

**STATE OF VERMONT**

**SUBSTANCE ABUSE ASSESSMENT AND  
EPIDEMIOLOGICAL PROFILE  
EXECUTIVE SUMMARY**

**PREPARED BY**

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## EXECUTIVE SUMMARY

This Substance Abuse Epidemiological Profile Executive Summary was developed as part of the planning process for Vermont's Strategic Prevention Framework State Incentive Grant (SPF-SIG). This federally funded grant was awarded to the state by the Center for Substance Abuse Prevention (CSAP). The complete Vermont Epidemiological Profile was prepared by the State Epidemiology Workgroup (SEW) and can be found at xxxx.

The SPF-SIG takes a *public health approach* to prevent substance related problems, focusing on change for the entire population. Effective substance abuse prevention is grounded in a solid understanding of alcohol, tobacco, and other drug *consumption and consequence patterns*. Understanding the nature and extent of consumption (e.g., underage drinking) and consequences (e.g., motor-vehicle crashes) from the beginning is critical for determining prevention priorities and aligning strategies to address them. This document summarizes the most up-to-date statistics available on alcohol, tobacco, and other drug *use and consequences* associated with use in Vermont, and the state's ranking relative to other states. The rationale used to determine the state's priorities for the SPF-SIG is also discussed. The most important criteria used by the SEW to identify statewide priorities were a) Vermont's ranking relative to other states on prevalence and consequence indicators; b) relative prevalence of different problems within Vermont; and c) trends over time. Other influences in the selection process included the ability to change and/or prevent substance use and abuse within the timeframe of the grant. As will be demonstrated below, the substance use and abuse data relevant to Vermont clearly and unambiguously pointed to specific areas of concern that will be addressed with further prevention efforts. These areas of concern were *underage drinking, high risk drinking, and marijuana use*.

### Demographics

Vermont ranks 49<sup>th</sup> in population and 45<sup>th</sup> in geographic area among the 50 States. The State has a relatively homogeneous racial make-up with 96.8% of the population listing their race as white. Demographic projections for the next 15 years indicate that this racial mixture will be comparatively constant with very slight increases in the minority population.

### Tobacco: Modest Progress

Tobacco consumption in all forms has been declining in Vermont and the rest of the country. Chart 1 shows the prevalence of "current smokers" in Vermont compared to the median of the entire country from 1990 to 2005. Consequences of tobacco use include, but are not limited to, some cancers and cardiovascular disease. The Centers for Disease Control report that Vermont ranks below the national median in age and race adjusted total cancer and cardiovascular mortality for 2004. These rates are declining from previous years both in Vermont and nationally.

Chart 2 presents data collected in schools in Vermont from 1993

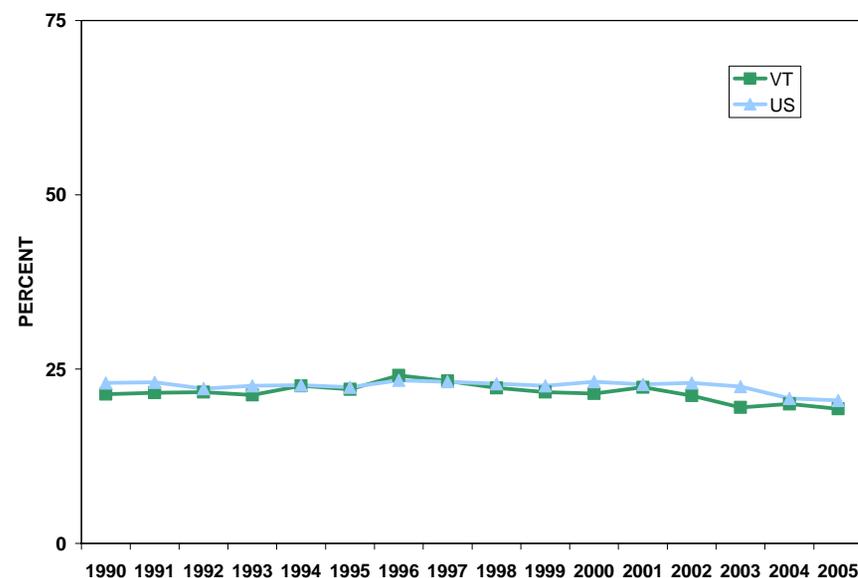


Chart 1: Prevalence of Current Smokers in Vermont and the United States (Source: Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor*

*Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1990-2005

to 2005 with the Youth Risk Behavior Survey (YRBS) in comparison (for 10<sup>th</sup> and 12<sup>th</sup> grades) with US median prevalence rates. Rates of smoking have declined significantly for all age groups surveyed both in Vermont and nationally.

In summary, while smoking remains a significant problem in Vermont in terms of health and economic-related consequences (as in the rest of the US), prevalence rates among all age groups have been steady or declining over the past several years. Mortality and morbidity rates due directly or indirectly to tobacco use have also consistently remained stable or decreased among relevant age groups. This may be at least in part due to a number of interrelated reasons including targeted anti-smoking media campaigns, increased screening vigilance and educational efforts among healthcare professionals, high-visibility lawsuits against tobacco companies, legal restrictions limiting access to smoking areas (e.g., bars, restaurants, work places), and increased costs due to higher tax rates.

Health and Human Services, Centers for Disease Control and Prevention, 1990-2005

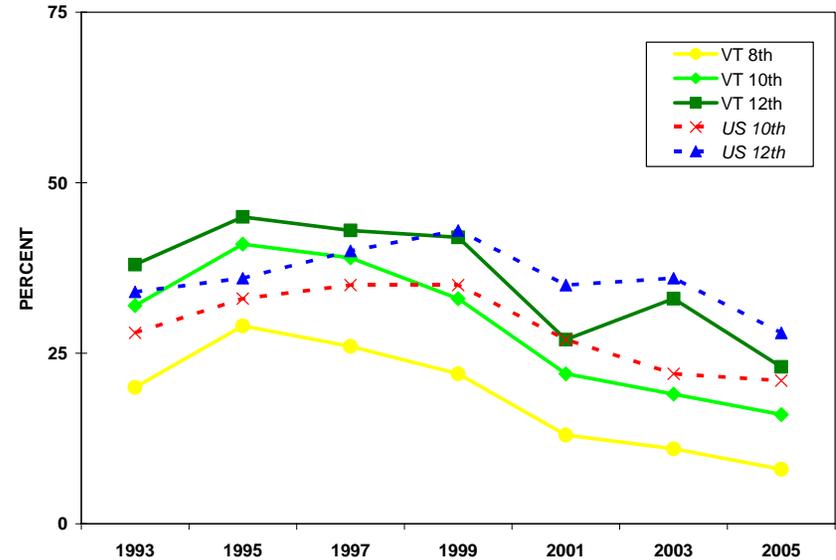


Chart 2: Percent of Students who Report Smoking Cigarettes in the Past 30 Days (Source: Youth Risk Behavior Survey, Vermont Department of Health)

### ***Illicit Drugs (Other than Marijuana): Relatively Low Impact, and Diverse Epidemiologies***

This category includes cocaine, heroin, hallucinogens, inhalants, methamphetamines, and any prescription medication used for nonmedical purposes. Use of illicit drugs other than marijuana has remained relatively stable in Vermont over the last several years – across age groups there has been neither a significant increase nor decrease from 1999-2004 based on data from the National Survey on Drug Use and Health. Data from the YRBS indicates adolescent prevalence rates of illicit drugs other than marijuana have declined from already low rates between 2003 and 2005.

Chart 3 shows the prevalence of various categories of illegal prescription drugs compared to the United States as a whole, as well as where Vermont ranks compared to all the other states. All prevalence rates are relatively low compared to alcohol and marijuana (see below).

other drugs among Vermont 9-12<sup>th</sup> graders compared to 9-12<sup>th</sup>

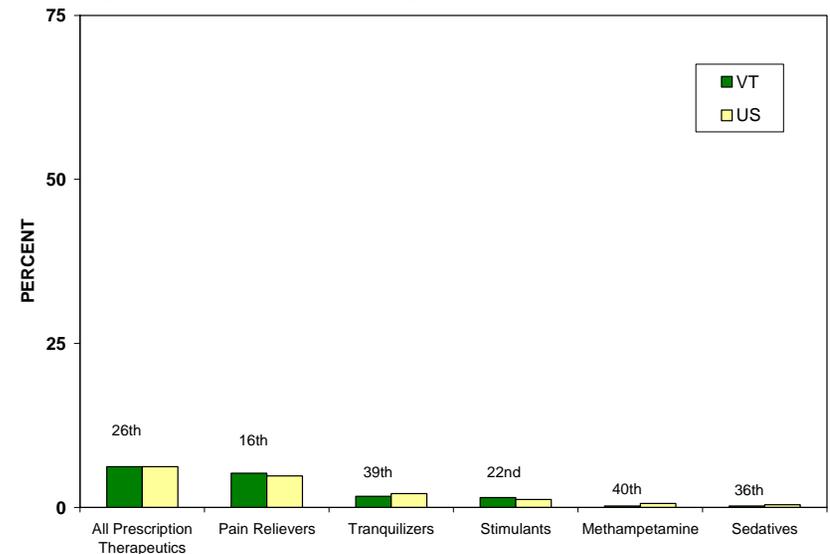


Chart 4 shows the lifetime prevalence of alcohol, tobacco, and

Chart 3: Prevalence Rates of Illicit Prescription Drug Use in Vermont and US (mean) and Ranking of Vermont Compared to Other States (12 graders in the US). This chart illustrates the low prevalence of illegal drug use relative to alcohol, tobacco, and marijuana. It also compares VT with US, illustrating little difference except for cigarette (VT significantly lower) and marijuana use (VT significantly higher).

With respect to illicit drug use consequences, injury and medical complications are perhaps the leading indicators. However, the SEW determined that hospital admissions and ER data were unreliable indicators for a number of methodological reasons. These data were therefore not evaluated for the purposes of the profile, but the SEW is exploring ways to obtain accurate data related to the health consequences of illicit drug use.

Another set of drug-related consequences to consider are local crime rates, including robbery, larceny, burglary, property crime, and motor vehicle thefts. A portion of these crimes can be directly or indirectly related to drug use and abuse (Substance Attributable Fraction) and the economic costs associated with specific crimes can be calculated. Chart 5 documents Vermont's low property crime rate from 1999-2005, which is consistent across all categories relative to the US crime rate. It can be seen in this chart that property crime rate as a surrogate measure for illicit drug prevalence in general in Vermont has declined over time and is among the lowest in the country; in fact, in 2005 Vermont ranked 48th among all states for overall violent crime rate (US Census Bureau).

In sum, these data suggested to the SEW that illicit drugs other than marijuana should not be a focus of the SPF-SIG mainly because when we applied our criteria of prevalence and consequences of use, these indicators were so low that increased prevention efforts (high cost) likely would not have any significant or measurable impact (low benefit). In addition, this is a broad category of drugs each of which individually is at a low threshold of prevalence (at least half that of marijuana). Therefore, targeted prevention efforts aimed at one drug may not be as effective for other drugs. This is not to suggest that illicit drug use and abuse are trivial problems, only that alcohol and

years of Age and Older) (Source: 2002-2004 NHSDUH Surveys, SAMHSA)

marijuana use and abuse are comparatively overwhelming and more amenable to immediate prevention efforts.

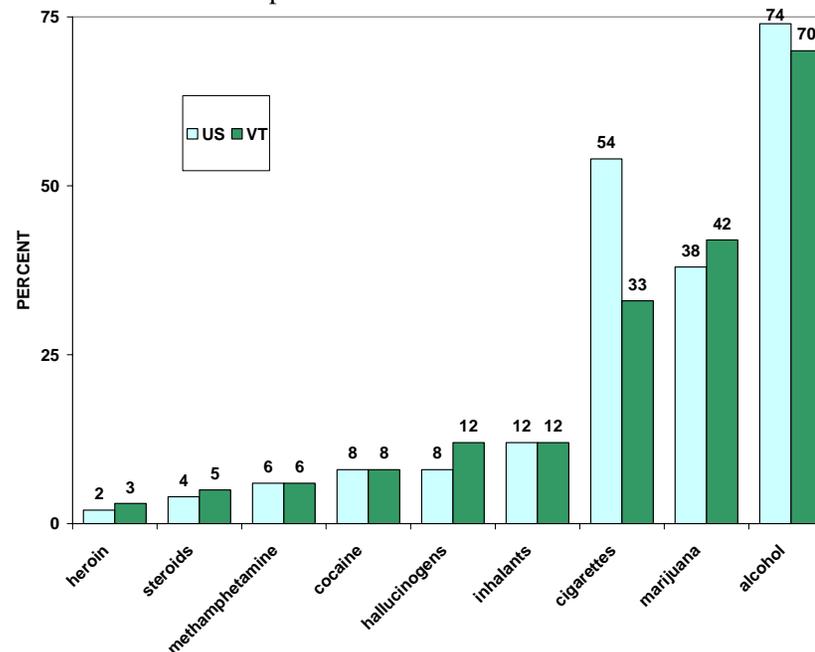


Chart 4: Percent of 9-12<sup>th</sup> Grade Students Who Report Ever Using Drugs (Source: Youth Risk Behavior Survey, Vermont Department of Health)

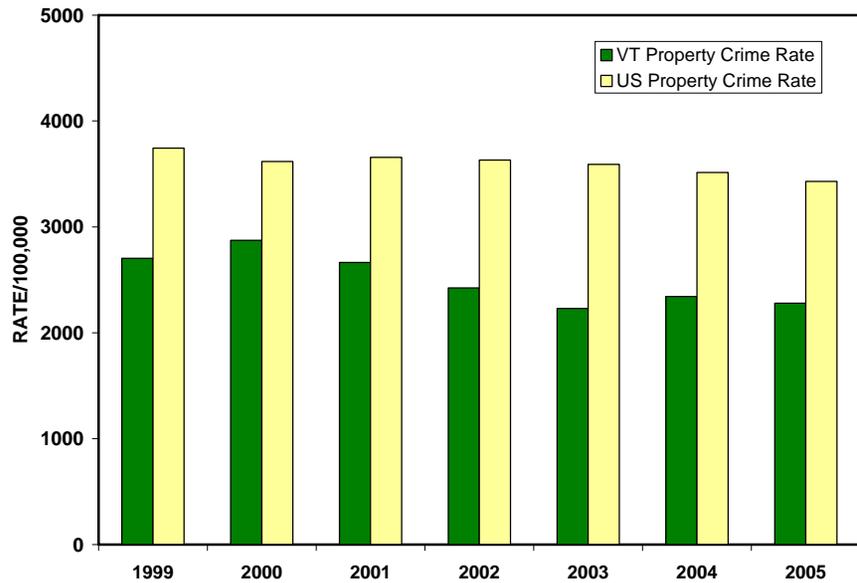


Chart 5: Property Crime Rate in Vermont Compared to US Overall Crime Rate 1999-2005 (Source: US Department of Justice)

### ***Marijuana: A Heavy Toll in Vermont***

Vermont is one of only eight states that were in the top fifth in prevalence rates of marijuana consumption across all three age groups (12-17, 18-25, and 26 & older). Table 6.1 presents past year marijuana use in Vermont and the US as well as Vermont’s comparative rank among all states. Data from the National Survey on Drug Use and Health (NSDUH) on marijuana use in the past month paints a similar picture (see Table 6.2). Another indicator related to use of marijuana is perception of harm. Table 6.3 shows the percentage of Vermonters by age group compared to the US national averages and to other states. This table indicates that individuals across all age groups in Vermont are less likely to perceive “great risk” associated with monthly marijuana use than residents of all other states except one (Washington). Finally, NSDUH provides data on average annual rates of first use of marijuana. As can be seen in Table 6.4, Vermont ranks the highest overall and in two of the three specified age groups.

#### ***Past Year Marijuana Use***

Age Group	VT (%)	US (%)	VT Rank
All	14.9	10.6	2
12-17	19.8	14.7	2 (Tied)
18-25	43.3	28.2	1
26+	9.4	6.9	6

Table 6.1

#### ***Past Month Marijuana Use***

Age Group	VT (%)	US (%)	VT Rank
All	9.0	6.1	3

12-17	11.1	7.7	4
18-25	26.4	16.6	1
26+	5.7	4.1	4

Table 6.2

***Perception of Great Risk***

Age Group	VT (%)	US (%)	VT Rank
All	27.8	39.7	2
12-17	27.0	34.9	2
18-25	15.4	25.2	2
26+	30.0	43.0	2

Table 6.3

***First Use of Marijuana***

Age Group	VT (%)	US (%)	VT Rank
All	2.5	1.8	1
12-17	8.8	6.3	1
18-25	10.5	6.6	1
26+	0.2	0.1	9

Table 6.4

Tables 6.1-6.4: (Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2003-2004).

Chart 7 presents the prevalence of past 30 day marijuana use from the 1993 to 2005 VT YRBS in comparison (for 10<sup>th</sup> and 12<sup>th</sup> grades) with US median prevalence rates. Rates of marijuana use have declined slightly for all age

groups surveyed, but prevalence among VT's 10<sup>th</sup> and 12<sup>th</sup> graders is significantly higher than US rates.

Chart 8 presents Vermont and US prevalence of impaired driving by 12<sup>th</sup> grade students from 1993 to 2005. While the prevalence of driving after drinking has shown moderate declines, driving after using marijuana has remained steady. In addition, 12<sup>th</sup> graders in VT are more likely to drive after using marijuana than after using alcohol.

Consequences of marijuana use account for a significant portion of the treatment statistics in Vermont. We understand that treatment data are subject to a number of external factors (access, capacity, etc.) that confound a prevention needs assessment, but we also believe these data can still be used for illustrative purposes. Since 1999 the proportion of individuals treated for marijuana abuse or dependence increased from 17.3% to 19.8%. Of those treated, 72.8% were under the age of 25. Data from the National Treatment Episode Data Set (TEDS) indicate that admissions for treatment of marijuana-related disorders in Vermont more than tripled from 1992 to 2002. Marijuana represents the second largest burden in the treatment system, exceeded only by alcohol.

In sum, all available data suggest that marijuana use is a significant and growing problem in the state of Vermont. Marijuana consumption and its associated consequences (our primary criteria) among individuals under the age of 26 are of particular concern.

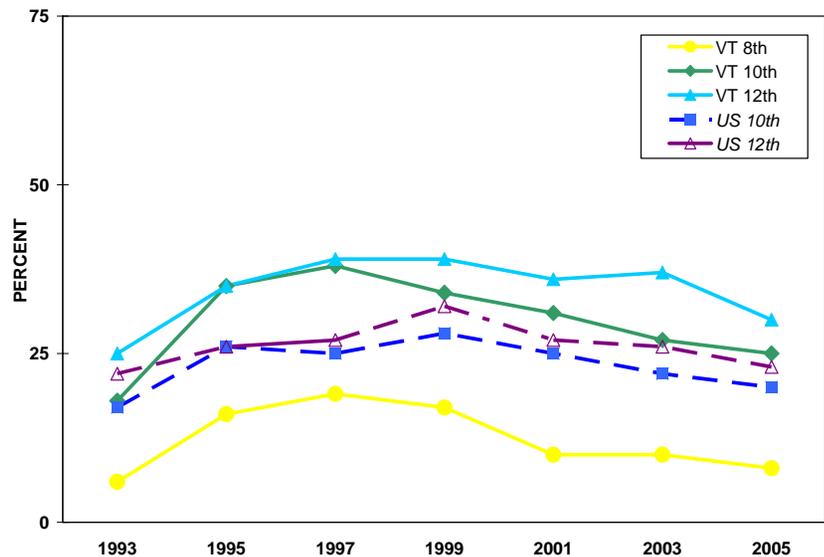


Chart 7: Vermont and US Prevalence of Past 30-Day Use of Marijuana Use Reported by 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Students Across Time (Source: YRBS, VDH)

***Alcohol: Misuse and Abuse***

Underage drinking and high-risk drinking among young adults are significant national problems and are reflected in the Vermont specific data. The good news is that both indicators show declining use over time; the bad news is that these indicators and associated consequences remain at unacceptably high rates.

Chart 9 shows the trends in alcohol consumption for all ages in VT by beverage type, in comparison to overall consumption in VT and the US. The overall reduction in per capita consumption appears to be a function of significantly decreased consumption of spirits. Beer consumption has remained stable and wine consumption has increased from 1970-2004.

Vermont YRBS data demonstrate that current use (past 30 days) and heavy episodic use (5 or more drinks in a row) have declined significantly across all grade levels. Charts 10 and 11 present these data for 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders

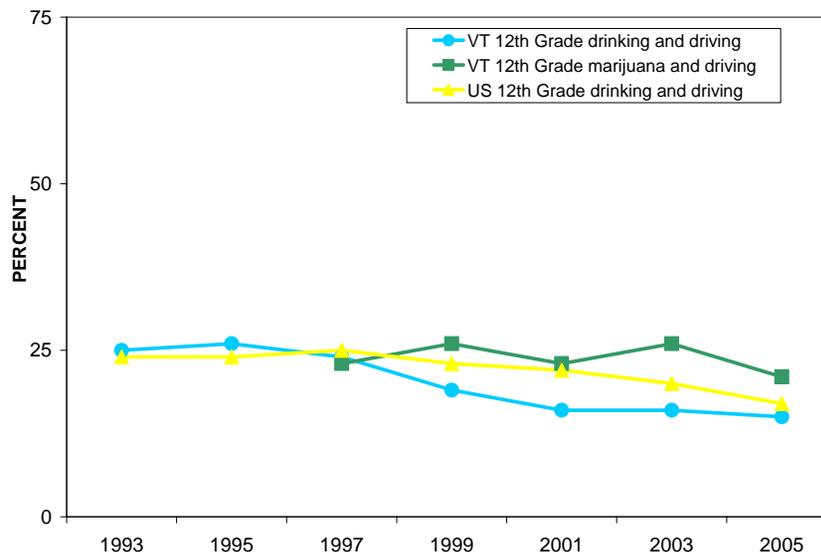


Chart 8: Vermont and US Prevalence of Impaired Driving by 12<sup>th</sup> Grade Students Across Time (Source: YRBS, VDH)

from Vermont. While gradually decreasing over time, the number of students who regularly engage in the consumption of alcohol and/or who binge drink remains alarmingly high.

Although the youth data are encouraging, and mirror national trends, alcohol use among adolescents remains a significant problem in Vermont. An additional concern is driving after drinking. Among 12<sup>th</sup> graders, in 2005 22% of males and 12% of females report they drove a vehicle after drinking alcohol; 27% of males and 23% of females reported riding with someone who had been drinking.

In addition to the troubling data on underage drinking, several indicators point to high rates of “high-risk” alcohol use, particularly among Vermont’s young adults. Whereas Vermont’s overall rates of alcohol are only somewhat higher than the national average, Vermont’s problem drinking is more evident when we turn to particular high-risk groups. Chart 12

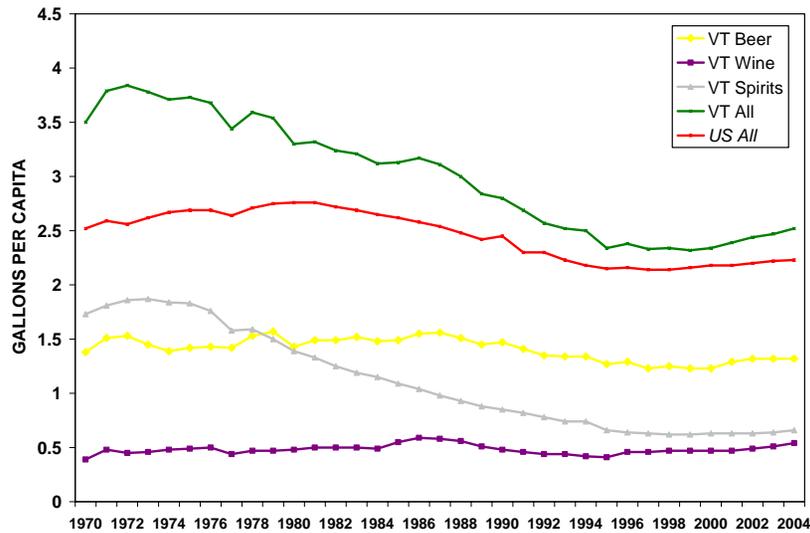


Chart 9: Overall Per Capita Consumption for Vermont and US 1970-2004 (Source: National Institute of Alcohol Abuse and Alcoholism)

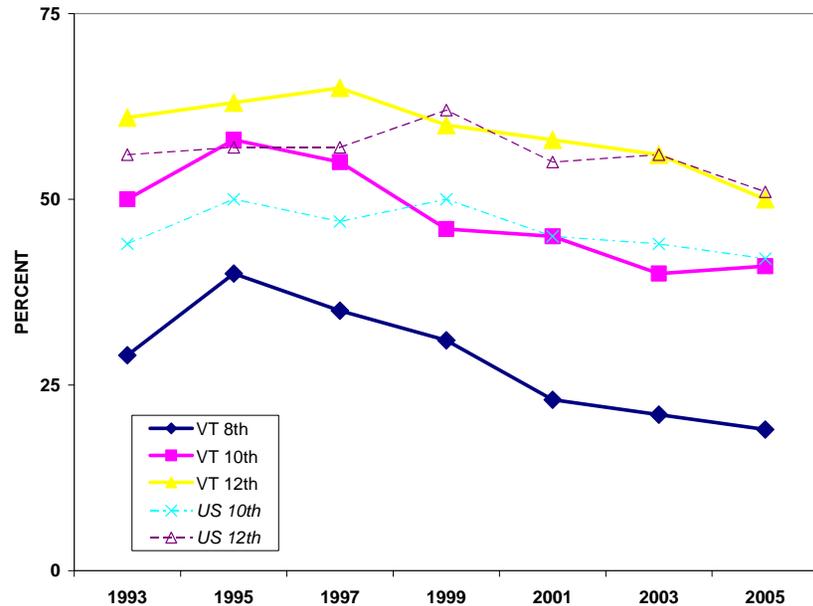


Chart 10: Vermont Prevalence of Past 30-Day Use of Alcohol Reported by 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Students Across Time (Source: YRBS, VDH)

derived from State Epidemiological DataSet (SEDS) demonstrates that Vermont is above the national average on all consumption indicators for 18-20-year-olds (underage drinkers) measured by the BRFSS from 1999-2003 (“heavy drinking” measured 2001-2003). “Current use” is defined as any drinking reported in the past 30 days and “heavy drinking” is defined as an average of more than one drink per day for females and two drinks per day for males in the past 30 days. Furthermore, these indicators appear to be increasing over time in Vermont, whereas they are either stable or decreasing at a national level.

Data from the Fatality Analysis Reporting System (FARS) show that Vermont is about at the national average for proportion of alcohol-involved motor vehicle fatalities (Chart 13). Since 1994 the raw numbers of fatalities associated with alcohol in the state has ranged from 27-40 annually (also shown in Chart 13).

However, Vermont BRFSS data indicate that between 2001-2005 the combined prevalence rate for “driving after perhaps drinking too much” in the past 30 days for 18-24 year olds was 10.0%, compared to 3.6% of individuals 25 and older. Over the same time period the BRFSS also showed 37.6% of those under 25 report binge drinking (more than 5 drinks on one occasion) at least once in the past 30 days, compared to 13.3% of those 25 years and older. Overall, this puts Vermont in the top third among all States in heavy episodic drinking. At 6.6% Vermont ranks 4<sup>th</sup> highest in the nation on the rate of adult heavy drinking,

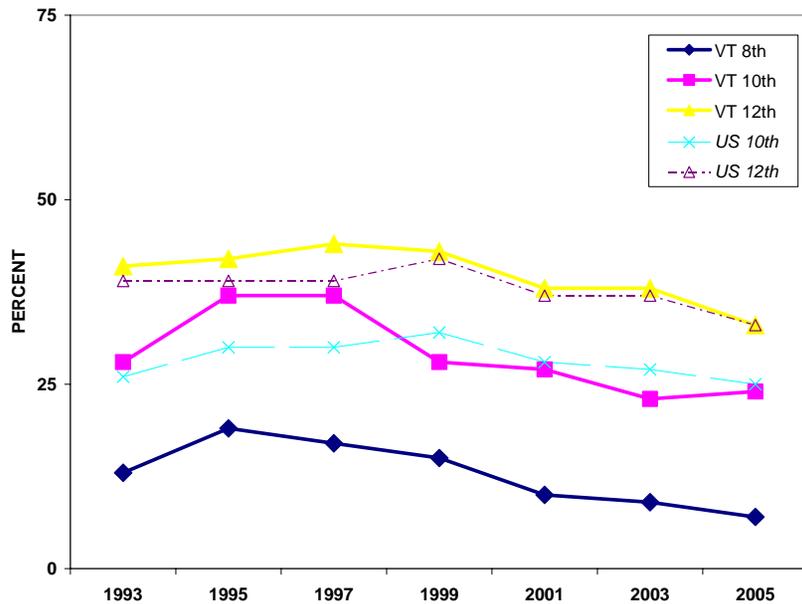


Chart 11: Vermont Prevalence of Binge Drinking (defined as 5 or more drinks in a row) Reported by 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Students Across time (Source: YRBS, VDH)

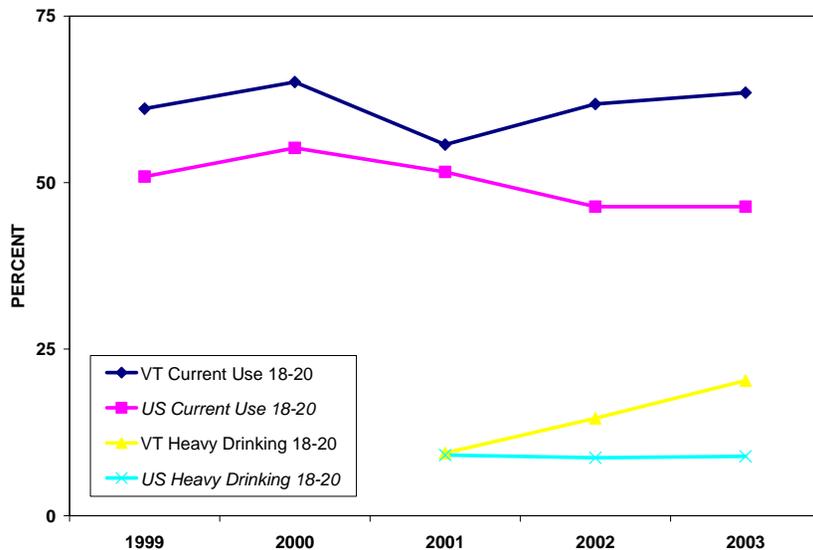


Chart 12: VT and US Consumption Indicators among 18-20 year olds (Source BRFSS [SEDS])

Tables 14.1-14.2 indicate Vermont's prevalence rates, using NSDUH data, for two important consumption indicators in comparison with other states. Vermont ranks among the highest states' rates across all age groups. Of particular concern is the highest in the nation drinking among 18-25 year olds and the high rates of binge drinking among those 25 years of age and younger

Vermont has the highest mortality rate of alcohol-related cirrhosis among the five New England states for the combined years 1999-2003. The crude rate increased from 3.5/100,000 in 1999 to 6.1/100,000 in 2003. Vermont has the lowest rate of nonalcoholic cirrhosis mortality among the five New England states (Source: CDC Wonder).

Data on both consumption patterns and consequences led to our selecting alcohol use as one of our SPF-SIG priorities. Of particular concern is the impact of alcohol on school-age children and young adults in Vermont. Efforts focused on reducing underage drinking, and high-risk drinking among young adults, and the associated consequences of such consumption, should be the focus of community-level coalitions as they enhance existing evidenced-based prevention programs and/or implement new ones.

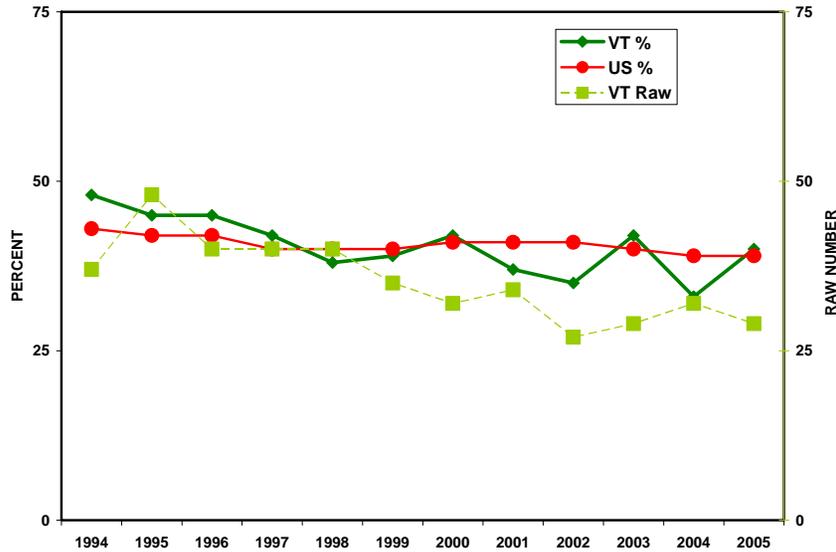


Chart 13 Percent of Alcohol-Related Fatalities in Motor Vehicle Crashes in Vermont Compared to the US as well as Raw Numbers of Alcohol-Related Fatalities in Vermont (Source: Fatality Analysis Reporting System [FARS] NHTSA)

### Past Month Alcohol Use

Age Group	VT (%)	US (%)	VT Rank
All	58.4	50.5	11
12-17	22.0	17.7	6
18-25	73.5	60.9	1
26+	60.7	53.2	9

Table 14.1 (Source: NSDUH 2002-2003)

### Past Month Binge

Age Group	VT (%)	US (%)	VT Rank
All	25.5	22.8	11
12-17	14.7	10.7	4
18-25	49.2	41.3	7
26+	22.9	21.2	15

Table 14.2 (Source: NSDUH 2002-2003)

## The State Epidemiological Workgroup (SEW) Process:

The SEW was formed as part of the Strategic Prevention Framework- State Incentives Grant (SPF-SIG) process. Members of the SEW were selected for their ability to contribute to either the methodological or practical aspects of substance use/abuse problems in Vermont. This diverse group included academicians, community leaders, and prevention experts. The purpose of the SEW was to examine relevant data that pertained to consumption and consequences of alcohol, tobacco, and other drugs in order to determine Vermont-specific priorities for prevention efforts. Both national and local data sets from as many sources as possible were explored. Forty-one indicators of consumption and consequences of alcohol, tobacco, and drugs were provided in the State Epidemiological Data System (SEDS) by the Center for Substance Abuse Prevention (CSAP). SEW members met regularly to discuss these data and recommend additional data sources and supplementary analytic approaches to maximize the ability to present a comprehensive representation of substance use and abuse issues in Vermont. As new data became available, they were incorporated into the responsive and flexible analytic methodology so that data sets were always as current and complete as possible. This iterative process allowed the SEW to closely monitor data germane to Vermont substance use and abuse indicators. Furthermore, an internal SPF planning and strategy group met weekly to discuss issues pertinent to the selection of SPF priorities including the SEW's interpretation of apposite data. At all levels, three primary criteria were used to assess the state burden of substance-related problems: (1) Vermont's relative ranking in comparison to other states; (2) the relative prevalence within the State; and (3) trends over time. Additional criteria applied included consideration of current social norms and estimated preventability/changeability of a particular indicator. After a detailed examination of all the data and a thorough discussion of relevant State prevention interests (e.g., law enforcement, medical, social, economic) across several dimensions (e.g., prevalence, burden, impact) the Advisory Council adopted the following four priorities.

1. Reduce underage drinking
2. Reduce high-risk drinking among persons under 25
3. Reduce marijuana use among persons under age 25
4. Build prevention capacity and infrastructure at the state and community levels, including a sustainable evaluation system for prevention grantees.