

Comprehensive Needs Assessment for Substance Abuse Prevention

Report to the State Advisory Council for
Substance Abuse Prevention

By
Rodney A. Wambeam, Ph.D.
Kay Lang, M.A.
Eric Canen, M.A.

In Support of the State Epidemiological Workgroup
of the Strategic Prevention Framework State
Incentive Grant and the Wyoming Department of
Health, Substance Abuse Division

January 2006



Wyoming Survey & Analysis Center
University of Wyoming
710 Garfield, Suite 320
Laramie, WY 82070

Executive Summary

This report informs the State Advisory Council for Substance Abuse Prevention (SAC) of the findings from the comprehensive needs assessment completed by the Strategic Prevention Framework State Incentive Grant (SPF SIG) State Epidemiological Workgroup (SEW). It should be used as a starting point for the SAC's creation of the SPF SIG strategic plan. The report details the needs assessment process to narrow substance-related consumption and consequence data to a targeted need and concludes with the following recommendation:

The State of Wyoming should target its Strategic Prevention Framework State Incentive Grant efforts on the Misuse of Alcohol.

This means that:

1. The primary target for prevention efforts should be underage drinking and adult binge drinking. Underage drinking refers to any use of alcohol by anyone under the age of 21, while adult binge drinking refers to those 18 years and older who have five or more drinks on any one occasion.
2. The secondary target for prevention efforts should be the most significant consequences of the misuse of alcohol in Wyoming: alcohol dependence and abuse, alcohol-related motor vehicle crashes, and alcohol-related crime.
3. Data contained in this needs assessment report and its appendices could be used to further guide prevention efforts not necessarily funded by the SPF SIG project.

The prioritization process leading to this recommendation involved applying seven criteria (value, ratio, rank, trend, size, availability, and Healthy People 2010) to 269 indicators from 51 substance-related data sources. Results pointed to 14 consumption and 11 consequence indicators that represent the largest substance-related problems in Wyoming. These were further narrowed based upon size, seriousness, and changeability and lead the SEW to fully profile the following eight significant problems in Wyoming:

- Past Month Binge Drinking
- Illicit Drug Use
- Past Month Cigarette Use
- Smoking Among Pregnant Women
- Suicide
- Alcohol Dependence and Abuse
- Alcohol and Motor Vehicles
- Alcohol and Crime

Each area is of major concern in Wyoming. The final recommendation is based upon current resources and the relationship between past month binge drinking and the three entirely alcohol-related consequences.

Purpose

The purpose of this report is to inform the State Advisory Council for Substance Abuse Prevention (SAC) of the findings from the comprehensive needs assessment completed by the SPF SIG State Epidemiological Workgroup (SEW). This includes documentation of the needs assessment process, priority consumption and consequence areas, and recommendations on targets for the Strategic Prevention Framework State Incentive Grant (SPF SIG). This report should be used as a starting point for the SAC's creation of the SPF SIG strategic plan leading to decisions on how to allocate SPF SIG funding to Wyoming communities.

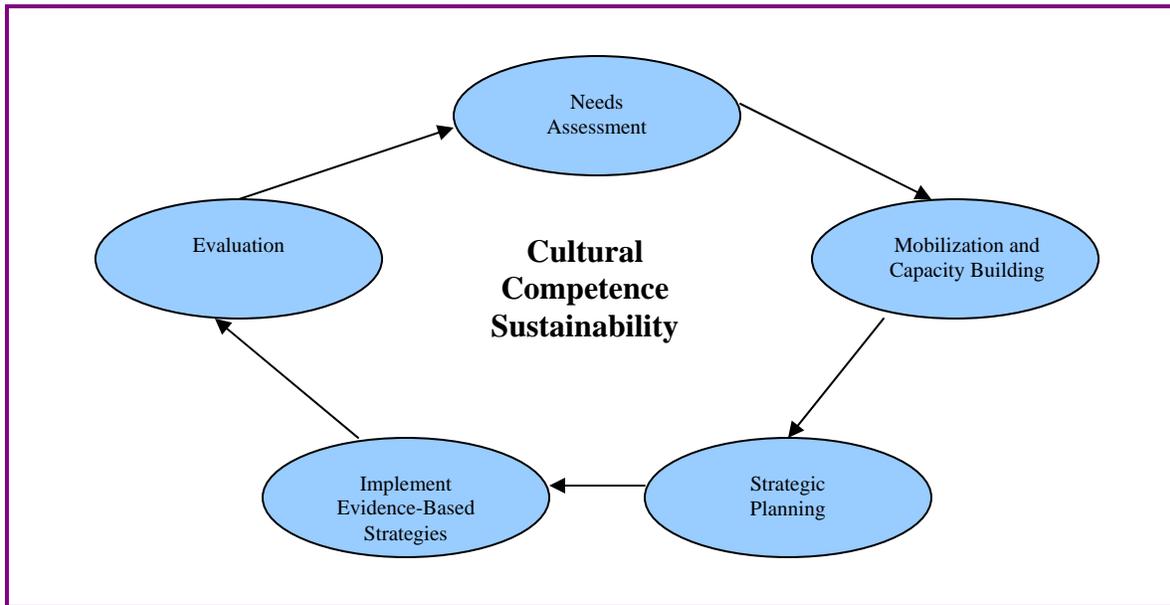
SPF SIG Background

Wyoming was awarded the SPF SIG on September 30, 2004 along with 21 other states and territories. Goals of this project include:

- Prevent the onset and reduce the progression of substance use, including underage drinking
- Reduce substance-related problems in communities
- Build prevention capacities and infrastructure at state and community levels

These goals are accomplished through the implementation of the strategic prevention framework. The framework includes five steps with cultural competence and sustainability infused throughout. Figure 1 illustrates this process.

Figure 1: Five Steps of the Strategic Prevention Framework Process



In order to complete the needs assessment (the first step), the SPF SIG requires each grantee to utilize a SEW. Other requirements include a state advisory council, data

driven decision making, and implementation of evidence-based policies, practices, and programs.

The Wyoming Department of Health, Substance Abuse Division serves as the single state agency overseeing the implementation of the SPF SIG. The SEW started the needs assessment process in August of 2005 with support from staff at the Substance Abuse Division and the Wyoming Survey & Analysis Center.

SEW Selection Process

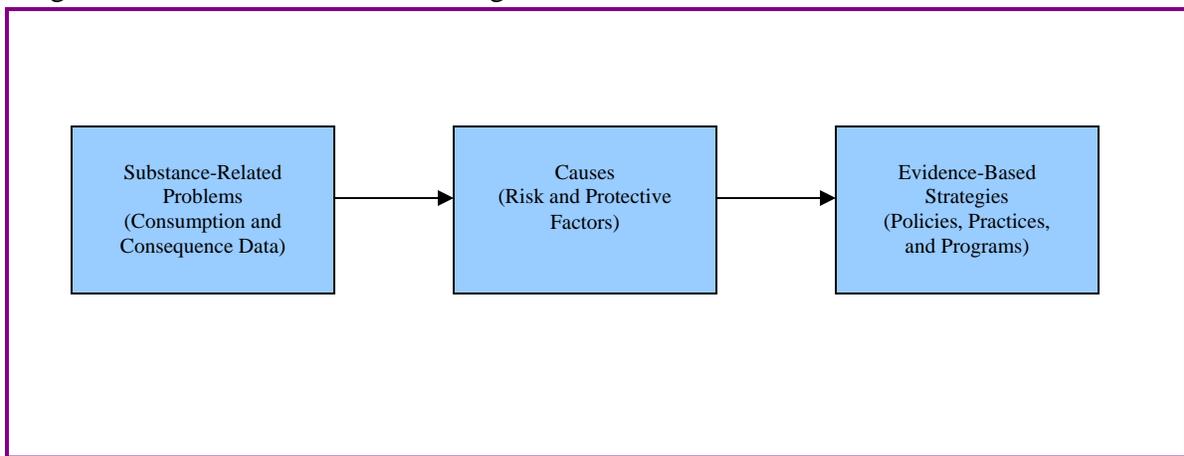
Members of the SEW were invited to be part of the needs assessment process based upon their knowledge of and ability to work with substance-related data. This included the ability to bring raw data sets to the group. Membership was also chosen to reflect as many State agencies as possible as well as community organizations, while keeping the group relatively small. Diversity on the SEW reflects this effort with a mix of data analysts, epidemiologists, prevention experts, community providers, and State agency representatives. Appendix A lists SEW membership and representation.

The SEW met together on three separate occasions, with high attendance at each meeting.

Prioritization Process

The SPF SIG needs assessment uses the logic model in Figure 2 to show the relationship between a state's most significant substance-related problems and the policies, practices, and programs that will be used to impact these problems.

Figure 2: SPF Needs Assessment Logic Model



The first and most critical step in this logic model is to narrow consumption and consequence data down to a single target the State can focus upon.

At their first meeting on August 3-4, 2005, the SEW outlined the process by which to narrow these substance-related problems and identify one or more targets. First, the

universe of possible data sources was considered. This included 86 possible sources of data ranging from the Youth Risk Behavior Survey (YRBS) to Wyoming Vital Statistics. Thirty-five of these data sources were ultimately not considered based upon data that was irrelevant, inaccessible, not timely, not available for Wyoming, or had extreme problems with reliability and validity. Appendix B lists the data sources that were considered.

Second, 269 different indicators from the remaining 51 substance-related data sources were identified as relevant to the needs assessment based upon some connection to substance use. Appendix C lists each individual indicator considered during the narrowing process. All of these indicators were ranked based upon the following equally weighted criteria:

- ✓ **Value** refers to the percentage of a specific population engaging in the behavior. For example, in the 2003 YRBS 26% of Wyoming students reported past month cigarette use.
- ✓ **Ratio** refers to the comparison between the national value and the Wyoming value. Ratios greater than one indicate Wyoming having a larger problem than the nation, while values less than one indicate Wyoming having a smaller problem than the nation. For example, the ratio for the 2003 YRBS indicator past month binge drinking is 1.22.
- ✓ **Rank** refers to Wyoming's position relative to other states. A state with a rank of one has a larger problem on this indicator than all other states. For example, Wyoming ranked first in the nation in 2004 for driving under the influence (DUI) arrests per 100,000 population.
- ✓ **Trend** refers to change over time. A trend can be up, down, or unclear. For example, since 1995 on the YRBS the percentage of students reporting riding in a car with someone who has been drinking alcohol has been trending down.
- ✓ **Size** refers to the estimated number of people in Wyoming engaging in the behavior. For example, according to the 2003 Wyoming Vital Statistics there were 1,288 births to mothers who smoked during pregnancy.
- ✓ **Availability** refers to the availability of an indicator at the county level. This is an important criterion because ultimately the needs assessment informs the SAC on how to allocate funding to communities.
- ✓ **Healthy People 2010** refers to indicators which appear as targets in the Healthy People 2010 publication. This is an important criterion for keeping the SPF SIG project consistent with other major public health initiatives.

At their second meeting on November 10, 2005, the SEW reviewed the findings from the ranking process and created a second mechanism for further narrowing indicators. The initial seven criteria applied to all 269 indicators and discussed above led to the identification of 14 consumption and 11 consequence indicators that represent the largest substance-related problems in Wyoming. To narrow these 25 final indicators a model was developed through consensus. It was based upon the work of other SPF SIG states and previous efforts in the Wyoming Department of Health.

Each individual indicator was scored as low, medium, or high (1, 2, or 3) on the size of its impact in Wyoming. This reflected the raw number of people in the state directly impacted by the problem. The group then scored each indicator on its seriousness. This included four factors: urgency, severity, economic loss, and the involvement of others. Again, indicators were scored as low, medium, or high (1, 2, or 3). Finally, the group scored each indicator on its potential changeability over the next five years. The given scores were largely based upon experience. They included scores for none, low, medium, or high (0, 1, 2, or 3) ability to change.

Scores for each indicator were then placed into the following equation:

$$\text{Indicator Score} = [\text{Size} + \text{Seriousness (2)}] \times \text{Changeability}$$

This scoring system is similar to the Centers for Disease Control’s (CDC) “Guide for Establishing Public Health Priorities” and other systems used by the Wyoming Department of Health.

Tables 1 and 2 below present the 25 consumption and consequence indicators of greatest importance following ranking on the first 7 criteria, their data source, and their scores on the above formula.

Table 1: Ranking of Final Consumption Indicators

Indicator	Data Source	Size	Seriousness	Changeability	Final Score
Percentage of Students who smoked cigarettes in the past 30 days	YRBS	2	3	3	24
Percentage of students who had 5 or more drinks of alcohol at one time in the past 30 days	YRBS	3	3	2	18
Percentage of 18 to 25 year olds who had 5 or more drinks at one time in the past 30 days	National Survey on Drug Use and Health (NSDUH)	3	3	2	18
Percentage of students who had their first drink of alcohol other than just a sip before age 13	YRBS	3	3	2	18

Indicator	Data Source	Size	Seriousness	Changeability	Final Score
Percentage of students who during the past 30 days rode in a car or other vehicle driven by someone who had been drinking alcohol	YRBS	3	3	2	18
Percentage of students who during the past 30 days drove a car or other vehicle when they had been drinking alcohol	YRBS	2	3	2	16
Percentage of births to mothers who smoked during pregnancy	Kids Count	2	3	2	16
Percentage of students reporting any use of alcohol in the past 30 days	YRBS	3	2	2	14
Percentage of students who drank alcohol or used drugs before their last sexual intercourse	YRBS	2	2	2	12
Percentage of students reporting any use of cocaine in their lifetime	YRBS	2	3	1	8
Percentage of students reporting any use of inhalants in their lifetime	YRBS	2	3	1	8
Percentage of students reporting any use of methamphetamine in their lifetime	YRBS	2	3	1	8
Percentage of students reporting any use of injecting drugs in their lifetime	YRBS	1	3	1	7
Percentage of students who used smokeless tobacco on one or more days in the past 30 days	YRBS	2	1	1	4

Table 1: Ranking of Final Consequence Indicators

Indicator	Data Source	Size	Seriousness	Changeability	Final Score
Alcohol dependence or abuse	NSDUH	3	3	2	18
Suicide death rates per 100,000 population	CDC Wonder	1	3	2	14
Alcohol-related vehicle death rate per 100,000 population	Fatal Accident Reporting System (FARS)	1	3	2	14
DUI arrests	Uniform Crime Reports (UCR)	2	2	2	12
Drunkenness and liquor law violation arrests	UCR	3	1	2	10
Accidental death rate per 100,000 population	CDC Wonder	1	3	1	7
Vehicle and traffic deaths per 100,000 population	CDC Wonder	1	3	1	7
Chronic lower respiratory disease deaths per 100,000 population	CDC Wonder	1	3	1	7
Drug-related arrests per 100,000 population	UCR	2	2	1	6
Larceny arrest rates per 100,000 population	UCR	3	1	1	5
Chronic liver disease deaths per 100,000 population	CDC Wonder	1	3	0	0

Based upon the scores and rankings shown in Tables 1 and 2 above, The SEW identified the eight most important substance-related problem areas in Wyoming. Shaded areas represent those indicators that stood out and led to the SEW focusing its work on the following four consumption and four consequence areas.

- Past Month Binge Drinking
- Illicit Drug Use
- Past Month Cigarette Use
- Smoking Among Pregnant Women
- Suicide
- Alcohol Dependence and Abuse
- Alcohol and Motor Vehicles
- Alcohol and Crime

At their third meeting on December 19, 2005, the SEW reviewed full data profiles on each of the above eight areas. Note that illicit drug use was included as an area despite low scores because four of the 14 indicators pointed toward drug use and because the

SEW believed methamphetamine use in Wyoming deserved a full data profile. These profiles include a summary of statistics surrounding the problem, an assessment of current financial resources targeting the problem, and basic available county level data. Current resources were calculated based upon FY 2005 spending on programs specifically aimed at preventing the problem area. Appendix D reprints all eight profiles in full. Table 3 below provides highlights from the data analyses and the resource assessment available in the profiles.

Table 3: Profile Data and Resource Highlights

Identified Substance-Related Problem Area	Data Highlights	Approximate Current Spending (FY 2005)
Past Month Binge Drinking	<p>In 2002-2003, binge drinking impacted an estimated 103,000 people annually in Wyoming 12 years and older. (NSDUH)</p> <p>In 2003, 50% of 18-25 year olds in Wyoming engaged in past month binge drinking. (NSDUH)</p> <p>Since 1995, Wyoming has ranked in the top 5 among the states collecting data in the nation for high school student binge drinking. (YRBS)</p>	\$697,500
Illicit Drug Use	<p>In 2002-2003, illicit drug use impacted an estimated 31,000 people annually in Wyoming 12 years and older. (NSDUH)</p> <p>Between 2002 and 2004, Wyoming ranked number 1 in the nation for lifetime methamphetamine use and number 2 in the nation for past year methamphetamine use for those 12 years and older. (NSDUH)</p> <p>In 2003, over 11 percent of Wyoming's high school students had tried methamphetamine in their lifetime. (YRBS)</p>	\$1,400,000

Identified Substance-Related Problem Area	Data Highlights	Approximate Current Spending (FY 2005)
Past Month Cigarette Use	<p>In 2002-2003, past month cigarette use impacted an estimated 111,000 people annually in Wyoming 12 years and older. (NSDUH)</p> <p>In 1995, over 39% of high school students reported past month cigarette use, while in 2003 only 26% of high school students reported past month cigarette use. (YRBS)</p> <p>25-34 year olds have the highest rate of current cigarette use at 30%. (BRFSS)</p>	\$4,111,000
Smoking Among Pregnant Women	<p>In 2003, births to mothers who smoked during pregnancy impacted 1,354 Wyoming babies. (Wyoming Vital Statistics)</p> <p>Since 2000, Wyoming has ranked number 3 in the nation for smoking among pregnant women. (Kids Count)</p> <p>In 2002, over 8 percent of new mothers gave birth to low birth weight babies. (Wyoming Vital Statistics)</p>	<p>\$1,700,000</p> <p>(Does not include any money spent on Past Month Cigarette Use)</p>
Suicide	<p>In 2003, suicide impacted 109 people in Wyoming. (Wyoming Vital Statistics)</p> <p>Since 1999, Wyoming has ranked in the top 5 for suicide in the nation, and in 2002 Wyoming ranked number 1. (CDC Wonder)</p> <p>Between 1999 and 2002, 25-44 year olds had the highest number of suicides with 123. (CDC Wonder)</p>	\$250,000

Identified Substance-Related Problem Area	Data Highlights	Approximate Current Spending (FY 2005)
Alcohol Dependence and Abuse	<p>In 2002-2003, alcohol dependence and abuse impacted an estimated 38,000 people annually in Wyoming. (NSDUH)</p> <p>In 2003, over 23% of 18-25 year olds in Wyoming had problems with alcohol dependence or abuse. (NSDUH)</p> <p>In 2003, nearly 35% of students reported having their first drink of alcohol other than a few sips before the age of 13, making Wyoming number 1 among the 32 states collecting data. (YRBS)</p>	\$630,000
Alcohol and Motor Vehicles	<p>In 2003, 8,799 students reported riding in a car with someone who had been drinking alcohol, while 5,246 students reported driving a car after drinking alcohol. (YRBS)</p> <p>In 2004, alcohol-related motor vehicle crashes claimed 59 lives. The alcohol-related motor vehicle crash death rate made Wyoming number 2 in the nation. (FARS)</p> <p>In 2004, 469 drivers who had been drinking were involved in car crashes that led to death or injury. (WYDOT)</p>	<p>\$616,000</p> <p>(Same funding as that listed for Alcohol and Crime)</p>
Alcohol and Crime	<p>In 2004, DUI arrests impacted 4,699 people, liquor law violations impacted 4,130 people, and drunkenness arrests impacted 1,455 people in Wyoming. (UCR)</p> <p>One third of all arrests in Wyoming are related to alcohol. (UCR)</p> <p>Since 2001 Wyoming has ranked number 1 in the nation for DUI arrests.</p>	<p>\$616,000</p> <p>(Same funding as that listed for Alcohol and Motor Vehicles)</p>

Recommendations

During the third SEW meeting discussion centered on further narrowing of these eight areas to a target for the SPF SIG project. The SEW agreed that each area is of major concern in Wyoming, and final decisions were based upon two major issues. The first involved the current resources being spent on the problem relative to the size of the problem. The second involved the relationship between the four consumption areas of concern and the four consequence areas of concern.

It is quickly evident that past month cigarette use, smoking among pregnant women, and illicit drug use currently have the highest financial resources targeting these problems in Wyoming. It is also clear that three substance-related consequence areas (alcohol dependence and abuse, alcohol and motor vehicles, and alcohol and crime) are entirely related to one consumption area (binge drinking).

Following this logic the SEW makes the following recommendation.

The State of Wyoming should target its Strategic Prevention Framework State Incentive Grant efforts on the Misuse of Alcohol.

This means that:

1. The primary target for prevention efforts should be underage drinking and adult binge drinking. Underage drinking refers to any use of alcohol by anyone under the age of 21, while adult binge drinking refers to those 18 years and older who have five or more drinks on any one occasion.
2. The secondary target for prevention efforts should be the most significant consequences of the misuse of alcohol in Wyoming: alcohol dependence and abuse, alcohol-related motor vehicle crashes, and alcohol-related crime.
3. Data contained in this needs assessment report and its appendices could be used to further guide prevention efforts not necessarily funded by the SPF SIG project.