

SFY 2011 Idaho State & Regional Substance Abuse Prevention Needs Assessment

Youth Substance Use in Idaho

Idaho residents use a number of different illicit substances. For Idaho's minor population, these substances include alcohol, smoking and smokeless tobacco, marijuana, cocaine, opiates, depressants, tranquilizers, hallucinogens, inhalants, methamphetamines, ecstasy, steroids, and over-the-counter and prescription medications. According to the Idaho Substance Use, Safety, and School Climate Survey (SUSSCS) administered by the Safe and Drug Free School office of the Idaho Department of Education, the three most common substances used by Idaho's minors are alcohol, tobacco, and marijuana. Of the more than 15,000 6th, 8th, 10th and 12th grade respondents to the SUSSCS in 2008, 23.9% reported consuming alcohol in the 30 days prior to the survey. Approximately 11 percent reported using tobacco in the prior 30 days and 8.99% indicated that they had used marijuana in the same time period. Nearly 11% of the respondents reported using two substances in the 30 days prior to the survey. When multiple substances were reported, the most common combinations involved alcohol.

The percentages of respondents reporting 30-day use of the most common substances are shown in Table 1. Because of alcohol's popularity among Idaho's minors and because it was almost always involved if more than one drug was reported, it was used as the primary indicator of substance use and substance abuse prevention need.

Table 1. Reported current substance use by 6th, 8th, 10th and 12th grade respondents on the 2008 Idaho Substance Use, Safety, and School Climate Survey

<i>Substance</i>	Percent of respondents reporting use in prior 30 days
Alcohol	24.14% ¹
Tobacco	11.91%
Marijuana	9.90%
Methamphetamines	0.90%
Cocaine	1.53%
Ecstasy	2.12%

Idaho Trends

Statewide trends in substance use among Idaho teens are tracked by two federal agencies, the Substance Abuse Mental Health Services Administration (SAMHSA) and the Centers for Disease Control and Prevention (CDC). Substance use reported by school-aged youth is also tracked by the Idaho Department of Education. Each of these organizations conducts regular surveys with the goal of measuring substance use by minors. Results from each of these organizations are highlighted below.

¹These rates represent the simple proportion of SUSSCS respondents reporting use of each substance 30 days prior to completing the survey. These rates are unweighted. Subsequent alcohol use rates discussed later in this report are weighted by population.

SAMHSA and the National Survey on Drug Use & Health

Annually, SAMHSA conducts the National Survey on Drug Use & Health (NSDUH). Among other issues, the survey gathers data concerning substance use by household members throughout the United States. Starting in 2002, SAMHSA began providing state level estimates of substance use by age group. SAMHSA combines two years of data into a single number and divides the respondents into three categories by age, 12-17, 18-25, and 26 and older. Since 2002, five substance use estimates based on 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008 are available. The data in Table 2 show the Idaho NSDUH 30-day substance use rates for individuals 12-17 years old. Over the six year period, reported alcohol and tobacco use has decreased which marijuana use has remained relatively unchanged.

Table 2. Idaho NSDUH 30-day substance use rates for individuals 12-17 years old.

Substance	Survey Years					
	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008
Alcohol	17.37%	17.21%	15.88%	16.14%	14.12%	12.18%
Tobacco	14.70%	14.51%	13.14%	12.45%	11.19%	10.75%
Marijuana	7.92%	7.29%	6.24%	5.91%	6.11%	6.97%

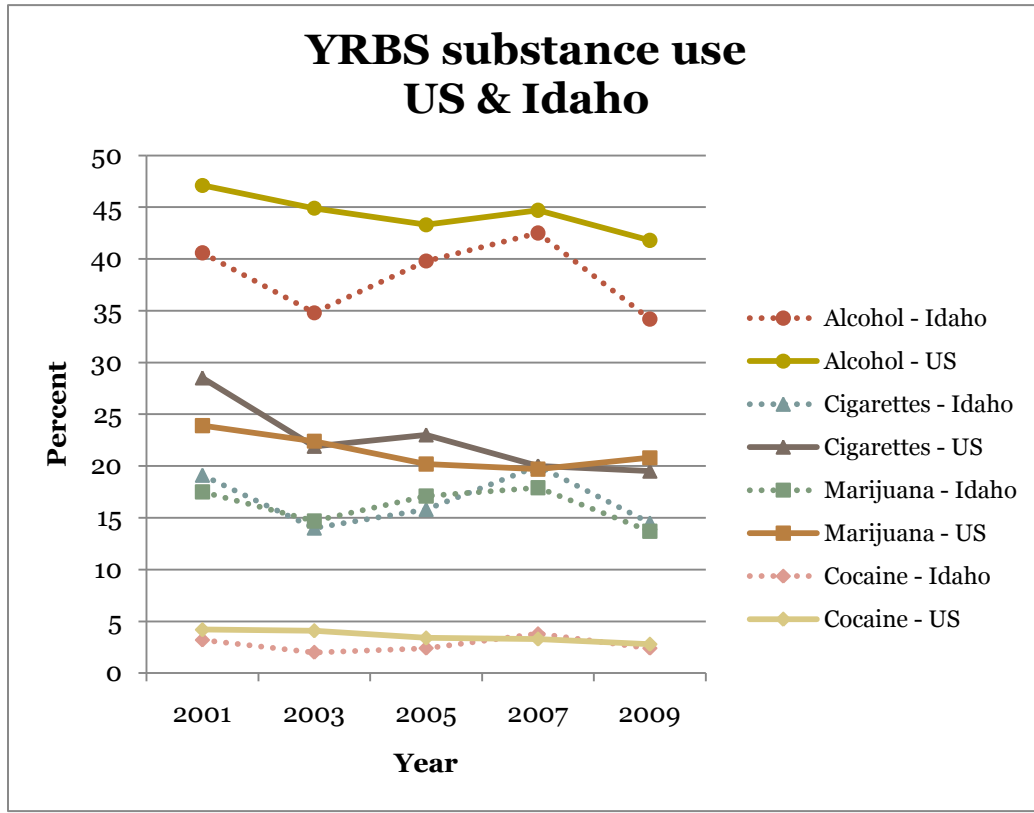
Centers for Disease Control and the Youth Risk Behavior Survey

The CDC has conducted the national Youth Risk Behavior Survey (YRBS) every other year since 1991. Idaho has participated in the YRBS for a number of years. The YRBS surveys a representative sample of 9th, 10th, 11th, and 12th graders and monitors health risk behaviors in six categories:

- tobacco use;
- alcohol and other drug use;
- behaviors that contribute to unintentional injuries and violence;
- sexual behaviors that contribute to unintended pregnancy and STDs, including HIV infection;
- unhealthy dietary behaviors;
- physical inactivity.

The YRBS asks respondents to report if they have used substances in the 30 days prior to completing the survey. Data for Idaho concerning use of substances 30 days prior to the survey are shown in Figure 1. For alcohol, cigarettes and marijuana, the data show Idaho rates converging with the national averages. In the most recent survey year, however, the data show Idaho and national rates diverging.

Figure 1. Idaho and national youth-reported current substance use rates as measured by the YRBS (percent of respondents).

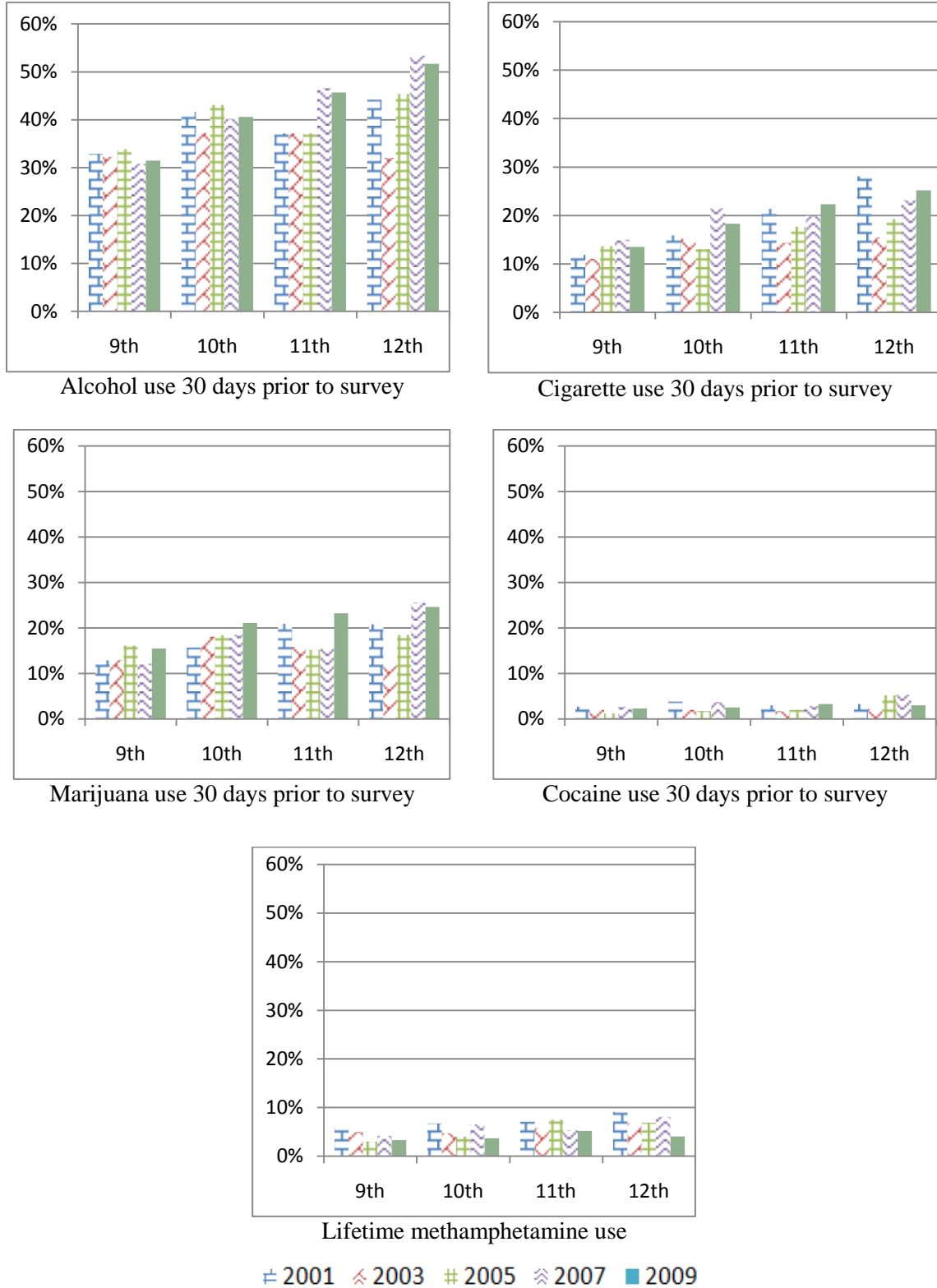


YRBS Use Rates by Substance and Grade

Figure 2 shows current use of alcohol, cigarettes, marijuana, and cocaine for 9th, 10th, 11th, and 12th grade Idaho students as measured by the YRBS for odd years between 2001 and 2009. The final graph shows lifetime use of methamphetamines. The pattern of use since 2003 is generally consistent for the first four substances, use increases for the higher grades. For alcohol, reported alcohol use by 9th and 10th graders has remained relatively constant across the four reporting years. For 11th and 12th graders, however, there was a marked increase in alcohol use in 2007 which diminished only slightly in 2009. Since a low mark in 2003, cigarette use among 11th and 12th graders has steadily increased. Cigarette use has also increased in the last two survey years for 10th graders.

Marijuana use for 11th and 12th graders in the 2009 survey shows increased use. For 11th graders, marijuana use has increased over 5 percent between 2007 and 2009, a trend worth monitoring as marijuana use overall makes greater inroads into general society. Use of cocaine and methamphetamine decreased slowly in the 2009 survey.

Figure 2. Current use of alcohol, cigarettes, marijuana, and cocaine for 9th, 10th, 11th, and 12th Idaho students as measured by the YRBS.



Idaho Substance Use, Safety, and School Climate Survey

The SUSSCS has been administered by the Idaho Department of Education every other year since 1996. As with other substance use surveys, the SUSSCS asks respondents to report their use of substances in the 30 days prior to the survey. Similar to other surveys, alcohol use reported on the SUSSCS co-occurs with and overshadows other substances. Figure 3 shows the percentage of respondents in 2008 who reported alcohol, cigarette, marijuana, cocaine, methamphetamine, and ecstasy use at least once in the 30 days prior to completing the survey (i.e., current users). The graph shows these data for grades 6, 8, 10, and 12 for the last four survey years.

Figure 3. Past 30-day use of alcohol, cigarettes, marijuana, cocaine, methamphetamine and ecstasy for 6th, 8th, 10th, and 12th Idaho students as measured by the SUSSCS.

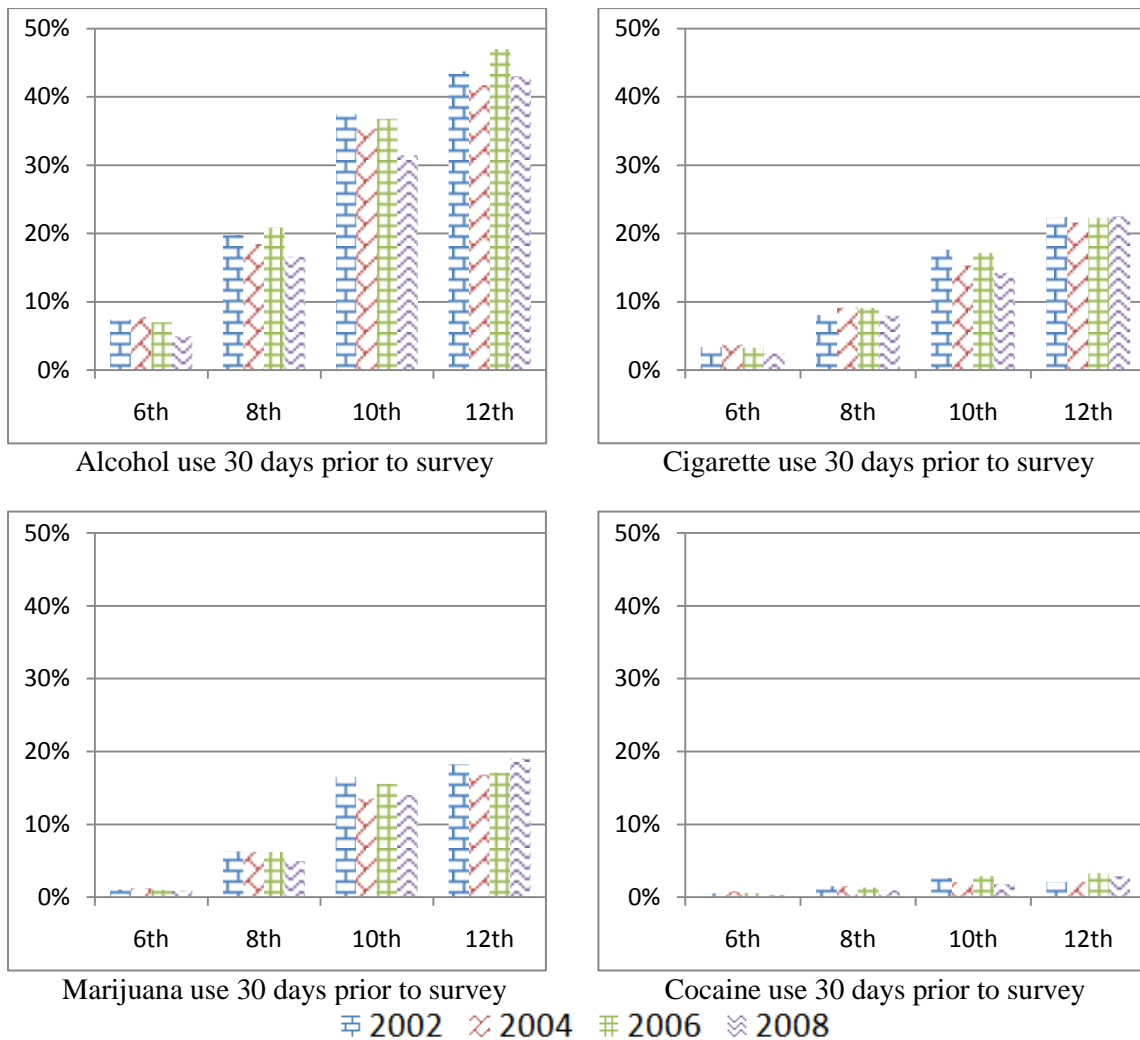
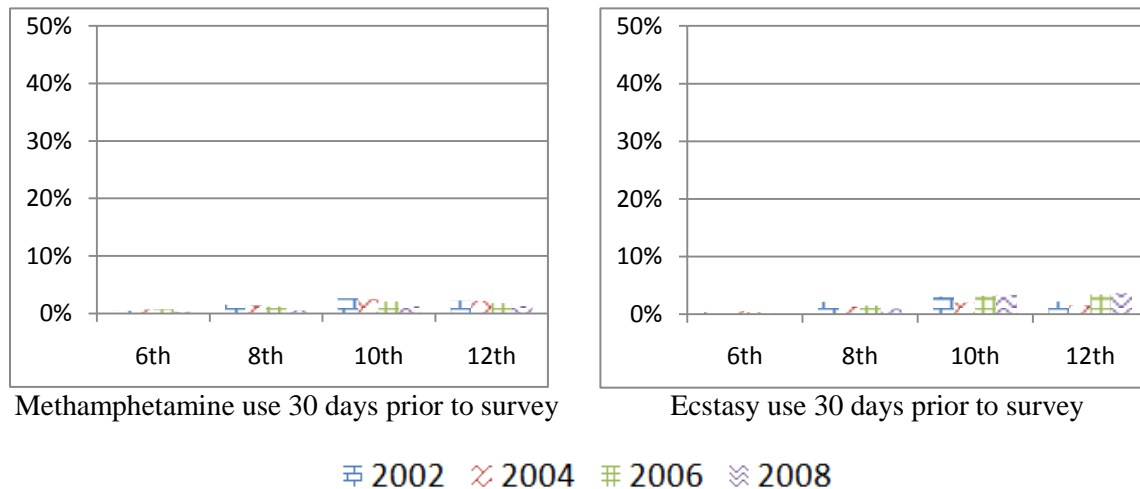


Figure 3, continued.



Looking at the data across grades and survey years, three general conclusions can be drawn: 1) there is a distinct age effect for alcohol, cigarettes, and marijuana. Older students consistently report higher levels of use. 2) Rates across survey years vary, but the two-year averages change little. The absence of differences in averages of two survey years suggests that observed differences in one survey to another might be the result of variability in the data, not to systematic changes in use. 3) Use rates for cocaine, methamphetamine, and Ecstasy remain low and relatively stable.

Alcohol Use by County

None of the statewide surveys discussed above were designed to provide county level data. Although the SUSSCS surveys a large number of students, its sampling method is not focused at the county level. Another characteristic of the SUSSCS is that it does not consistently sample grades across schools. Although the survey was not specifically designed for a county level analysis, it is the single best source of county level information concerning substance use by Idaho minors. Data from the SUSSCS are used as the basis for county level estimates of alcohol use. This process, however, comes with notable limitations.

Caveats

Given the repurposing of the SUSSCS data from a school district to a county level, any interpretation must be carefully weighed by the methods used. School district data were averaged into county level estimates of substance use. When viewed at a county level, there were instances of missing data or small sample sizes. When a county datum was missing, it was replaced with the statewide average for that grade. When a sample size was thought to be prohibitively small it was compared to an estimated sample size based upon a predetermined confidence interval. If the sample size did not exceed the estimated sample size, a judgment was made to replace it with the statewide average for that variable. These substitutions were made at the grade and county level. Regrettably, no single method of data substitution was completely satisfactory.

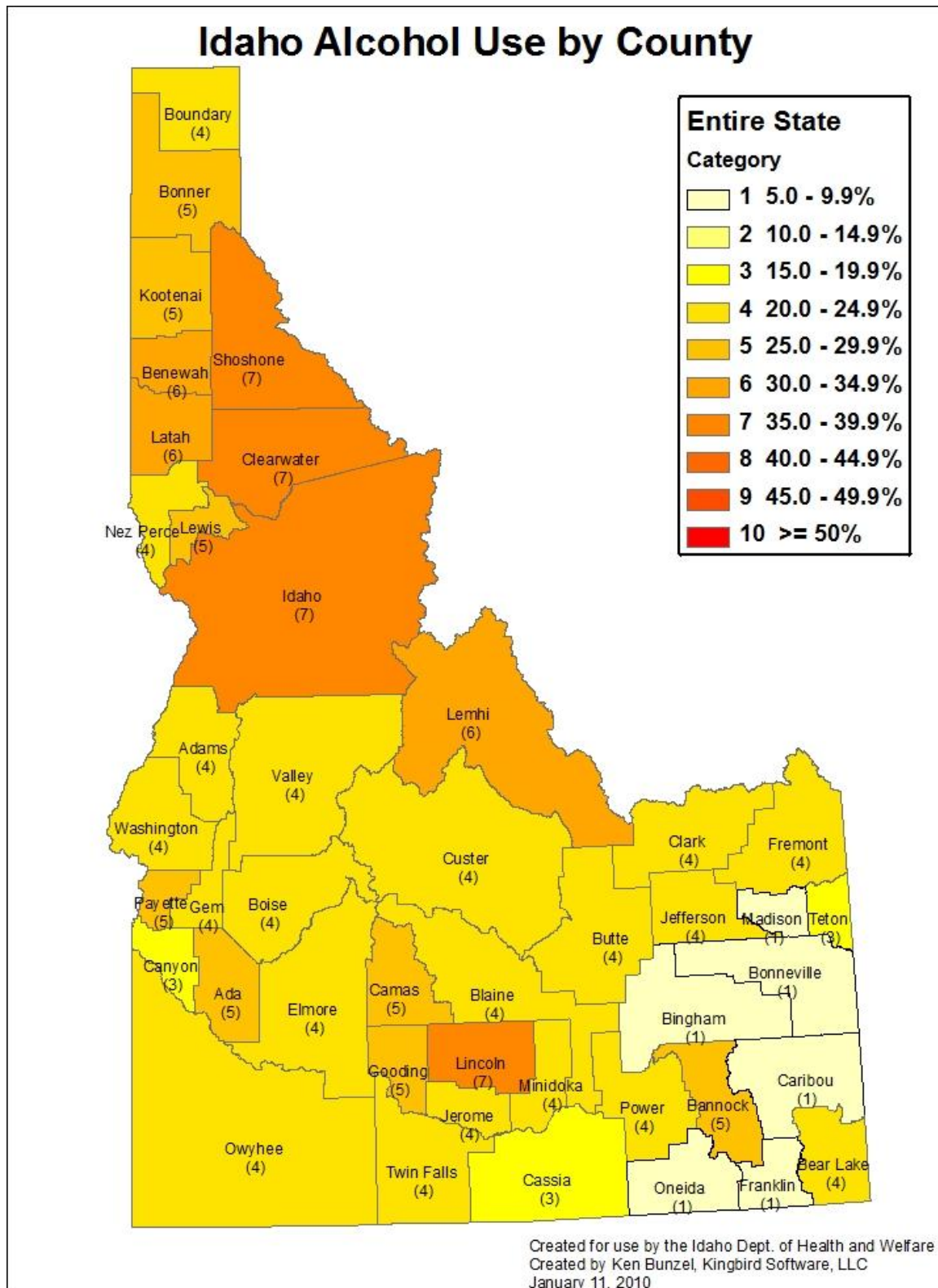
SUSSCS Current Alcohol Users

Responses to the SUSSCS regarding 30-day alcohol use were used to create a statewide metric of substance use (i.e., current alcohol users). A weighted 30-day alcohol use metric was calculated using SUSSCS data and school population data. The resulting variable combined data from all grades surveyed into one measure of alcohol use for each county. It can best be interpreted as the percentage of current alcohol users in the 6th, 8th, 10th and 12th grades. As was the case with the YRBS, this weighted 30-day alcohol use variable will be referred to as “current alcohol users.” Not all county and grade combinations were surveyed by the SUSSCS. When missing grade data were encountered, the appropriate statewide average for that grade was used. The data were then summarized by county (see Table 3 and Figure 4). At best, these values should be viewed as rough rankings.

Table 3. Estimated youth alcohol use by county for 2008 SUSSCS survey data sorted from highest to lowest. The statewide average represents the unweighted average of the county use rates.

<i>County</i>	<i>Percent</i>	<i>County</i>	<i>Percent</i>	<i>County</i>	<i>Percent</i>	<i>Count</i>	<i>Percent</i>
Lincoln	39.1%	Camas	26.9%	Power	24.2%	Elmore	22.2%
Clearwater	39.0%	Lewis	26.2%	Boise	24.1%	Fremont	20.8%
Shoshone	36.8%	Ada	25.3%	Nez Perce	23.8%	Canyon	19.3%
Idaho	35.3%	Bannock	25.3%	Blaine	23.5%	Teton	18.8%
Benewah	32.4%	Twin Falls	24.8%	Gem	23.5%	Cassia	16.3%
Latah	31.8%	Adams	24.7%	Minidoka	23.4%	Bingham	14.8%
Lemhi	31.3%	Jerome	24.5%	Boundary	23.2%	Caribou	11.3%
Kootenai	29.7%	Bear Lake	24.3%	Custer	23.2%	Bonneville	10.8%
Bonner	29.1%	Valley	24.3%	Washington	22.8%	Madison	9.1%
Gooding	28.9%	Clark	24.2%	Jefferson	22.7%	Franklin	8.6%
Payette	27.0%	Owyhee	24.2%	Butte	22.5%	Oneida	7.7%
						Statewide Average	23.9%

Figure 4. Percentage of current youth alcohol users by county as derived from the 2008 SUSSCS. The statewide average was 23.9%. Numbers in parentheses indicate the category in the legend.



Substance Use Correlates

Research on adolescent substance use has focused on the relationship between characteristics of individuals and the environments where they live. David Hawkins, Richard Catalano, and Janet Miller reviewed the research literature to identify what they called risk and protective factors. This work was later described in a 1992 book entitled, *Communities that Care: Action for Drug Abuse Prevention*. These factors are divided into four separate categories: Individual/Peer, Family, School, and Community.

A variety of individual/peer, family, school, and community factors were found to be related to substance use by Idaho minors. Variables representing each category of risk and protective factors were obtained and summarized by county. The data were then correlated with current alcohol use. As has been shown in prior research, many of the variables displayed significant correlations.

Caveats

Researchers use a variety of methods to study the relationships between substance use and risk and protective factors. In the ideal cross-sectional study, data from a single point in time would be gathered and analyzed. Although gathering data from a common timeframe is getting easier with time, differences occur. For example, most housing related data were gathered during the 2000 census. Differences in when data are collected should always be considered when interpreting correlations. This consideration goes beyond the inherent limits in correlational research.

As with all correlations, a relationship between two variables does not imply causation. Just because measures of economic deprivation are correlated with current alcohol use, it is not possible to conclude that economic deprivation causes alcohol use. If economic deprivation caused alcohol use among minors, underage drinking should be virtually absent in economically prosperous areas. This however, is not the case. It is also important to consider that the risk and protective factors are not mutually exclusive. It is likely that variables within any category will themselves be highly correlated. Although several community variables are correlated with current alcohol use, one should not conclude that these variables represent unique aspects of the community.

The risk and protective factor model common in the prevention literature was used to identify potential individual/peer, family, school and community data that might be correlated and therefore shed light on alcohol use by Idaho minors. Every reasonable effort was taken to find data representing the separate risk and protective factors categories. In some instances the available data matched a category well. In others, however, the categorization was not as clear. In these cases, the researchers placed the data in the category where it had the greatest consistency and meaning.

Finally, a variety of risk and protective factor variables, although correlated with youth reported alcohol use, cannot be readily influenced by substance abuse prevention services. The county birth rate is a prime example. For Idaho counties, county birth rates are significantly correlated with current alcohol use among respondents to the SUSSCS: as the birth rate in a county rises, youth reported alcohol use decreases. Substance abuse prevention services cannot directly influence the birth rate. However, the correlation between these two variables may reflect characteristics that might be amenable to prevention services.

Analysis Method

The SUSSCS contains many survey items regarding school climate and substance use. In an effort to reduce the number of individual data points, data from related or similar survey items were combined using factor analysis. Factor analysis is a data reduction technique that groups related survey items into common factors. The resulting factors are then interpreted and factor scores are created. For example, multiple survey items looking at student perception of drug availability would naturally cluster together because they examine different aspects of the same underlying factor.

The risk and protective factor data and the newly created factors from the SUSSCS were correlated with the current alcohol use data created from the SUSSCS at the county level. The data were not correlated at the region level because of the small number of counties in each region. The correlations are presented without considering how one risk or protective factor might be related to any of the others. A positive correlation shows a relationship where as one measure increases, the other measure also increases. For example, in Table 4, Trouble or Arrests Caused by Substance Use has a positive correlation with current alcohol use: as youth alcohol use increases, so does the trouble caused by teen substance use. A negative correlation shows a relationship where as one measure increases, the other measure decreases. In Table 4, Student Perception of Substance Use Harm is negatively correlated with current alcohol use. As student perception of harm increases, alcohol use goes down.

Factor Correlates

Individual/Peer Factors

Ten variables within this category were significantly correlated with the 2008 current youth alcohol use measure. Table 4 shows the correlations between individual/peer factors and current alcohol use.

Table 4. Correlations between individual/peer factors and current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
Disapproval of substance use by others	-.74	Substance Use by Friends	.79
Trouble or Arrests Caused by Substance Use	.55	Driving While Impaired or Riding With an Impaired Driver	.62
Drug prevention education	-.48	Student perception of substance use harm	-.50
Likelihood of college graduation	-.31	Approval of psychological and physical violence	.40
Stroke rate per 1,000	.33	Syphilis infection rate per 1,000	.32

Family Factors

Four family related variables were significantly correlated with the 2008 current youth alcohol use measure. The significantly correlated variables and the direction and strength of the correlations are shown in the Table 5.

Table 5. Correlations between family factors and 2008 current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
Parental Disapproval of Substance Use	-.78	Out of Wedlock Live Births	.48
Parental awareness of student location	-.50	Maltreatment of a child per 1,000	.48

School Factors

Three school related variables were related to the 2008 current youth alcohol use rates. The significantly correlated variables and the direction and strength of the correlations are shown in the Table 6.

Table 6. Correlations between school factors and 2008 current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
School Respect	.41	Property related damage or crime	.31
Alcohol/drug use or problem at school	.38		

Community Factors

Of the many community-related variables examined, seven had significant correlations with reported 2008 current youth alcohol use rates. The significantly correlated variables and the direction and strength of the correlations are shown in the Table 7.

Table 7. Correlations between community factors and 2008 current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
Alcohol/drugs present at attended parties	.82	Unemployment Rate	.54
Access to drugs	.44	Presence of Retail Alcohol	.38
Total deaths per 1,000	.32	Poverty among individuals <18 years of age per 1,000	.40
Aid to aged, blind and disabled per 1,000	.37		