

## **APPENDIX A:**

# **Priority-Setting Worksheet From the U.S. Department of Health and Human Services**

**U.S. Department of Health and Human Services**

**Priority-Setting Worksheet**



**Potential criteria and methods to weigh the importance of a health event (e.g., cancer, HIV/AIDS, substance abuse)**

**Health Event:** \_\_\_\_\_

To Use ✓	Sample Criteria  (Tailor to ensure that criteria can be applied to all health issues being weighed)	Measure  (Cite specific measure and data source, if available)	Score  (Score data, assign points, or rank items using identified method)	Weight*  (Assign value to criteria, if desired)	Weighted Score  (Score multiplied by weight)	Priority Score  (Sum of weighted scores for each criterion used)
	Prevalence					
	Mortality rate					
	Lost productivity (e.g., bed-ridden disability days)					
	Premature mortality (e.g., years of potential life lost [YPLL])					
	Medical costs to treat (or community economic costs)					
	Other:					
	Other:					

\* A weight ensures that certain characteristics have greater influence than do others in the final priority ranking. A sample formula might be: 2(Prevalence Score) + Community Concern Score + 3(Medical Cost Score) = Priority Score. In this example, the weight for prevalence is 2 and medical cost is 3. Users might enter data or assign scores (from, for example, 1 to 5) for each criterion and use the formula to calculate a total score for the health event.

Source: U.S. Department of Health and Human Services. (2002). *Healthy people 2010 toolkit: A field guide to health planning* (Developed by the Public Health Foundation under contract with the Office of Disease Prevention and Health Promotion, Office of Public Health and Science). Washington, DC: Public Health Foundation. Available online at <http://www.healthypeople.gov/state/toolkit/>

**APPENDIX B:**

**EXAMPLES OF STATE  
PRIORITIZATION PROCESSES**

# Hawaii

## Indicator Selection

Prior to beginning the problem-prioritization process, Hawaii's Epi Workgroup used five criteria—availability, validity, consistency, periodic collection, and sensitivity—to screen 197 indicators from 29 data sources. This initial data screening reduced the number of indicators to 46, which were included in further priority-setting decision processes.

## Indicator Assessment

The Epi Workgroup, formally the Hawaii Drug Information Network, systematically applied three criteria to evaluate the priority of the above-noted 46 indicators:

- **Prevalence** –the total number of cases, adjusted for a standardized population;
- **Rate of change** –the extent to which a problem increases or decreases between two points in time; and
- **Relative comparisons** – comparisons of Hawaiian problem data to data from other States and nationwide data.

For each of these three criteria, the Workgroup used the following rate-of-change formula to create a State score for the indicators:

$$(T_2 - T_1) \div T_1 = \text{Rate of Change}$$

A total score for each indicator was then calculated based on its three component scores,

$$\text{Total Score} = \text{Prevalence Score} \times \text{Rate of Change} \times \text{Relative Comparisons}$$

The Workgroup used two approaches to identify the group of indicators with the highest priorities: a top-down approach and a bottom-up approach.

### Top-down approach

The top-down approach involved screening substance types to select two of the three substances with the highest priority scores for construct-level analysis. The Hawaii Workgroup then selected a set of five constructs and their indicators based on the total score of constructs. At the first level of analysis—substance type—the Workgroup examined 46 indicators to identify a balanced and comparable set of indicators for alcohol, tobacco, and illicit drugs. This review resulted in the selection of nine indicators: one consequence indicator and two consumption indicators for each substance. The Workgroup then calculated the total score for each substance type by adding together the scores of the three indicators within each substance. For example for alcohol, the three indicators were alcohol-related death rate, early initiation of alcohol use by high school students, and current use of alcohol by persons aged 12 and older. The total scores, ranked from high to low, were alcohol (20.6), illicit drugs (17.2), and tobacco (13.0). Thus, the Workgroup selected alcohol and illicit drugs for its construct-level analysis.

At the second level of analysis for the top-down approach, the Workgroup reviewed the 46 indicators to select five that best represented each construct. A total of 19 indicators were

identified, each associated with a substance construct, except for the construct “current use” for all substances where two indicators were identified. The total score for each construct (e.g., crime/public safety, morbidity) equaled the total score of its indicators or the average of the two indicators representing it. Thus, the top five constructs based on total score were: mortality due to illicit drug use (10.8), antisocial behaviors relating to alcohol use (6.0), current use of alcohol (5.3), antisocial behavior relating to illicit drug use (4.1), and age of initial drug use (3.7).

### **Bottom-up Approach**

The Epi Workgroup utilized a bottom-up approach to conduct its analysis at the indicator level. Each of the previously screened 46 indicators was assessed using the same criteria (i.e., size of population affected, rate of change and relative seriousness compared to other States and the Nation). The group conducted this analysis to prevent any significant indicators from being inadvertently screened out in the top-down approach. Subsequently, it calculated and compared the total score for each of the 46 indicators. The top 5 indicators emerging from this indicator-level analysis were: current use of alcohol by persons aged 12 and older (15.0), current use of alcohol by persons aged 18 and older (12.9), deaths from illicit drug use (10.8), current binge drinking by adults aged 18 and older (7.8), and deaths from lung cancer (7.4).

### **Final results for population-based data**

The top-down and bottom-up approaches each identified five indicators with the highest total scores. The Workgroup thus placed these 10 indicators on its high-priority short list (**Table B3**). To present an overall view of the top 10 indicators in terms of their impact in the State, the group also examined prevalence rates and estimated number of people affected for each indicator and found that the largest number of people were affected by current alcohol use:

- 520,204 for current use of alcohol by persons aged 12 and older
- 501,326 for current use of alcohol by persons aged 18 and older
- 243,117 for current binge drinking by persons aged 12 and older
- 160,931 for current binge drinking by adults aged 18 and older
- 72,175 for current heavy use of alcohol by adults aged 18 and older.

The next-closest indicator was 22,114 for offered/sold illegal drugs on school property.

**Table B3: High-Priority Short List – Hawaii**

Substance	Domain	Construct	Indicator	“Top-Down” Rank	“Bottom-Up” Rank
Alcohol	Consumption	Current use	Current Use of Alcohol by Persons Aged 12 and Older		1
			Current Use of Alcohol by Persons Aged 18 and Older		3
			Current Binge Drinking by Persons Aged 12 and Older	3	
			Current Binge Drinking by Adults Aged 18 and Older		4
			Current Heavy Use of Alcohol by Adults Aged 18 and Older	3	
	Consequences	Antisocial behaviors	Drank on School Property by High School Students in Past 30 Days	2	
Illicit Drugs	Consumption	Age of initial use	Early Initiation of Marijuana Use by High School Students	5	
	Consequences	Antisocial behaviors	Offered/Sold/Given Illegal Drugs on School Property by High School Students in Past 12 Months	4	
		Mortality	Deaths From Illicit Drug Use	1	2
Tobacco	Consequences	Mortality	Deaths From Lung Cancer		5

**Focus-area assessment**

To understand the differential use of substances within the State and provide insights on the geographic areas and subpopulations that are most in need of prevention services, the Workgroup conducted a detailed analysis on the selected focus area using the latest State-specific data with county and subpopulation information (e.g., sex, age/grade, race/ethnicity). To inform prevention decisions and develop strategies that yield the greatest impact, the Workgroup’s analysis focused on the following: prevalence rates, consumption patters of current users, access and perceptions of availability, and risk and protective factors.

**Indicator ratings**

In addition to examining the Epi Workgroup’s priority analysis and focus area assessments based on population-based data, the State also reviewed the Workgroup’s indicator ratings on 7 criteria:

- Prevalence
- Rate of change
- Seriousness compared to other States
- Severity
- Urgency
- Readiness for change
- Change potential within five years.

This assessment was conducted to determine how individuals from various community agencies and groups regarded the proposed criteria. The Workgroup’s information filled in the data gaps

and provided validation for the priority-assessment outcomes—that is, the Workgroup provided the highest overall ratings for the constructs age of initial use of alcohol and current use of alcohol.

### **Final Priority Areas**

In general, the results of the analyses of the population-based data from Federal and State sources and the information from the Hawaii Epi Workgroup led to **Hawaii’s decision to focus SPF SIG efforts on the reduction and prevention of underage drinking. Reducing consumption—for example, increasing the age of initial use of alcohol and reducing the current use of alcohol—should lead to a reduction in negative consequences** such as antisocial behaviors related to alcohol use.

## Illinois

### Indicator Selection

The Illinois Epi Workgroup used a three-stage process to narrow down its list of potential indicators and identify the top-priority substance-related problems in the State. The first two stages involved assessments of the epidemiological data—first, the quality of data sources; and second, the burden of problems based on multiple epidemiological criteria such as magnitude and trends over time. The final stage involved reviewing the results from the earlier stages of analysis, which resulted in the identification of 14 high-priority indicators, and examining the feasibility of intervening in each problem. This feasibility assessment yielded three priority indicators/problems.

### Indicator Assessment

The Illinois Workgroup started its prioritization process by considering 61 of the more than 100 possible indicators identified through its initial brainstorming. To further narrow down these indicators, Workgroup members engaged in a *data-quality screening process*. They reviewed both the *Data Notebook*—which provides analyses of the indicators over time and by demographics—and the indicator data source methodology literature to assess the availability, reliability, and validity of their data sources. As a result, 18 of the 61 indicators were eliminated due to data inconsistency or lack of availability; 43 indicators were retained.

To further reduce and prioritize, the Workgroup members conducted a *burden assessment*, which involved examining several epidemiological criteria as well as determining data confidence. Again, they reviewed the *Data Notebook* and the indicator data source methodology literature. They next ranked each of the 14 top indicators using the following rating criteria:

- **Magnitude** or extent of the problem within the substance abuse domain (i.e., an alcohol indicator is scored relative to all other alcohol indicators, not to illicit drugs and tobacco). On a 5-point scale, a rating of 1 equaled “low incidence or prevalence” and a rating of 5 equaled “high incidence or prevalence.”
- **Trends** over time (scored on a scale of 1 to 5, with a rating of 1 indicating “rapid improvement over the past five years” and a rating of 5 indicating “rapid deterioration over the past five years.”)
- **Severity of consequences**, rated on a 5-point scale from 1 (“not life threatening/no immediate danger”) to 5 (life-threatening and debilitating to the individual and to society”).
- **Benchmark comparison**, comparing Illinois data to national data on a scale from 1 (“better than benchmark”) to 5 (“worse than the benchmark”).
- **Data source confidence**, a criterion that considered whether the data source for the indicator was relatively valid and reliable (a “High” rating signified good quality and reliable data; a “Medium” rating signified average “generalizability” and reliability; and a “Low” rating signified poor data quality and limited generalizability).

Following its analyses of the epidemiological data and indicator data sources, the final step in the Illinois Epi Workgroup's prioritization process was the conduct of a *feasibility screening*. , Workgroup members discussed and ranked the feasibility of each of the 14 problem indicators identified during the burden assessment as either *High* (highly feasible), *Moderate* (moderately feasible), or *Low* (not very feasible). They used the following feasibility question to ground their discussion and consensus:

- Can the indicator be influenced at the community level (within the next 5 years) largely through prevention systems?
- Are any evidence-based programs, policies, and practices available to effect change in this problem indicator?
- Does the problem indicator have political support or no clear political opposition?

SPF SIG project staff and the State Advisory Council (SAC) chair evaluated the results of the Workgroup's feasibility ratings. Based on the SAC members' feedback, the chair and SPF SIG staff found it difficult to identify a single priority problem without excluding communities with significant substance-related issues (a concern expressed by the SAC). They subsequently agreed that the 14 indicators should be grouped into the following four priority problem areas and that problem statements should be drafted to clarify the key issues noted for each at the State level:

- **Risky use of alcohol and underage drinking**—Three critical problems were associated with alcohol misuse in Illinois:
  - Underage drinking (particularly past 30-day use) was found to be a problem, with the largest increases noted between youth from eighth grade to age 20. Among Cook County, Illinois, youth, White and Hispanic youth were most likely to report past 30-day alcohol use than were African American youth. Among underage college students, Native, Hispanic, and White Americans were more likely to report using alcohol in the past 30 days than were either Asian or African Americans.
  - Episodic binge drinking in the past two weeks was found to increase dramatically from 8<sup>th</sup> to 12<sup>th</sup> grade among Illinois youth and then decrease over the lifespan. Among Illinois adults, males were more likely to binge drink than females, whereas gender differences in binge drinking were less pronounced among youth.
  - Alcohol-related motor vehicle injuries and deaths were found to be a concern in Illinois. The highest Illinois DUI arrest rate was seen among individuals from 21 to 24 years old.
- **Tobacco use**—Tobacco use was found to be a special problem among Illinois youth, peaking at around 12<sup>th</sup> grade and declining over the lifespan. Of additional concern was the use of tobacco during pregnancy, particularly among older women (aged 25 to 44); and among Hispanic and African American women, who reported lower rates of smoking cessation during the first trimester of pregnancy.
- **Marijuana use**—Marijuana use was highest among Illinois adults aged 18 to 25 years. Illinois youth in grades 8 through 12 reported past 30-day marijuana use rates above the national average for their age group.

- **Illicit Drug Use**—Drug-induced deaths were the most serious consequence of illicit drug use in Illinois, and substantial disparities were noted between the rate of drug-induced deaths among African Americans and all other race groups. Another concern noted was the rise over time in methamphetamine lab seizures, particularly in the most southerly counties in Illinois. Early inhalant use among youth in 8<sup>th</sup> grade and below was also a problem, particularly among White American youth.

### **Final Priority Areas**

In its feedback to the SPF SIG staff, SAMHSA/CSAP raised concerns about the number of priorities identified. The staff members responded that they originally had proposed using 14 data indicators that fell within four priority areas, representing 10 or more problems across alcohol, tobacco, and illicit drug usage domains, and that they also had targeted various youth and adult populations. SAMHSA/CSAP recommended that the number of priorities be limited only to those presented. It further recommended that the grant RFP be revised to allow communities to identify and justify a second priority to which a smaller portion of funds might be allocated.

Taking into consideration SAMHSA/CSAP's feedback and to honor the work of the Epi Workgroup and the leadership of the State Advisory Council (SAC), the SPF SIG staff agreed that the Illinois SPF priority was to reduce the misuse of alcohol. It accepted the results of the Epi Workgroup's feasibility screen, which narrowed the priority problem indicators down to the following three indicators with high levels of feasibility:

- adolescents who report using alcohol in the past 30 days,
- people who engage in binge drinking of alcoholic beverages, and
- alcohol-related deaths from motor vehicle crashes (total number of people who died in crashes).

Subsequently, Illinois communities were directed to select one of the above indicators as their priority problem and to select a second priority from the problems on the SAC's recommended priority list, which included tobacco use, marijuana use, illicit drug use, and one of the two remaining alcohol priorities. Communities were allowed to use up to 30 percent of their time and funds to address the second priority. Communities that select a second priority were directed to justify their need for additional funding based on data.

# Indiana

## Indicator Assessment

To identify its State priorities, Indiana's Epi Workgroup first reviewed data on the consumption and consequences of alcohol, tobacco, marijuana, cocaine, heroin, methamphetamine, prescription drug use, and poly-substance use. The Workgroup considered the following three primary factors in its evaluations and cross-substance comparison of the epidemiological data,:

- **Size/Magnitude** – the overall current rate and estimated number of people affected by each substance;
- **Severity** – the extent and nature of commonly identified short- and long-term consequences associated with the abuse of each substance; and
- **Time trends** – recent trends in patterns of consumption and consequences associated with each substance.

In most instances, the Indiana Workgroup members attempted to identify areas within the State that exhibited significantly higher than national rates in consumption and/or negative consequences associated with each substance. After careful analysis and review of the available data, Workgroup members identified a list of prevention targets of significant epidemiological concern.

After careful examination and lengthy discussion, they subsequently revised the list to provide additional guidance to the Governor's Advisory Council (GAC) and to highlight the relative importance of each item via a rating system. This rating was done using a balloting process in which voting members of the Epi Workgroup evaluated each problem area using a rating scale for overall significance, overall magnitude, trends over time, severity, and changeability. The revised final list included the following six priorities, which were divided into two groups:

### *Data-based priorities reflecting Statewide concerns:*

- Prevent and reduce underage drinking and binge drinking among 18- to 25-year-olds.
- Prevent the first use of tobacco among 12- to 17-year-olds and reduce tobacco use among 18- to 24-year-olds, Blacks, and individuals with lower incomes and/or less than a high school education.
- Prevent the first use of marijuana among 12- to 17-year-olds and reduce the use of marijuana among 18- to 25-year-olds.

### *Data-based priorities reflecting more localized concerns (i.e., concentrated within certain sub-populations, communities, or regions of the State):*

- Prevent the first use and reduce the use of cocaine among 18- to 25-year-olds.
- Prevent and reduce the abuse of prescription drugs among 12- to 25-year-olds.
- Prevent and reduce the use of methamphetamine among Black youth and among White women and men between 18 and 44 years of age.

Given that the amount of SPF SIG funding was limited, the GAC determined that additional criteria should be applied to select a subset of the six priorities for which additional SPF SIG funding would be made available. With SAMHSA/CSAP’s advice and counsel, the following three additional criteria were identified:

- existing capacity and resources,
- preventability and changeability, and
- community readiness and political will.

The GAC was committed to using SPF SIG funding to expand the capacity of the State to address high-need areas more effectively, thus it gave greater weight to its assessment of the State’s existing capacity (e.g., existing funding, available infrastructure, level of integration of prevention providers working on a particular substance, potential for leveraging non-SPF SIG funding, potential for sustainability, etc.). In collaboration with the Epi Workgroup and its Executive Committee, the GAG developed a matrix to guide the selection of priority problems as the focus of SPF SIG funding (see **Table B6**). That matrix takes into account the available data on capacity and funding, the intervention science literature, and the political situation across Indiana.

<b>Table B6: Assessment of Indiana Substance Abuse Priority Areas Based on Secondary Criteria</b>			
<b>Priority</b>	<b>Existing Capacity/ Resources</b>	<b>Preventability and Changeability</b>	<b>Community Readiness/ Political Will</b>
Alcohol	Weak	High	High
Tobacco	Strong	High	High
Marijuana	Weak	Low	Low
Cocaine	Weak	Modest/Low	High
Methamphetamine	Weak to Moderate	Modest	High
Prescription Drugs	Weak	Low	Low

### **Final Priority Areas**

Because the GAC’s primary concern was improving the State’s capacity to address its substance abuse problems, it decided that tobacco should not be a focus of SPF SIG funding because approximately 85 percent of Indiana’s prevention dollars at the time were dedicated to reducing tobacco use. Within the five remaining priorities, the GAC judged that marijuana and prescription drug use should not be the focus of SPF SIG funding because of their relatively low preventability/changeability and low levels of political will and community readiness to address these substances. Consequently, it decided that State SPF SIG funding should be dedicated to combating alcohol, cocaine, and methamphetamine abuse. Given the significantly larger number

of State residents affected by alcohol abuse, the Council targeted 60 percent of the available SPF SIG programmatic funding for communities identified as having high needs for alcohol prevention. The remaining funds were targeted for communities with high prevention needs with regard to cocaine (20 percent) and methamphetamine (20 percent) abuse. (Of course, the final allocation decisions will be based on the quality of SPF SIG applications received and thus may vary somewhat from these targets.)

# Michigan

## Indicator Assessment

Michigan's Epi Workgroup developed a three-tiered, systematic process for rating and prioritizing indicators across various dimensions and criteria. These processes resulted in the identification of several key priority substance abuse problems.

### Tier One: Data-Guided Burden Assessment Process

The first tier of the Michigan Epi Workgroup's prioritization process Workgroup members compared each substance abuse indicator in the Epi Profile to other indicators in the same broad constructs as well as within the overall Profile. They rated each indicator as low-, medium-, or high-priority and then calculated total and average scores for each. They also tabulated overall scores for each indicator group and ranked the indicators in descending order by group average. **Table B4** presents the results of this ranking process based on the data-guided rating scores.

### Tier Two: The Knowledge-Based Impact Assessment Process

The second tier of the needs-assessment process, the knowledge-based impact assessment, provided the Michigan Epi Workgroup with a mechanism for assessing the State's ability to change the identified substance abuse problems at the State level. This process served to identify priority substance abuse problems for which Michigan communities already have the resources and capacity in place to address. This process also helped the Workgroup to assess the extent to which Michigan communities have the ability to realize change in the factors contributing to the identified priority substance abuse problems during the five-year span of the SPF SIG project.

The knowledge-based impact criteria rated for each substance abuse-related problem included the following:

- capacity and resources;
- preventability and changeability; and
- readiness and political will.

Workgroup members individually rated each problem based on the three criteria using a Likert-type scale ranging from 1 to 5 (1 = *Low*, 3 = *Medium*, 5 = *High*) to allow added variation between scores. **Table B5** presents the results of this ranking process.

### Tier Three: The Priority-Problem Selection Process

In the final stage of the Michigan process, Workgroup, SAC, and IG members integrated the scores and feedback from the two preceding rating processes. Each member selected three substance abuse problems that appeared to be priority concerns in the State based on the information attained from the preceding assessment tiers. Each participant in this process was provided with copies of the materials utilized in the needs-assessment process, including the burden document, the Epi Profile, and charts that organized the indicators by descending rank based on the group rating scores resulting from the earlier assessments.

The raters were asked to examine the indicators and pay close attention to those problems that had received average high ratings from both the data-guided and knowledge-based processes. They were also asked to consider the implications of any varying scores within each criterion category such as, for example, indicators that received low scores for capacity/resources but high

scores for changeability/preventability and readiness/political compared to indicators that received low scores for changeability but high scores for capacity/resource and readiness/political will.

Raters utilized this process to formulate broader, overarching substance abuse-related priorities as well as to link various consumption patterns and intervening factors to similar substance abuse consequences. For example, alcohol-related traffic crash deaths and DWI (driving while intoxicated) arrests both received high ratings as a result of the data-driven and knowledge-based processes. Binge drinking, 30-day alcohol use, and drinking while driving also appeared to be highly prevalent among Michigan's population. To avoid the problem of interrelated indicators with similar intervening and contributing factors competing against each other, the raters formulated broader substance abuse problem areas pertaining to alcohol-related traffic crash deaths and DWI arrests. This resulted in the identification of the following as the top-10 substance abuse problems in the State of Michigan:

- Alcohol Abuse/Dependence
- Alcohol-Related Traffic Crash Deaths and Driving While Intoxicated
- Lung Cancer Deaths
- Alcohol-/Drug-Related Suspensions/Expulsions
- Alcohol-Related Hospitalizations of Pregnant Women
- Drug Abuse/Dependence (e.g., marijuana, cocaine, heroin)
- Juvenile Drug Abuse and Dependence
- Drug-Related Hospitalizations
- Alcohol-Related Homicide
- Alcohol-Related Liver Disease

### **Final Priority Areas**

After the three-tiered process was complete, the SAC was given the responsibility of providing recommendations to the Michigan Department of Community Health's Office of Drug Control Policy (MDCH/ODCP) on State-level priority substance abuse problems to be addressed by Michigan's communities in the initial phase of the SPF SIG. The following were selected as the five highest-priority problems:

- Alcohol Abuse/Dependence
- Alcohol-Related Traffic Crash Deaths and Driving While Intoxicated
- Alcohol-Related Hospitalizations of Pregnant Women
- Lung Cancer Deaths
- Alcohol-/Drug-Related Suspensions/Expulsions

Following SAMHSA/CSAP's guidance to start small and prioritize the problems that are most universal, MDCH/ODCP determined that alcohol-related traffic crashes would be the only problem addressed in the initial phase of the project in the State of Michigan.

**Table B4. Michigan Substance Abuse Problems/Indicators Identified by the State Epi Workgroup’s “Data-Guided” Rating Process, Ranked in Descending Order (High to Low Scores)**

<b>Data-Guided Rating Scores<sup>1</sup></b>	<b>Problems/Indicators</b>	<b>Knowledge-Based Rating Scores<sup>2</sup></b>	<b>Preventability/Changeability</b>	<b>Capacity/Resources</b>	<b>Readiness/Political Will</b>
H (2.509)	Alcohol-Related Traffic Crash Deaths	M/H (3.75)	M/H (3.62)	M (3.0)	M/H (3.5)
H (2.487)	Alcohol Abuse/Dependence (Treatment Admissions Data) <sup>3</sup>	<b>M (3.21)</b>	H (4.16)	M/L (2.66)	M/L (2.83)
H (2.421)	Alcohol-Related Hospitalizations of Pregnant Women	M/H (3.58)	H (4.0)	M/H (3.5)	M (3.25)
H (2.353)	Drug-Related Hospitalizations	M/L (2.73)	M/L (2.7)	M/L (2.6)	M/L (2.9)
H (2.338)	Driving While Impaired Arrests	H (4.04)	H (4.375)	M/H (3.875)	M/H (3.875)
H (2.337)	Lung Cancer Deaths	M/H (3.77)	H (4.11)	M (3.44)	M/H (3.77)
M/H (2.258)	Marijuana, Cocaine, Heroin Drug Abuse/Dependence (Treatment Admissions) <sup>3</sup>	M (3.0)	M/H (3.67)	M/L (2.67)	M/L (2.67)
M/H (2.221)	Chronic Obstructive Pulmonary Disease Deaths	M (3.15)	M/H (3.55)	M/L (2.66)	M (3.22)
M/ H (2.168)	Alcohol-Related Homicides	M (2.958)	M (3.25)	M (2.87)	M/L (2.75)
M/H (2.137)	Injecting Drug Use (IDU)-Acquired AIDS Cases	M/L (2.93)	M/H (3.7)	M (2.9)	L (2.2)
M (2.014)	Alcohol-Related Liver Disease	M (3.21)	M/H (3.625)	M/H (3.5)	M/L (2.5)
L (1.853)	Drug-Related Deaths	L (2.23)	L (2.2)	L (2.4)	L (2.1)
L (1.634)	Methamphetamine Abuse/Dependence (Treatment Admissions Data) <sup>3</sup>	M (3.4)	M (3.0)	M (3.33)	H (4.0)
L (1.597)	Alcohol-Related Suicides	M (2.958)	M/H (3.63)	M/L (2.5)	M/L (2.75)
N/A	Alcohol/Drug-Related Suspensions/Expulsions <sup>4</sup>	M (3.33)	H (4.25)	M (3.125)	M/L (2.625)
N/A	Juvenile Drug Abuse Treatment <sup>3,4</sup>	M (3.2)	H (4.0)	M (3.0)	M (3.0)
N/A	Corrections-Related Drug Abuse Treatment (Probationers, Parolees) <sup>3,4</sup>	L (2.4)	M (3.0)	L (2.33)	L (2.0)

**Table B5: Michigan Substance Abuse Problems/Indicators Identified by the State Epi Workgroup’s “Knowledge-Based” Rating Process, Ranked in Descending Order (High to Low Scores)**

<b>Data-Guided Rating Scores<sup>1</sup></b>	<b>Problems/Indicators</b>	<b>Knowledge-Based Rating Scores<sup>2</sup></b>	<b>Preventability/Changeability</b>	<b>Capacity/Resources</b>	<b>Readiness/Political Will</b>
H (2.338)	Driving While Impaired Arrests	H (4.04)	H (4.375)	M/H (3.875)	M/H (3.875)
H (2.337)	Lung Cancer Deaths	M/H (3.77)	H (4.11)	M (3.44)	M/H (3.77)
H (2.509)	Alcohol-Related Traffic Crash Deaths	M/H (3.75)	M/H (3.62)	M (3.0)	M/H (3.5)
H (2.421)	Alcohol-Related Hospitalizations of Pregnant Women	M/H (3.58)	H (4.0)	M/H (3.5)	M (3.25)
L (1.634)	Methamphetamine Abuse/Dependence (Treatment Admissions Data) <sup>3</sup>	M (3.4)	M (3.0)	M (3.33)	H (4.0)
N/A	Alcohol/Drug-Related Suspensions/Expulsions <sup>4</sup>	M (3.33)	H (4.25)	M (3.125)	M/L (2.625)
H (2.487)	Alcohol Abuse/Dependence (Treatment Admissions Data) <sup>3</sup>	<b>M (3.21)</b>	H (4.16)	M/L (2.66)	M/L (2.83)
M (2.014)	Alcohol-Related Liver Disease	M (3.21)	M/H (3.625)	M/H (3.5)	M/L (2.5)
N/A	Juvenile Drug Abuse Treatment <sup>3,4</sup>	M (3.2)	H (4.0)	M (3.0)	M (3.0)
M/H (2.221)	Chronic Obstructive Pulmonary Disease Deaths	M (3.15)	M/H (3.55)	M/L (2.66)	M (3.22)
L (1.597)	Alcohol-Related Suicides	M (2.958)	M/H (3.63)	M/L (2.5)	M/L (2.75)
M/H (2.168)	Alcohol-Related Homicides	M (2.958)	M (3.25)	M (2.87)	M/L (2.75)
M/H (2.137)	Injecting Drug Use (IDU)-Acquired AIDS Cases	M/L (2.93)	M/H (3.7)	M (2.9)	L (2.2)
M/H (2.258)	Marijuana, Cocaine, Heroin Drug Abuse/Dependence (Treatment Admissions) <sup>3</sup>	M/L (2.8)	M (3.2)	L (2.2)	M (3.0)
H (2.353)	Drug-Related Hospitalizations	M/L (2.73)	M/L (2.7)	M/L (2.6)	M/L (2.9)
N/A	Corrections-Based Drug Abuse Treatment (Probationers, Parolees) <sup>3,4</sup>	L (2.4)	M (3.0)	L (2.33)	L (2.0)
L (1.853)	Drug-Related Deaths	L (2.23)	L (2.2)	L (2.4)	L (2.1)

## North Carolina

### Indicator Selection

Prior to initiating its prioritization process, the North Carolina Epi Workgroup had reduced the number of constructs for consideration down to five (e.g., health and injury, mortality/death, adult and juvenile crime, education disruption, and treatment), with a total of 24 indicators across these constructs and three substances (alcohol, tobacco, and illicit drugs). Upon completion of its data collection and reduction process, the Workgroup engaged in the analysis and prioritization of the State's substance abuse indicators.

### Indicator Assessment

The Workgroup considered four criteria:

- **Problem Prevalence** – This was determined by dividing the rate per 100,000 individuals into deciles, resulting in a score from 1 to 10, where 1 equaled the highest prevalence and 10 equaled the lowest prevalence.
- **Severity** – The Workgroup ranked severity per individual case (to individual and community) on a subjective rating scale from 1 to 10, where 1 equaled the worst and 10 equaled the best. Workgroup members scored each construct for each substance on severity (e.g., death is a more severe consequence than illness).
- **National ranking** – The Workgroup divided national ranking criteria into quintiles and then assigned a value to each quintile (0.7 if in the bottom or worst fifth, 0.9 if in the bottom-middle fifth, 1.0 in the middle fifth, 1.1 in top middle fifth, and 1.3 if in top [best] fifth).
- **Trends** – The Workgroup analyzed trends over the past three years using a multiplier of 0.9 if it found those trends to be increasing, 1.0 if same, and 1.1 if decreasing.

The Workgroup used a two-part equation to calculate need or final priority scores as follows:

$$\text{Degree of Problem} = \text{Prevalence} \times \text{Severity Per Case}$$

$$\text{Need} = \text{Degree of Problem} \times \text{Rank} \times \text{Trend}$$

In the first step of the algorithm above, the Workgroup established the degree of the problem, regardless of national ranking and trend. In the second step, it adjusted the degree of the problem upward or downward depending on rank and trend to generate a final need score (lower scores indicate greater need).

### Final Priority Areas

After calculating need scores for all 24 indicators, the North Carolina Epi Workgroup was tasked with selecting the six highest prevention priorities for the State. Rather than select these priorities solely on the basis of need score (which would have resulted in all priorities addressing alcohol consumption-related issues), the Workgroup decided to ensure that each substance type was

represented among the highest priorities. Thus, it selected as priorities those outcomes with the lowest need scores in each substance type. The six priorities identified at this stage were:

- DWI-disposed cases,
- total alcohol-related traffic deaths,
- youths in grades K-12 in possession of a controlled substance in violation of the law,
- adults 18 or older arrested for drug law violations,
- drug overdose mortality, and
- tobacco-related mortality

The Workgroup then re-evaluated the six high-need areas with respect to two issues: changeability and “evaluability.” Changeability referred to the likelihood that the impact or level of a problem can improve within a given time frame (i.e., within the four- to five-year span of the SPF SIG). The Workgroup considered the following issues to determine changeability: time (i.e., some outcomes represent long-term effects of use, such as lung cancer, that are difficult to change in the short term), magnitude (i.e., some consequences are rare enough at the community level that a change in actual occurrences may be highly unstable and/or difficult to ascertain), strength of relationship (i.e., extent to which changing consumption patterns may be expected to result in changes in consequence).

Evaluability referred to the ease of measurement of a change in an outcome. The Workgroup considered the following aspects of evaluability : ready availability of data, timeliness of data (i.e., time period between data collection and release not lengthy), and existence of outcome measures or good proxies.

After considerable discussion, the Workgroup eliminated several priority issues based on evaluability and changeability. First, it decided that indicators that were contingent on law enforcement systems, including both DWI arrests and drug law violations, were difficult to evaluate because they are not only a function of violations of the law but also of resources and efforts of law enforcement (e.g., more arrests could mean more drug use or better law enforcement efforts). For those measures, the Workgroup could not determine a clear definition of measurement; therefore, those measures were deemed not easily evaluable. Additionally, tobacco-related mortality data were deemed unlikely to demonstrate change within the four-year timeframe of the SPF SIG. Given that drug overdose mortality data were rare at the community level, the Workgroup reasoned that it would be difficult to measure change reliably. After applying the changeability and evaluability considerations, the **North Carolina Workgroup selected reducing total alcohol-related traffic deaths as the best statewide priority based on overall prevalence, severity, national rank, trends, changeability, and evaluability.**

# Wyoming

## Indicator Selection

Wyoming began the prioritization process by first examining possible data sources. Of the 86 data sources reviewed, 35 were eliminated. The State's Epi Workgroup then turned its attention to indicators, identifying 269 different indicators as relevant to the needs assessment. All of these indicators were ranked based upon seven equally weighted criteria:

- 1) Value – the percentage of a specific population engaging in the behavior (rate);
- 2) Ratio – the comparison between Wyoming's value on an indicator and that of the nation;
- 3) Rank – Wyoming's position relative to other States;
- 4) Trend – changes over time in values;
- 5) Size – the estimated number of people in Wyoming engaging in a behavior (absolute number or count);
- 6) Availability – access to the indicator at the county level; and
- 7) *Healthy People 2010* – target indicators in *Healthy People 2010*.

Through a process of consensus, the Wyoming Epi Workgroup narrowed down its list of 269 initial indicators to a pool of 25 final indicators, each of which would be assessed in the prioritization process.

## Indicator Assessment

First, the Epi Workgroup assigned ratings to each indicator across three dimensions:

- Size – based on the absolute number of people in the State directly affected by the problem (scored on a scale of 1 to 3, with 1 equaling *Low*, 2 signifying *Medium*, and 3 indicating *High*);
- Seriousness – based on assessments of urgency, severity, economic loss, and involvement of others (1 for *Low*, 2 for *Medium*, and 3 for *High*); and
- Changeability – based on the potential for change in problem occurrence over the next five years (0 for *None*; 1 for *Low*, 2 for *Medium*, and 3 for *High*).

Then the Workgroup applied the following formula to the ratings:

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

Last, the Workgroup arrayed the indicators in rank order based on the final indicator scores as well as their ranking based on the first seven criteria. The scores and rankings for consumption and consequence indicators, respectively, are shown below in **tables A1** and **A2**.

**Table B1: Ranking of Final Consumption Indicators – Wyoming**

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	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
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 B2: Ranking of Final Consequence Indicators – Wyoming					
Indicator	Data Source	Size	Seriousness	Changeability	Final Score
Alcohol dependence or abuse	NSDUH	3	3	2	18
Suicide deaths per 100,000 population	CDC Wonder	1	3	2	14
Alcohol-related vehicle deaths per 100,000 population	FARS	1	3	2	14
DWI arrests	UCR	2	2	2	12
Drunkenness and liquor law violation arrests	UCR	3	1	2	10
Accidental deaths 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 arrests per 100,000 population	UCR	3	1	1	5
Chronic liver disease deaths per 100,000 population	CDC Wonder	1	3	0	0

### Final Priority Areas

Based upon the scores and rankings shown in **tables B1** and **B2** above, the Epi Workgroup identified the eight most important substance-related problem areas in Wyoming. The shaded areas represent those indicators that stood out and led to the Workgroup focusing its attention on four consumption areas (past month binge drinking, illicit drug use, past month cigarette use, and smoking among pregnant women) and four consequence areas (suicide, alcohol dependence and abuse, alcohol and motor vehicle accidents, and alcohol and crime).

Once the eight priority consumption and consequence areas were identified, the Epi Workgroup reviewed full data profiles on each. These profiles included a summary of statistics on each problem area, an assessment of current resources targeting each problem, and basic county-level data. The Workgroup then engaged in intensive discussions to narrow their focus to the one area that would be targeted by the SFP SIG project. Workgroup members agreed that each area was of major concern in Wyoming, but they made their final decisions based upon their examination of two major issues. The first issue involved the current level of resources being spent on each 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. The Workgroup’s review of the data revealed that past month cigarette use, smoking among pregnant women, and illicit drug use benefited from the most resources. Additionally, the Workgroup found that three substance-related consequence areas (alcohol dependence and abuse, alcohol and motor vehicles, and alcohol and crime) were related to one consumption area (binge drinking). As a result, **it**

**recommended that Wyoming target misuse of alcohol in its SPF SIG efforts, with underage drinking and adult binge drinking as the primary focus of its Statewide prevention efforts. The Workgroup further recommended that the major consequences of misuse of alcohol in the State—alcohol dependence, alcohol-related motor vehicle crashes, and alcohol-related crime—be considered as the State’s secondary prevention focus.**

## Kentucky

Kentucky used a three-stage process to: 1) examine Statewide epidemiological data to identify priority areas of concern; 2) use data on prevalence, consequences, and risk/protective factors at the county level to identify hot spots and a manageable number of communities to assess in more detail; and 3) assess the readiness for strategic planning among the “finalist” communities so that a final proposed grantee could be selected for each priority substance area.

### Indicator Assessment

To begin the Kentucky substance abuse problem-prioritization process, the State Epi Workgroup’s Data Analysis Committee conducted an examination of global State data from all sources. The Committee members relied heavily on quantitative data about consumption and consequences available from reputable and reliable sources (e.g., NSDUH, BRFSS, YRBS, Kentucky’s KIP survey of school-aged youth). They organized and summarized their data findings and presented them to the Workgroup’s Strategic Planning Committee (SPC) along with a set of recommendations.

The SPC’s review, discussion, and decision-making processes were facilitated by the use of prioritization chart worksheets. These worksheets helped them to organize their thoughts on the following key issues and variables associated with particular substances:

- **prevalence and incidence,**
- **trends,**
- **severity of consequences,**
- **estimated cost to society, and**
- **current level of effort/resources already allocated.**

SPC members also evaluated Kentucky’s substance abuse problems in light of the estimated costs of those problems to the State, the current level of effort/resources already allocated toward those problems, the availability of evidence-based programs or practices for each problem area, the political will to address the problem, and the evidence of geographic and/or demographic variability.

### Final Priority Areas

In all its deliberations, the Committee’s primary concern was to document the link between the prevalence of a given substance and its consequences. This was most readily documented with tobacco (e.g., rates of cancer and heart disease) and underage drinking (e.g., school violations, DUIs, juvenile collisions, arrests). The SPC had more difficulty linking methamphetamine and diverted prescriptions to specific consequences because current data on arrests, DUIs, health, and similar variables typically do not specify substances at that level of specificity. Committee members did, however, identify a compelling link, which has been well documented in the literature, between use of inhalants and serious health consequences (e.g., neurological impairment) among early adolescents with evidence of high rates of use.

Through systematic discussion and formal vote, the SPC selected the following problems as Kentucky SPF SIG priority areas of concern: 1) tobacco (all ages); 2) underage drinking (on

college campuses and in communities); 3) diverted prescriptions (with a focus on the State’s Appalachian counties); 4) methamphetamine use (with a focus on the State’s western counties); and 5) inhalants (with a focus on those counties that reported the highest rates of self-reported use by 8th graders).

### **Identifying Hot Spots and High-Need Communities**

Once the priority areas of concern were identified, the State Epi Workgroup as a whole was tasked to pinpoint prevalence, consequences, and risk/protective factors at the community (county) level across the State. This was done to narrow the focus to the State’s substance abuse hot spots and identify a manageable number of communities to assess in more detail. This part of the process involved drilling down into State data sets and organizing those data to focus on the county and regional substance use.

Data identifying communities (counties) with both high-magnitude and high-priority needs was subjected to a community resource-mapping process—that is, those data were examined to determine the communities’ current state of affairs with respect to programmatic and financial resources across the State prevention system. This allowed the SPC to determine overall variability in prevention resources across the State and among high-need communities, and ultimately helped them narrow the field by determining high-need communities with relatively low resources.

### **Assessing Programmatic Resources**

To determine the availability of programmatic resources throughout the State, the Workgroup members conducted a comprehensive review of Kentucky’s Prevention Data Set (PDS). This resulted in a data extraction that yielded the total number of participants in all “science-based or promising” youth and adult-oriented prevention programs (CSAP Level 3 or higher) per county for the prior 18-month period (January 1, 2004, through June 30, 2005). Ultimately, 34 GIS maps were created and presented to the SPC. Each map contained the name of one science-based or promising prevention program, a brief description of the program, the number of participants in the program per county, and the data source\*. Thus, at a glance, SPC members were able to “see” which counties were currently (or had recently been) utilizing science-based or promising programs and how many participants were being served in each county for the prior 18 months. The Workgroup created several additional maps that showed the total number of participants in all such programs by county, the rate of participation (per 1,000 population) in those programs by county, and the total number of different science-based and promising programs by county.

### **Assessing Funding Resources Across the State**

A process similar to that used to assess programmatic resources was used to assess Kentucky’s Statewide prevention funding resources. the Workgroup’s comprehensive review of all known significant (\$10,000 or more) Federal and State prevention funding resources yielded eight GIS maps to enhance the work of the SPC. These maps contained the following:

- Regional Prevention Center (RPC) annual budgets for FY06;

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\* In most cases the data source was the PDS. In one instance, Kentucky State Police data on participation in the Drug Abuse Resistance Education (DARE) program was used as the data source because it was considered more accurate.

- RPC funding rate (per 1,000 population) for FY06;
- FY05 funding, by county, for Champions for a Drug-Free Kentucky recipients;
- Kentucky Agency for Substance Abuse Prevention (KY-ASAP) funding for FY05, by county;
- 2001 through 2004 Drug-Free Communities Support Program grantees, by county;
- Robert Wood Johnson Foundation Reclaiming Futures grantees, by county, from 2003 to 2007;
- FY06 allocation rate (per 1,000 population) of Tobacco Prevention/Cessation Funding to Kentucky Health Department Districts; and
- Operation UNITE funding across relevant counties from 2003 to the present.

SPC members reviewed the data from each of these program resource and prevention funding resource maps and began to identify low-resourced areas throughout the State. The data maps allowed them to determine the overall viability and potential for success of each potential finalist community. Disparities in funding resources across counties, along with information about the use of science-based or promising interventions, were key factors in their decision-making, which culminated in a formal vote to determine the top high-priority (finalist) communities for each of the five priority substance areas.

### **Conducting Community Readiness Assessments**

Once the finalist communities were identified, the Workgroup members sought to learn more about each finalist community and assess its readiness for strategic planning. Workgroup members approached this task earnestly by engaging in a two-step process. The first step involved a key informant survey conducted with all 14 Regional Prevention Center (RPC) directors. Each director was asked to rate all the counties in his or her region on five dimensions of readiness derived from SPF SIG staff knowledge of factors that correlated with previously successful collaborative and strategic planning efforts across the State. These dimensions included the following:

- level of RPC involvement in each county,
- quality of RPC relationships with community leaders in each county,
- level of effective interagency collaboration demonstrated in each county,
- demonstrated capacity to develop strategic plans that were acceptable to prevention funding agencies, and
- demonstrated commitment to implementation of funded prevention programs.

All ratings were aggregated, organized, analyzed, and formatted as GIS maps.

Step two of the community readiness assessment involved the conduct of comprehensive site visits to each finalist community to determine the potential SPF SIG grantees': 1) overall knowledge and commitment to the SPF; 2) desire to engage in a structured, long-term prevention planning with an evidence-based focus; and 3) estimated time needed for capacity building prior to implementation.

Using an adapted version of the NIDA Community Readiness Inventory, the Workgroup's site visit teams conducted focus groups with stakeholders from each county to learn more about each

county, and gather and organize information on the following seven factors of community readiness: 1) problem definition/agreement; 2) recognition of problem by community; 3) existence of and access to resources; 4) vision and plan; 5) energy to mobilize and sustain prevention activities; 6) networking with and support of stakeholders; and 7) talent, leadership structure, and sense of community.

### **Identifying Finalist Communities**

Based on the site visits, the Kentucky Workgroup selected eight counties to receive SPF SIG funding to address State priority areas: Owsley County (Tobacco), Owen County (Underage Drinking), Letcher and Clinton Counties (Diverted Prescription Drugs), Letcher and Clinton Counties (Methamphetamine), and Clay and Monroe Counties (Inhalants).