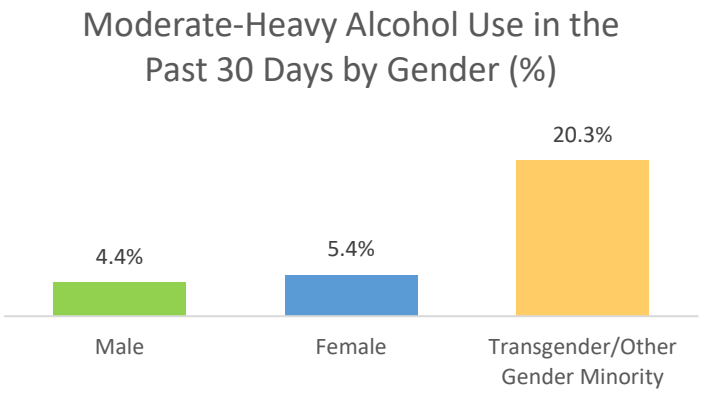


Figure 23. Moderate-heavy use (6+ times) in the past 30 days by gender from the 2019-2020 ATOD Survey

By gender, rates of **moderate-heavy use of alcohol in the past 30 days was highest among transgender and other gender minority students (20.3%)** compared to their cisgender counterparts (4.4% males, 5.4% females).

Race/Ethnicity

Students who identified primarily as **Native Hawaiian (6.7%), two or more ethnicities including Native Hawaiian (7.8%), Hispanic/Latino (8.8%), or Other Pacific Islander (7.1%)** reported **higher rates of moderate-heavy alcohol use in comparison to the overall state** (Figure 24).

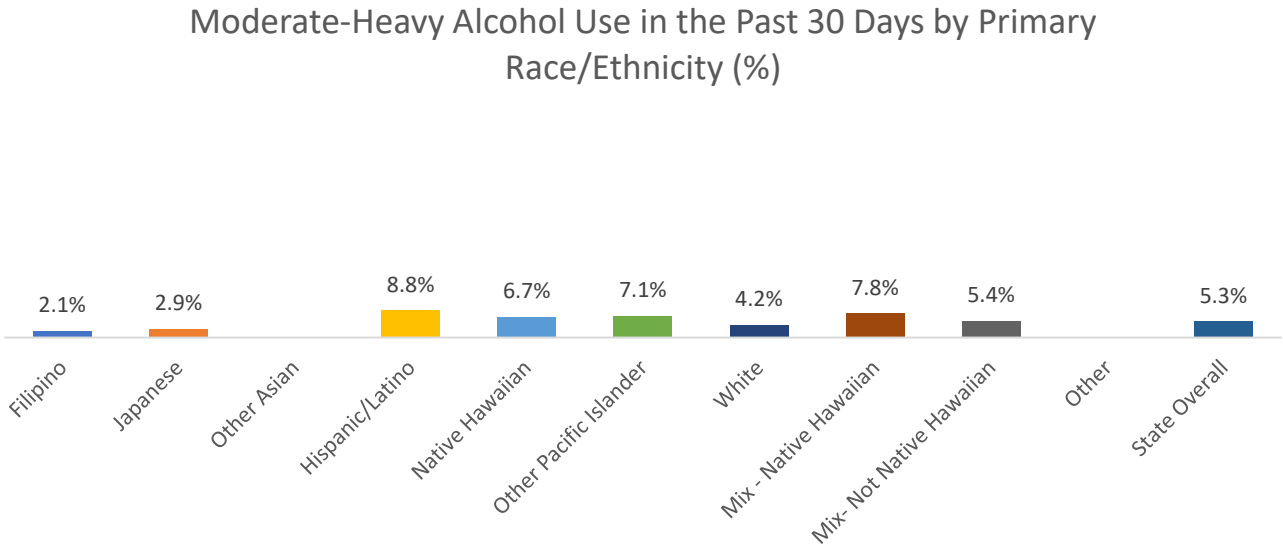


Figure 24. Current moderate-heavy alcohol use (6 + times) in the past 30 days by primary race/ethnicity. (Data suppression for Other Asian, and Other category of race/ethnicity)

Lifetime Alcohol Use and Early Initiation by Grade, Gender & Race/Ethnicity

See Table 19 in the Appendix which summarizes the lifetime and early alcohol use by grade, gender, and race/ethnicity. By **grade**, any lifetime use of alcohol was lowest among 8th graders (34.8%), followed by 10th graders (54%), and 12th graders having tried alcohol in their lifetime the most frequently (68.7%). **By 12th grade, lifetime use of alcohol doubles from 8th grade lifetime use of alcohol.** Early initiation of alcohol use (by age 13) was reported by 33.8% of 8th graders, 32.2% of 10th graders, and 22.3% of 12th graders **– the first use of alcohol occurs for many students by middle school and early high school.**

By **gender**, **female students** are **more likely to begin use of alcohol** (30.9%) **and binge drink** (8.4%) **before age 13 than male students** (27.9 and 5.9% respectively). **Transgender and other gender minority students began early use of alcohol** (45.9%) **and early binge drinking** (26.5%) **at the highest rate**, with also a **higher rate of lifetime use** of any alcohol (61.1%) and any binge drinking (44%) than their cisgender counter parts.

By race/ethnicity, **Native Hawaiian (including two or more mixed ethnicity with Native Hawaiian)** (37.8%), and **Hispanic/Latino** (38.6%) students were the **most likely to begin drinking alcohol by age 13**. **Native Hawaiian students** (12.5%) were also most likely **to initiate early binge drinking** by age 13. Other Asians (17.2%), Japanese (20%), and Other Pacific Islander Students (22.2%) were the least likely to begin early initiation of drinking alcohol.

Tobacco Cigarettes & Vaping

Consequences of Tobacco Cigarette & Vaping/E-Cigarette Use from the Literature

The negative consequences of tobacco and nicotine product use range from physiological, developmental, and psychological effects at the individual level to broader social impacts. The physiological effects of cigarette smoking on the body's organs and systems is well-documented. In the respiratory system, damage is caused in the trachea and larynx, reducing lung capacity, increased risk of lung infection and symptoms such as coughing or wheezing, and permanent damage to the alveoli (U.S. Department of Health and Human Services, 2020). In the circulatory system, cigarette smoking elevates blood pressure and heart rate, increases risk of stroke and heart attack due to blockages, less oxygen carried by the blood, damage to arterial lining, and can be a contributing factor to atherosclerosis (U.S. Department of Health and Human Services, 2020). In the immune system, tobacco use is associated with higher susceptibility to infections such as pneumonia and influenza, more severe and longer-lasting illnesses, and lower levels of antioxidants in the blood (Briffa et al., 2021). Tobacco smoke has also been linked to several diseases, including cancer, lung diseases (chronic bronchitis), heart disease, osteoporosis, type 2 diabetes, and rheumatoid arthritis (Hurley et al., 2020; Winnall, Bellew, et al., 2021; Winnall, Hurley, et al., 2021).

Research on the effects of e-cigarettes and vaping devices is still emergent. Thus far, studies have indicated that vaping/e-cigarettes can function as a “gateway” to tobacco cigarettes. Adolescent non-smokers that use e-cigarettes showed more willingness to smoke cigarettes compared to those that had never used any tobacco products (Wills et al., 2017). E-cigarette use is also commonly misinterpreted as being a “healthy” choice, even

though e-cigarette vapor has been demonstrated to be independently associated with pulmonary effects such as asthma (Schweitzer et al., 2017; Wills et al., 2021).

Finally, widespread impacts of tobacco and nicotine product usage have been found. In the family setting, e-cigarette usage has been found to be a risk factor for smoking onset using psychosocial factors including rebelliousness, parental support, and willingness to smoke (Wills et al., 2016). With attention to ethnic and cultural differences, multivariable logistic regression results suggest that Native Hawaiians and Filipinos were significantly more likely than other ethnic groups to report perceived improvements to their health and wellbeing due to e-cigarettes (Seto et al., 2016). U.S. Affiliated Pacific Islander adolescents were fourfold more likely to use cigarette and smokeless tobacco than the U.S. average for middle school students. This disparity jumped to fivefold for e-cigarettes usage (Pokhrel et al., 2019). Culturally responsive prevention programs may be needed to address disparities in indigenous and minority populations.

Trends / prevalence rates from Tobacco and Vaping Use Indicators

Any Current Use of Tobacco Cigarettes & Vapes/E-Cigarettes in the Past 30 Days

Grade

Current tobacco and vape use were highest among 12th graders among all surveys, although the Hawai'i ATOD Survey and the Hawai'i YRBS rates were lower than that of the national YRBS for 12th graders.

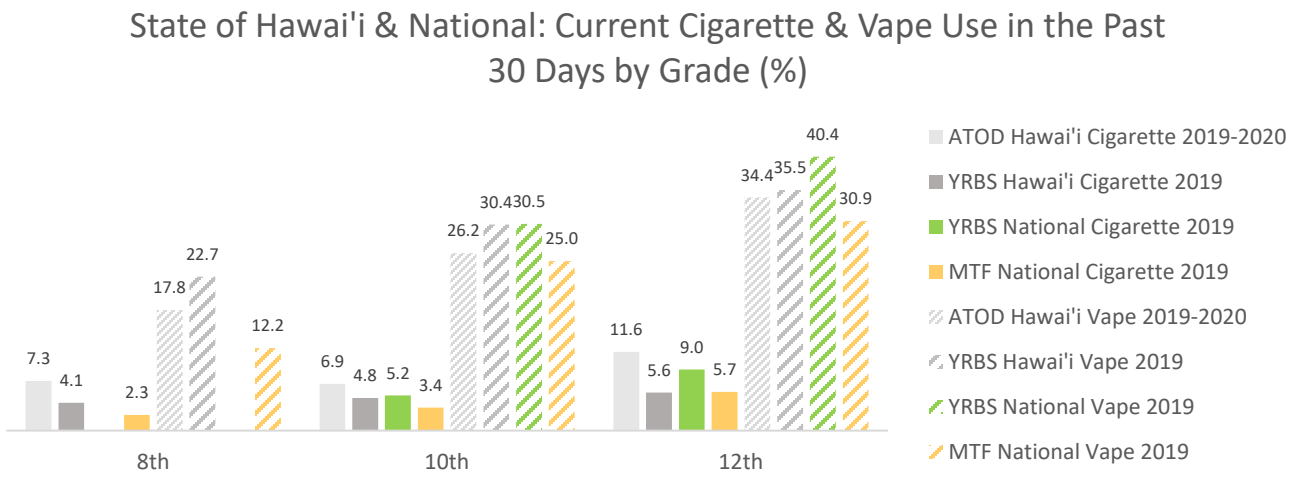


Figure 25. Current use of tobacco cigarettes in the past 30 days by grade level for ATOD Hawai'i compared to national surveys (YRBS and Monitoring the Future). No data were available for 8th grade YRBS National.

Gender

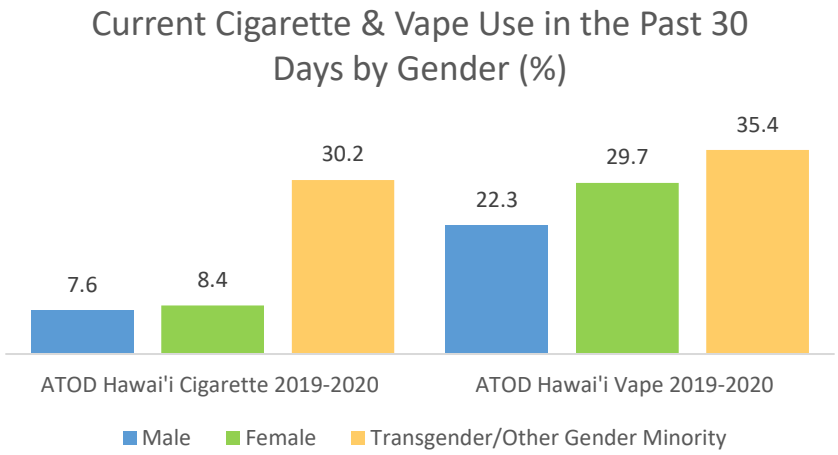


Figure 26. Current any tobacco cigarette and vape use in the past 30 days by gender category

Current vape/e-cigarette use in the past 30 days was lowest for males (22.3%), higher for females (29.7%), and the highest for TGGM students (35.4%). Current tobacco cigarette use was also highest for TGGM students (30.2%), compared to the much lower rates for females (8.4%) and males (7.6%). **Transgender/other gender minority students are likely to use tobacco cigarettes about as much as e-cigarettes/vapes.**

Race/Ethnicity

By race/ethnicity, both **current cigarette and vape use** were higher for students identifying primarily as **Native Hawaiian** (12%, 36.7%), **two or more ethnicities including Native Hawaiian** (13.1%, 36.4%), and **Other Pacific Islander** (13.8%, 33.2%), or **Hispanic/Latino** (9.2%, 30.7%).

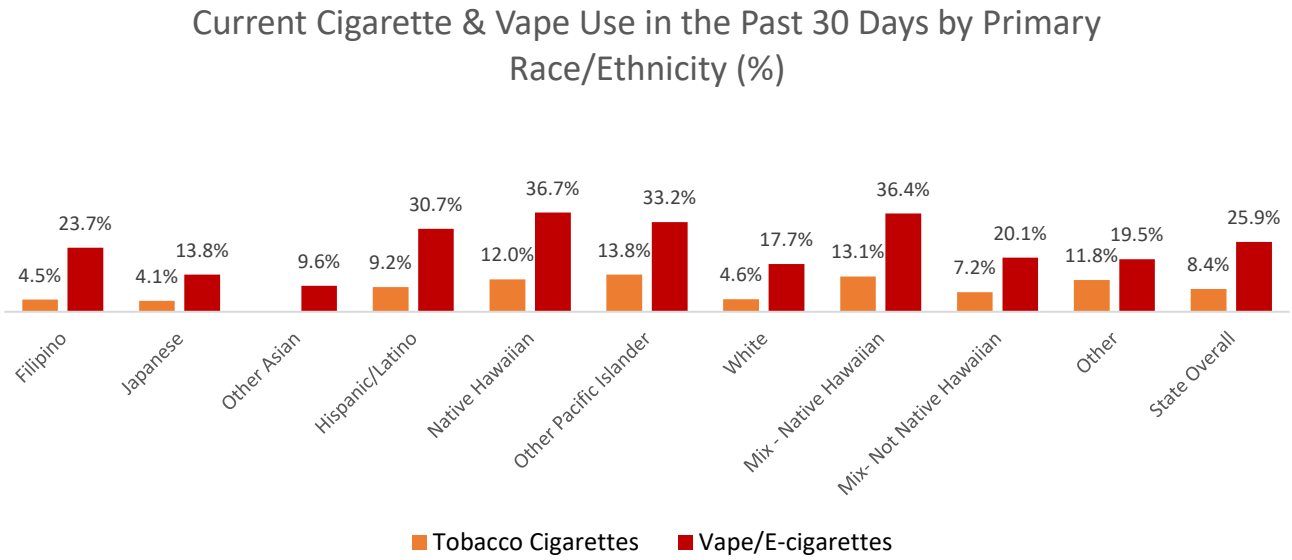


Figure 27. Percentage of current any cigarette and vape use in the past 30 days by primary identification or race/ethnicity and overall state. (Data suppression for Other Asian category of race/ethnicity for current tobacco use)

Moderate to Heavy Use of Tobacco Cigarettes & Vapes/E-Cigarettes in the Past 30 Days

Current moderate-heavy use was defined as 6 or more times in the past 30 days – moderate-heavy use may include more frequent behaviors that range from an average of weekly to daily use in the past 30 days.

Grade

Current moderate-heavy use of tobacco cigarettes and vape use in the past 30 days from the 2019-2020 ATOD Survey showed the **highest rate of use by 12th graders** (5.5%, 21.2% respectively). **Current moderate-heavy vape use from 8th grade to 12th grade increased by threefold.**

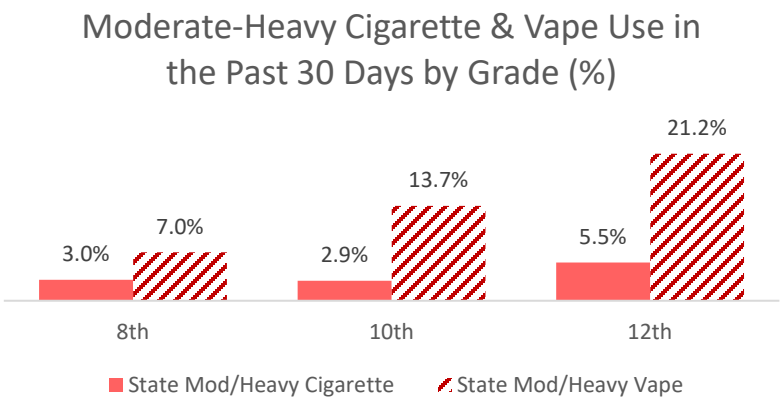


Figure 28. Moderate-heavy cigarette use (6+ times) in the past 30 days by grade level from the 2019-2020 ATOD Survey

Gender

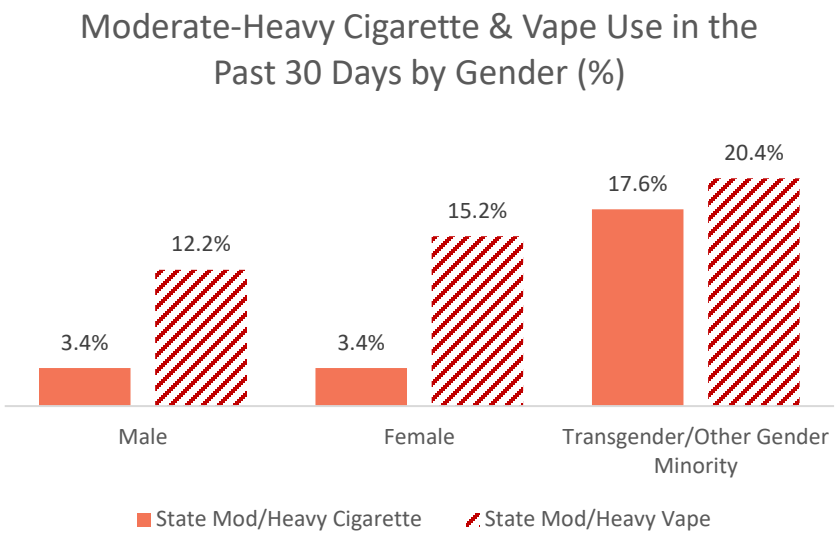


Figure 29. Moderate-heavy cigarette use (6+ times) in the past 30 days by gender from the 2019-2020 ATOD Survey

By gender, **rates of moderate-heavy use of both cigarettes and vape in the past 30 days were highest among TGGM** (17.6%, 20.4%) **students compared to their cisgender counterparts** (females 3.4%, 15.1%; males 3.4% 12.2%). The moderate-heavy vape use among males and females was 3-4 times that of moderate-heavy cigarette use, but for TGGM students moderate-heavy vape use was only slightly higher than that of their moderate-heavy cigarette use.

Race/Ethnicity

By race/ethnicity, both **moderate-heavy cigarette and moderate-heavy vape use were higher** than the overall state for students **identifying primarily as Native Hawaiian (7.4%, 20.2%)**, **two or more ethnicities including Native Hawaiian** (6.2%, 18.8%), **or Other Pacific Islander** (5.2%, 16.8%). **Hispanic/Latino students also had a higher** rate (18.9%) of moderate-heavy vape/e-cigarette use in the past 30 days.

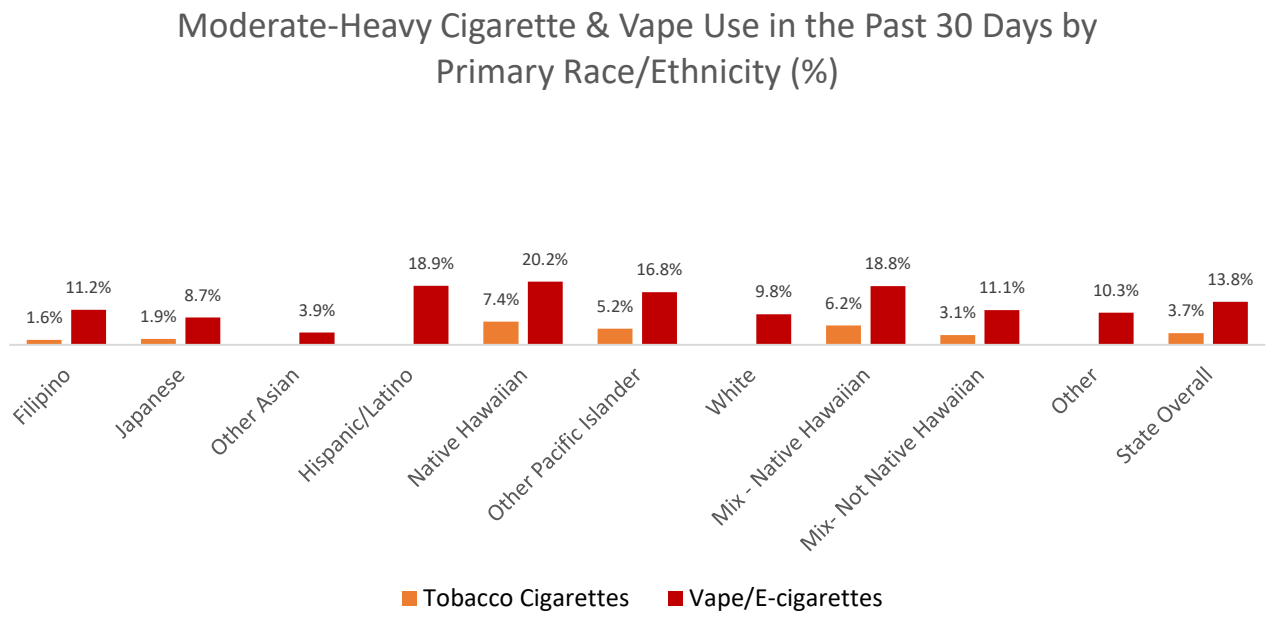


Figure 30. Percentage of moderate-heavy cigarette and vape use in the past 30 days by primary identification or race/ethnicity and overall state. (Data suppression for Other Asian, Hispanic/Latino, White, and Other categories of race/ethnicity for current tobacco use)

Substances used in Electronic Vaping Devices

Students reported what types of substances were in the vaping devices they used. The **most reported substances used were nicotine** (26.2%) **and flavors** (22.6%), however 12.5% of the overall state sample reported **vaping marijuana** (see Table 5).

Table 5. Substances used in vaping device

Substance Used in Vaping Device	%
Nicotine	26.2
Flavors	22.6
Marijuana	12.5
Other Drugs	0.3

Lifetime Tobacco Cigarette and Vape/E-cigarette Use and Early Initiation by Grade, Gender & Race/Ethnicity

See Table 20 and Table 21 in the Appendix which summarize respectively the lifetime and early cigarette and vape use by grade, gender, and race/ethnicity. Overall, **early initiation of cigarette use was present in 8th** (11.8%) **and 10th** (11.6%) graders compared to 12th graders (8.1%), although **lifetime cigarette use was higher in 12th graders** (27.9%) than 10th (18.2%) or 8th (12.3%) graders. **Transgender/other gender minority students** were also **more likely to have smoked cigarettes in their lifetime** (42.2%) as well as **have tried cigarettes early by 13 years** (30.8%) compared to their cisgender counterparts (females 18.3%, 8.8%; males 18.9%, 11.2% respectively). **Other Pacific Islander** (34.2%), **Native Hawaiian** (25.2%), **Hispanic/Latino** (25.4%), and **Other** race/ethnicity (23.7%) were the most likely to have **smoked cigarettes in their lifetime.** Students who primarily identified as **Native Hawaiian** (15.2%), **Other Pacific Islanders** (15.7%), and **Other** race/ethnicity (16.1%) were the most likely to **smoke cigarettes by age 13**. In contrast, Japanese (3.3%), Other Asian (3.9%), and White (3.7%) students were the least likely to begin smoking by age 13.

Like with other substances, **as students get older in grade level**, they are **more likely to have tried vaping in their lifetime** (8th 28.8%, 10th 46.4%, and 12th 58.4%). **Early initiation of vape/e-cigarette use is greater at all grade levels** (8th 27.5%, 10th 26%, 12th 11.2%) **than for early use of tobacco cigarettes**. By gender, overall, **TGGM students were the most likely to vape in their lifetime** (59.5%) **and have tried vape/e-cigarettes early** by age 13 (36.8%), followed by female students (48.4%, 23.9% respectively), and with male students (40%, 19.6% respectively) being the least likely to vape. Among **Native Hawaiian students** (including those who identified primarily with two or more ethnicities with Native Hawaiian), **56.4% tried vaping in their lifetime, and 32.7% used vape/e-cigarettes by 13 years of age**. **Lifetime and early use of vape/e-cigarettes** was also **higher in Other Pacific Islander** (50.5%, 20.1% respectively), **Filipino** (43.5%, 18.1% respectively), **Hispanic/Latino** (52.1%, 18.3% respectively), and **Other race/ethnicity** (43.7%, 21.7%) students.

Marijuana

Consequences of Marijuana Use from the Literature

Marijuana has been consistently reported as one of the most used illicit substances in the U.S. every year. Use of marijuana products has negative consequences for youth. These consequences can range from developmental and physiological, to psychological and wider community impacts. Regular use of marijuana can cause long lasting respiratory problems, including risk of bronchitis, airflow obstruction, and airway injury via edema, may result in dysregulated growth of bronchial epithelial cells, and marijuana smoke containing both carcinogens and co-carcinogens may lead to respiratory cancer (Tashkin et al., 2002). Developmental consequences include long term decline in IQ, poor inhibition task accuracy, cued verbal memory, and psychomotor speed compared to non-users (Winward et al., 2014). Longitudinal studies also suggest residual effects on cognitive functioning beyond those that are acute with regular marijuana use (Bourque & Potvin, 2021; Squeglia & Gray, 2016), and concurrent use of alcohol with marijuana may have additive negative effects on neuropsychological functioning (Deniel et al., 2021; Lees et al., 2021). In North American indigenous adolescents, a longitudinal study found interrelationships

of early marijuana use linked to early alcohol use, infrequent use of alcohol related to abstaining from marijuana use, and concurrent marijuana-alcohol use with poorer outcomes in adulthood (Sittner et al., 2021).

Marijuana has frequently been linked to psychiatric symptoms and disorders such as schizophrenia, however, causality of the relationship is still debated (Arseneault et al., 2004; Burns, 2013). The rates of marijuana use are about twice as high for those with schizophrenia than those within the general population, with self-reported heavy marijuana users at age 18 much more likely than non-users to be diagnosed with schizophrenia later in life, however, this effect was not as significant when controlling for users who already had psychiatric diagnosis (Arseneault et al., 2004). This suggests that marijuana use does not cause schizophrenia or psychotic symptoms, but rather increases the likelihood of developing schizophrenia in individuals already predisposed to psychosis (Patel et al., 2020) and that marijuana use has an influential role in the development of psychiatric symptoms (Hanna et al., 2017). Adolescence is a crucial life stage in which individuals transition from childhood to adulthood. Regular marijuana use in youth may have implications for continued frequent use into young adulthood, where outcomes may include impaired social relationships and psychological functioning (Rhew et al., 2021).

Trends / prevalence rates from Marijuana Use Indicators

Any Current Marijuana Use in the Past 30 Days

Grade

Rates of reported **current use of (any) marijuana in the past 30 days** were higher for the ATOD Survey compared to other national surveys, and Hawai'i YRBS, especially among 12th graders. **Overall, there was an increase in marijuana use from 8th to 12th grade across all three surveys**. High school students use marijuana at higher rates than middle school students, with 12th graders reporting the highest use in the past 30 days for marijuana. The ATOD Survey statewide sample showed **12th graders** (31.1%) **using marijuana in the past 30 days at almost threefold the rate of 8th graders** (10.8%).

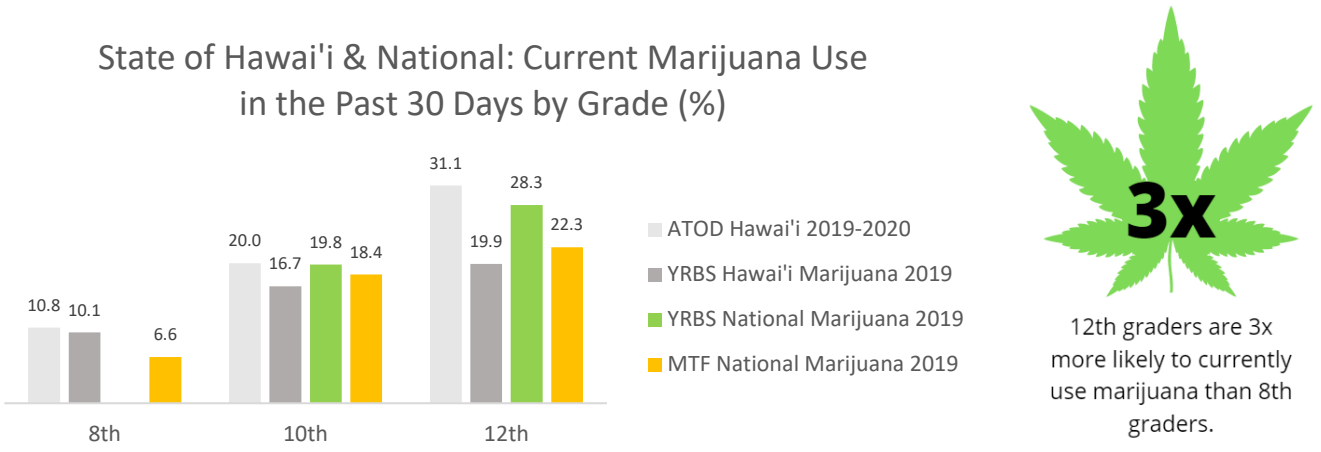


Figure 31. Current use of marijuana in the past 30 days by grade level for ATOD Hawai'i compared to national surveys (YRBS and Monitoring the Future). No data were available for 8th grade YRBS National.

Gender

By gender, past 30 day use of marijuana was lowest for male students (17.7%), higher for females (22.3%), with **transgender/other gender minority students** (42%) **reporting the highest rates of current use** (Figure 32).

TGGM Students are more likely to use marijuana than their cisgender counterparts.

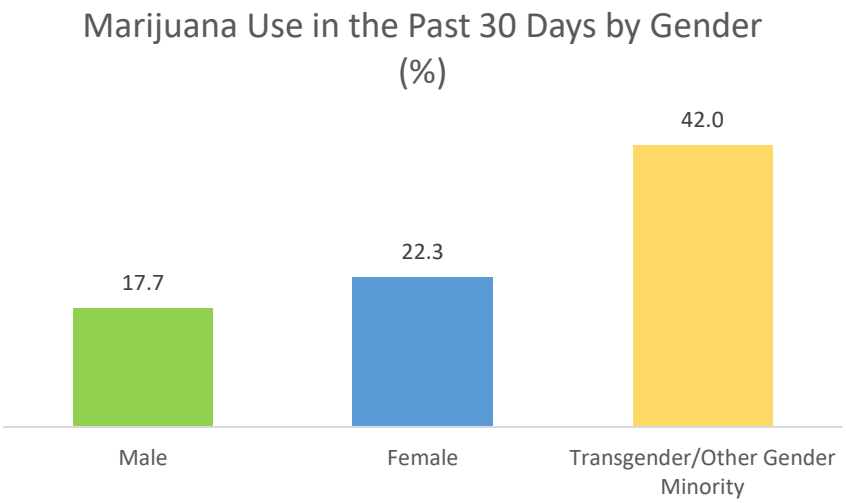


Figure 32. Current any marijuana use in the past 30 days by gender category

Race/Ethnicity

By race/ethnicity, current marijuana use was higher than the overall state for students identifying primarily as **Hispanic/Latino** (31.9%), **Native Hawaiian** (28.2%), **two or more ethnicities with Native Hawaiian** (28.9%), and **Other Pacific Islander** (24%).

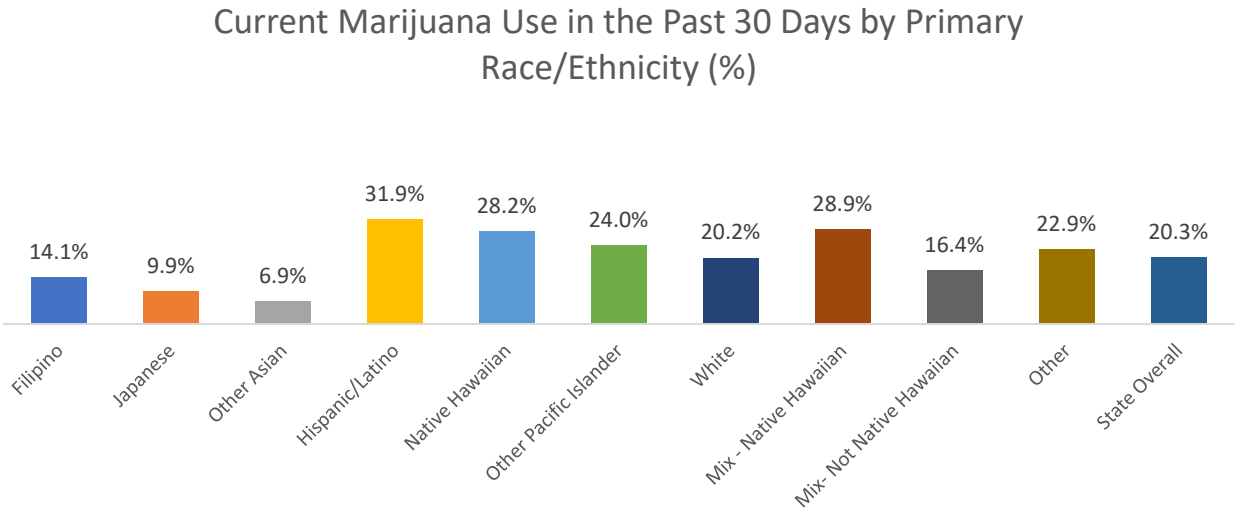


Figure 33. Percentage of current any marijuana use in the past 30 days by primary identification of race/ethnicity and overall state.

Moderate-Heavy Use of Marijuana in the Past 30 Days

Current moderate-heavy use was defined as 6 or more times in the past 30 days – moderate-heavy use may include more frequent behaviors that range from an average of weekly to daily use in the past 30 days.

Grade

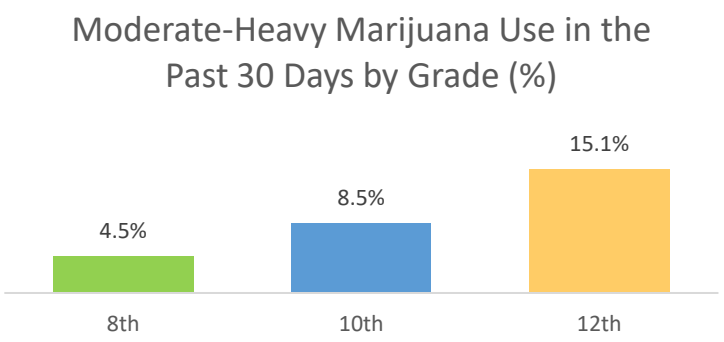


Figure 34. Moderate-heavy alcohol use (6+ times) in the past 30 days by grade level from the 2019-2020 ATOD Survey

By grade, current moderate-heavy use of marijuana in the past 30 days from the 2019-2020 ATOD Survey showed increasing rates by grade level. As shown in Figure 34, **by 12th grade** (15.1%) **the rate of more frequent use of marijuana more than tripled from middle school 8th grade** (4.5%)**.**

Gender

By gender, the rate of moderate-heavy use of marijuana in the past 30 days was **disproportionately higher among transgender/other gender minority students** (26%) compared to their cisgender counterparts (male 8.4%, female 9.2%).

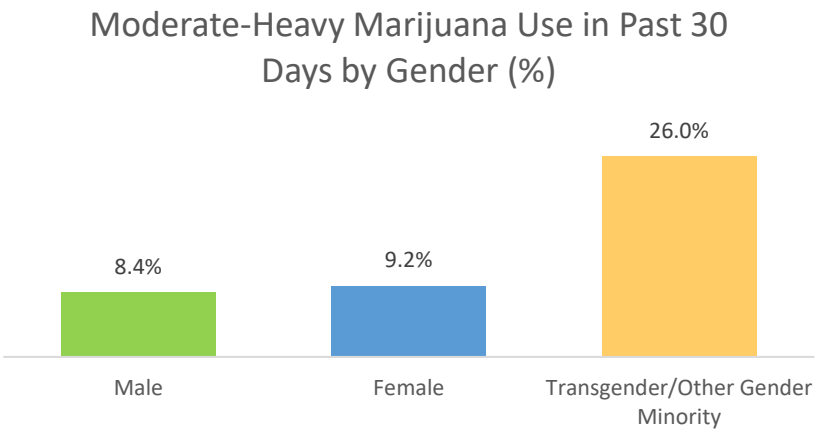


Figure 35. Moderate-heavy use (6+ times) in the past 30 days by gender from the 2019-2020 ATOD Survey

Race/Ethnicity

By race/ethnicity, **moderate-heavy marijuana use was higher than the overall state** for students identifying primarily as **Hispanic/Latino** (19.7%), **Native Hawaiian** (13%), **two or more ethnicities with Native Hawaiian** (12%), **Other Pacific Islander** (11.5%) and Other race/ethnicity (12%).

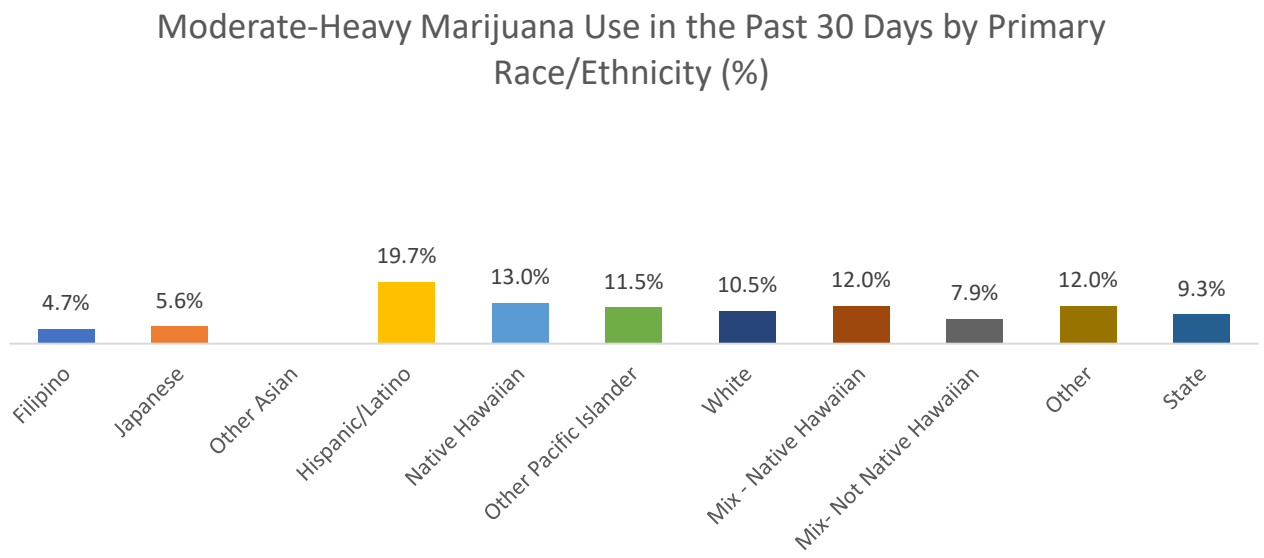


Figure 36. Percentage of moderate-heavy marijuana use in the past 30 days by primary identification or race/ethnicity and overall state. (Data suppression for Other Asian for moderate-heavy marijuana use)

Lifetime Marijuana Use and Early Initiation by Grade, Gender & Race/Ethnicity

See Table 22 in the Appendix which summarizes the lifetime and early marijuana use, as well as current co-use of marijuana-alcohol together, by grade, gender, and race/ethnicity. By grade, 8th graders (15.5%) were the least likely to have used marijuana in their lifetime. **More than a third of 10th graders (34.3%) and over half of 12th graders (51.2%) have tried marijuana in their lifetime**. **Early initiation of marijuana use was present in all grades** with 14.5% of 8th graders, 15.6% of 10th graders, and 13.8% of 12th graders reporting that they tried marijuana by age 13. **Current co-use of marijuana-alcohol together increased by grade level**, with 20.6% of 12th graders, 12.1% of 10th graders, and 6.5% of 8th graders using the two substances together. **Moderate-heavy** (6 or more times in the past 30 days) **marijuana use alone and concurrent marijuana-use was higher for 12th graders** (15.1%, 5.5% respectively) than for 10th graders (8.5%, 3.8% respectively) and 8th graders (4.5%, 2.2% respectively).

Transgender and other gender minority students were the most likely to try marijuana at least once in their life (48.6%), compared their cisgender counterparts (females 35.9%, males 30.2%). **TGGM students (33.7%) were also more than twice as likely to begin marijuana use by age 13**, in contrast to females (15.4%) males (13.2%). **TGGM students also had the highest rates of moderate-heavy marijuana use alone** (26%) as well as **any concurrent**

marijuana-alcohol use (26.9%), **and moderate-heavy marijuana-alcohol co-use** (19.9%) in the past 30 days, compared to female (9.2%, 15.5%, 3.7% respectively) and male (8.4%, 9.9%, 3.0% respectively) students.

By race/ethnicity, **Native Hawaiian** (46.5%), **Hispanic/Latino** (44.7%), **Other Pacific Islander** (38.1%), and **Other** race/ethnicity (38.3%) students were the most likely to **try marijuana in their lifetime**, with about **one-fourth of Native Hawaiian students** (25.2%) **trying marijuana by age 13**. **Moderate-heavy marijuana use alone, any concurrent marijuana-alcohol use, and moderate-heavy marijuana-alcohol co-use** was higher among **Hispanic/Latino** (19.7%, 20.6%, 6.7% respectively) and **Native Hawaiian** (12.3%, 19.4%, 5.5% respectively) students.

Opioids, Other Prescription Drugs, and OTC Drugs

Consequences of Prescription and Over-the-Counter Drug Misuse from the Literature

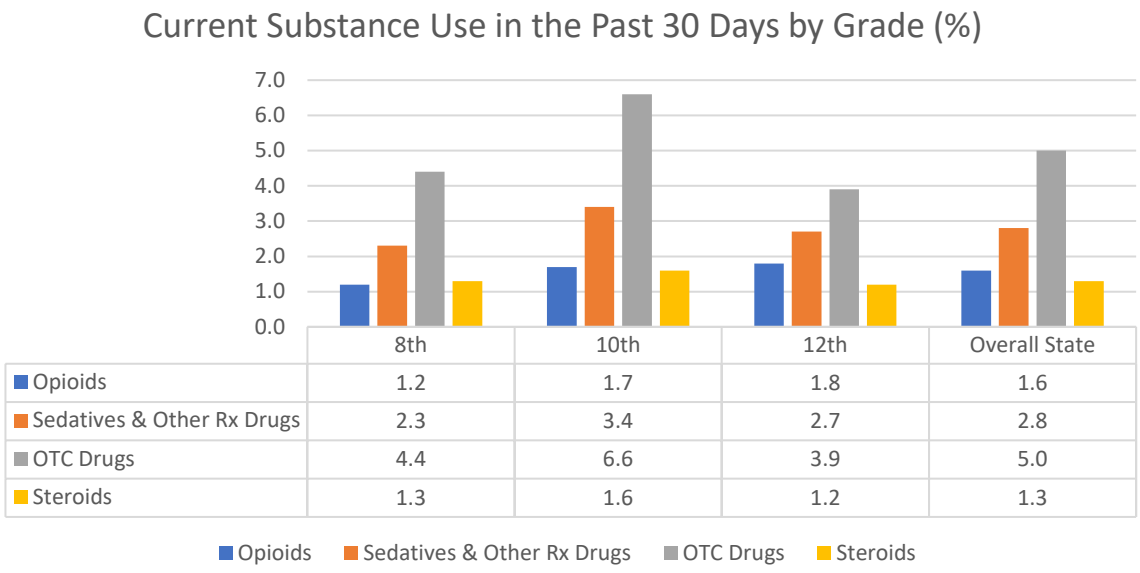
Misuse of prescription drugs, particularly opioids, in the United States has been increasing to become a public health problem. Physiological consequences of opioid abuse include restlessness, vomiting, insomnia, among a myriad of other serious symptoms (Kosten & Baxter, 2019; Kosten & George, 2002; Shah & Huecker, 2021). Psychological consequences include greater anxiety, irritability, and a powerful desire to use (Kosten & Baxter, 2019; Kosten & George, 2002). Prescription opioid misuse has increased in the United States in the last few decades, and deaths due to drug overdose are largely attributed to opioids (Ford, 2019). Furthermore, as a contributor to related poisoning and emergency department visits, adolescent misuse of both prescription and over-the-counter (OTC) drugs remains widespread and a growing concern (Abraham & Chmielinski, 2018; Bonar et al., 2020; Finkelstein et al., 2017; Hines, 2017; McCabe et al., 2017; Schifano et al., 2021; Siste et al., 2019). Anabolic steroid misuse, which also has health and developmental consequences among youth including associated mental health and other substance use problems, continues to be a public health concern (AlShareef et al., 2021; Gestsdottir et al., 2021; Middleman & DuRant, 1996).

Trends / prevalence rates from OTC, Opioids, and Other Prescription Drug Use Indicators

Any Current Opioid, Other Prescription Drug, or OTC Use in the Past 30 Days

Grade

By grade (Figure 37), **10th graders** from the Hawai'i ATOD Survey **reported current use of sedatives and other prescription drugs** (3.4%), and in particular, **over the counter (OTC) drugs** (6.6%) **more often** than 8th (2.3%, 4.4% respectively) or 12th graders (2.7%, 3.9%). **Steroid and opioid prescription drug use were lower in general across all grade levels** and for the state **compared to sedative and other prescription drug and OTC drug use**.

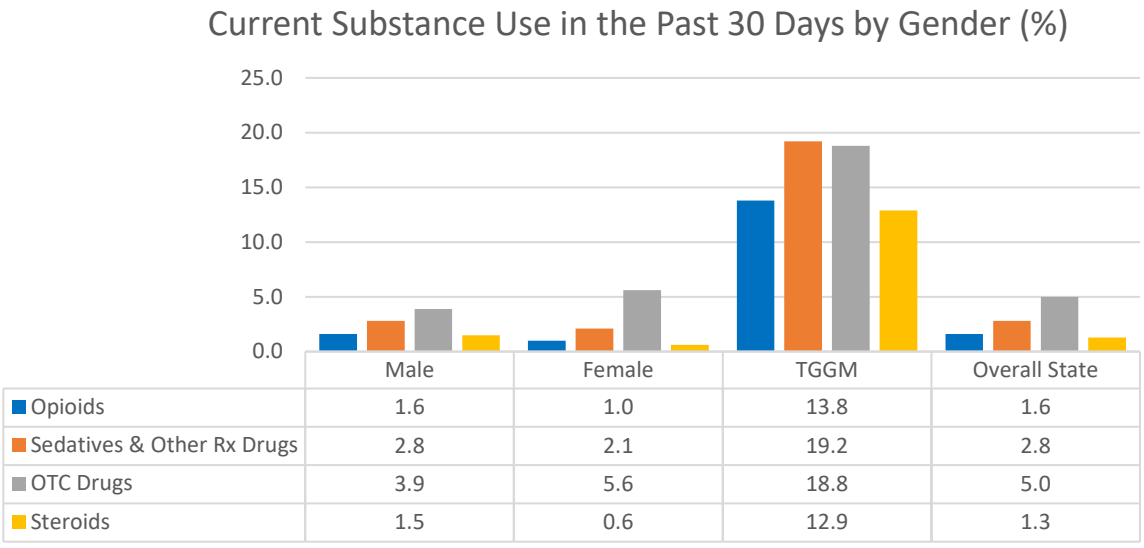


	8th	10th	12th	Overall State
Opioids	1.2	1.7	1.8	1.6
Sedatives & Other Rx Drugs	2.3	3.4	2.7	2.8
OTC Drugs	4.4	6.6	3.9	5.0
Steroids	1.3	1.6	1.2	1.3

Figure 37. Current use of opioids, sedatives and other prescription drugs, over-the-counter (OTC) drugs, and steroids in the past 30 days by grade level for the ATOD Hawai'i Survey.

Gender

Current use of opioids (13.8%), sedatives and other prescription drugs (19.2%), OTC drugs (18.8%), and steroids (12.9%) was **uniformly highest among Transgender and other gender minority students** compared to their cisgender counterparts.

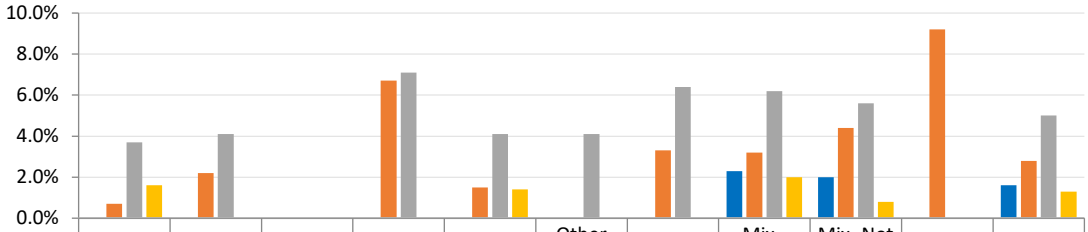


	Male	Female	TGGM	Overall State
Opioids	1.6	1.0	13.8	1.6
Sedatives & Other Rx Drugs	2.8	2.1	19.2	2.8
OTC Drugs	3.9	5.6	18.8	5.0
Steroids	1.5	0.6	12.9	1.3

Figure 38. Current use of opioids, sedatives and other prescription drugs, over-the-counter (OTC) drugs, and steroids in the past 30 days by gender for the ATOD Hawai'i Survey.

Race/Ethnicity

Overall, **current OTC use was higher among students primarily identifying as Hispanic/Latino** (7.1%), White (6.4%), and **two or more ethnicities with Native Hawaiian** (6.2%). Sedative and other prescription drug use in the past 30 days was higher than the overall state for students who primarily identified as **Other** race/ethnicity (9.2%), **Hispanic/Latino** (6.7%), **two of more ethnicities with Native Hawaiian** (3.2%) and **not Native Hawaiian** (4.4%). Note that due to low counts (cells with less than 10), data were suppressed in a number of cells for opioids and other drug categories.



	Filipino	Japanese	Other Asian	Hispanic/ Latino	Native Hawaiian	Other Pacific Islander	White	Mix - Native Hawaiian	Mix- Not Native Hawaiian	Other	Overall State
Opioids								2.3%	2.0%		1.6%
Sedatives & Other Rx Drugs	0.7%	2.2%		6.7%	1.5%		3.3%	3.2%	4.4%	9.2%	2.8%
OTC Drugs	3.7%	4.1%		7.1%	4.1%	4.1%	6.4%	6.2%	5.6%		5.0%
Steroids	1.6%				1.4%			2.0%	0.8%		1.3%

Figure 39. Current use of opioids, sedatives and other prescription drugs, over-the-counter (OTC) drugs, and steroids in the past 30 days by primary race/ethnicity for the ATOD Hawai'i Survey. (Data suppression noted as blank cells)

Lifetime Use and Early Initiation by Grade, Gender & Race/Ethnicity

See the Appendix which summarizes by grade, gender, and race/ethnicity, the lifetime and early use of opioids (Table 23), sedatives (Table 24), other prescription drugs (Table 25), over-the-counter drugs (Table 26), and steroids (Table 27).

Other Drugs

Consequences of Other Illicit Drug Use from the Literature

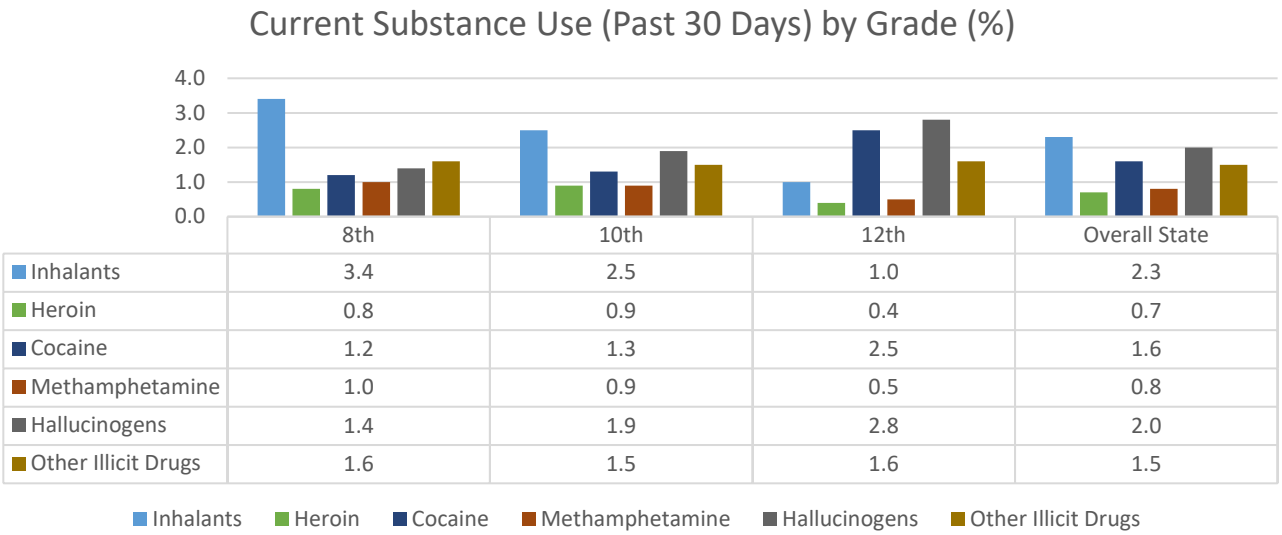
Illicit drug use in Hawai'i has been marked by higher prevalence of methamphetamine use than nationally (Linn, 2020). The consequences of methamphetamine use are significant, affecting the development of all youth, but especially affecting the development of babies and neonates who have mothers who use methamphetamine; thus, resulting in poorer health outcomes, including sensory, motor and cognitive deficits (Li et al., 2021). Besides a host of negative physiological effects, methamphetamine use is associated with psychological symptoms such

as irritability, anxiety, memory loss and greater amounts of aggression and violence resulting in assaults or reckless behaviors (Radfar & Rawson, 2014). Illicit use of other drugs continues to also be a concern among youth as polysubstance use may persist into adulthood (Merrin et al., 2018), and increasing resources are needed in emergency department and treatment systems to adequately address substance use and related psychiatric issues (Kiyokawa et al., 2021; Martinotti et al., 2021; Zuckermann et al., 2020).

Trends / prevalence rates from Other Illicit Drug Indicators

Grade

By grade, **12th graders** from the Hawai'i ATOD Survey **reported the highest current use of cocaine and hallucinogens** (2.5% and 2.8 % respectively), while **8th graders reported the highest current use of inhalants** (3.4%) and **methamphetamine** (1.0%). Current use of **other illicit drugs** which included use of Rohypnol, MDMA, other synthetic drugs, GHB and ketamine, **were similar across 8th, 10th, and 12th graders** (1.6%, 1.5%, and 1.6% respectively).

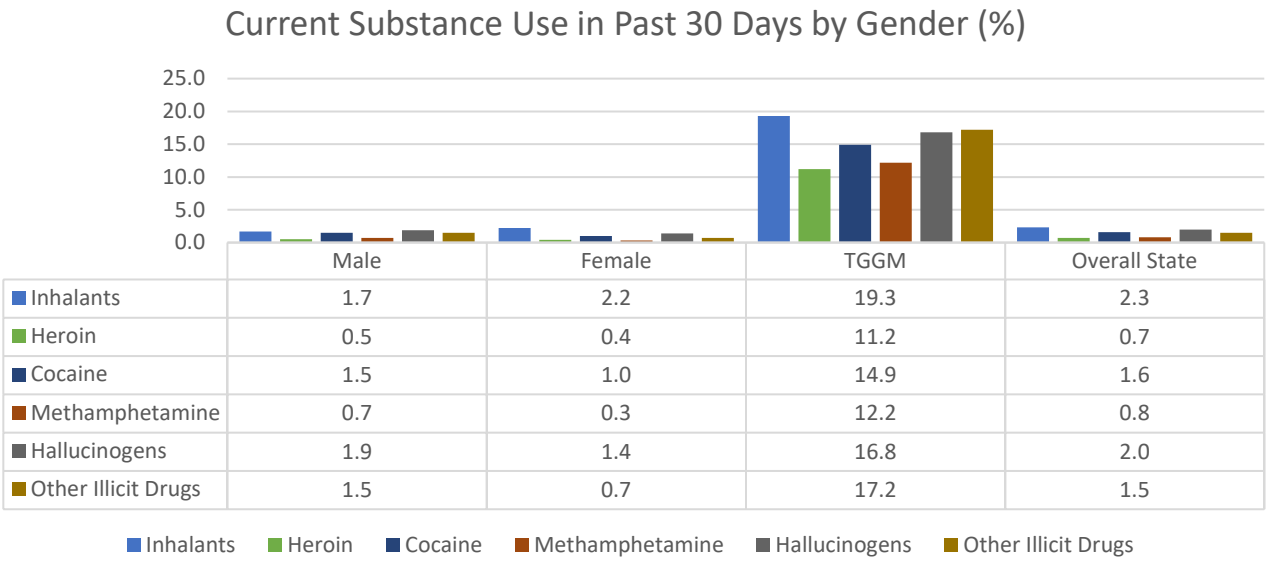


	8th	10th	12th	Overall State
Inhalants	3.4	2.5	1.0	2.3
Heroin	0.8	0.9	0.4	0.7
Cocaine	1.2	1.3	2.5	1.6
Methamphetamine	1.0	0.9	0.5	0.8
Hallucinogens	1.4	1.9	2.8	2.0
Other Illicit Drugs	1.6	1.5	1.6	1.5

Figure 40. Current use of inhalants, heroin, cocaine, methamphetamine, hallucinogens, and other illicit drugs, over-the-counter (OTC) drugs, and steroids in the past 30 days by grade level for the ATOD Hawai'i Survey.

Gender

Compared to female and male students, **current use of all substance categories below was highest among Transgender and other gender minority students, by tenfold or greater use**.

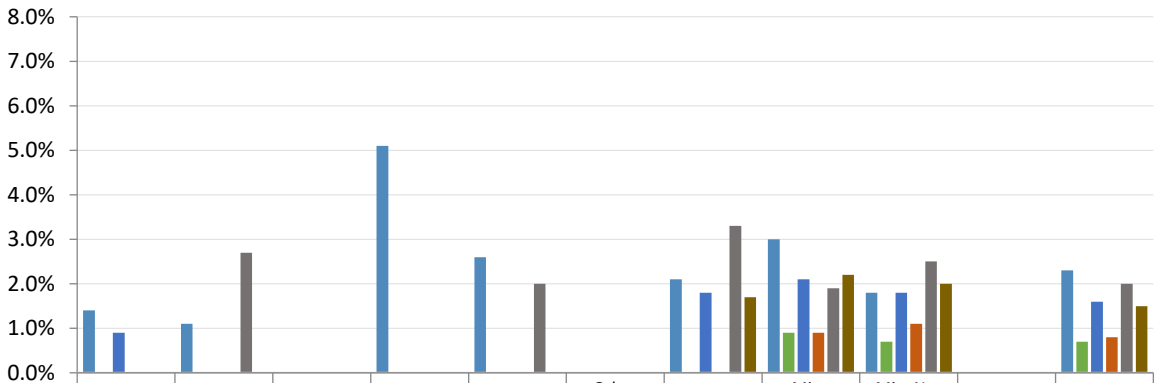


	Male	Female	TGGM	Overall State
Inhalants	1.7	2.2	19.3	2.3
Heroin	0.5	0.4	11.2	0.7
Cocaine	1.5	1.0	14.9	1.6
Methamphetamine	0.7	0.3	12.2	0.8
Hallucinogens	1.9	1.4	16.8	2.0
Other Illicit Drugs	1.5	0.7	17.2	1.5

Figure 41. Current use of inhalants, heroin, cocaine, methamphetamine, hallucinogens, and other illicit drugs, over-the-counter (OTC) drugs, and steroids in the past 30 days by gender for the ATOD Hawai'i Survey.

Race/Ethnicity

Overall, current **illicit use for the below categories was higher for specific substances among students primarily identifying as Hispanic/Latino**, **White, Native Hawaiian, two or more ethnicities with Native Hawaiian**. Note that in **Figure 42** due to low counts (cells with less than 10), data were suppressed in a number of cells for racial/ethnic groups and drug categories.



	Filipino	Japanese	Other Asian	Hispanic/ Latino	Native Hawaiian	Other Pacific Islander	White	Mix - Native Hawaiian	Mix- Not Native Hawaiian	Other	State Overall
Inhalants	1.4%			5.1%	2.6%		2.1%	3.0%	1.8%		2.3%
Heroin								0.9%	0.7%		0.7%
Cocaine	0.9%						1.8%	2.1%	1.8%		1.6%
Methamphetamine								0.9%	1.1%		0.8%
Hallucinogens		2.7%			2.0%		3.3%	1.9%	2.5%		2.0%
Other Illicit Drugs							1.7%	2.2%	2.0%		1.5%

Figure 42. Current use of inhalants, heroin, cocaine, methamphetamine, hallucinogens, and other illicit drugs in the past 30 days by race/ethnicity for the ATOD Hawai'i Survey.

Lifetime Use and Early Initiation by Grade, Gender & Race/Ethnicity

See the Appendix which summarizes by grade, gender, and race/ethnicity, the lifetime and early use of inhalants (Table 28), heroin (Table 29), cocaine (Table 30), methamphetamine (Table 31), hallucinogens (Table 32) and other illicit drugs (Table 33).

Chapter 5 Contexts around Substance Use

Culture

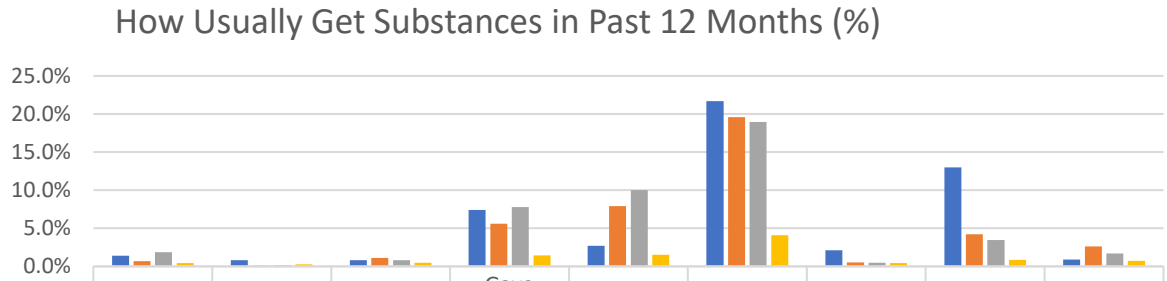
Students statewide reported that they agreed it was **important to maintain cultural traditions** (59.5%), while also reporting a **strong sense of ethnic belonging** (85.3%) and speaking a **primary household language other than English** (17.7%). When moderate-heavy use (6+ times in the past 30 days) of the most prevalent substances was examined for items related to culture (Table 6), there was a pattern of **lower moderate-heavy use across most substances for students endorsing cultural factors**.

Table 6. Percent of Moderate-heavy use (6+ times in past 30 days) of alcohol, tobacco cigarettes, vape, and marijuana by cultural factors

	Moderate-Heavy Alcohol Use	Moderate-Heavy Tobacco Cigarette Use	Moderate-Heavy Vape Use	Moderate-Heavy Marijuana Use
Importance of maintaining cultural traditions				
Very/important to me	5.8	4.1	14.9	9.5
Neutral	3.9	2.6	11.5	8.4
Not important	7.2	6.3	13.9	10.0
Strong sense of ethnic belonging				
Strongly/Agree	5.1	3.5	13.5	8.7
Strongly/Disagree	6.2	4.8	15.0	12.6
Primary household language				
Other	4.9	2.7	9.6	6.4
English	5.3	3.9	14.6	9.8

Access to Substances

While the majority of Hawai‘i Middle and High School students are not using substances, the **most selected method (by percentage of responses) of acquiring substances was by having someone give it to them** (Alcohol 21.7%, Marijuana 19.6%, Tobacco/Vape 18.9%, and Other Drugs 4.1%). (see Figure 43)



	Bought at store	Bought at restaurant, bar or club	Bought at public event	Gave money to someone to buy for me	Got It while at school	Someone gave to me	Took it from store	Took it from family member	Some other way
Alcohol Access	1.4%	0.8%	0.8%	7.4%	2.7%	21.7%	2.1%	13.0%	0.9%
Marijuana Access	0.7%	0.1%	1.1%	5.6%	7.9%	19.6%	0.5%	4.2%	2.6%
Tobacco/Vape Access	1.9%	0.1%	0.8%	7.8%	10.0%	18.9%	0.5%	3.5%	1.7%
Other Drugs	0.4%	0.3%	0.5%	1.4%	1.5%	4.1%	0.4%	0.9%	0.7%

Figure 43. Percent of students that endorsed accessing alcohol, marijuana, tobacco/vape products, or other drugs through various means in the past 12 months.

Access to alcohol, marijuana, tobacco/vape, and other drugs is also characterized by grade, gender, and primary race/ethnicity in the following tables. As students advance to higher grade levels, they are more likely than their 8th and 10th grade peers to also be **giving money to someone to buy them alcohol** (8th 2.0%, 10th 5.1%, 12th 15.8%), **marijuana** (8th 3.6%, 10th 5.8%, 12th 7.7%), **tobacco** (8th 4.2%, 10th 7.5%, 12th 11.9%), and **other drugs** (8th 0.9%, 10th 1.4%, 12th 2.0%). **Female (F) and transgender/other gender minority (TGGM) students are also more likely than their male (M) counterparts to be given substances by someone**. Also, **TGGM students** are more likely to be **buying marijuana** (F 0.4%, M 0.7%, TGGM 6.4%), and **tobacco/vape** (F 1.6%, M 1.9%, TGGM 7.4%) **from a store**. For open-ended comments in the category of "Some Other Way" for **marijuana** access, common responses included **getting it from a dealer, growing it, or stealing it**. Also, for open-ended comments in the category of "Some Other Way," common responses included **buying it online** for **tobacco/vape** access and **getting it from a dealer** for **other drugs**.

Table 7. Percent of students by grade, gender, and race/ethnicity that endorsed accessing alcohol through various means in the past 12 months.

ALCOHOL ACCESS	Bought at store	Bought at restaurant, bar or club	Bought at public event	Gave money to someone to buy for me	Got It while at school	Someone gave to me	Took it from store	Took it from family member	Some other way
Overall State	**1.4**	**0.8**	**0.8**	**7.4**	**2.7**	**21.7**	**2.1**	**13.0**	**0.9**
Grade									
8th	0.5	-	0.7	2.0	2.0	12.2	1.1	7.5	0.7
10th	1.0	0.7	-	5.1	3.0	21.9	2.9	15.4	0.7
12th	2.9	1.3	1.7	15.8	3.0	32.0	2.4	16.3	1.3
Gender									
Female	1.4	0.6	0.5	9.3	3.7	27.1	2.5	16.6	0.6
Male	1.4	0.9	1.0	5.7	1.7	17.2	1.7	10.0	1.0
TGGM	-	-	-	8.5	-	23.4	5.9	15.3	-
Primary Race/Ethnicity									
Filipino	1.5	-	-	6.3	2.7	20.5	1.5	13.5	-
Japanese	-	-	-	2.6	-	16.0	1.6	8.0	-
Other Asian	-	-	-	5.1	-	14.2	-	5.7	-
Hispanic	-	-	-	5.4	-	25.0	4.6	15.0	-
Native Hawaiian	1.6	-	1.6	10.2	2.0	24.7	2.5	14.2	1.5
Other Pacific Islander	2.4	-	-	7.1	3.6	13.9	2.4	10.5	-
White	1.8	-	-	8.8	1.9	22.6	2.5	14.5	-
2 or more - Native Hawaiian	1.6	0.9	1.4	10.2	3.6	29.5	2.3	15.8	1.2
2 or more - not Native Hawaiian	1.0	1.1	0.8	5.5	3.7	17.6	2.2	13.7	0.8
Other	-	-	-	13.4	-	21.7	-	-	-

Note: "-" = suppressed

Table 8. Percent of students by grade, gender, and race/ethnicity that endorsed accessing marijuana through various means in the past 12 months.

MARIJUANA ACCESS	Bought at store	Bought at restaurant, bar or club	Bought at public event	Gave money to someone to buy for me	Got It while at school	Someone gave to me	Took it from store	Took it from family member	Some other way
Overall State	**0.7**	**0.1**	**1.2**	**5.6**	**7.9**	**19.6**	**0.5**	**4.3**	**2.6**
Grade									
8th	0.5	-	0.6	3.6	5.2	11.1	0.6	3.8	1.4
10th	0.7	-	1.2	5.8	9.4	19.5	0.4	4.4	2.6
12th	0.8	-	1.7	7.7	9.0	28.9	0.4	4.6	3.7
Gender									
Female	0.4	-	0.9	7.0	9.5	24.9	0.4	6.3	2.0
Male	0.7	0.3	1.1	4.5	6.6	15.0	0.4	2.5	2.7
TGGM	6.3	-	-	6.9	8.0	23.8	-	5.3	10.1
Primary Race/Ethnicity									
Filipino	-	-	-	5.2	6.1	14.6	-	2.4	1.0
Japanese	-	-	-	2.5	2.7	9.5	-	-	-
Other Asian	-	-	-	-	3.3	7.8	-	-	-
Hispanic	-	-	-	5.8	13.0	20.9	-	5.4	4.2
Native Hawaiian	-	-	1.5	7.4	9.2	23.9	-	7.3	3.8
Other Pacific Islander	-	-	-	4.5	7.7	22.0	-	3.0	3.6
White	-	-	2.2	5.9	5.8	20.0	-	3.3	3.1
2 or more - Native Hawaiian	0.5	-	1.4	7.2	11.4	29.2	0.6	8.0	3.8
2 or more - not Native Hawaiian	0.8	-	1.4	5.4	7.9	16.8	-	3.2	2.0
Other	-	-	-	11.8	10.8	16.7	-	-	-

Note: "-" = suppressed

Table 9. Percent of students by grade, gender, and race/ethnicity that endorsed accessing tobacco/vape products through various means in the past 12 months.

TOBACCO/VAPE ACCESS	Bought at store	Bought at restaurant, bar or club	Bought at public event	Gave money to someone to buy for me	Got It while at school	Someone gave to me	Took it from store	Took it from family member	Some other way
Overall State	**1.9**	**0.1**	**0.8**	**7.8**	**10.0**	**18.9**	**0.5**	**3.5**	**1.7**
Grade									
8th	-	-	1.0	4.2	7.6	12.9	0.4	3.9	0.5
10th	1.7	-	0.8	7.5	11.1	19.8	0.6	4.0	2.1
12th	3.8	-	0.8	11.9	11.2	24.6	0.4	2.4	2.5
Gender									
Female	1.6	-	0.9	10.2	13.7	23.8	-	5.4	1.2
Male	1.9	0.3	0.7	5.8	7.0	15.1	0.6	1.9	2.1
TGGM	7.4	-	-	8.0	6.9	16.0	-	-	-
Primary Race/Ethnicity									
Filipino	1.2	-	-	7.8	6.7	16.9	-	3.7	1.0
Japanese	1.6		-	3.5	6.7	8.5	-	-	1.5
Other Asian	-	-	-	3.3	3.9	11.7	-	-	-
Hispanic	-	-	-	4.2	12.9	20.8	-	-	-
Native Hawaiian	1.7	-	-	8.6	11.6	21.8	-	4.2	1.4
Other Pacific Islander	2.1	-	-	7.1	12.0	19.2	-	6.4	2.8
White	1.5	-	-	6.2	6.8	16.2	-	1.5	-
2 or more - Native Hawaiian	2.7	-	1.3	12.2	14.1	27.5	0.6	5.0	2.7
2 or more - not Native Hawaiian	1.9	-	1.2	6.9	10.1	16.7	-	3.0	1.3
Other	-	-	-	-	8.3	14.3	-	-	-

Note: "-" = suppressed

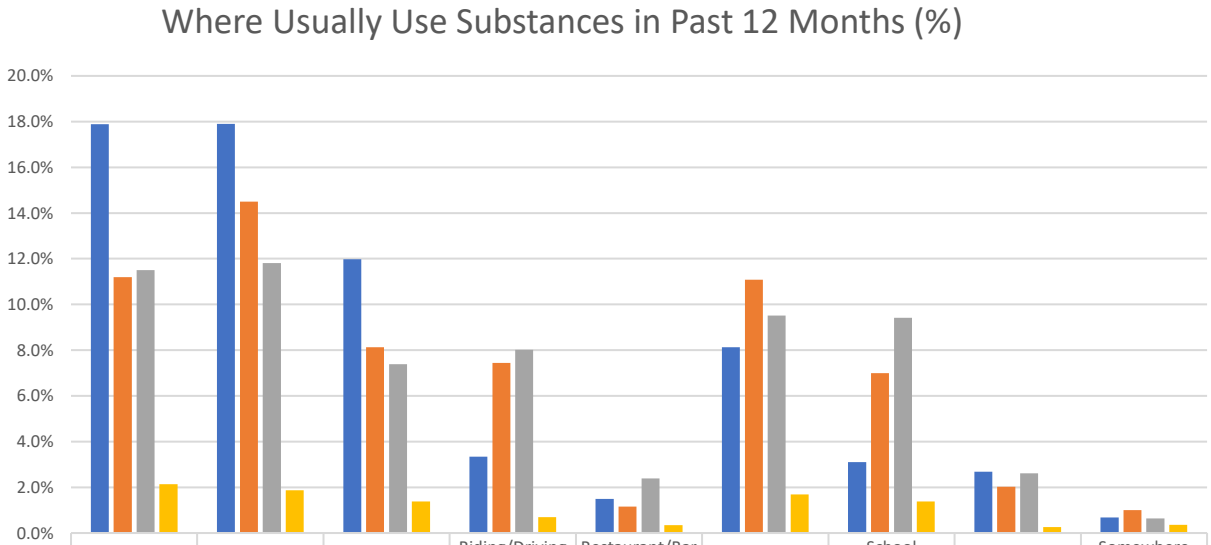
Table 10. Percent of students by grade, gender, and race/ethnicity that endorsed accessing other drugs through various means in the past 12 months.

OTHER DRUGS ACCESS	Bought at store	Bought at restaurant, bar or club	Bought at public event	Gave money to someone to buy for me	Got It while at school	Someone gave to me	Took it from store	Took it from family member	Some other way
Overall State	**0.4**	**0.3**	**0.5**	**1.4**	**1.5**	**4.1**	**0.4**	**0.9**	**0.7**
Grade									
8th	0.6	-	-	0.9	1.2	2.9	-	1.3	-
10th	0.5	-	0.4	1.4	1.9	3.9	0.4	0.8	0.8
12th	-	0.5	0.8	2.0	1.4	5.7	0.6	0.6	1.2
Gender									
Female	-	-	0.4	1.5	1.8	4.7	0.3	0.9	0.5
Male	0.4	0.4	0.6	1.4	1.2	3.4	0.4	0.6	0.8
TGGM	-	-	-	-	-	8.0	-	-	-
Primary Race/Ethnicity									
Filipino	-	-	-	1.0	-	2.6	-	-	-
Japanese	-	-	-	-	-	1.5	-	-	-
Other Asian	-	-	-	-	-	-	-	-	-
Hispanic	-	-	-	-	-	4.2	-	-	-
Native Hawaiian	-	-	-	-	2.8	3.8	-	-	-
Other Pacific Islander	-	-	-	-	3.0	5.1	-	-	-
White	-	-	-	2.5	-	3.6	-	-	2.1
2 or more - Native Hawaiian	-	0.5	-	2.1	2.2	6.3	0.7	1.5	1.1
2 or more - not Native Hawaiian	-	-	0.8	1.3	1.4	4.3	-	0.8	-
Other	-	-	-	-	-	-	-	-	-

Note: "-" = suppressed

Location of Use

By percentage of responses, Hawaiʻi middle and high school students are **most likely to use substances at their own home** (alcohol 17.9%, tobacco/vape 11.5%, marijuana 11.2%, and other drugs 2.1%), and **at another person's home with a few friends and family** (alcohol 17.9%, tobacco/vape 11.8%, marijuana 14.5%, and other drugs 1.9%). (Figure 44)



	Home	Other Home	Party	Riding/Driving Vehicle	Restaurant/Bar /Club	Public Place	School Property	Social Event	Somewhere Else
Alcohol	17.9%	17.9%	12.0%	3.3%	1.5%	8.1%	3.1%	2.7%	0.7%
Marijuana	11.2%	14.5%	8.1%	7.4%	1.2%	11.1%	7.0%	2.0%	1.0%
Tobacco/Vape	11.5%	11.8%	7.4%	8.0%	2.4%	9.5%	9.4%	2.6%	0.6%
Other Drugs	2.1%	1.9%	1.4%	0.7%	0.3%	1.7%	1.4%	0.3%	0.4%

Figure 44. Percent of students that endorsed where they usually used alcohol, marijuana, tobacco/vape products, or other drugs in the past 12 months.

Usual location of alcohol, marijuana, tobacco/vape, and other drugs use are also characterized by grade, gender, and primary race/ethnicity in the following tables. **High school seniors (12th grade) are disproportionately more likely to be drinking alcohol at a public place** (8th 2.8%, 10th 7.2%, 12th 15.0%) **or social event** (8th 0.9%, 10th 2.0%, 12th 5.4%). **High school students** (both 10th and 12th graders) **were also more likely than 8th graders to be using tobacco/vapes** (8th 5.5%, 10th 11.2%, 12th 11.7%) and **marijuana** (8th 4.2%, 10th 8.4%, 12th 8.5%) **on school property**. **TGGM students were most likely to report using alcohol** (F 4.4%, M 1.5%, TGGM 15.3%), **marijuana** (F 9.0%, M 5.1%, TGGM 12.2%), **tobacco/vape** (F 11.1%, M 7.7%, TGGM 18.1%), **and other drugs** (F 1.4%, M 1.1%, TGGM 9.0%) **on school property**.

Table 11. Percent of students by grade, gender, and race/ethnicity that endorsed where they usually used alcohol in the past 12 months

ALCOHOL	Home	Other Home	Party	Riding /Driving Vehicle	Restaurant /Bar/ Club	Public Place	School Property	Social Event	Somewhere Else
Overall State	**17.9**	**17.9**	**12.0**	**3.3**	**1.5**	**8.1**	**3.1**	**2.7**	**0.7**
Grade									
8th	9.6	7.4	5.2	1.5	1.1	2.8	2.5	0.9	0.9
10th	19.4	18.2	10.9	3.6	1.6	7.2	4.0	2.0	0.4
12th	25.2	29.0	20.7	5.1	1.8	15.0	2.7	5.4	0.8
Gender									
Female	21.8	23.8	14.2	4.4	1.5	10.9	4.4	3.6	0.5
Male	14.4	13.0	10.2	2.3	1.4	5.9	1.5	1.9	0.8
TGGM	25.4	18.0	10.6	6.4	-	6.3	15.3	-	-
Primary Race/Ethnicity									
Filipino	18.0	18.3	13.6	2.7	1.5	5.1	1.6	1.8	-
Japanese	12.4	11.9	5.9	1.4	1.4	4.9	-	1.8	-
Other Asian	6.9	7.2	5.1	-	-	3.3	-	-	-
Hispanic	17.9	21.8	12.1	7.1	-	11.3	-	4.2	-
Native Hawaiian	20.0	20.0	14.7	3.9	-	8.5	2.6	3.7	-
Other Pacific Islander	12.0	13.0	7.7	4.5	-	10.3	4.3	3.0	-
White	22.3	21.2	11.7	4.3	2.8	11.3	2.7	2.5	-
2 or more - Native Hawaiian	21.1	23.8	16.7	3.8	1.1	10.7	5.2	3.8	0.8
2 or more - not Native Hawaiian	17.5	15.3	9.3	3.1	2.1	7.8	3.8	1.6	0.8
Other	23.3	12.5	12.5	-	-	-	-	-	-

Note: "-" = suppressed

Table 12. Percent of students by grade, gender, and race/ethnicity that endorsed where they usually used marijuana in the past 12 months

MARIJUANA	Home	Other Home	Party	Riding /Driving Vehicle	Restaurant /Bar/Club	Public Place	School Property	Social Event	Somewhere Else
Overall State	**11.2**	**14.5**	**8.1**	**7.4**	**1.2**	**11.1**	**7.0**	**2.0**	**1.0**
Grade									
8th	5.7	8.3	3.5	3.3	0.4	4.2	4.1	0.6	0.7
10th	11.8	14.2	8.0	7.1	1.1	11.5	8.4	1.7	1.1
12th	16.6	21.6	13.3	12.3	2.1	18.1	8.5	3.9	1.3
Gender									
Female	13.8	19.0	9.9	9.6	1.2	13.4	9.0	2.4	0.7
Male	9.0	10.6	6.5	5.7	1.1	8.9	5.1	1.7	1.1
TGGM	12.2	18.0	11.1	6.4	-	14.8	12.2	-	-
Primary Race/Ethnicity									
Filipino	6.6	10.9	6.3	5.6	-	10.0	4.5	0.9	-
Japanese	5.9	6.4	2.9	3.3	-	6.4	3.8	1.4	-
Other Asian	5.4	6.0	-	3.6	-	3.6	3.9	-	-
Hispanic	18.8	19.2	13.3	12.5	4.6	15.5	14.2	-	-
Native Hawaiian	15.8	15.9	10.4	8.4	-	9.9	6.5	2.3	1.4
Other Pacific Islander	10.0	12.8	6.6	7.7	-	17.7	10.5	-	-
White	14.2	17.2	7.4	6.7	-	11.4	6.5	1.5	-
2 or more - Native Hawaiian	14.5	21.5	12.1	10.5	1.2	14.3	8.8	3.3	1.5
2 or more - not Native Hawaiian	10.8	13.2	7.2	7.3	1.4	9.7	7.0	1.7	1.0
Other	12.5	14.3	10.9	10.8	-	14.2	10.0	-	-

Note: "-" = suppressed

Table 13. Percent of students by grade, gender, and race/ethnicity that endorsed where they usually used tobacco/vape products in the past 12 months

TOBACCO/VAPE	Home	Other Home	Party	Riding /Driving Vehicle	Restaurant /Bar/Club	Public Place	School Property	Social Event	Somewhere Else
Overall State	**11.5**	**11.8**	**7.4**	**8.0**	**2.4**	**9.5**	**9.4**	**2.6**	**0.6**
Grade									
8th	7.0	7.4	3.5	2.6	0.5	4.6	5.5	0.7	0.7
10th	11.1	11.7	7.0	7.6	2.2	9.3	11.2	2.1	-
12th	17.0	16.8	12.0	14.4	4.6	15.1	11.7	5.3	0.9
Gender									
Female	14.7	15.4	9.2	10.1	2.3	11.7	11.1	3.0	0.5
Male	8.7	8.9	5.8	6.4	2.5	7.8	7.7	2.3	0.7
TGGM	13.8	12.2	9.6	6.9	-	9.0	18.1	-	-
Primary Race/Ethnicity									
Filipino	11.3	11.6	6.8	7.9	1.6	9.1	6.5	2.2	-
Japanese	6.5	5.4	3.0	5.0	-	5.2	5.4	1.8	-
Other Asian	4.2	6.0	3.3	3.6	-	5.1	5.4	-	-
Hispanic	13.8	13.8	10.8	13.0	5.8	12.1	13.4	-	-
Native Hawaiian	13.6	12.8	9.1	8.9	2.5	8.1	9.0	3.6	-
Other Pacific Islander	12.6	10.5	6.0	10.9	3.4	10.7	12.0	-	-
White	11.6	12.8	6.5	8.2	2.4	10.2	9.6	2.4	
2 or more - Native Hawaiian	15.9	17.5	11.4	9.8	3.3	12.9	12.9	4.2	0.6
2 or more - not Native Hawaiian	9.2	9.5	5.6	6.6	1.4	8.9	9.3	1.2	-
Other	-	-	-	-	-	-	-	-	-

Note: "-" = suppressed

Table 14. Percent of students by grade, gender, and race/ethnicity that endorsed where they usually used other drugs in the past 12 months

OTHER DRUGS	Home	Other Home	Party	Riding /Driving Vehicle	Restaurant /Bar/Club	Public Place	School Property	Social Event	Somewhere Else
Overall State	2.1	1.9	1.4	0.7	0.3	1.7	1.4	0.3	0.4
Grade									
8th	1.7	1.2	1.0	0.5	0.5	1.1	0.8	-	-
10th	2.5	1.7	1.1	0.9	-	1.8	2.2	-	-
12th	2.2	2.7	2.1	0.6	0.5	2.3	1.0	0.4	0.6
Gender									
Female	2.3	2.1	1.7	1.2	-	1.9	1.4	-	-
Male	1.9	1.5	1.0	0.3	0.3	1.2	1.1	-	0.4
TGGM	-	5.3	-	-	-	6.9	9.0	-	-
Primary Race/Ethnicity									
Filipino	-	0.8	-	-	-	-	-	-	-
Japanese	1.5	-	-	-	-	-	-	-	-
Other Asian	-	-	-	-	-	-	-	-	-
Hispanic	4.6	-	-	-	-	-	-	-	-
Native Hawaiian	3.0	-	1.5	-	-	1.5	-	-	-
Other Pacific Islander	3.2	3.0	-	-	-	2.8	3.6	-	-
White	4.5	3.4	2.1	-	-	2.1	-	-	-
2 or more - Native Hawaiian	2.5	2.8	2.3	0.6	0.5	2.3	2.3	-	0.8
2 or more - not Native Hawaiian	1.9	2.1	1.0	-	-	1.8	1.7	-	-
Other	-	-	-	-	-	-	-	-	-

Note: "-" = suppressed

Prevention Education and Messaging

Received Substance Use Prevention Education

Overall, **85.7% of the students statewide reported having received any type of prevention education** with a majority having heard from their **family** (69.8%) or at **school** (67.8%) around the dangers of alcohol, tobacco, or drugs. **Females were more likely than males or TGGM students to have heard substance use prevention education from family and school sources** (Table 15). Open-ended responses under the "Someone else" category also included other people such as religious/church leaders, substance use counselors, therapists, physicians, and individuals with lived experience or in recovery from substance use.

Table 15. Percent of students that endorsed receiving prevention education from various sources by grade, gender, & primary race/ethnicity

Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?	**Friend**	**Family**	**School**	**No**	**Not Sure**	**Someone else**
Overall State	39.3	69.8	67.8	7.7	3.9	2.6
Grade						
8th	35.8	69.9	65.8	6.6	5.4	2.5
10th	41.3	71.3	70.7	7.7	3.0	2.1
12th	40.9	67.9	66.7	8.9	3.3	3.2
Gender						
Female	40.4	74.3	74.1	5.1	2.8	2.4
Male	38.2	66.8	63.5	9.5	4.9	2.7
TGGM	46.6	59.0	57.1	14.9	-	-
Primary Race/Ethnicity						
Filipino	40.9	66.3	70.8	7.6	3.6	4.1
Japanese	29.6	66.7	69.8	9.4	2.5	1.8
Other Asian	45.2	69.5	74.1	11.4	-	-
Hispanic	35.4	70.0	60.7	9.6	6.7	-
Native Hawaiian	38.3	67.9	63.6	8.3	4.4	2.3
Other Pacific Islander	33.5	64.3	58.3	11.8	4.5	3.6
White	33.5	77.0	68.6	3.9	4.8	-
2 or more - Native Hawaiian	44.4	71.6	65.3	8.0	4.5	2.4
2 or more - not Native Hawaiian	40.4	73.4	73.5	5.4	2.6	2.8
Other	50.4	70.0	66.7	-	8.3	-

Note: "-" = suppressed

Public Awareness Messaging around Substance Use Prevention

Likewise, **84% of students reported having had viewed or heard any public awareness messages** around the risks or dangers of alcohol, tobacco, or other drugs. The **sources of public awareness messaging** primarily came from **television or internet channels** (56.8%), **social media/apps** (58.8%), **ads on their devices** (51.0%), or **printed media such as posters or signs** (45.9%). (Table 16)

Table 16. Percent of students that endorsed having seen/heard public awareness messages from various sources by grade, gender, and primary race/ethnicity

In the past 12 months, how have you viewed or heard public awareness messages about the risk or dangers of alcohol, tobacco, or other drugs?	**none**	**TV/ internet channels**	**radio/ internet stations**	**social media/ apps**	**device ads**	**posters/ signs**	**Other**
Overall State	13.6	56.8	25.5	58.8	51.0	45.9	0.7
Grade							
8th	17.1	53.2	22.3	50.0	47.4	41.0	0.9
10th	12.4	56.8	25.0	61.8	51.4	46.4	0.5
12th	11.0	60.6	29.6	64.8	54.5	50.7	0.7
Gender							
Female	9.6	60.4	27.4	67.9	54.4	55.7	0.4
Male	16.3	54.2	24.1	51.8	48.6	38.2	1.0
TGGM	27.1	50.0	21.3	46.3	45.7	38.6	-
Primary Race/Ethnicity							
Filipino	10.0	57.6	22.6	67.6	53.3	50.0	-
Japanese	11.1	60.8	23.3	56.3	51.2	51.2	-
Other Asian	11.7	56.6	26.2	58.1	55.4	45.8	-
Hispanic	9.6	56.3	27.9	65.0	46.3	45.0	-
Native Hawaiian	20.6	51.9	24.2	51.3	38.8	35.1	-
Other Pacific Islander	18.8	48.5	25.4	50.6	48.5	38.9	-
White	10.5	60.3	21.5	55.4	52.4	45.6	-
2 or more - Native Hawaiian	15.5	57.6	30.5	58.7	51.6	44.6	0.6
2 or more - not Native Hawaiian	11.3	58.0	26.7	60.4	56.0	51.0	-
Other	23.3	55.0	13.4	57.5	45.4	34.2	-

Note: "-" = suppressed

Prenatal Alcohol Use Prevention

Almost 10% of adolescents think that it is safe to drink regularly, even occasionally, during pregnancy. Because prenatal alcohol exposure is associated with significant in utero brain damage and can result in Fetal Alcohol Spectrum Disorders, yet entirely preventable, targeted prevention education may be needed for teens.

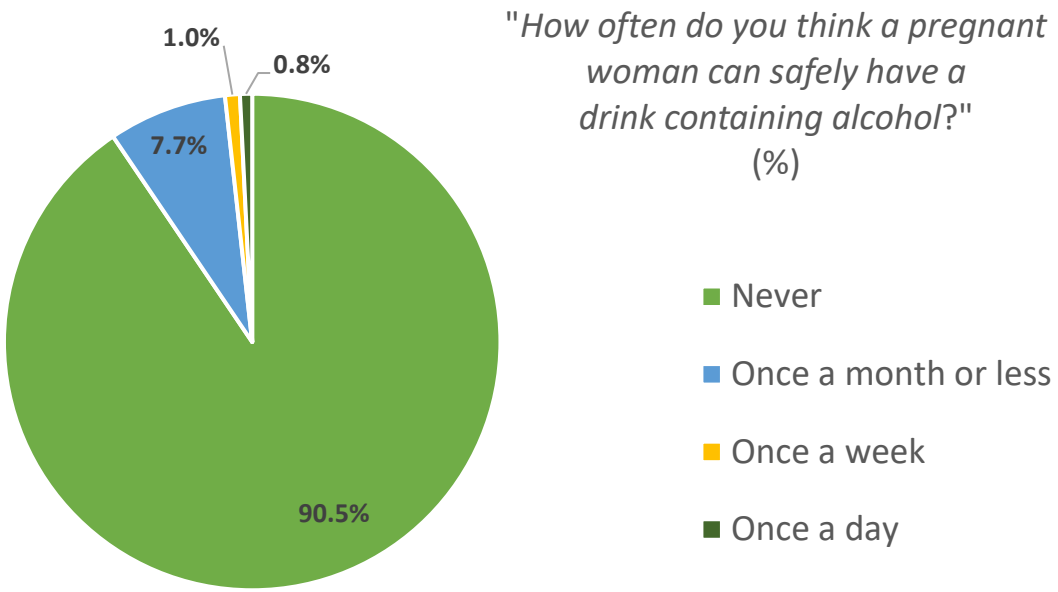


Figure 45. Percent of student response on how often they think a pregnant woman can safely drink alcohol

Chapter 6 Social Ecological Risk & Protective Factor Resilience Model

Social-Ecological Modeling-Informed Important Factors

Risk and protective factor data were analyzed to build preliminary models for predicting problem substance use. Important risk and protective that emerged from the modeling were also analyzed descriptively, and were graphically represented as an overall state profile of the risk and protective factors (Figure 46).

Problem Substance Use Risk & Protective Factors

Protective Factors

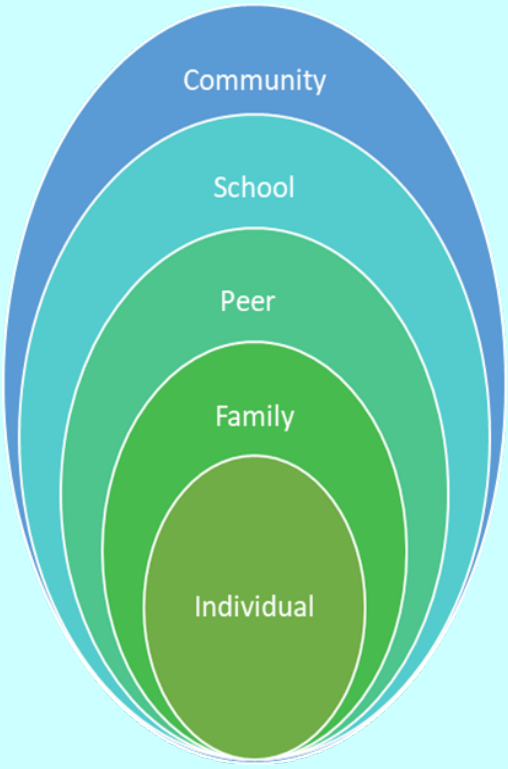
Community
44.2% Encouragement
69.4% Positive social norms for youth not using alcohol

School
47.3% Climate/Enjoyment

Peer
41.1% Friends enjoy school

Family
66.4% Talking to family about a problem
90.6% Clear rules & consequences about using alcohol & drugs

Individual
86.0% Disapproval of substance use
73.9% Academic achievement



Risk Factors

Community
55.8% Ease of access to substances
31.4% Neighborhood use of substances
19.8% Neighborhood Crime/Drug selling

Peer
42.3% Close friends offer marijuana or alcohol
37.8% Peer exposure to marijuana or alcohol use
13.3% Close friends approve of marijuana or alcohol

Family
20.3% Exposure to parent alcohol use
6.7% Relative marijuana use
29.2% Live with someone with a substance use problem

Individual
21.8% Suspension or expulsion
19.9% Skipping class
43.3% Done something crazy
40.9% Depression

Figure 46. State profile of percent of students endorsing emerging important risk and protective factors in the Social-ecological model for predicting problem substance use.

Individual level (disapproval of substance use 86.0%, and academic achievement 73.9%) and **family** (clear rules and consequences about using drugs 90.6%) were the **most endorsed protective factors statewide**. **Risk factors**

that were **commonly endorsed were in the community** (ease of access 55.8%), **individual** (done something crazy 43.3%, depressive symptoms 40.9%) and **peer** (peer exposure to marijuana/alcohol 37.8%, friends offer alcohol or marijuana 42.3%) **domains**. Additional Tables for Risk and Protective Factors from the Social-Ecological Model by Grade, Gender, and Race/Ethnicity are also available in the Appendix.

The relationship of the modeling-informed important factors was also examined for problem substance use (CRAFFT) screen categories. Table 17 shows that **protective factors were generally associated with greater negative screens while risk factors were associated with higher rates of screen positive and probable SUD**.

Table 17. CRAFFT screen category % by selected Important risk and protective factors from the Social-ecological Model

	CRAFFT screen (%)		
Risk (R) or Protective (P) Factor	**Score 0-1 negative**	**Score 2-3 risk positive**	**Score 4+ probable SUD**
Community			
Neighborhood encouragement (P)	76.4	13.6	10.0
Positive social norms for youth not using alcohol (P)	79.8	11.8	8.4
Ease of Access (R)	63.3	20.5	16.2
Neighborhood use of substances (R)	56.8	22.6	20.6
Neighborhood crime/drug selling (R)	58.5	19.4	22.1
School			
Enjoy being in school (P)	79.8	11.5	8.7
Peer			
Friends enjoy being in school (P)	80.8	11.2	8.1
Friend offers of alcohol or marijuana (R)	49.8	27.8	22.3
Exposure to friends' use of marijuana or alcohol(R)	30.0	32.6	37.3
Peer approval of alcohol and marijuana use (R)	57.7	22.2	20.1
Family			
Can talk to family member about a problem (P)	78.4	12.7	8.8
Clear rules & consequences about drugs (P)	77.5	13.1	9.4
Exposure to parent alcohol use (R)	64.5	18.4	17.1
Exposure to relative's marijuana use (R)	38.3	29.6	32.1
Lived with someone with a substance use problem (R)	57.5	20.8	21.6
Individual			
Disapproval of substance use (P)	81.1	11.6	7.4
Academic achievement (P)	80.0	12.3	7.7
Suspension or expulsion (R)	52.0	22.5	25.5
Skipping class (R)	47.8	25.2	27.0
Done something crazy (R)	57.6	22.5	19.9
Depression (R)	64.1	19.7	16.2

Modeling Resilience through Adversity and Risk and Protective Factors

Utilizing the **risk and protective factor items** selected from a social-ecological framework, we developed and tested **a resilience model for any substance use** (Figure 47). While the survey was not developed with a specific resilience framework in mind, many of the questions align with findings from previous work (Fergus & Zimmerman, 2005; Sanford Inspirations, 2017; Liebenberg et al., 2017; Wilcox et al., 2021). The model maps adversity and resilience factors for substance use derived from constructs proposed in the literature based on face validity.

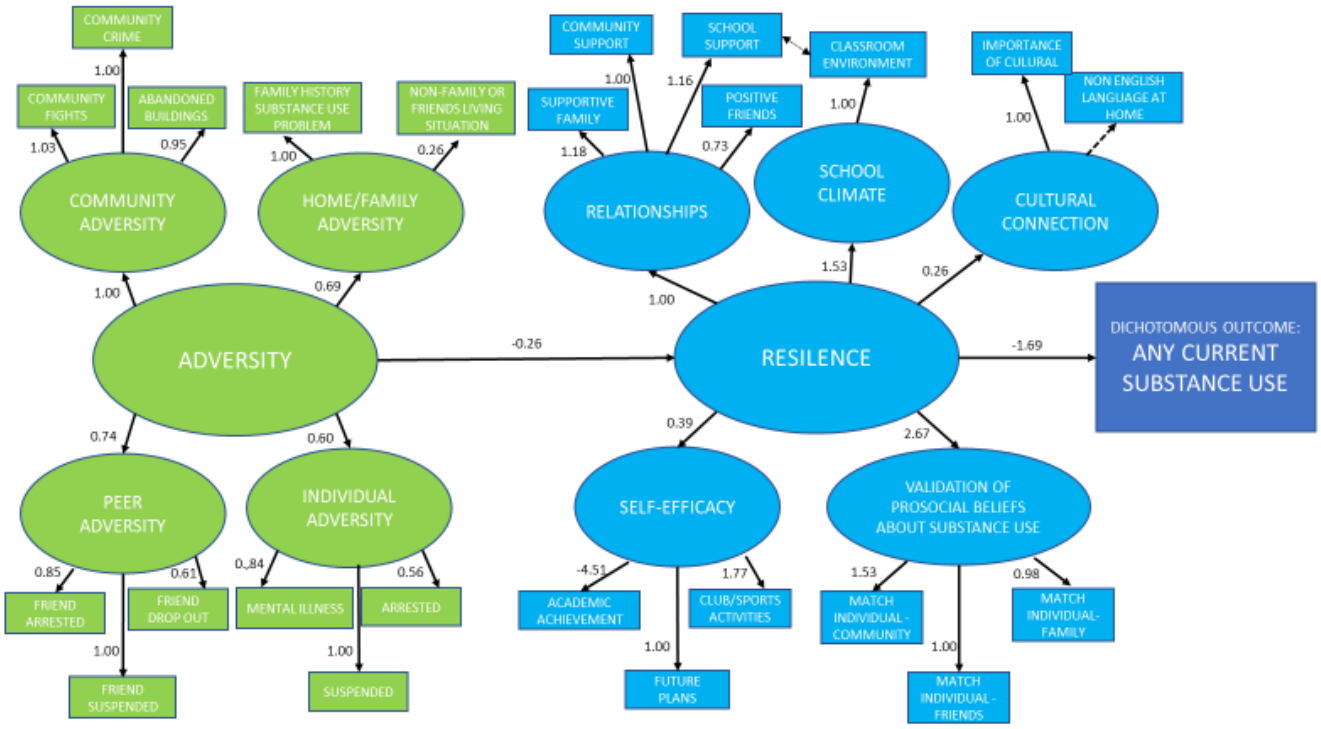


Figure 47. Resilience model for any substance use based on theoretical constructs.

Structural equation modeling was used to examine the relationships using software package R (R Core Team, 2013) applying the conceptual model. Statistically significant parameter estimates (beta weights) are displayed. **The model indicates that higher levels of adversity reduce resilience. Community adversity was the largest contributor, followed by peer, family, and individual, respectively. The model also indicates the resilience significantly reduces the likelihood of any substance use. Validation of prosocial beliefs was the largest contributor, followed by school climate, relationships, self-efficacy, and cultural connection, respectively.** The fit statistics indicated good fit with RMSEA = 0.05. Other indices failed to reach cutoffs of .95 for a good fit with CFI=0.84; and TLI=0.82. Exploratory factor analyses suggest revising the model will improve the fit. Future efforts will explore this promising direction.

Chapter 7 Data Limitations and Gaps

As with all studies, there are limitations that should be considered when examining the results of the 2019-2020 Hawaiʻi Student ATOD Survey.

Participation & Sample bias

The sample of the ATOD survey included only public schools, and not private or charter schools. A small number of students were excluded from the sample if they were opted out by their parent or guardian, or chose not to participate in the survey. Students who were absent throughout the survey process (i.e., absent when opt-out forms were distributed or on the day of the survey) were not included. Since substance use is normally higher among non-participating students, absentee students, and dropouts, this study may underestimate substance use among Hawaiʻi's youth. To specifically address this higher risk group of youth, a parallel qualitative needs assessment was conducted that focused on young people who have lived experience with adolescent substance use treatment services in Hawaiʻi. Youth participants were recruited based on their involvement in public sector systems including foster care, juvenile justice, homelessness, and mental health, which correspond to substance use disparities (Helm et al., 2021).

Overall Honesty

The 2019-2020 Hawaiʻi Student ATOD Survey was an online survey. According to results from the 2006-2007 pilot study (Onoye et al., 2012) changing the sampling framework to a web-based system should have improved the honesty with which students answer questions as well as increasing the response rate. Overall, 96.3% of students reported being very or mostly honest in their responses on the survey, however, students may have responded in ways that overreport or underreport substance use and related factors.

Making Comparisons

Another potential issue is how comparable this study is to national surveys as not all survey items were written in the same way. This may pose a problem when comparing the current study to similar national studies.

Given the large gap in time and differing methodologies between this study and the prior Hawaiʻi ATOD Surveys, findings from this study could not be directly compared to the results from the 2007-2008 Hawaiʻi Student ATOD Survey. While the survey may be improved in capturing more current and relevant data, it only provides a cross-sectional perspective (i.e., provides a snapshot of what is happening at the time the student took the survey) and thus temporal or predictive relationships cannot necessarily be established.

COVID-19 and Missing Data

The data were collected prior to the coronavirus pandemic related closure of public schools. Due to the interruption in data collection some data were not able to be collected. Statistical and community knowledge approaches were used to estimate missing data when possible. Modeling approaches using imputed data were not significantly better, therefore original models with missing data were used.

Strengths

Despite these limitations, this study utilizes contemporary methods that are consistent with other state and national student surveys. Furthermore, this report provides the most comprehensive and current assessment of substance use, risk and protective factors, and treatment needs for youth in Hawaiʻi. Dissemination was the driver of the survey relational design, therefore we anticipate that the data are more likely to be utilized to inform policy and practice within schools and systems of care.

Chapter 8 Key Takeaways

As an overview of key findings, the following summarize the highlights from the 2019-2020 Hawai'i ATOD Survey:

- Overall, about 11% of students screened for a probable substance use disorder, indicating treatment need, and an additional 14% fell into the positive risk range for problem substance use.
- Treatment need increased by grade, more than doubling from middle school (8th grade 6.6%) to high school (12th grade 15%)
- Gender diverse students make up the smallest proportion of the state sample but show the highest risk for a probable substance use disorder and for substance use behavior in almost all categories, including tobacco cigarettes. Females are also higher in risk, compared to males.
- Adolescents most likely to have a probable substance use disorder primarily identified themselves as Other Pacific Islander (19.7%), Native Hawaiian (15.2%), Hispanic or Latino (16.2%), and of 2 or more ethnicities with Native Hawaiian (13.5%).
- Approximately 37% of students endorsed some level (mild, moderate, or severe) of mental health distress – and among those with severe distress, about one fourth are likely to have a problem with substance use.
- Screening for attention related disorders (Pediatric Symptom Checklist, Attention subscale), youth with a positive screen (which indicates further assessment for attentional disorders) had a percentage (19.5%) of probable substance use disorder, about twice that of those with a negative screen (9.6%).
- Less than one third of students that screen in the probable SUD or positive risk categories are receiving any help, of which about three-fourths are receiving some type of help at school. The other 70-80% that are likely to need treatment or some kind of prevention intervention did not get help even if they thought they should, or did not think that getting help applied to them.
- Vaping is the most commonly used (25.9% report current use) and most frequently used (13.8% report moderate-heavy use) among the substance use behaviors in the past 30 days. Current (20.3%) and moderate-heavy (9.3%) use of marijuana is also higher.
- Alcohol use in the past 30 days is high (27.3% current use), but binge behavior (13.9%) and more frequent use (moderate-heavy use 5.3%) in the past 30 days is much lower.
- Alcohol is the substance that most students try at a younger age, with an alarming peak distribution of first use at 8 years of age or younger for many youth, and another gradual peak around 13-15 years of age. This period of adolescence is also a time when other first use of substances such as vaping and marijuana occurs. Initiation of binge drinking appears to peak around 15 years of age, perhaps as a result of increasing numbers of students that have already tried alcohol by 13 years old.
- Substance use categories such as binge drinking, moderate-heavy vape/e-cigarette use, and marijuana use were disproportionately higher for students who primarily identified as Native Hawaiian, two or more ethnicities with Native Hawaiian, Hispanic/Latino, and Other Pacific Islander.

- The most common ways that students acquire alcohol, tobacco/e-cigarettes, and marijuana are when someone gave it to them, they gave someone money to buy it for them, while at school (tobacco/vape and marijuana), or took it (alcohol) from a family member.
- The most common places that students use alcohol, tobacco/e-cigarettes, and marijuana are at their or another person's home, or at a public place. Marijuana and vaping also are used while on school property.
- Substance use prevention education and public awareness messages reach a large majority, but not all, students in a variety of ways, including from family, at school, friends, television/music channels, social media, digital ads on their devices, and traditional printed media such as posters and signs.
- In a resilience model of risk and protective factors, community, peer, family, and individual factors were found to contribute to adversity, which reduces resilience to substance use. However, the model also indicates the resilience significantly reduces the likelihood of any substance use – community validation of prosocial beliefs was the largest contributor, followed by school climate, relationships, self-efficacy, and cultural connection.

Chapter 9 Recommendations

Prevention and Treatment

Overall, approximately more than one in ten students screened as having a probable substance use disorder. The rates of students in the probable SUD range were highest for transgender and other gender minority students and 12th graders. The validated CRAFFT screening instrument was included in the ATOD Survey, which aligns with the DOE and ADAD adolescent treatment services. Results of the CRAFFT screen data indicated that only a small proportion of students who screened in the probable SUD range reported receiving any assistance (at school or outside of school) for substance use problems. This indicates a gap between adolescents in need of services and those who actually receive services. Additionally, given the significant number of students who are at risk for SUD, there may be a greater demand for earlier intervention to adequately address prevention needs.

Behavioral health screening and supports in schools and community settings continue to be needed, with greater integration of behavioral health services to address co-occurring mental health issues and substance use. Evidence-based approaches such as Screening, Brief Intervention, and Referral to Treatment (SBIRT) should be implemented in school- and community-based settings, given the growing body of research associated with SBIRT that demonstrates overall improvements for substance use and increased student access to mental health support (for a brief review, refer to appendix in Helm et al., 2021). Piloting an implementation of SBIRT in community regions with high rates of probable SUD in youth could inform plans to integrate SBIRT into the existing state system of care for substance use.

School as a source of formal support for students dealing with substance use emerged as a strong theme from the in-depth interviews conducted for the qualitative youth needs assessment companion study to the Hawaiʻi Student ATOD Survey (Helm et al., 2021). Youth offered constructive suggestions for schools to better fulfill this critical role, including: (a) the expansion of extracurricular activities as a protective factor for students who were at greater risk of exposure to substance use at home and in their communities; (b) improved staff training to facilitate a shift from punitive to supportive attention, with a focus on recognizing student needs and sharing information on services and resources; and (c) destigmatizing help-seeking for substance use (Helm et al., 2021).

Disproportionate rates of treatment need and substance use behaviors suggest that transgender and other gender minority students are especially vulnerable and may need additional outreach and services to address substance use issues. ADAD is encouraged to expand upon the commendable leadership that it has already shown in integrating evidence-based cultural approaches into prevention and treatment with the goal of reducing behavioral health disparities seen in specific ethnic and cultural populations. For example, ADAD's support for promising local programs such as Puni Ke Ola could be a model for other jurisdictions advocating for a holistic approach of "culture as health" (Helm & Davis, 2017).

Identifying risk and protective factors via data-driven strategies used in this ATOD Survey and the qualitative needs assessment (Helm et al., 2021) are important for building on youth's resilience around substance use. Prevention,

treatment and recovery, and other intervention programs can be informed by projects like this to help improve outcomes for reducing adolescent substance use more effectively. These factors have potential implications among the broader stakeholders working in the system of care.

As intended from the relational design of the project, we hope that school-based prevention and treatment providers may also benefit from hearing about youth substance use data from the Hawaiʻi ATOD Survey and its qualitative companion study to inform and improve their practice. We are grateful to be a part of this kākou effort to embrace our youth and support their development to thrive.

Chapter 10 References

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Chapter 11 Appendix

Risk and Protective Factors and Corresponding 2019-2020 Hawai'i Student ATOD Survey Questions and Responses

Table 18. Risk and Protective Factor survey items for Community, School, Peer, Family, and Individual Domains

Factor	Survey Question	Response Choices	Coding for Analyses
	COMMUNITY DOMAIN		
Protective	*Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?* *…someone else*	*Yes* *No*	*Yes* *No*
Protective	*In the past 12 months, how have you viewed or heard any public awareness messages about the risks or dangers of alcohol, tobacco, or other drugs? Select all that apply* *…on TV or similar internet channels* *…on the radio or similar internet/satellite stations* *…on social media or other social apps or websites* *…ads on my device* *…posters, signs, or other printed materials in public* *…other ways (open-ended)*	*Yes* *No*	*Yes* *No*
Protective	*There are people in my neighborhood who notice when I am doing a good job and let me know.* *There are people in my neighborhood who encourage me to do my best* *If I had a personal problem, I could ask at least one adult (who is not a family member) in my neighborhood for help.*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Protective	*If a kid in my neighborhood:* *…drank alcohol, he or she would be caught by the police* *…used marijuana, he or she would be caught by the police* *…carried a handgun, he or she would be caught by the police*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*

Factor	Survey Question	Response Choices	Coding for Analyses
Protective	*If I had to move, I would miss the neighborhood where I live now* *Adults in my neighborhood would think it was wrong for kids my age:* *…to use marijuana (sometimes called pot, pakalolo, weed, dabs, hash) in any form* *…to drink alcohol*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Protective	*Are there any of the following activities available in your neighborhood/community for people your age?* *…organized sports outside of school (e.g., soccer, paddling, baseball, etc)* *…individual sporting facilities (e.g., rollerblading or skateboarding parks, batting cages)* *…Boys and Girls clubs, YMCA, or similar organization* *…4-H clubs, Future Farmers of America, Homestead Association, or other organized agricultural, ranch or farm-type clubs* *…Music, dance, or other performance arts groups (e.g., hula, theater groups)*	*Yes, and I participate regularly* *Yes, but I don't participate regularly* *No* *I don't know*	*Yes, and I participate regularly* *Yes, but I don't participate regularly* *No* *I don't know*
Risk	*Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?* *…No* *…Not sure*	*Yes* *No*	*Yes* *No*
Risk	*Have you ever been offered [alcohol, marijuana, cigarettes/e-cigarettes/other tobacco or vaping products, other drugs]:* *…by strangers?*	*No* *Yes, and I've accepted* *Yes, and I've always refused*	*Yes* *No*
Risk	*During the past 12 months, how did you usually get _____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs] select all that apply:* *…bought it at a store (liquor store, convenience store, supermarket, gas station)* *…bought it at a restaurant, bar, or club* *…bought it at a public place such as a concert or sporting event* *…gave some else money to buy it for me* *…someone gave it to me*	*No* *Yes*	*No* *Yes*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*During the past 12 months, where did you usually use ____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs]:* *…at another person's home during a large party* *…at a restaurant, bar, or club* *…at a public place such as a beach, park, parking lot, concert or sporting event*	*Yes* *No*	*Yes* *No*
Risk	*How difficult do you think it would be for you to get each of the following, if you wanted some.* *…alcohol (beer, wine, or hard liquor)?* *…cigarettes?* *…e-cigarettes or vaping devices/products?* *…marijuana in any form (has, pakalolo, pot, dabs, weed)?* *…cocaine (crack, coke, blow, freebase)?* *…methamphetamine (crystal meth, speed, ice, batu)?* *…hallucinogens (LSD/PCP, shrooms, acid)?* *…ecstasy or other "club drug" (E, XTC, G, GHB, liquid ecstasy, Rohypnol, roofies, ketamine, special K?* *…prescription drugs (Oxycontin, Adderall, Lunesta) without a doctor telling you to?* *…synthetic drugs (Spice/k2, bath salts, Flakka)?*	*Probably impossible* *Very difficult* *Fairly difficult* *Fairly easy* *Very easy* *I don't know*	*Very difficult – fairly difficult* *Fairly easy – very easy* *Probably impossible/I don't know*
Risk	*There is crime and/or drug selling in my neighborhood* *There are fights in my neighborhood* *There are a lot of empty or abandoned buildings in my neighborhood*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Risk	*About how many non-family adults (18 and older) in your neighborhood/community have you known personally who in the past year have:* *…used drugs illegally (marijuana, crack, cocaine, or other drugs)?* *…sold or dealt drugs?* *…done other things that could get them into trouble with the police like stealing, selling stolen goods, beating up others?* *…gotten drunk or high?*	*None* *1 adult* *2 adults* *3 or 4 adults* *5+ adults*	*None* *1 adult* *2 adults* *3 or 4 adults* *5+ adults*

Factor	Survey Question	Response Choices	Coding for Analyses
	SCHOOL DOMAIN		
Protective	*Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?* *…Yes, my teacher at school*	*Yes* *No*	*Yes* *No*
Protective	*Now, thinking back over this current (2019-2020) year in school, how often did you:* *…feel that the school work you were assigned was meaningful and important?* *…enjoy being in school?* *…try to do your best in school?*	*Almost always* *Often* *Sometimes* *Seldom* *Never*	*Almost always-often* *Sometimes* *Seldom -never*
Protective	*In my school, students have a lot of chances to help decide things like class activities and rule* *There are a lot of chances for students in my school to talk with a teacher one-on-one* *There are a lot of chances in my school to get involved with sports, clubs, and other school activities outside of class* *My school grades are better than the grades of most students in my class*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Risk	*During the past 12 months, how did you usually get _____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs] select all that apply:* *…I got it from someone while I was at school*	*No* *Yes*	*No* *Yes*
Risk	*During the past 12 months, where did you usually use ____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs]:* *…on school property* *…at a social event like prom*	*Yes* *No*	*Yes* *No*
Risk	*During the past 12 months, how often have you been around the following people when they were using _____[alcohol, marijuana in any form, cigarettes/e-cigarettes/other tobacco or vaping products (no marijuana):* *…other people in the neighborhood or school*	*Not at all* *A few times a year* *Once or twice a month* *At least once a week* *Almost everyday*	*Not at all* *A few times a year – once or twice a month* *At least once a week – almost daily*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*Have you ever been offered [alcohol, marijuana, cigarettes/e-cigarettes/other tobacco or vaping products, other drugs]:* *…by a stranger*	*No* *Yes, and I've accepted* *Yes, and I've always refused*	*Yes* *No*
	PEER DOMAIN		
Protective	*My friends:* *…enjoy school* *…encourage me to do well in school* *…are good role models* *…get along well with their parents and other family members* *…and I get along with each other* *…would help with a personal problem*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Protective	*Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?* *…Yes, my friends*	*Yes* *No*	*Yes* *No*
Risk	*During the past 12 months, where did you usually use ____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs]:* *…at another person's home with a few of my friends and/or family*	*Yes* *No*	*Yes* *No*
Risk	*During the past 12 months, how often have you been around the following people when they were using _____[alcohol, marijuana in any form, cigarettes/e-cigarettes/other tobacco or vaping products (no marijuana):* *…your closest friends*	*Not at all* *A few times a year* *Once or twice a month* *At least once a week* *Almost everyday*	*Not at all* *A few times a year – once or twice a month* *At least once a week – almost daily*
Risk	*Have you ever been offered [alcohol, marijuana, cigarettes/e-cigarettes/other tobacco or vaping products, other drugs]:* *…by your friends?* *…by other youth (not but your friends)?*	*No* *Yes, and I've accepted* *Yes, and I've always refused*	*Yes* *No*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*In the past 12 months, how many of your close friends have:* *…been suspended from school?* *…stolen or tried to steal a motor vehicle (car, moped, etc)?* *…been arrested (booked, fingerprinted, taken to police station?*	*None* *A few* *Some* *Most/All*	*None* *A few* *Some* *Most/All*
Risk	*Think of your close friends and how they would feel if you:* *…used marijuana in any form (hash, pakalolo, pot, weed, dabs) daily or almost daily* *…smoked one or more packs of cigarettes per day* *…used e-cigarettes or vaping products daily or almost daily* *…had 3 or more drinks of alcohol once or twice each weekend* *…used other illegal drugs (heroin, synthetics, hallucinogens, steroids)* *…used prescription medication without a doctor telling you to*	*Would think it was cool* *Would not care* *Would disapprove* *Would strongly disapprove* *I don't know*	*Would think it was cool – would not care* *Would disapprove – would strongly disapprove* *I don't know*
	FAMILY DOMAIN		
Protective	*Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?* *…yes, my parent/guardian*	*Yes* *No*	*Yes* *No*
Protective	*How often do your parents/guardians tell you they're proud of you for something you've done?*	*All the time* *Often* *Sometimes* *Never or almost never*	*All the time – often* *Sometimes* *Never or almost never*

Factor	Survey Question	Response Choices	Coding for Analyses
Protective	*My parents/guardians ask me if I've gotten my homework done* *When I am not a home, one of my parents/guardians knows where I am and who I am with* *My family has clear rules about alcohol and drug use* *I feel very close to at least one of my parents (mom, dad) or other adult family member (aunty, uncle, grandparent)* *I share my thoughts and feelings with at least one of my parents (mom, dad) or other adult family member (aunty, uncle, grandparent)* *I enjoy spending time with at least one of my parents (mom, dad) or other adult family member (aunty, uncle, grandparent)* *If I had a personal problem, I could ask at least one of my parents (mom, dad) or other adult family member (aunty, uncle, grandparent) for help*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Protective	*I would be in trouble if my parents/guardians caught me:* *…smoking cigarettes* *…using e-cigarettes or vaping products* *…using marijuana (pot, pakalolo, weed, hash, dabs) in any form* *…using other illegal drug* *….skipping school* *…picking a fight with someone*	*Strongly Agree* *Agree* *Neutral* *Disagree* *Strongly Disagree*	*Strongly Agree-Agree* *Neutral* *Disagree-Strongly Disagree*
Risk	*During the past 12 months, where did you usually use ____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs]:* *…at my home*	*Yes* *No*	*Yes* *No*
Risk	*Did you ever live with anyone who had an alcohol-related problem or used street drugs?*	*Yes* *No*	*Yes* *No*
Risk	*During the past 12 months, how often have you been around the following people when they were using _____[alcohol, marijuana in any form, cigarettes/e-cigarettes/other tobacco or vaping products (no marijuana):* *…parents* *…brothers or sisters* *…Other relatives*	*Not at all* *A few times a year* *Once or twice a month* *At least once a week* *Almost everyday*	*Not at all* *A few times a year – once or twice a month* *At least once a week – almost daily*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*Have you ever been offered [alcohol, marijuana, cigarettes/e-cigarettes/other tobacco or vaping products, other drugs]:* *…by your parents?* *… by your brother or sister?* *…by other relatives?*	*No* *Yes, and I've accepted* *Yes, and I've always refused*	*Yes* *No*
	INDIVIDUAL DOMAIN		
Protective	*How wrong do you feel it would be for someone your age to:* *…drink alcohol regularly (once or twice a month)?* *…use marijuana, in any form (pot, pakalolo, weed, dabs, hash)?* *…smoke cigarettes?* *…use e-cigarettes or vape any substance?* *…use LSD, cocaine methamphetamine, or other illegal drug?* *…take a handgun to school?* *…pick a fight with someone?* *…attack someone with the idea of seriously hurting them?* *…stay away from school all day when your parents think you are at school?*	*Very wrong* *Wrong* *A little bit wrong* *Not at all wrong*	*Very wrong – wrong* *A little bit wrong-not at all wrong*
Protective	*Putting them all together, what were your grades like last year?*	*Mostly As* *Mostly Bs* *Mostly Cs* *Mostly Ds* *Mostly Fs*	*As & Bs* *Cs* *Ds & Fs*
Protective	*How likely is it that you will do the following?* *…graduate from high school* *…go to a technical school after high school* *…go to college* *…graduate from a four-year college* *…enter into military service*	*Definitely will* *Probably will* *Probably won't* *Definitely won't*	*Definitely will* *Probably will* *Probably won't* *Definitely won't*
Protective	*In the past year, in situations where the following substances were available or around you (but not directly offered to you), what did you typically do?* *…alcohol* *…marijuana, in any form* *…cigarettes, e-cigarettes or vaping devices/products* *…other drugs*	*I did not use it* *I did use it* *I have not been in situations where this was available*	*I did not use it* *I did use it* *I have not been in situations where this was available*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*How old were you when you FIRST: [tried]_____* *… alcohol (more than a few sips of beer or wine, or any hard liquor)?* *…drank 4 or more alcoholic drinks on one occasion?* *…drank alcohol regularly (at least once or twice a month)?* *… smoked a cigarette (not an e-cig or vaping device)?* *… e-cigarettes or vaping (nicotine, flavors)?* *… marijuana (hash, pot, weed, pakalolo, dabs) in any form?* *…snuff or chewing tobacco?* *…inhalants (sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays) in order to get high?* *…hallucinogens (LSD, mushrooms, acid)?* *… methamphetamine (crystal meth, batu, speed, ice)?* *…cocaine (coke, blow, crack, freebase)?* *…heroin?* *…opiates or opioids (codeine, OxyContin) that were not prescribed for you?* *…tranquilizers or sedatives (Valium, Xanax, Ativan, Ambien, Lunesta, Phenobarbital) without a doctor telling you?* *…other prescription drugs (Ritalin, Adderall) without a doctor telling you?* *…other over-the-counter (Triple C, Robitussin, Lean, NyQuil) without a doctor telling you?* *…Rohypnol (roofies, rophies, forget-me-not-pills)?* *…MDMA (ecstacy, E, XTC, rolls)?* *…other synthetic drugs (Spice/K2, bath salts, Flakka)?* *…steroids for body-building or improved athletic strength?* *..,GHB (G, liquid ecstasy, Georgia home boy)?* *…ketamine (special K, K, cat valiums, vitamin K)?*	*0 – Never* *8 or younger* *9* *10* *11* *12* *13* *14* *15* *16* *18 or older*	*Early Initiation* *0-Never* *13 or younger* *14 or older*
Risk	*During the past 12 months, how did you usually get _____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs] select all that apply:* *…took It from a store* *…took it from a family member*	*No* *Yes*	*No* *Yes*
Risk	*During the past 12 months, where did you usually use ____ [alcohol, marijuana, tobacco/e-cigarettes, other drugs]:* *…while riding in or driving a car or other vehicle*	*Yes* *No*	*Yes* *No*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*Over the past 2 weeks how often have you been bothered by any of the following problems:* *…feeling nervous, anxious, or on edge* *…not being able to stop or control worrying* *…feeling down, depressed, or hopeless* *…little interest or pleasure in doing thing*	*Not at all* *Several days* *More than half* *Nearly everyday*	*Not at all* *Several days* *More than half-nearly everyday*
Risk	*In the past 12 months, how many times have you:* *… done crazy things even if they were dangerous?* *…sold illegal drugs?* *…been suspended from school?* *…stolen or tried to steal a motor vehicle (car, moped, etc)?* *…been arrested (booked, fingerprinted, taken to the police station)?*	*Never* *I've done it but not in the past year* *A few times a year* *About once a month* *2-3x a month* *Once a week or more*	*Never* *All other responses (Ever)*
Risk	*During the past 4 weeks, how many whole days of school have you missed?*	*0-None* *1 day* *2 days* *3 days* *4-5 days* *6-10 days* *11+ days*	
Risk	*How old were you when you first:* *…got suspended or expelled from school?* *…attacked someone with the idea of seriously hurting them?* *…got arrested?*	*0 – Never* *8 or younger* *9* *10* *11* *12* *13* *14* *15* *16* *18 or older*	*Never* *All other responses (Ever)*

Factor	Survey Question	Response Choices	Coding for Analyses
Risk	*How much to you think people risk harming themselves (physically or in other ways) if they:* *…smoke one or more packs of cigarettes per day?* *…vape or use e-cigarettes daily or almost daily?* *…use marijuana in any form (hash, pakalolo, pot, weed, dabs) daily or almost daily?* *…use inhalants (glue, paint, sprays) to get high occasionally?* *…have three or more drinks of alcohol once or twice each weekend?* *…use cocaine (crack, coke, blow, freebase) occasionally?* *…use methamphetamine (crystal meth, speed, ice, batu) occasionally?* *…use hallucinogens (LSD/PCP, shrooms, acid) occasionally?* *…use ecstasy or other "club drugs" (E, XTC, GHB, liquid ecstasy, liquid X, Rohypnol, roofies, ketamine, special K) occasionally?* *…use prescription drugs (OxyContin, Vicodin, Adderall, Xanax, Lunesta) without a doctor telling them to?*	*Great risk* *Moderate risk* *Slight risk* *No risk* *Do not know*	*Moderate-great risk* *Slight – no risk* *Do not know*
Risk	*In the past 4 weeks, how often have you gone to school but skipped a class when you weren't supposed to?*	*0-None* *1-2 times* *3-5 times* *6-10 times* *11-20 times* *More than 20 times*	*0* *1-5 times* *6 or more times*

Additional Tables for Lifetime, Early, and Current Use for 2007-2008 and 2019-2020 ATOD Surveys

Due to the differences in the design and method of the two surveys, including the sampling frame, no direct comparisons can be made between the 2007-2008 and the 2019-2020 ATOD Surveys. The following tables include the 2007-2008 ATOD Survey data ***only for the purposes of illustrating historical contextual information***, and only after having been reanalyzed excluding the 6th grade sample from the originally reported results.

The 2007-2008 ATOD Survey did not include Transgender and Other Gender Minority as a subgroup, nor did it analyze Hispanic/Latino as a separate race/ethnicity category. Therefore, the percentages reported for the reanalyzed 2007-2008 ATOD Survey for gender and race/ethnicity may be overreported or underreported. For any historical prevalence data from the 2007-2008 ATOD Survey, the reader is recommended to reference the appropriate data from the original report "The Hawai'i Student Alcohol, Tobacco, and Other Drug Use Study: 2007-2008 Comprehensive Report" on the Hawai'i State Department of Health Alcohol and Drug Abuse Division Archive Reports webpage (https://health.hawaii.gov/substance-abuse/submenu/archieve/).

Alcohol

Table 19. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), Binge (4+ drinks) and Current Moderate-Heavy Use (6+ times in past 30 days) use of Alcohol from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

ALCOHOL	Lifetime Any Use (%)		Lifetime Any Binge Drinking (4+ drinks) (%)		Early Initiation of Any Use (13 years or younger) (%)		Early Initiation of Any Binge Drinking (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)		Current Binge (4+ drinks) in Past 30 Days (%)	
	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020
Overall	**53.1**	**52.1**	**36.1**	**26.8**	**32.6**	**29.7**	**17.6**	**7.5**	**28.0**	**27.3**	**6.3**	**5.3**	**16.9**	**12.1**
Grade														
8th	36.2	34.8	20.5	10.5	35.4	33.8	20.0	9.5	18.4	16.5	3.1	3.0	8.3	4.7
10th	56.5	54.0	36.0	25.4	33.5	32.2	16.9	7.8	28.3	26.5	5.6	4.9	16.5	10.3
12th	72.4	68.7	57.3	46.1	27.8	22.3	15.1	4.9	40.8	40.1	11.3	8.1	28.8	22.3
Gender														
Female	56.9	55.0	37.8	29.2	35.6	30.9	19.4	8.4	30.6	31.1	6.3	5.4	17.9	14.3
Male	47.9	49.2	33.5	23.9	28.5	27.9	15.3	5.9	25.0	23.6	6.1	4.4	15.4	9.8
Transgender/Other Gender Minority	N/A	61.1	N/A	44.0	N/A	45.9	N/A	26.5	N/A	37.4	N/A	20.3	N/A	23.1
Race/Ethnicity														
Filipino	49.3	51.4	32.9	23.8	30.0	25.6	15.8	4.6	23.6	23.9	3.8	2.1	12.7	8.0
Japanese	50.4	36.9	29.1	13.0	26.8	20.0	10.0	2.2	23.1	18.0	3.5	2.9	12.4	6.8
Other Asian	37.5	31.9	17.6	11.2	19.2	17.2	7.0	-	13.2	12.1	2.2	-	6.2	3.6
Hispanic/Latino	N/A	66.5	N/A	41.3	N/A	38.6	N/A	7.7	N/A	37.8	N/A	8.8	N/A	16.8
Native Hawaiian	66.0	62.5	50.8	36.0	45.1	37.8	28.7	12.5	42.9	34.6	9.3	7.5	26.0	17.7
Other Pacific Islander	43.6	41.5	30.8	26.9	27.7	22.2	15.6	7.2	23.1	27.1	7.2	7.1	16.3	17.0
White/Caucasian	58.2	51.4	40.0	25.7	36.3	27.9	19.4	3.9	32.5	28.4	8.0	4.2	20.5	9.8
2 or more (not Native Hawaiian)	56.8	48.5	43.3	22.1	33.3	28.8	22.4	6.9	30.2	24.3	11.0	5.4	21.4	9.3
Other	62.4	46.7	48.5	24.6	42.8	23.3	27.6	-	36.1	16.8	13.1	-	25.6	9.4

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian; Binge drinking defined as 4+ drinks on one occasion

Tobacco Cigarettes

Table 20. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Tobacco Cigarettes from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

TOBACCO CIGARETTES	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**
Overall	**27.0**	**19.2**	**19.8**	**10.6**	**9.9**	**8.4**	**4.2**	**3.7**
Grade								
8th	18.3	12.3	18.0	11.8	6.8	7.3	2.2	3.0
10th	26.2	18.2	19.0	11.6	9.0	6.9	3.7	2.9
12th	39.7	27.9	23.2	8.1	15.2	11.6	7.6	5.5
Gender								
Female	29.1	18.3	21.4	8.8	10.8	8.4	4.3	3.4
Male	24.1	18.9	17.7	11.2	8.6	7.6	3.9	3.4
Transgender/Other Gender Minority	N/A	42.2	N/A	30.8	N/A	30.2	N/A	17.6
Race/Ethnicity								
Filipino	25.2	14.2	18.9	7.9	7.5	4.5	2.4	1.6
Japanese	16.5	7.3	9.7	3.3	6.4	4.1	2.5	1.9
Other Asian	13.2	8.1	9.2	3.9	3.9	-	2.6	-
Hispanic/Latino	N/A	25.4	N/A	11.0	N/A	9.2	N/A	-
Native Hawaiian	38.4	25.2	30.8	15.2	13.2	12.7	5.8	6.5
Other Pacific Islander	33.5	34.2	25.5	15.7	16.1	13.8	5.9	5.2
White/Caucasian	27.3	13.9	18.9	3.7	11.7	4.6	5.8	-
2 or more (not Native Hawaiian)	33.5	16.4	28.2	9.9	8.2	7.2	3.6	3.1
Other	38.1	23.7	27.1	16.1	15.0	11.8	7.3	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Vape/E-Cigarettes

Table 21. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Vape/E-Cigarettes from the 2019-2020 ATOD Survey.

VAPE/E-CIGARETTES	Lifetime Any Use (%)	Early Initiation of Any Use (13 years or younger) (%)	Current Any Use in the Past 30 Days (%)	Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)
Overall	**44.2**	**21.9**	**25.9**	**13.8**
Grade				
8th	28.8	27.5	17.8	7.0
10th	46.4	26.0	26.2	13.7
12th	58.4	11.2	34.4	21.2
Gender				
Female	48.4	23.9	29.7	15.2
Male	40.0	19.6	22.3	12.2
Transgender/Other Gender Minority	59.5	36.8	35.4	20.4
Race/Ethnicity				
Filipino	43.5	18.1	23.7	11.2
Japanese	24.2	11.0	13.8	8.7
Other Asian	24.6	12.2	9.6	3.9
Hispanic/Latino	52.1	18.3	30.7	18.9
Native Hawaiian	56.4	32.7	36.5	19.2
Other Pacific Islander	50.5	20.1	33.2	16.8
White/Caucasian	34.4	11.7	17.7	9.8
2 or more (not Native Hawaiian)	38.0	18.9	20.1	11.1
Other	43.7	21.7	19.5	10.3

Note: Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Marijuana

Table 22. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Marijuana from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey, and Current and Moderate-Heavy Co-Use of Marijuana-Alcohol from 2019-2020 ATOD Survey.

MARIJUANA	**Lifetime Any Use (%)**		**Early Initiation of Any Use (13 years or younger) (%)**		**Current Any Use in the Past 30 Days (%)**		**Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)**		**Current Marijuana -Alcohol Co-Use in the Past 30 Days (%)**	**Current Moderate -Heavy Co-Use (6+ times) in the Past 30 Days (%)**
	2007 - 2008	**2019 - 2020**	**2007 - 2008**	**2019 - 2020**	**2007 - 2008**	**2019 - 2020**	**2007 - 2008**	**2019 - 2020**	**2019 - 2020**	**2019 - 2020**
Overall	**25.0**	**33.2**	**12.6**	**14.7**	**13.0**	**20.3**	**6.1**	**9.3**	**12.8**	**3.8**
Grade										
8th	12.0	15.5	11.5	14.5	7.0	10.8	2.7	4.5	6.5	2.2
10th	25.6	34.3	12.3	15.6	13.7	20.0	5.3	8.5	12.1	3.8
12th	42.2	51.2	14.4	13.8	20.5	31.1	11.5	15.1	20.6	5.5
Gender										
Female	24.8	35.9	11.9	15.4	12.8	22.3	5.6	9.2	15.5	3.7
Male	25.3	30.2	13.0	13.2	13.2	17.7	6.7	8.4	9.9	3.0
Transgender/Other Gender Minority	N/A	48.6	N/A	33.7	N/A	42.0	N/A	26.0	26.9	19.9
Race/Ethnicity										
Filipino	16.4	24.7	7.1	6.3	6.9	14.1	2.2	4.7	6.5	1.0
Japanese	17.7	14.3	6.1	3.3	8.5	9.9	3.4	5.6	7.0	2.3
Other Asian	9.3	13.0	2.2	4.5	4.8	6.9	2.6	-	3.0	-
Hispanic/Latino	N/A	44.7	N/A	14.9	N/A	31.9	N/A	19.7	20.6	6.7
Native Hawaiian	40.1	46.5	24.3	25.2	21.6	28.7	10.0	12.3	19.4	5.5
Other Pacific Islander	22.7	38.1	11.2	18.6	13.5	24.0	3.8	11.5	12.5	6.3
White/Caucasian	34.3	33.1	17.9	8.8	19.3	20.2	10.8	10.5	10.7	2.0
2 or more (not Native Hawaiian)	30.5	27.6	18.5	11.9	16.1	16.4	8.9	7.9	11.7	4.0
Other	35.9	38.3	20.1	15.0	18.5	22.9	10.1	12.0	11.2	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian; Concurrent marijuana-alcohol use is not available for 2007-2008 ATOD Survey

Opioids

Table 23. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Opioids from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

OPIOIDS	**Lifetime Any Use (%)**		**Early Initiation of Any Use (13 years or younger) (%)**		**Current Any Use in the Past 30 Days (%)**		**Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)**	
	2007-2008	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**
Overall	**7.1**	**3.6**	**2.5**	**1.2**	**3.5**	**1.6**	**1.1**	**0.7**
Grade								
8th	3.2	1.4	3.0	1.0	2.1	1.2	0.8	0.8
10th	5.9	3.4	1.6	1.6	3.6	1.7	0.8	0.8
12th	13.6	6.2	2.5	0.9	5.5	1.8	1.9	0.4
Gender								
Female	7.4	3.0	2.6	0.7	3.7	1.0	0.9	-
Male	6.6	3.7	2.1	1.2	3.3	1.6	1.3	0.5
Transgender/Other Gender Minority	N/A	12.8	N/A	10.6	N/A	13.8	N/A	13.8
Race/Ethnicity								
Filipino	3.1	2.0	1.2	-	0.9	-	0.3	-
Japanese	5.4	1.8	1.4	-	2.3	-	0.6	-
Other Asian	2.8	-	-	-	1.5	-	-	-
Hispanic/Latino	N/A	7.1	N/A	-	N/A	-	N/A	-
Native Hawaiian	8.1	4.7	2.4	1.6	4.7	1.9	1.8	0.7
Other Pacific Islander	5.1	3.2	2.6	2.4	3.4	-	1.2	-
White/Caucasian	12.1	4.0	3.7	-	6.1	-	1.5	-
2 or more (not Native Hawaiian)	10.6	3.8	7.2	1.0	4.8	2.0	2.7	1.3
Other	15.6	-	6.6	-	8.7	-	3.3	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Tranquilizers/Sedatives

Table 24. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Sedatives from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

SEDATIVES	**Lifetime Any Use (%)**		**Early Initiation of Any Use (13 years or younger) (%)**		**Current Any Use in the Past 30 Days (%)**		**Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)**	
	2007-2008	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**
Overall	**3.0**	**3.5**	**1.5**	**1.3**	**1.4**	**1.6**	**0.7**	**0.6**
Grade								
8th	2.0	1.6	1.9	1.2	1.4	1.6	0.9	0.7
10th	2.5	3.3	0.8	1.6	0.8	1.5	0.3	0.6
12th	4.9	5.7	1.5	1.0	1.9	1.7	1.0	0.4
Gender								
Female	2.8	2.8	1.1	1.0	1.0	1.0	0.4	-
Male	3.4	3.5	1.9	1.0	1.8	1.6	1.2	0.3
Transgender/Other Gender Minority	N/A	19.2	N/A	13.2	N/A	13.3	N/A	12.2
Race/Ethnicity								
Filipino	1.2	1.2	0.7	-	0.3	-	-	-
Japanese	1.2	1.8	0.8	-	1.0	-	-	-
Other Asian	2.2	-	-	-	-	-	-	-
Hispanic/Latino	N/A	5.9	N/A	-	N/A	4.6	N/A	-
Native Hawaiian	2.5	4.1	1.2	2.0	1.3	1.6	0.9	0.7
Other Pacific Islander	2.5	3.7	1.6	-	0.9	-	-	-
White/Caucasian	6.1	4.3	2.3	-	2.6	-	1.2	-
2 or more (not Native Hawaiian)	7.8	4.7	5.6	1.7	4.1	2.2	-	0.7
Other	6.0	9.2	3.7	-	3.4	9.2	2.6	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Other Prescription Drugs

Table 25. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Other Prescription (Rx) Drugs from the 2019-2020 ATOD Survey.

Other Prescription (Rx) Drugs	Lifetime Any Use (%)	Early Initiation of Any Use (13 years or younger) (%)	Current Any Use in the Past 30 Days (%)	Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)
Overall	**4.7**	**2.6**	**2.2**	**0.7**
Grade				
8th	3.2	3.0	1.9	0.6
10th	5.8	3.7	2.9	1.0
12th	5.2	1.0	1.6	0.4
Gender				
Female	4.8	2.6	1.5	-
Male	4.1	2.0	2.0	0.5
Transgender/Other Gender Minority	16.5	14.3	18.2	14.9
Race/Ethnicity				
Filipino	3.0	1.9	0.7	-
Japanese	4.6	2.2	2.2	-
Other Asian	-	-	-	-
Hispanic/Latino	7.6	5.0	4.2	-
Native Hawaiian	5.2	3.0	2.0	0.6
Other Pacific Islander	4.8	3.7	-	-
White/Caucasian	4.8	2.0	2.8	-
2 or more (not Native Hawaiian)	5.5	2.6	3.2	1.3
Other	-	-	-	

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Over the Counter (OTC) Drugs

Table 26. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Over the Counter (OTC) Drugs from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

Over-the-Counter (OTC) Drugs	Lifetime Any Use (%)	Early Initiation of Any Use (13 years or younger) (%)	Current Any Use in the Past 30 Days (%)	Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)
Overall	**11.9**	**7.5**	**5.0**	**1.2**
Grade				
8th	8.4	7.8	4.4	1.3
10th	14.2	9.9	6.6	1.7
12th	13.1	4.5	3.9	0.5
Gender				
Female	14.1	9.1	5.6	0.9
Male	9.6	5.9	3.9	1.0
Transgender/Other Gender Minority	22.5	17.0	18.8	12.2
Race/Ethnicity				
Filipino	10.6	6.9	3.7	0.9
Japanese	10.8	7.4	4.1	-
Other Asian	7.3	6.4	-	-
Hispanic/Latino	15.5	7.6	7.1	-
Native Hawaiian	12.8	7.9	5.6	1.7
Other Pacific Islander	8.1	4.4	4.1	-
White/Caucasian	14.4	8.5	6.4	-
2 or more (not Native Hawaiian)	12.4	8.0	5.6	1.2
Other	16	9.3	-	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Steroids

Table 27. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Steroids from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

INHALANTS	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020
Overall	**1.7**	**2.1**	**1.2**	**1.3**	**1.2**	**1.3**	**0.7**	**0.6**
Grade								
8th	1.5	2.5	1.5	2.1	1.3	1.3	0.7	0.5
10th	1.2	1.9	0.7	1.0	0.8	1.6	0.4	0.8
12th	2.6	1.9	1.3	0.8	1.7	1.2	1.0	-
Gender								
Female	0.7	1.4	0.5	1.0	0.6	0.6	0.3	-
Male	2.9	2.3	1.9	1.2	1.9	1.5	1.1	0.6
Transgender/Other Gender Minority	N/A	12.1	N/A	8.3	N/A	12.9	N/A	10.1
Race/Ethnicity								
Filipino	1.5	2.7	0.9	1.8	0.7	1.6	-	-
Japanese	1.5	-	0.9	-	0.8	-	0.4	-
Other Asian	0.8	-	-	-	-	-	-	-
Hispanic/Latino	N/A	-	N/A	-	N/A	-	N/A	-
Native Hawaiian	1.6	3.0	1.1	2.0	1.1	1.8	0.7	0.6
Other Pacific Islander	2.8	2.4	1.7	-	2.0	-	-	-
White/Caucasian	1.8	-	1.3	-	1.6	-	1.2	-
2 or more (not Native Hawaiian)	3.6	1.3	3.1	-	3.1	0.8	-	-
Other	2.4	-	2.3	-	3.0	-	2.0	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Inhalants

Table 28. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Inhalants from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

INHALANTS	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020
Overall	**8.8**	**5.3**	**7.0**	**4.1**	**3.0**	**2.3**	**0.9**	**0.8**
Grade								
8th	9.7	6.0	9.5	5.5	4.2	3.4	0.9	1.5
10th	7.8	6.0	5.4	4.6	2.6	2.5	0.9	0.7
12th	8.6	3.7	5.4	1.9	1.8	1.0	1.0	0.3
Gender								
Female	9.3	6.1	7.6	4.9	3.2	2.2	0.7	0.5
Male	7.6	4.0	6.1	2.9	2.7	1.7	1.1	0.5
Transgender/Other Gender Minority	N/A	21.2	N/A	15.8	N/A	19.3	N/A	15.5
Race/Ethnicity								
Filipino	6.8	4.7	5.4	4.1	2.2	1.4	0.4	-
Japanese	5.1	1.8	4.2	-	1.7	-	0.7	-
Other Asian	3.9	3.3	3.9	-	0.7	-	-	-
Hispanic/Latino	N/A	8.9	N/A	4.3	N/A	5.1	N/A	-
Native Hawaiian	10.5	6.2	8.7	5.0	3.5	2.9	1.0	0.9
Other Pacific Islander	7.2	5.4	5.8	2.8	2.1	-	1.0	-
White/Caucasian	13.5	5.4	9.8	3.6	4.9	2.1	1.8	-
2 or more (not Native Hawaiian)	12.8	4.8	11.6	4.6	4.6	1.8	-	0.9
Other	14.6	10.2	12.1	6.8	6.1	-	2.0	

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Heroin

Table 29. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Heroin from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

HEROIN	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020
Overall	**1.6**	**1.0**	**1.1**	**0.7**	**1.2**	**0.8**	**0.8**	**0.5**
Grade								
8th	1.3	0.8	1.2	0.6	1.4	1.0	0.8	0.6
10th	0.9	1.3	0.7	0.9	0.5	0.9	0.4	0.7
12th	2.7	0.8	1.2	0.4	1.6	0.5	1.1	-
Gender								
Female	0.9	0.6	0.6	0.3	0.6	0.3	0.2	-
Male	2.3	0.7	1.6	0.6	1.7	0.7	1.4	0.3
Transgender/Other Gender Minority	N/A	14.1	N/A	9.8	N/A	12.2	N/A	11.2
Race/Ethnicity								
Filipino	0.6	-	0.4	-	-	-	-	-
Japanese	1.5	-	1.3	-	0.7	-	0.4	-
Other Asian	0.8	-	-	-	-	-	-	-
Hispanic/Latino	N/A	-	N/A	-	N/A	-	N/A	-
Native Hawaiian	1.8	1.2	0.7	0.7	1.6	0.9	0.9	0.5
Other Pacific Islander	1.2	-	1.2	-	1.6	-	0.8	-
White/Caucasian	2.4	-	1.3	-	1.5	-	1.0	-
2 or more (not Native Hawaiian)	4.1	1.0	3.6	0.8	-	1.1	-	-
Other	3.7	-	2.6	-	3.3	-	2.9	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Cocaine

Table 30. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Cocaine from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

COCAINE	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**
Overall	**3.0**	**3.1**	**1.4**	**1.2**	**1.7**	**1.6**	**0.8**	**0.6**
Grade								
8th	1.8	1.6	1.7	1.4	1.6	1.2	0.7	0.6
10th	1.6	2.5	0.9	1.5	0.6	1.3	0.4	0.8
12th	6.3	5.5	1.6	0.6	3.1	2.5	1.3	0.3
Gender								
Female	2.2	2.8	1.0	1.0	1.3	1.0	0.4	-
Male	3.7	2.7	1.8	0.9	2.1	1.5	1.2	0.5
Transgender/Other Gender Minority	N/A	14.2	N/A	9.8	N/A	14.9	N/A	12.2
Race/Ethnicity								
Filipino	1.1	1.4	0.5	0.7	0.3	0.9	-	-
Japanese	3.2	2.5	1.7	-	1.0	-	-	-
Other Asian	1.9	-	0.7	-	0.7	-	-	-
Hispanic/Latino	N/A	4.7	N/A	-	N/A	-	N/A	-
Native Hawaiian	3.3	3.8	1.5	1.6	2.6	1.7	1.0	0.5
Other Pacific Islander	1.9	3.9	1.8	2.2	2.0	-	0.8	-
White/Caucasian	4.3	2.8	1.4	-	2.7	1.8	1.5	-
2 or more (not Native Hawaiian)	7.0	3.0	4.8	1.1	-	1.8	-	0.8
Other	7.3	-	3.1	-	4.8	-	2.5	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Methamphetamine

Table 31. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Methamphetamine from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

METHAMPHETAMINE	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020
Overall	**1.8**	**1.6**	**1.2**	**0.9**	**1.2**	**0.8**	**0.7**	**0.5**
Grade								
8th	1.4	1.3	1.3	1.0	1.5	1.0	0.8	0.6
10th	1.0	1.9	0.7	1.1	0.5	0.9	0.4	0.7
12th	3.1	1.8	1.6	0.6	1.6	0.5	1.0	-
Gender								
Female	1.3	1.1	0.7	0.5	0.7	0.3	0.3	-
Male	2.1	1.6	1.6	0.9	1.7	0.7	1.1	0.4
Transgender/Other Gender Minority	N/A	12.4	N/A	8.6	N/A	12.2	N/A	10.5
Race/Ethnicity								
Filipino	0.7	0.9	0.4	-	-	-	-	-
Japanese	1.9	-	1.5	-	1.1	-	-	-
Other Asian	0.8	-	-	-	0.7	-	-	-
Hispanic/Latino	N/A	-	N/A	-	N/A	-	N/A	-
Native Hawaiian	2.0	2.5	1.1	1.3	1.8	0.9	0.8	0.5
Other Pacific Islander	1.1	-	0.9	-	1.1	-	-	-
White/Caucasian	2.2	-	1.6	-	1.4	-	1.1	-
2 or more (not Native Hawaiian)	7.0	1.5	4.8	1.0	2.7	1.1	-	-
Other	3.1	-	2.4	-	3.4	-	2.7	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Hallucinogens

Table 32. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Hallucinogens from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

Hallucinogens	**Lifetime Any Use (%)**		**Early Initiation of Any Use (13 years or younger) (%)**		**Current Any Use in the Past 30 Days (%)**		**Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)**	
	2007-2008	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**	**2007-2008**	**2019-2020**
Overall	**3.7**	**4.3**	**1.8**	**1.4**	**1.5**	**2.0**	**0.6**	**0.7**
Grade								
8th	1.9	2.2	1.9	2.1	1.4	1.4	0.7	0.7
10th	2.5	3.9	1.1	1.3	1.0	1.9	0.3	0.6
12th	7.4	6.9	2.3	0.9	2.3	2.8	0.7	0.7
Gender								
Female	2.8	3.4	1.3	0.8	1.1	1.4	0.3	0.3
Male	4.5	4.3	2.1	1.3	2.0	1.9	1.0	0.6
Transgender/Other Gender Minority	N/A	17.3	N/A	13.0	N/A	16.8	N/A	10.6
Race/Ethnicity								
Filipino	1.4	0.8	0.7	-	-	-	-	-
Japanese	3.8	3.9	2.3	-	1.5	2.7	-	-
Other Asian	1.4	-	-	-	-	-	-	-
Hispanic/Latino	N/A	8.5	N/A	-	N/A	-	N/A	-
Native Hawaiian	4.0	4.4	1.9	1.9	2.1	1.9	0.9	1.0
Other Pacific Islander	2.9	3.0	1.6	-	2.0	-	-	-
White/Caucasian	6.6	7.2	2.0	-	2.6	3.3	1.0	-
2 or more (not Native Hawaiian)	7.2	5.4	4.6	1.7	4.6	2.5	-	0.7
Other	7.0	8.4	3.9	-	3.0	-	2.0	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Other Illicit Drugs

Table 33. Prevalence by Grade, Gender and Primary Race/Ethnicity for Lifetime, Any Current (past 30 days), and Current Moderate-Heavy Use (6+ times in past 30 days) use of Other Illicit Drugs from 2007-2008 ATOD Survey (8th, 10th, 12th grades only) and the 2019-2020 ATOD Survey.

OTHER ILLICIT DRUGS	Lifetime Any Use (%)		Early Initiation of Any Use (13 years or younger) (%)		Current Any Use in the Past 30 Days (%)		Current Moderate-Heavy Use (6+ times) in the Past 30 Days (%)	
	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020	2007-2008	2019-2020
Overall	**3.4**	**3.3**	**1.7**	**3.1**	**1.9**	**1.5**	**0.8**	**0.7**
Grade								
8th	2.3	2.3	2.2	3.2	2.0	1.6	0.9	0.8
10th	2.3	3.2	1.2	4.3	1.1	1.5	0.4	0.8
12th	6.1	4.5	1.6	1.6	2.6	1.6	1.2	0.4
Gender								
Female	3.2	2.9	1.4	3.0	1.7	0.7	0.5	-
Male	3.4	3.0	1.9	2.5	2.1	1.5	1.1	0.7
Transgender/Other Gender Minority	N/A	19.1	N/A	14.8	N/A	17.2	N/A	12.2
Race/Ethnicity								
Filipino	1.9	2.0	0.7	1.9	0.6	-	-	-
Japanese	4.1	1.8	1.9	2.2	2.1	-	0.8	-
Other Asian	3.4	-	-	-	1.1	-	-	-
Hispanic/Latino	N/A	5.5	N/A	6.3	N/A	-	N/A	-
Native Hawaiian	3.6	3.8	2.2	3.9	2.4	1.8	1.3	1.0
Other Pacific Islander	2.0	3.7	1.8	3.7	2.0	-	-	-
White/Caucasian	4.6	4.3	1.7	1.9	2.1	1.7	1.1	-
2 or more (not Native Hawaiian)	4.8	3.1	3.9	3.0	3.1	2.0	-	0.7
Other	5.4	-	4.4	-	4.9	-	2.3	-

Note: N/A=not available; "-" = suppressed; Native Hawaiian race/ethnicity includes mixed two or more with Native Hawaiian

Additional Tables for Risk and Protective Factors from the Social-Ecological Model by Grade, Gender, and Race/Ethnicity

Community Protective Factors

Table 34. Percent by grade, gender, and primary race/ethnicity endorsing Community Protective Factor Neighborhood Encouragement

Neighborhood Encouragement (people notice or encourage me to do my best)				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	44.2	26.2	29.6	7488
Grade				
8th	46.2	26.2	27.6	2468
10th	44.3	25	30.7	2673
12th	41.9	27.5	30.5	2347
Gender				
Female	39.0	25.7	35.3	3369
Male	48.2	27.1	24.6	3939
TGGN	54.8	10.8	34.3	166
Primary Race/Ethnicity				
Filipino	37.3	27.4	35.3	1302
Japanese	44.7	32.5	22.8	683
Other Asian	40.8	25.5	33.6	321
Hispanic/Latino	36.8	21.2	42.0	212
Native Hawaiian	49.7	27.9	22.4	731
Other Pacific Islander	54.8	17.1	28.1	416
White	40.5	26.8	32.7	605
2 or more – Native Hawaiian	46.3	26.2	27.5	1697
2 or more – not Native Hawaiian	45.5	24.5	30.0	1316
Other	48.5	19.4	32.0	103

Table 35. Percent by grade, gender, and primary race/ethnicity endorsing Community Protective Factor Neighborhood Prosocial Norms for Youth not Using Alcohol

Positive Social Norms for youth not using alcohol (adults think in neighborhood think it is wrong for youth to drink alcohol)				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	69.4	18.2	12.4	7481
Grade				
8th	76.6	10.5	12.9	2467
10th	70.2	18.7	11.0	2668
12th	60.8	25.7	13.4	2346
Gender				
Female	69.8	19.2	11.0	3369
Male	70.1	16.8	13.1	3930
TGGN	50	29.9	20.1	164
Primary Race/Ethnicity				
Filipino	70.4	18.6	11	1297
Japanese	83.2	9.2	7.6	686
Other Asian	80.3	8.5	11.3	319
Hispanic/Latino	60.1	22.1	17.8	208
Native Hawaiian	63.2	25.1	11.7	729
Other Pacific Islander	65.0	18.2	16.8	411
White	69.5	17.7	12.9	606
2 or more – Native Hawaiian	64.6	20.9	14.5	1701
2 or more – not Native Hawaiian	71.7	16.9	11.4	1315
Other	57.3	25.2	17.5	103

School Protective Factor

Table 36. Percent by grade, gender, and primary race/ethnicity endorsing School Protective Factor Enjoy School

I Enjoyed Being in School				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	47.3	33.8	18.8	7578
Grade				
8th	50.4	30.9	18.7	2524
10th	46.2	34.9	18.9	2705
12th	45.3	35.8	18.9	2349
Gender				
Female	42.5	38.5	19.1	3416
Male	52.0	30.1	17.9	3985
TGGN	36.3	25.0	38.8	160
Primary Race/Ethnicity				
Filipino	50.6	35.1	14.3	1319
Japanese	49.8	31.6	18.7	697
Other Asian	45.6	39.1	15.3	320
Hispanic/Latino	42.6	33.8	23.6	216
Native Hawaiian	49.8	31.2	19.0	727
Other Pacific Islander	52.7	29.9	17.5	412
White	42.3	33.3	24.4	619
2 or more – Native Hawaiian	43.6	33.8	22.6	1723
2 or more – not Native Hawaiian	49.1	35.0	15.8	1333
Other	43.7	32.0	24.3	103

Peer Protective Factor

Table 37. Percent by grade, gender, and primary race/ethnicity endorsing School Protective Factor Friends Enjoy School

Friends Enjoy School				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	41.1	40.5	18.4	7778
Grade				
8th	41.7	39.7	18.5	2619
10th	40.7	40.9	18.3	2751
12th	40.8	40.9	18.3	2408
Gender				
Female	35.5	45.1	19.4	3490
Male	46.1	37.1	16.8	4096
TGGN	34.9	27.8	37.3	169
Primary Race/Ethnicity				
Filipino	44.3	42.4	13.4	1333
Japanese	42.3	39.4	18.3	723
Other Asian	39.2	43.5	17.3	324
Hispanic/Latino	36.6	41.8	21.4	220
Native Hawaiian	42.8	38.7	18.5	755
Other Pacific Islander	48.3	29.7	21.9	424
White	38.5	40.7	20.7	641
2 or more – Native Hawaiian	39.4	42.1	18.5	1770
2 or more – not Native Hawaiian	38.7	41.5	19.9	1363
Other	34.6	38.3	27.1	107

Family Protective Factors

Table 38. Percent by grade, gender, and primary race/ethnicity endorsing Family Protective Factor Family Support

Family Support from at least One Adult (if had personal problem could ask at least one adult in family for help)				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	66.4	18.0	15.6	7653
Grade				
8th	66.3	18.7	15.1	2564
10th	66.3	17.4	16.3	2716
12th	66.5	18.1	15.4	2373
Gender				
Female	64.2	18.3	17.5	3454
Male	68.8	17.6	13.6	4020
TGGN	54.2	21.7	24.1	166
Primary Race/Ethnicity				
Filipino	54.6	22.6	22.8	1315
Japanese	74.8	17.5	7.7	713
Other Asian	63.0	21.6	15.4	324
Hispanic/Latino	64.4	16.9	18.7	219
Native Hawaiian	70.9	14.5	14.6	731
Other Pacific Islander	65.9	17.7	16.5	419
White	78.2	9.9	11.9	624
2 or more – Native Hawaiian	65.0	18.8	16.2	1753
2 or more – not Native Hawaiian	70.8	15.8	13.4	1339
Other	55.6	29.6	14.8	108

Table 39. Percent by grade, gender, and primary race/ethnicity endorsing Family Protective Factor Clear Rules and Consequences

Clear Rules and Consequences (clear rules about alcohol and drug use, and would be in trouble if got caught using alcohol)				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	90.6	6.3	3.1	7688
Grade				
8th	94.5	3.0	2.5	2589
10th	89.8	6.9	3.2	2723
12th	87.2	9.1	3.7	2376
Gender				
Female	90.6	7.2	2.2	3467
Male	91.1	5.3	3.6	4035
TGGN	80.7	8.4	10.8	166
Primary Race/Ethnicity				
Filipino	90.8	5.7	3.5	1319
Japanese	90.4	8.2	1.4	716
Other Asian	92.6	4.9	-	324
Hispanic/Latino	89.4	7.8	-	217
Native Hawaiian	88.4	6.5	5.1	740
Other Pacific Islander	91.8	4.6	3.6	417
White	91.1	6.3	2.7	639
2 or more – Native Hawaiian	89.2	6.7	4.1	1751
2 or more – not Native Hawaiian	92.2	6.0	1.9	1344
Other	94.4	-	-	107

Note: "-" = suppressed

Individual Protective Factors

Table 40. Percent by grade, gender, and primary race/ethnicity endorsing Individual Protective Factor Disapproval of Substance Use

Disapproval of Substance Use (think using alcohol, marijuana, or vaping is wrong)			
	Wrong	**Not Wrong**	**n**
Overall	86.0	14.0	7917
Grade			
8th	93.3	6.7	2663
10th	86.1	13.9	2808
12th	77.8	22.2	2446
Gender			
Female	85.2	14.8	3560
Male	86.8	13.2	4159
TGGN	82.7	17.3	173
Primary Race/Ethnicity			
Filipino	89.8	10.2	1346
Japanese	88.1	11.9	724
Other Asian	93.1	6.9	331
Hispanic/Latino	78.9	21.1	227
Native Hawaiian	82.8	17.2	767
Other Pacific Islander	83.0	17.0	448
White	84.3	15.7	642
2 or more – Native Hawaiian	82.5	17.5	1805
2 or more – not Native Hawaiian	89.6	10.4	1396
Other	73.6	26.4	110

Table 41. Percent by grade, gender, and primary race/ethnicity endorsing Individual Protective Factor Academic Achievement

Academic Achievement				
	Mostly A's & B's	**Mostly C's**	**Mostly D's & F's**	**n**
Overall	73.9	18.7	7.4	7659
Grade				
8th	76.3	17.9	5.8	2579
10th	72.6	18.3	9.1	2701
12th	72.8	20.1	7.1	2379
Gender				
Female	80.7	13.9	5.4	3460
Male	68.3	23.2	8.6	4020
TGGN	67.3	12.1	20.6	165
Primary Race/Ethnicity				
Filipino	79.8	14.6	5.7	1319
Japanese	87.9	7.3	4.8	702
Other Asian	83.4	15.0	-	320
Hispanic/Latino	54.1	37.4	8.6	222
Native Hawaiian	66.4	23.9	9.7	742
Other Pacific Islander	59.8	22.6	17.6	420
White	78.3	17.5	4.2	622
2 or more – Native Hawaiian	66.1	24.6	9.3	1746
2 or more – not Native Hawaiian	79.0	14.7	6.3	1347
Other	63.9	27.8	-	108

Note: "-" = suppressed

Community Risk Factors

Table 42. Percent by grade, gender, and primary race/ethnicity endorsing Community Risk Factor Ease of Access

Ease of Access (to alcohol, marijuana, tobacco/vape, or prescription drugs)				
	Impossible/ I don't know	Difficult	Easy	n
Overall	29.0	15.2	55.8	7865
Grade				
8th	38.6	20.2	41.2	2646
10th	25.3	13.3	61.4	2787
12th	23.0	11.8	65.2	2432
Gender				
Female	22.7	14.4	62.9	3529
Male	33.8	16.2	50.0	4142
TGGN	43.0	7.6	49.4	172
Primary Race/Ethnicity				
Filipino	31.3	16.9	51.8	1340
Japanese	26.3	19.7	53.9	725
Other Asian	31.3	18.1	50.6	332
Hispanic/Latino	21.3	13.5	65.2	230
Native Hawaiian	32.3	14.8	52.9	764
Other Pacific Islander	41.0	14.4	44.6	437
White	19.5	13.0	67.5	647
2 or more – Native Hawaiian	30.7	12.4	56.9	1786
2 or more – not Native Hawaiian	25.7	15.8	58.5	1376
Other	31.5	11.1	57.4	108

Table 43. Percent by grade, gender, and primary race/ethnicity endorsing Community Risk Factor Neighborhood Substance Use

Exposure to Neighborhood Substance Use (alcohol, marijuana, tobacco/vape)				
	Not at all	Monthly or less	Weekly or more often	n
Overall	46.3	22.3	31.4	7813
Grade				
8th	55.4	23.6	21.1	2611
10th	42.4	22.2	35.5	2797
12th	41.2	21.0	37.9	2405
Gender				
Female	39.5	25.1	35.5	3522
Male	52.5	19.8	27.7	4099
TGGN	45.0	19.9	35.1	171
Primary Race/Ethnicity				
Filipino	46.2	26.7	27.0	1335
Japanese	56.1	22.9	21.1	717
Other Asian	63.4	18.7	17.8	331
Hispanic/Latino	39.0	26.5	34.5	223
Native Hawaiian	45.5	19.4	35.2	748
Other Pacific Islander	42.1	15.9	41.9	439
White	40.0	23.1	36.9	640
2 or more – Native Hawaiian	43.9	22.9	33.2	1779
2 or more – not Native Hawaiian	46.0	20.6	33.4	1381
Other	46.8	16.2	36.9	111

Table 44. Percent by grade, gender, and primary race/ethnicity endorsing Community Risk Factor Crime/Drugs in Neighborhood

Crime/Drug Selling in Neighborhood				
	Strongly/ Agree	Neutral	Strongly/ Disagree	n
Overall	19.8	19.9	60.4	7485
Grade				
8th	15.6	16.3	68.1	2466
10th	18.4	19.4	62.2	2674
12th	25.7	24.1	50.2	2345
Gender				
Female	16.7	19.1	64.1	3377
Male	22.0	20.2	57.8	3925
TGGN	28.9	22.3	48.8	166
Primary Race/Ethnicity				
Filipino	15.4	21.7	62.8	1297
Japanese	14.2	14.9	70.9	683
Other Asian	10.3	13.8	75.9	320
Hispanic/Latino	17.8	20.6	61.7	214
Native Hawaiian	22.9	22.7	54.4	722
Other Pacific Islander	28.2	17.5	54.3	411
White	21.2	15.9	62.9	609
2 or more – Native Hawaiian	23.1	21.4	55.4	1708
2 or more – not Native Hawaiian	20.1	20.1	59.8	1314
Other	22.3	20.4	57.3	103

Peer Risk Factors

Table 45. Percent by grade, gender, and primary race/ethnicity endorsing Peer Risk Factor Close Friends Offers of Marijuana or Alcohol

Close Friends' Offers of Marijuana or Alcohol			
	No	**Yes**	**n**
Overall	57.7	42.3	7741
Grade			
8th	79.5	20.5	2604
10th	55.9	44.1	2762
12th	36.0	64.0	2375
Gender			
Female	52.3	47.7	3498
Male	62.0	38.0	4058
TGGN	66.7	33.3	168
Primary Race/Ethnicity			
Filipino	58.2	41.8	1324
Japanese	72.5	27.5	719
Other Asian	70.2	29.8	332
Hispanic/Latino	46.3	53.7	227
Native Hawaiian	46.8	53.2	743
Other Pacific Islander	55.5	44.5	429
White	54.1	45.9	641
2 or more – Native Hawaiian	52.9	47.1	1755
2 or more – not Native Hawaiian	61.7	38.3	1355
Other	56.6	43.4	106

Table 46. Percent by grade, gender, and primary race/ethnicity endorsing Peer Risk Factor Exposure to Friends' Marijuana or Alcohol Use

Exposure to Close Friends' Marijuana or Alcohol Use				
	Not at all	**Monthly or less**	**Weekly or more often**	**n**
Overall	62.1	22.0	15.8	7803
Grade				
8th	81.4	11.7	6.9	2615
10th	60.5	23.0	16.5	2788
12th	43.0	32.2	24.8	2400
Gender				
Female	57.1	25.6	17.3	3509
Male	66.6	19.3	14.2	4101
TGGN	62.1	15.5	22.4	174
Primary Race/Ethnicity				
Filipino	64.3	24.9	10.7	1331
Japanese	77.9	15.9	6.1	716
Other Asian	82.8	12.3	4.9	326
Hispanic/Latino	55.7	22.2	22.2	221
Native Hawaiian	54.9	23.7	21.3	759
Other Pacific Islander	53.6	21.8	24.5	440
White	57.5	22.6	19.9	642
2 or more – Native Hawaiian	55.0	24.7	20.3	1764
2 or more – not Native Hawaiian	66.2	20.6	13.3	1380
Other	52.3	22.5	25.2	111

Table 47. Percent by grade, gender, and primary race/ethnicity endorsing Peer Risk Factor Exposure to Peer Approval of Marijuana and Alcohol Use

Close friends' approval of marijuana and alcohol use					
	Would think it was cool	Wouldn't Care	Strongly/ Disapprove	I don't know	n
Overall	13.3	27.1	46.3	13.3	7742
Grade					
8th	10.5	14.9	59.4	15.2	2609
10th	12.8	26.3	47.1	13.9	2743
12th	17.0	41.3	31.3	10.5	2390
Gender					
Female	11.2	28.2	51.6	9.0	3486
Male	14.3	25.9	42.8	17.0	4064
TGGN	33.7	29.0	27.8	9.5	169
Primary Race/Ethnicity					
Filipino	12.2	24.0	50.4	13.4	1326
Japanese	8.6	20.6	60.7	10.0	718
Other Asian	5.0	16.7	62.2	16.1	323
Hispanic/Latino	17.4	34.9	31.2	16.5	218
Native Hawaiian	19.4	30.8	35.9	13.9	753
Other Pacific Islander	21.0	19.3	42.9	16.7	424
White	13.4	35.0	43.9	7.7	640
2 or more – Native Hawaiian	13.8	31.4	38.4	16.3	1764
2 or more – not Native Hawaiian	10.3	26.6	52.7	10.4	1351
Other	28.7	23.1	35.2	13.0	108

Family Risk Factors

Table 48. Percent by grade, gender, and primary race/ethnicity endorsing Family Risk Factor Exposure to Parental Alcohol Use

Exposure to Parental Alcohol Use				
	Not at all	**Monthly or less**	**Weekly or more often**	**n**
Overall	44.4	35.3	20.3	7857
Grade				
8th	48.4	32.1	19.5	2641
10th	39.5	38.0	22.5	2799
12th	45.5	35.7	18.8	2417
Gender				
Female	40.9	38.1	21.0	3527
Male	47.1	33.5	19.4	4139
TGGN	51.5	21.6	26.9	171
Primary Race/Ethnicity				
Filipino	47.2	37.8	15.0	1344
Japanese	41.8	35.3	23.0	723
Other Asian	47.6	33.8	18.6	328
Hispanic/Latino	45.0	31.1	23.9	222
Native Hawaiian	46.2	30.4	23.4	762
Other Pacific Islander	65.8	20.9	13.3	445
White	37.0	32.9	30.1	641
2 or more – Native Hawaiian	41.4	38.9	19.7	1785
2 or more – not Native Hawaiian	41.2	38.4	20.4	1384
Other	49.5	26.2	24.3	107

Table 49. Percent by grade, gender, and primary race/ethnicity endorsing Family Risk Factor Exposure to Other Relatives' Marijuana Use

Exposure to Other Relatives' Marijuana Use				
	Not at all	**Monthly or less**	**Weekly or more often**	**n**
Overall	78.2	15.1	6.7	7760
Grade				
8th	82.2	11.7	6.2	2609
10th	77.2	16.0	6.8	2769
12th	74.8	18.0	7.2	2382
Gender				
Female	74.6	17.5	7.9	3488
Male	81.5	13.1	5.4	4081
TGGN	77.4	11.3	11.3	168
Primary Race/Ethnicity				
Filipino	89.5	8.5	2.0	1330
Japanese	91.9	7.4	0.7	720
Other Asian	92.4	4.8	2.7	330
Hispanic/Latino	75.2	16.2	8.6	222
Native Hawaiian	65.2	21.4	13.4	747
Other Pacific Islander	65.1	23.0	12.0	435
White	83.6	11.8	4.6	635
2 or more – Native Hawaiian	64.1	24.0	11.9	1767
2 or more – not Native Hawaiian	83.2	12.6	4.1	1353
Other	81.7	9.2	9.2	109

Table 50. Percent by grade, gender, and primary race/ethnicity endorsing Family Risk Factor Lived with Someone with Substance Use Problem

Lived with Someone who had an Alcohol-related Problem or used Street Drugs			
	Agree	**Disagree**	**n**
Overall	29.2	70.8	7967
Grade			
8th	26.2	73.8	2678
10th	31.6	68.4	2832
12th	29.6	70.4	2457
Gender			
Female	32.5	67.5	3555
Male	25.1	74.9	4218
TGGN	57.6	42.4	170
Primary Race/Ethnicity			
Filipino	25.8	74.2	1348
Japanese	14.1	85.9	724
Other Asian	19.3	80.7	332
Hispanic/Latino	47.4	52.6	234
Native Hawaiian	32.2	67.8	764
Other Pacific Islander	38.9	61.1	455
White	25.4	74.6	657
2 or more – Native Hawaiian	34.8	65.2	1815
2 or more – not Native Hawaiian	29.6	70.4	1408
Other	27.0	73.0	115

Individual Risk Factors

Table 51. Percent by grade, gender, and primary race/ethnicity endorsing Individual Risk Factor Suspended/expelled from School

Got Suspended or Expelled from School				
	Never	**13 or Younger**	**Older than 13**	**n**
Overall	78.2	16.8	5.0	8020
Grade				
8th	81.6	17.7	0.6	2706
10th	77.4	17.0	5.6	2842
12th	75.4	15.7	8.9	2472
Gender				
Female	83.0	12.9	4.1	3578
Male	74.7	19.8	5.5	4243
TGGN	69.8	22.3	7.8	179
Primary Race/Ethnicity				
Filipino	85.6	10.7	3.7	1354
Japanese	91.8	5.1	3.2	729
Other Asian	90.1	8.7	1.2	332
Hispanic/Latino	74.6	21.2	4.2	236
Native Hawaiian	64.3	27.8	7.9	781
Other Pacific Islander	72.4	20.8	6.8	457
White	80.9	13.5	5.6	659
2 or more – Native Hawaiian	71.1	22.8	6.1	1818
2 or more – not Native Hawaiian	80.7	14.8	4.4	1418
Other	64.1	34.2	1.7	117

Table 52. Percent by grade, gender, and primary race/ethnicity endorsing Individual Risk Factor Days Skipped Class

Days Skipped Class when Not Supposed To (in the past 4 weeks)				
	Never	**5 or less**	**6 or more**	**n**
Overall	80.0	15.9	4.0	7618
Grade				
8th	90.7	7.7	1.6	2570
10th	82.0	14.8	3.2	2698
12th	66.1	26.3	7.7	2350
Gender				
Female	79.6	17.1	3.4	3430
Male	80.7	14.9	4.4	4005
TGGN	76.2	15.9	7.9	164
Primary Race/Ethnicity				
Filipino	83.7	13.5	2.8	1301
Japanese	86.9	10.8	2.3	702
Other Asian	86.7	13.3	-	324
Hispanic/Latino	70.0	22.7	7.3	220
Native Hawaiian	73.2	22.1	4.6	736
Other Pacific Islander	70.7	18.9	10.4	413
White	79.9	15.2	4.9	613
2 or more – Native Hawaiian	77.5	18.1	4.4	1753
2 or more – not Native Hawaiian	83.7	12.7	3.6	1336
Other	65.7	30.6	-	108

Note: "-" = suppressed

Table 53. Percent by grade, gender, and primary race/ethnicity endorsing Individual Risk Factor Done Something Crazy in Past 12 Months

Done Crazy Things even if They were Dangerous (in the past 12 months)			
	Never Have	**Have**	**n**
Overall	56.7	43.3	8003
Grade			
8th	61.3	38.7	2698
10th	55.0	45.0	2844
12th	53.6	46.4	2461
Gender			
Female	57.2	42.8	3565
Male	57.1	42.9	4239
TGGN	41.9	58.1	179
Primary Race/Ethnicity			
Filipino	61.5	38.5	1359
Japanese	70.1	29.9	722
Other Asian	73.5	26.5	332
Hispanic/Latino	46.8	53.2	233
Native Hawaiian	55.3	44.7	780
Other Pacific Islander	61.6	38.4	456
White	49.8	50.2	659
2 or more – Native Hawaiian	49.8	50.2	1810
2 or more – not Native Hawaiian	56.1	43.9	1418
Other	41.0	59.0	117

Table 54. Percent by grade, gender, and primary race/ethnicity endorsing Individual Risk Factor Feeling Down, Down or Hopeless

Feeling Down, Depressed, or Hopeless (in the past 2 weeks)				
	never	**several days**	**more than half of the days**	**n**
Overall	59.1	23.4	17.4	7956
Grade				
8th	62.5	21.6	15.9	2685
10th	57.0	22.9	20.1	2812
12th	57.8	26.1	16.1	2459
Gender				
Female	48.3	29.0	22.6	3539
Male	68.7	18.6	12.7	4221
TGGN	48.3	23.9	27.8	176
Primary Race/Ethnicity				
Filipino	54.1	27.6	18.3	1337
Japanese	69.3	20.2	10.5	727
Other Asian	68.3	20.1	11.6	328
Hispanic/Latino	46.6	24.6	28.9	232
Native Hawaiian	66.9	15.2	17.9	758
Other Pacific Islander	62.3	21.4	16.3	459
White	55.5	27.4	17.1	656
2 or more – Native Hawaiian	58.7	22.5	18.8	1812
2 or more – not Native Hawaiian	55.4	26.2	18.4	1416
Other	59.0	23.1	17.9	117

Dissemination Activities

The following highlights dissemination activities for the project through September 2021. Dissemination efforts supported by the University of Hawaiʻi Department of Psychiatry and the Queen's Medical Center will continue in accordance with the relational design of the project to share results from the 2019-2020 Hawaiʻi Student ATOD Survey with participating schools, as well as the broader community of stakeholders around youth substance use prevention and intervention.

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Onoye, J., Miao, T., Redulla, J., Yurow, J., Helm, S. (2021, September). Cannabis legalization: evaluation implications for Hawaiʻi. Round table presented at the Annual Hawaiʻi Pacific Evaluation Association Conference. Virtual Meeting.

Akamu, C., Onoye, J., Miao, T., Valera, J., Pham, T., Do, A. (2021, April). Substance use and related risk and protective factor disparities amongst Hawaiʻi transgender and gender non-conforming middle and high school students. Poster presented at the Annual JABSOM Biomedical Sciences and Health Disparities Symposium, Honolulu, HI.

Onoye, J., Miao, T., Helm, S. (2020). Appendix E: 2019-2020 Preliminary estimated need for adolescent (grades 8-12) alcohol and drug abuse treatment in Hawaiʻi. Legislative brief insert (12/2020).

Helm, S., Onoye, J., Yurow, J., Dau, C., Miao, T., Ng-Osorio, J., Wilczek, K., Nguyen, L. (2020, October). A data-driven system of care for State of Hawaiʻi Alcohol and Drug Abuse division. Round table presented at the Annual Hawaiʻi Pacific Evaluation Association Conference. Virtual Meeting.

Onoye, J., Miao, T., Helm, S. (2020). 2020 Hawaiʻi Student Alcohol, Tobacco, & Other Drug Use (ATOD) Survey. Interim Brief Report (9/29/20).

Helm, S., Onoye, J., Miao, T., Ng-Osorio, J., Wilczek, K. (2020, September). Innovations in youth and emerging adult substance use prevention and treatment system of care, continuum of care. Invited talk at the Hawaiʻi Partnership to Prevent Underage Drinking. Virtual meeting. Honolulu, HI. (9/18/20)

Helm, S., Onoye, J., Wilczek, K., Zeller, T., Monick, B. (2020, August). Statewide youth substance use needs assessment. Results 2019. Webinar for Youth Services Professionals: hosted by Hawaiʻi Youth Services Network. Honolulu, HI. (7/13/20)

Helm, S., Onoye, J., Wilczek, K., Zeller, T., Monick B. (2020, June). Statewide youth substance use needs assessment. Results 2019. Webinar for Executive Directors, Program Directors, Administrators, Policymakers: hosted by Hawaiʻi Youth Services Network. Honolulu, HI. (6/8/20)

Helm, S., & Onoye, J. (2020, June). Innovations in youth substance use prevention & treatment system of care, continuum of care. Invited talk: Hawaiʻi State Department of Health, Alcohol and Drug Abuse Division, Treatment Providers' Monthly Meeting. Via Zoom, Kapolei, HI. (6/5/20)

Helm, S., Fan, V., & Onoye, J. (2020, April). State Plan for a Data-Driven System of Care: project overview for the state of Hawaiʻi Alcohol & Drug Abuse Division. Poster presented at the 2020 Hawaiʻi Addictions Conference. Honolulu, HI.

Onoye, J., Helm, S., Chin, S., Yurow, J., Dau, C., Zeller, T. (2019, September). Needs assessment as evaluation: Creating a continuum of care for youth impacted by substance use in Hawai'i. Symposium panel presented at the Annual Hawaiʻi Pacific Evaluation Association Conference. Kaneohe, HI.

Onoye, J., & Miao, T. (2019). Youth Substance Use Needs Assessment: School-Based Needs Assessment. Hawaiʻi Youth Services Network Newsletter, No. 125 June 2019 Issue.

The 2019-2020 Hawai'i ATOD Survey

2019-2020 Hawai'i Student Alcohol, Tobacco, and Other Drug Use (ATOD) Survey

INSTRUCTIONS: This is not a test – there are no right or wrong answers. Just pick the answer that fits you the best.

PART A: These questions ask for some general information about you. Please mark the response that best describes you. Remember all your answers are a secret.

1. How old are you today?

   ○ 10 ○ 11 ○ 12 ○ 13 ○ 14 ○ 15 ○ 16 ○ 17 ○ 18 ○ 19 or older

2. What is your grade level in school right now?

   ○ 6th ○ 10th
   ○ 7th ○ 11th
   ○ 8th ○ 12th
   ○ 9th ○ No grade or other

3. Please answer the following questions about your family.

   a) Are either of your parents or other adults in your family serving on active duty in the military or from the Reserves or National Guard?

   ○ Yes ○ No

   b) Do you live on a Hawaiian homestead and/or do any of your family members live on a Hawaiian homestead?

   ○ Yes ○ No

4. Are you Hispanic/Latino?

   ○ Yes ○ No

5. How do you describe yourself? Please select the responses below that describe your ethnic or racial background. Choose ALL that apply to you.

   ☐ American Indian or Alaska Native
   ☐ Black or African American
   ☐ Chinese
   ☐ Filipino
   ☐ Japanese
   ☐ Korean
   ☐ Vietnamese
   ☐ Other Asian
   ☐ Puerto Rican
   ☐ Mexican
   ☐ Other Hispanic or Latino
   ☐ Native Hawaiian or Part Native Hawaiian
   ☐ Samoan
   ☐ Tongan
   ☐ Micronesian/ Marshallese
   ☐ Other Pacific Islander
   ☐ Portugese
   ☐ White or Caucasian
   ☐ Other (please specify) _____

6. Which ethnic or racial group(s) do you PRIMARILY identify with the MOST?

   ☐ American Indian or Alaska Native
   ☐ Black or African American
   ☐ Chinese
   ☐ Filipino
   ☐ Japanese
   ☐ Korean
   ☐ Vietnamese
   ☐ Other Asian
   ☐ Puerto Rican
   ☐ Mexican
   ☐ Other Hispanic or Latino
   ☐ Native Hawaiian or Part Native Hawaiian
   ☐ Samoan
   ☐ Tongan
   ☐ Micronesian/ Marshallese
   ☐ Other Pacific Islander
   ☐ Portugese
   ☐ White or Caucasian
   ☐ Other (please specify) _____

7. How important is it to you to maintain your cultural traditions?

- ◯ It is very important to me
- ◯ It is important to me
- ◯ I am neutral about it
- ◯ It is not important to me

8. How much do you agree or disagree with the following statement?

I have a strong sense of belonging to my own ethnic group.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree

9. What was your sex assigned at birth (what the doctor put on your birth certificate)?

- ◯ Female
- ◯ Male
- ◯ Other

10. What is your current gender?

- ◯ Female
- ◯ Male
- ◯ Other
- ◯ Transgender – Female to Male
- ◯ Transgender – Male to Female
- ◯ Transgender – Other

11. What is the language spoken MOST OFTEN at home?

- ◯ English
- ◯ Other (please specify)

12. During the past 30 days, where did you usually sleep? (select all that apply)

- ☐ In my parent's or guardian's home
- ☐ In the home of a friend, family member, or other person because I had to leave my home, or my parent or guardian cannot afford housing
- ☐ In a foster home
- ☐ In a shelter or emergency housing
- ☐ In a motel or hotel
- ☐ In a car, park, campground, or other public place
- ☐ I do not have a usual place to sleep
- ☐ Somewhere else

The following questions are about your parents. If you were raised mostly by stepparents, or other guardians, answer for them. For example, if you have both a stepfather and a birth father, answer for the one that was most important in raising you.

13. What was the highest level of education your MOTHER (or other parent/guardian) achieved?

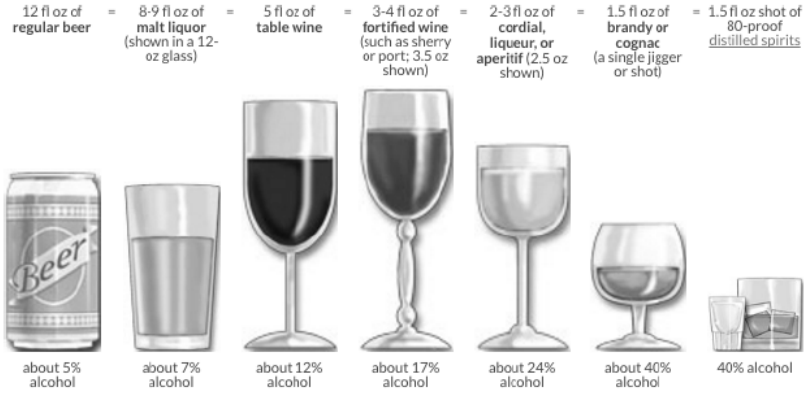
- ◯ completed elementary school
- ◯ some high school
- ◯ completed high school
- ◯ some college (up to Associate's degree)
- ◯ technical or trade school
- ◯ completed college (Bachelor's degree)
- ◯ graduate or professional school after college (Master's degree, Ph.D., Medical Degree, J.D., etc)
- ◯ don't know

14. What was the highest level of education your FATHER (or other parent/guardian) achieved?

- ◯ completed elementary school
- ◯ some high school
- ◯ completed high school
- ◯ some college (up to Associate's degree)
- ◯ technical or trade school
- ◯ completed college (Bachelor's degree)
- ◯ graduate or professional school after college (Master's degree, Ph.D., Medical Degree, J.D., etc)
- ◯ don't know

PART B: **These questions ask about some of your feelings and experiences, including with alcohol, tobacco, and other drugs. Remember all your answers are a secret.**

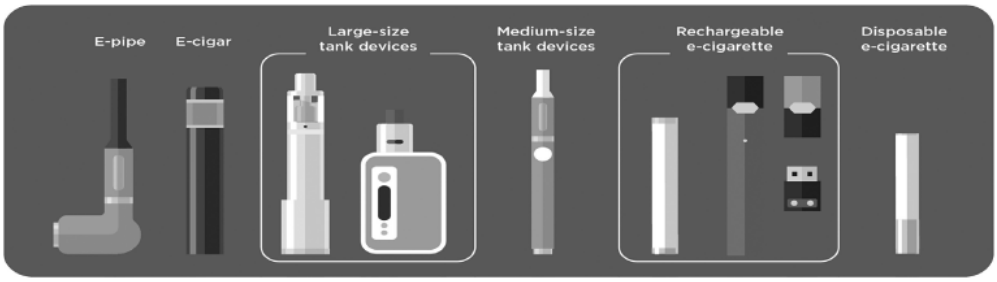
Some Examples of One Standard Drink



15. How old were you when you FIRST:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) tried alcohol (*more than a few sips of beer or wine, or any hard liquor*)?	○	○	○	○	○	○	○	○	○	○	○	○
b) drank 4 or more alcoholic drinks on one occasion?	○	○	○	○	○	○	○	○	○	○	○	○
c) drank alcohol regularly (*at least once or twice a month*)?	○	○	○	○	○	○	○	○	○	○	○	○

Some Examples of e-cigarettes or electronic vaping devices



16. How old were you when you FIRST:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) smoked a cigarette (*not an e-cig or vaping device*)?	○	○	○	○	○	○	○	○	○	○	○	○
b) tried e-cigarettes or vaping (*nicotine, flavors*)?	○	○	○	○	○	○	○	○	○	○	○	○
c) tried marijuana (*hash, pot, weed, pakalolo, dabs*), in any form?	○	○	○	○	○	○	○	○	○	○	○	○

17. How old were you when you FIRST tried:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) snuff or chewing tobacco?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
b) inhalants (*sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays*) in order to get high?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
c) hallucinogens (*LSD, mushrooms, acid*)?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

18. How old were you when you FIRST tried:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) methamphetamine (*crystal meth, batu, speed, ice*)?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
b) cocaine (*coke, blow, crack, freebase*)?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
c) heroin?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

19. How old were you when you FIRST tried:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) opiates or opioids (*codeine, OxyContin*) that were NOT prescribed for you?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
b) tranquilizers or sedatives (*Valium, Xanax, Ativan, Ambien, Lunesta, Phenobarbital*) without a doctor telling you?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
c) other prescription drugs (*Ritalin, Adderall*) without a doctor telling you?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
d) other over-the-counter drugs (*Triple C, Robitussin, Lean, NyQuil*) without a doctor telling you?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

20. How old were you when you FIRST tried:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) Rohypnol (*roofies, rophies, forget-me pills*)?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
b) MDMA (*ecstacy, E, XTC, X, rolls*)?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
c) other synthetic drugs (*Spice/K2, bath salts, Flakka*)?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

21. How old were you when you FIRST tried:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) steroids for body-building or improved athletic strength?	○	○	○	○	○	○	○	○	○	○	○	○
b) GHB (*G, liquid ecstasy, Georgia home boy*)?	○	○	○	○	○	○	○	○	○	○	○	○
c) ketamine (*special K, K, cat valiums, vitamin K*)?	○	○	○	○	○	○	○	○	○	○	○	○

22. During your life, how many times have you used a needle to inject any illegal drug into your body?

- ○ 0 times
- ○ 1 time
- ○ 2 or more times

23. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) more than just a few sips of alcoholic beverages (*beer, wine, or hard liquor*) to drink?	○	○	○	○	○	○	○
b) 3 or more alcoholic drinks on one occasion?	○	○	○	○	○	○	○
c) 4 or more alcoholic drinks on one occasion?	○	○	○	○	○	○	○
d) 5 or more alcoholic drinks on one occasion?	○	○	○	○	○	○	○
e) alcohol and marijuana on the same occasion?	○	○	○	○	○	○	○

24. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) cigarettes (*not e-cigs of vaping devices*)?	○	○	○	○	○	○	○
b) e-cigarettes or vaping products (*nicotine, flavors*)?	○	○	○	○	○	○	○
c) marijuana, in any form (*hash, pot weed, pakalolo, dabs*)?	○	○	○	○	○	○	○
d) snuff or chewing tobacco?	○	○	○	○	○	○	○

25. What substances are typically in the electronic vaping device you use? (select all that apply)

- ☐ don't use e-cigarettes or other electronic vaping devices
- ☐ nicotine
- ☐ flavors
- ☐ marijuana
- ☐ other drugs _____

26. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) inhalants (*sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays*) in order to get high?	○	○	○	○	○	○	○
b) hallucinogens (*LSD, mushrooms, acid*)?	○	○	○	○	○	○	○

27. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) opiates or opioids (*codeine, OxyContin*) that were NOT prescribed for you?	○	○	○	○	○	○	○
b) tranquilizers or sedatives (*Valium, Xanax, Ativan, Ambien, Lunesta, Phenobarbital*) without a doctor telling you?	○	○	○	○	○	○	○
c) other prescription drugs (*Ritalin, Adderall*) without a doctor telling you?	○	○	○	○	○	○	○
d) other over-the-counter drugs (*Triple C, Robitussin, Lean, NyQuil*) without a doctor telling you?	○	○	○	○	○	○	○

28. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) heroin?	○	○	○	○	○	○	○
b) cocaine (*coke, blow, crack, freebase*)?	○	○	○	○	○	○	○
c) methamphetamine (*crystal meth, batu, speed, ice*)?	○	○	○	○	○	○	○

29. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) Rohypnol (*roofies, rophies, forget-me pills*)?	○	○	○	○	○	○	○
b) MDMA (*ecstasy, E, XTC, X, rolls*)?	○	○	○	○	○	○	○
c) other synthetic drugs (*Spice/K2, bath salts, Flakka*)?	○	○	○	○	○	○	○

30. During the past 30 days, on HOW MANY OCCASIONS (if any) have you used the following:

	0 occasions	1-2 occasions	3-5 occasions	6-9 occasions	10-19 occasions	20-39 occasions	40+ occasions
a) steroids for body-building or improved athletic strength?	○	○	○	○	○	○	○
b) GHB (*G, liquid ecstasy, Georgia home boy*)?	○	○	○	○	○	○	○
c) ketamine (*special K, K, cat valiums, vitamin K*)?	○	○	○	○	○	○	○

31. During the past 12 months, how did you usually get ALCOHOL? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ I bought it in a store (liquor store, convenience store, supermarket, gas station)
- ☐ I bought it at a restaurant, bar, or club
- ☐ I bought it a public place such as a concert or sporting event
- ☐ I gave someone else money to buy it for me
- ☐ I got it from someone while I was at school
- ☐ Someone gave it to me
- ☐ I took it from a store
- ☐ I took it from a family member
- ☐ I got it some other way

32. During the past 12 months, how did you usually get MARIJUANA, in any form (smoke, bong, e- cigarettes, vaping device, edibles)? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ I bought it in a store (liquor store, convenience store, supermarket, gas station)
- ☐ I bought it at a restaurant, bar, or club
- ☐ I bought it a public place such as a concert or sporting event
- ☐ I gave someone else money to buy it for me
- ☐ I got it from someone while I was at school
- ☐ Someone gave it to me
- ☐ I took it from a store
- ☐ I took it from a family member
- ☐ I got it some other way

33. During the past 12 months, how did you usually get Tobacco Cigarettes, E-cigarettes, or Other Vaping devices/products? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ I bought it in a store (liquor store, convenience store, supermarket, gas station)
- ☐ I bought it at a restaurant, bar, or club
- ☐ I bought it a public place such as a concert or sporting event
- ☐ I gave someone else money to buy it for me
- ☐ I got it from someone while I was at school
- ☐ Someone gave it to me
- ☐ I took it from a store
- ☐ I took it from a family member
- ☐ I got it some other way

34. During the past 12 months, how did you usually get OTHER DRUGS? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ I bought it in a store (liquor store, convenience store, supermarket, gas station)
- ☐ I bought it at a restaurant, bar, or club
- ☐ I bought it a public place such as a concert or sporting event
- ☐ I gave someone else money to buy it for me
- ☐ I got it from someone while I was at school
- ☐ Someone gave it to me
- ☐ I took it from a store
- ☐ I took it from a family member
- ☐ I got it some other way

35. During the past 12 months, where did you usually use ALCOHOL? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ At my home
- ☐ At another person's home with a few of my friends and/or family
- ☐ At another person's home during a large party
- ☐ While riding in or driving a car or other vehicle
- ☐ At a restaurant, bar, or club
- ☐ At a public place such as a beach, park, parking lot, concert or sporting event
- ☐ On school property
- ☐ At a social event like prom
- ☐ Somewhere else

36. During the past 12 months, where did you usually use MARIJUANA (smoke, e-cigarettes, vaping devices, bong, edibles)? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ At my home
- ☐ At another person's home with a few of my friends and/or family
- ☐ At another person's home during a large party
- ☐ While riding in or driving a car or other vehicle
- ☐ At a restaurant, bar, or club
- ☐ At a public place such as a beach, park, parking lot, concert or sporting event
- ☐ On school property
- ☐ At a social event like prom
- ☐ Somewhere else

37. During the past 12 months, where did you usually use TOBACCO (cigarettes, e-cigarettes, vaping devices) (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ At my home
- ☐ At another person's home with a few of my friends and/or family
- ☐ At another person's home during a large party
- ☐ While riding in or driving a car or other vehicle
- ☐ At a restaurant, bar, or club
- ☐ At a public place such as a beach, park, parking lot, concert or sporting event
- ☐ On school property
- ☐ At a social event like prom
- ☐ Somewhere else

38. During the past 12 months, where did you usually use OTHER DRUGS? (select all that apply)

- ☐ I did not use this during the past 12 months
- ☐ At my home
- ☐ At another person's home with a few of my friends and/or family
- ☐ At another person's home during a large party
- ☐ While riding in or driving a car or other vehicle
- ☐ At a restaurant, bar, or club
- ☐ At a public place such as a beach, park, parking lot, concert or sporting event
- ☐ On school property
- ☐ At a social event like prom
- ☐ Somewhere else

39. During the PAST 12 MONTHS did you:

	YES	NO
a) drink any **alcohol** (*more than a few sips*)? (Do not count sips of alcohol taken during family or religious events)	◯	◯
b) use any **marijuana, in any form** (*hash, pot, weed, pakalolo, dabs*)?	◯	◯
c) use **anything else to get high**? (*"anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff"*)	◯	◯

40. Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?

◯ YES ◯ NO

41. In the past 12 months:

	YES	NO	Doesn't apply to me
a) did you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?	◯	◯	◯
b) did you ever use alcohol or drugs while you are by yourself, or **ALONE**?	◯	◯	◯
c) did you ever **FORGET** things you did while using alcohol or drugs?	◯	◯	◯
d) did your **FAMILY** or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?	◯	◯	◯
e) have you ever gotten into **TROUBLE** while you were using alcohol or drugs?	◯	◯	◯

42. If yes to any of the above in Q41, did this occur with:

	YES	NO	Doesn't apply to me
a) alcohol?	◯	◯	◯
b) cigarettes, e-cigarettes, tobacco, or other vaping products?	◯	◯	◯
c) other drugs?	◯	◯	◯

If other drugs, please specify

43. In the past 12 months, have you:

	YES	NO	Doesn't apply to me
a) received help for alcohol or other drug use at **school**?	◯	◯	◯
b) received help for alcohol or other drug use from some place **other** than school?	◯	◯	◯
c) thought you should get help for your alcohol or drug use, but **didn't**?	◯	◯	◯

44. In the past 12 months, have you:

	YES	NO	Doesn't apply to me
a) received help for smoking cigarettes, e-cigs/vaping at **school**?	◯	◯	◯
b) received help for smoking cigarettes, e-cigs/vaping from some place **other** than school?	◯	◯	◯
c) thought you should get help for your smoking cigarettes, e-cigs/vaping, but **didn't**?	◯	◯	◯

45. Did you EVER live with anyone who had an alcohol-related problem or who used street drugs?

◯ YES ◯ NO

46. Over the past 2 weeks how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly everyday
a) Feeling nervous, anxious, or on edge	◯	◯	◯	◯
b) Not being able to stop or control worrying	◯	◯	◯	◯
c) Feeling down, depressed or hopeless	◯	◯	◯	◯
d) Little interest or pleasure in doing things	◯	◯	◯	◯

47. For each of the below, mark the choice in the column which best describes you:

	Never	Sometimes	Often
a) Daydream too much	◯	◯	◯
b) Having trouble concentrating	◯	◯	◯
c) Fidgety, unable to sit still	◯	◯	◯
d) Act like you are driven by a motor	◯	◯	◯
e) Distracted easily	◯	◯	◯

48. In the past 12 months, how many times have you:

	Never	I've done it but not in the past year	A few times a year	About once a month	2 or 3 times a month	Once a week or more
a) done crazy things even if they were dangerous?	◯	◯	◯	◯	◯	◯
b) sold illegal drugs?	◯	◯	◯	◯	◯	◯
c) been suspended from school?	◯	◯	◯	◯	◯	◯
d) stolen or tried to steal a motor vehicle (*car, moped, etc*)?	◯	◯	◯	◯	◯	◯
e) been arrested (*booked, fingerprinted, taken to police station*)?	◯	◯	◯	◯	◯	◯

49. How old were you when you FIRST:

	Never have	8 or younger	9	10	11	12	13	14	15	16	17	18 or older
a) got suspended or expelled from school?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
b) attacked someone with the idea of seriously hurting them?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
c) got arrested?	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

50. This question asks for your opinion on the effects of using certain drugs and other substances. How much do you think PEOPLE RISK HARMING THEMSELVES (physically or in other ways) if they:

	No risk	Slight risk	Moderate risk	Great risk	I don't know
a) smoke one or more packs of cigarettes per day?	◯	◯	◯	◯	◯
b) vape or use e-cigarettes daily or almost daily?	◯	◯	◯	◯	◯
c) use marijuana, in any form (*hash, pakalolo, pot, weed, dabs*) daily or almost daily?	◯	◯	◯	◯	◯
d) use inhalants (*glue, paint, sprays*) to get high occasionally?	◯	◯	◯	◯	◯
e) have three or more drinks of alcohol once or twice each weekend?	◯	◯	◯	◯	◯

51. This question asks for your opinion on the effects of using certain drugs and other substances. How much do you think PEOPLE RISK HARMING THEMSELVES (physically or in other ways) if they:

	No risk	Slight risk	Moderate risk	Great risk	I don't know
a) use cocaine (*crack, coke, blow, freebase*) occasionally?	○	○	○	○	○
b) use methamphetamine (*crystal meth, speed, ice, batu*) occasionally?	○	○	○	○	○
c) use hallucinogens (*LSD/PCP, shrooms, acid*) occasionally?	○	○	○	○	○
d) use ecstasy or other "club drugs" (*E, XTC, GHB, liquid ecstasy, liquid X, Rohypnol, roofies, ketamine, special K*) occasionally?	○	○	○	○	○
e) use prescription drugs (*OxyContin, Vicodin, Adderall, Xanax, Lunesta*) without a doctor telling them to?	○	○	○	○	○

52. Has anyone ever talked to you about the dangers of alcohol, tobacco, or drug use?

- ☐ Yes, my friends
- ☐ Yes, my parent/guardian
- ☐ Yes, my teacher at school
- ☐ No
- ☐ Not sure
- ☐ Someone else _____

53. In the past 12 months, how have you viewed or heard any public awareness messages about the risks or dangers of alcohol, tobacco, or other drugs? (select all that apply)

- ☐ haven't seen or heard any public awareness messages about the risks or dangers of alcohol, tobacco, or other drugs
- ☐ on TV or similar internet channels
- ☐ on the radio or similar internet/satellite stations
- ☐ on social media or other social apps or websites
- ☐ ads on my device
- ☐ posters, signs, or other printed materials in public
- ☐ Other ways _____

54. How often do you think a pregnant woman can safely have a drink containing alcohol?

- ○ Never
- ○ Once a month or less
- ○ Once a week
- ○ Once a day

55. During the past 12 months, how often have you been around the following people WHEN THEY WERE USING ALCOHOL:

	Not at all	A few times a year	Once or twice a month	At least once a week	Almost everyday
a) Parents	◯	◯	◯	◯	◯
b) Brothers or sisters	◯	◯	◯	◯	◯
c) Other relatives	◯	◯	◯	◯	◯
d) Your closest friends	◯	◯	◯	◯	◯
e) Other people in the neighborhood or school	◯	◯	◯	◯	◯

56. During the past 12 months, how often have you been around the following people WHEN THEY WERE USING MARIJUANA, IN ANY FORM:

	Not at all	A few times a year	Once or twice a month	At least once a week	Almost everyday
a) Parents	◯	◯	◯	◯	◯
b) Brothers or sisters	◯	◯	◯	◯	◯
c) Other relatives	◯	◯	◯	◯	◯
d) Your closest friends	◯	◯	◯	◯	◯
e) Other people in the neighborhood or school	◯	◯	◯	◯	◯

57. During the past 12 months, how often have you been around the following people WHEN THEY WERE USING CIGARETTES, E-CIGARETTES, OR OTHER TOBACCO OR VAPING PRODUCTS (not marijuana):

	Not at all	A few times a year	Once or twice a month	At least once a week	Almost everyday
a) Parents	◯	◯	◯	◯	◯
b) Brothers or sisters	◯	◯	◯	◯	◯
c) Other relatives	◯	◯	◯	◯	◯
d) Your closest friends	◯	◯	◯	◯	◯
e) Other people in the neighborhood or school	◯	◯	◯	◯	◯

58. During the past 12 months, how often have you been around the following people WHEN THEY WERE USING DRUGS OTHER THAN TOBACCO, MARIJUANA, or ALCOHOL:

	Not at all	A few times a year	Once or twice a month	At least once a week	Almost everyday
a) Parents	○	○	○	○	○
b) Brothers or sisters	○	○	○	○	○
c) Other relatives	○	○	○	○	○
d) Your closest friends	○	○	○	○	○
e) Other people in the neighborhood or school	○	○	○	○	○

59. How wrong do you feel it would be for someone your age to:

	Very wrong	Wrong	A little bit wrong	Not at all wrong
a) drink alcohol regularly (*once or twice a month*)?	○	○	○	○
b) use marijuana, in any form (*pot, pakalolo, weed, dabs, hash, dabs*)?	○	○	○	○
c) smoke cigarettes?	○	○	○	○
d) use e-cigarettes or vape any substance	○	○	○	○
e) use LSD, cocaine, methamphetamine, or other illegal drugs?	○	○	○	○

60. How wrong do you feel it would be for someone your age to:

	Very wrong	Wrong	A little bit wrong	Not at all wrong
a) take a handgun to school?	○	○	○	○
b) pick a fight with someone?	○	○	○	○
c) attack someone with the idea of seriously hurting them?	○	○	○	○
d) stay away from school all day when your parents think you are at school?	○	○	○	○

61. Have you ever been offered ALCOHOL:

	No	Yes, and I've accepted	Yes, and I've always refused
a) By your parents?	○	○	○
b) By your brother or sister?	○	○	○
c) By other relatives?	○	○	○
d) By friends?	○	○	○
e) By other youth (but not your friends)?	○	○	○
f) By strangers?	○	○	○

62. Have you ever been offered MARIJUANA, in any form:

	No	Yes, and I've accepted	Yes, and I've always refused
a) By your parents?	○	○	○
b) By your brother or sister?	○	○	○
c) By other relatives?	○	○	○
d) By friends?	○	○	○
e) By other youth (but not your friends)?	○	○	○
f) By strangers?	○	○	○

63. Have you ever been offered CIGARETTES, E-CIGARETTES, OR OTHER TOBACCO OR VAPING PRODUCTS (not marijuana):

	No	Yes, and I've accepted	Yes, and I've always refused
a) By your parents?	○	○	○
b) By your brother or sister?	○	○	○
c) By other relatives?	○	○	○
d) By friends?	○	○	○
e) By other youth (but not your friends)?	○	○	○
f) By strangers?	○	○	○

64. Have you ever been offered DRUGS OTHER THAN TOBACCO PRODUCTS OR ALCOHOL:

	No	Yes, and I've accepted	Yes, and I've always refused
a) By your parents?	○	○	○
b) By your brother or sister?	○	○	○
c) By other relatives?	○	○	○
d) By friends?	○	○	○
e) By other youth (but not your friends)?	○	○	○
f) By strangers?	○	○	○

65. In the past year, in situations where the following substances were available or around you (but not directly offered to you), what did you typically do?

	I did not use it	I did use it	I have not been in situations where this was available
a) alcohol	○	○	○
b) marijuana in any form	○	○	○
c) cigarettes, e-cigarettes or vaping devices/ products?	○	○	○
d) other drugs	○	○	○

66. How difficult do you think it would be for you to get each of the following, if you wanted some:

	Probably impossible	Very difficult	Fairly difficult	Fairly easy	Very easy	I don't know
a) alcohol (beer, wine, or hard liquor)?	○	○	○	○	○	○
b) cigarettes?	○	○	○	○	○	○
c) e-cigarettes or vaping devices/ products?	○	○	○	○	○	○
d) marijuana in any form *(hash, pakalolo, pot, dabs, weed)*?	○	○	○	○	○	○

68. How difficult do you think it would be for you to get each of the following, if you wanted some:

	Probably impossible	Very difficult	Fairly difficult	Fairly easy	Very easy	I don't know
a) cocaine *(crack, coke, blow, freebase)*?						
b) methamphetamine *(crystal meth, speed, ice, batu)*?						
c) hallucinogens *(LSD/PCP, shrooms, acid)*?						
d) ecstasy or other "club drugs" *(E, XTC, G, GHB, liquid ecstasy, Rohypnol, roofies, ketamine, special K)*?						
e) prescription drugs (*Oxycontin, Adderall, Lunesta*) without a doctor telling you to?						
f) synthetic drugs (*Spice/k2, bath salts, Flakka*)?						

PART C: These questions ask about your friends' feelings and experiences.

69. My friends…

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) enjoy school.					
b) encourage me to do well in school.					
c) are good role models.					
d) get along well with their parents and other family members.					
e) and I get along with each other.					
f) would help me with a personal problem.					

70. In the past 12 months, how many of your close friends have…

	None	A few	Some	Most/All
a) been suspended from school?				
b) sold illegal drugs?				
c) stolen or tried to steal a motor vehicle (*car, moped, etc*)?				
d) been arrested (*booked, fingerprinted, taken to police station*)?				
e) dropped out of school?				

71. For this question, think of YOUR CLOSE FRIENDS and how they would feel if you…

	Would think it was cool	Would not care	Would disapprove	Would strongly disapprove	I don't know
a) used marijuana in any form (*hash, pakalolo, pot, weed, dabs*) daily or almost daily?	◯	◯	◯	◯	◯
b) smoked one or more packs of cigarettes per day?	◯	◯	◯	◯	◯
c) used e-cigarettes or vaping products daily or almost daily?	◯	◯	◯	◯	◯
d) had 3 or more drinks of alcohol once or twice each weekend?	◯	◯	◯	◯	◯

72. For this question, think of YOUR CLOSE FRIENDS and how they would feel if you…

	Would think it was cool	Would not care	Would disapprove	Would strongly disapprove	I don't know
a) used other illegal drugs (*heroin, synthetics, hallucinogens, steroids*)?	◯	◯	◯	◯	◯
b) used prescription medication without a doctor telling you to?	◯	◯	◯	◯	◯

PART D: This set of questions asks about your **family**. Please answer any "parent" questions by thinking about a parent, guardian, or other adult who takes care of you most of the time (aunty, uncle, grandparent).

73. How often do your parents/guardians tell you they're proud of you for something you've done?

- ◯ All the time
- ◯ Often
- ◯ Sometimes
- ◯ Never or almost never

74. I would be in trouble if my parents/guardians caught me..

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) smoking cigarettes?	◯	◯	◯	◯	◯
b) using e-cigarettes or vaping products?	◯	◯	◯	◯	◯
c) drinking alcohol?	◯	◯	◯	◯	◯
d) using marijuana (*pot, pakalolo, weed, hash, dabs*), in any form?	◯	◯	◯	◯	◯
e) using other illegal drugs?	◯	◯	◯	◯	◯
f) skipping school?	◯	◯	◯	◯	◯
g) picking a fight with someone?	◯	◯	◯	◯	◯

75. How much do you agree or disagree with each statement below?:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) My parents/ guardians ask me if I've gotten my homework done.	◯	◯	◯	◯	◯
b) When I am not at home, one of my parents/ guardians knows where I am and who I am with.	◯	◯	◯	◯	◯
c) My family has clear rules about alcohol and drug use.	◯	◯	◯	◯	◯

76. How much do you agree or disagree with each statement below?:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) I feel very close to at least one of my parents (*mom, dad*) or other adult family member (*aunty, uncle, grandparent*)	◯	◯	◯	◯	◯
b) I share my thoughts and feelings with at least one of my parents (*mom, dad*) or other adult family member (*aunty, uncle, grandparent*)	◯	◯	◯	◯	◯

77. How much do you agree or disagree with each statement below?:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) I enjoy spending time with at least one of my parents (*mom, dad*) or other adult family member (*aunty, uncle, grandparent*)	◯	◯	◯	◯	◯
b) If I had a personal problem, I could ask at least one of my parents (*mom, dad*) or other adult family member (*aunty, uncle, grandparent*) for help.	◯	◯	◯	◯	◯

PART E: The next questions ask about some of your experiences with school.

78. Putting them all together, what were your grades like last year?

- ◯ Mostly A's
- ◯ Mostly B's
- ◯ Mostly C's
- ◯ Mostly D's
- ◯ Mostly F's

79. During the past 4 weeks, how many whole days of school have you missed?

- ◯ 0 – None
- ◯ 1 day
- ◯ 2 days
- ◯ 3 days
- ◯ 4-5 days
- ◯ 6-10 days
- ◯ 11+ days

80. During the past 4 weeks, how often have you gone to school but skipped a class when you weren't supposed to?

- ◯ 0 – None
- ◯ 1-2 times
- ◯ 3-5 times
- ◯ 6-10 times
- ◯ 11-20 times
- ◯ More than 20 times

81. In the past year or 12 months, how many times have you been drunk or high at school?

- ◯ Never
- ◯ 1-2 times
- ◯ 3-5 times
- ◯ 6-9 times
- ◯ 10-19 times
- ◯ 20-29 times
- ◯ 30+ times

82. Now, thinking back over this current (2019-2020) year in school, how often did you…

	Almost Always	Often	Sometimes	Seldom	Never
a) feel that the school work you were assigned was meaningful and important?	○	○	○	○	○
b) enjoy being in school?	○	○	○	○	○
c) try to do your best in school?	○	○	○	○	○

83. How much do you agree or disagree with each statement below?:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) In my school, students have a lot of chances to help decide things like class activities and rules.	○	○	○	○	○
b) There are a lot of chances for students in my school to talk with a teacher one-on-one.	○	○	○	○	○

84. How much do you agree or disagree with each statement below?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) There are a lot of chances in my school to get involved with sports, clubs, and other school activities outside of class.	○	○	○	○	○
b) My school grades are better than the grades of most students in my class.	○	○	○	○	○

85. How likely is it that you will do the following?

	Definitely will	Probably will	Probably won't	Definitely won't
a) Graduate from high school	○	○	○	○
b) Go to a technical school after high school	○	○	○	○
c) Go to college	○	○	○	○
d) Graduate from a four-year college	○	○	○	○
e) Enter into military service	○	○	○	○

PART F: These questions ask about the **neighborhood and community** where you live.

86. Are any of the following activities available in our neighborhood/community for people your age?

	YES and I participate regularly	YES but I don't participate regularly	NO	I don't know
a) Organized sports outside of school (e.g., soccer, paddling, baseball, etc)	◯	◯	◯	◯
b) Individual sporting facilities (e.g., rollerblading or skateboarding parks, batting cages)	◯	◯	◯	◯

87. Are any of the following activities available in our neighborhood/community for people your age?

	YES and I participate regularly	YES but I don't participate regularly	NO	I don't know
a) Boys and Girls clubs, YMCA, or similar organization	◯	◯	◯	◯
b) 4-H clubs, Future Farmers of America, Homestead Association, or other organized agricultural, ranch or farm-type clubs	◯	◯	◯	◯
c) Music, dance, or other performance arts groups (e.g., hula, theater groups)	◯	◯	◯	◯

88. How much do you agree or disagree with each statement below?:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) If I had to move, I would miss the neighborhood where I now live.	◯	◯	◯	◯	◯
b) There is crime and/or drug selling in my neighborhood.	◯	◯	◯	◯	◯
c) There are fights in my neighborhood.	◯	◯	◯	◯	◯
d) There are a lot of empty or abandoned buildings in my neighborhood.	◯	◯	◯	◯	◯

89. How much do you agree or disagree with each statement below?

Adults in my neighborhood would think it was wrong for kids my age:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) To use marijuana *(sometimes called pot, pakalolo, weed, dabs, hash)*, in any form.	◯	◯	◯	◯	◯
b) To drink alcohol.	◯	◯	◯	◯	◯

90. How much do you agree or disagree with each statement below?

If a kid in my neighborhood:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) Drank alcohol, he or she would be caught by the police.	◯	◯	◯	◯	◯
b) Used marijuana, he or she would be caught by the police.	◯	◯	◯	◯	◯
c) Carried a handgun, he or she would be caught by the police.	◯	◯	◯	◯	◯

91. About how many non-family adults (18 and older) in your neighborhood/community have you known personally who in the past year have:

	None	1 adult	2 adults	3 or 4 adults	5+ adults
a) used drugs illegally *(marijuana, crack, cocaine, or other drugs)*?	◯	◯	◯	◯	◯
b) sold or dealt drugs?	◯	◯	◯	◯	◯
c) done other things that could get them in trouble with the police like stealing, selling stolen goods, beating up others?	◯	◯	◯	◯	◯
d) gotten drunk or high?	◯	◯	◯	◯	◯

92. How much do you agree or disagree with each statement below?:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) There are people in my neighborhood who notice when I am doing a good job and let me know.	◯	◯	◯	◯	◯
b) There are people in my neighborhood who encourage me to do my best.	◯	◯	◯	◯	◯
c) If I had a personal problem, I could ask at least one adult (who is not a family member) in my neighborhood for help.	◯	◯	◯	◯	◯

93. How honestly did you answer the questions on this survey?

- ◯ I was very honest.
- ◯ I was honest most ofthe time.
- ◯ I was honest only once in a while.
- ◯ I was not honest