Setting Priorities for Substance Abuse Prevention:

Guidance for State Epidemiological Workgroups

Foreword

All States[1] and several Tribal entities have received Federal funding from the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP) to establish Epidemiological Workgroups (hereafter, Epi Workgroups). These workgroups are networks of people and organizations that bring analytical and other data competencies to substance abuse prevention. Their mission is to integrate data about the nature and distribution of substance use and related consequences into ongoing assessment, planning, and monitoring decisions at State and community levels. Their deliberate focus is on using data to inform and enhance prevention practice.

In some cases, Epi Workgroups are part of a SAMHSA/CSAP Strategic Prevention Framework State Incentive Grant (SPF SIG) initiative. In areas that lack SPF SIG funding, CSAP makes additional funding available to support Epi Workgroups locally.[2] CSAP also provides technical assistance to support Epi Workgroup development and data work in the form of data resources, one-on-one interactions, and multi-State/other cross-State learning opportunities. The Epi Workgroups promote data-driven decision making in the substance abuse prevention systems developed within States.

Such data-driven decision making necessitates the development of a State monitoring system for substance abuse. Such a system can help inform assessment ("*What do substance use and related consequences look like in the State?*"), planning ("*What are the current prevention priorities that emerge after needs assessment?*"), and monitoring/evaluation activities ("*How are we doing in our efforts to address these issues?*") to enhance substance abuse prevention.

Through its Epidemiological Workgroup effort, CSAP has defined a series of data-driven activities to assist States further develop their State monitoring systems by:

- developing a key set of indicators to describe the magnitude and distribution of substance related consequences and consumption patterns across the State;
- collecting, analyzing, interpreting, and communicating these data through the development of an epidemiological profile;
- establishing prevention priorities for State resources based on data analyzed and interpreted through the profiling process;
- allocating resources to populations based on the established priorities; and

[1] In this Toolkit, the term *States* refers collectively to States, the District of Columbia, and Federally recognized Tribal and U.S. territories.

[2] Twenty-three of the 65 funded workgroups are SEOWs (State Epidemiological Outcome Workgroups in areas without SPF SIGs. SEOW are not required to address Task D: *Assist in determining substance abuse prevention priorities, based on epidemiological data, and outline how they inform State planning and resource allocations*. In this Toolkit, the term *Epi Workgroup* will be used when referring to both SEWs and SEOWs unless a specific distinction is made otherwise.

- developing a systematic, ongoing monitoring system of state substance related consequences and consumption patterns to track progress on addressing prevention priorities and detecting trends.

To assist States with these tasks, CSAP has developed several resources. One of these, the State Epidemiological Data System (SEDS), provides a set of constructs and indicators identified as relevant, important, and available for preliminary substance use prevention planning. Information on the SEDS can be found at http://www.epidcc.samhsa.gov/.

CSAP also provides five guidance documents to assist States in their efforts to implement data-driven substance abuse prevention planning. These documents are:

Developing a State Epidemiological Profile for Substance Abuse Prevention: Guidance for Epidemiological Workgroups

Setting Priorities for Substance Abuse Prevention: Guidance for Epidemiological Workgroups

Allocating Resources to Address State-level Substance Abuse Prevention Priorities: Guidance for States

Developing a State-level Substance Abuse Monitoring System: Guidance for States

State Epidemiological Workgroups: Preliminary Lessons Learned

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[3] The State Prioritization Process from the State of Kentucky goes slightly beyond prioritization and begins to address resource allocation. This example is provided last to encourage the reader to view more basic examples first.

Introduction

States face a wide array of substance-related problems. The magnitude, severity, and trends over time of these problems vary, as do such factors as public concern, resources, and preventability. As a result, States must make choices about the level of attention any specific problem warrants or which problems best fit specific funding streams through a priority-setting process. Specifying *a priori* which data will be used and how those data will be assessed helps ensure a transparent priority-setting process that is comprehensible and credible to the wide array of stakeholders in prevention decisions.

This document describes methods for developing a data-driven process for setting priorities for substance abuse prevention. The guidance in this document provides information for moving from the Epi Profile stage through the stage of interpreting Epi Profile data for problem prioritization and effective prevention planning. To accomplish this goal, this document will:

- Describe strategies for data-driven problem prioritization;
- Provide examples that show how States have used these strategies in determining their substance abuse priorities; and
- Discuss emergent issues and lessons learned from States' experiences with data-driven processes.

States are often in the position of needing to establish prevention priorities for various purposes and with respect to different funding streams and programs. This document focuses on prioritization for those States that have received Strategic Prevention Framework State Incentive Grants (SPF SIGs)—that is, it provides guidance on interpreting and comparing different forms of epidemiological data (and possibly other information) to establish substance abuse problem priorities for SPF SIG States. Although the focus is on identifying SPF SIG priorities, the methods described and guidance provided are likely to be informative in priority setting for purposes and funding streams other than the SPF SIG States.

Outcome-Based Prevention

Figure 1: Outcomes-Based Prevention Model

The work of the Epi Workgroups is framed by an outcomes-based prevention model (**Figure 1**) that grounds prevention in a solid understanding of alcohol, tobacco, and drug use and related consequences. The State Epidemiological Profiles (hereafter Epi Profiles) developed by the Workgroups summarize the nature, magnitude, and distribution of substance use and related consequences in the State. Understanding the nature and extent of the array of substance use and related consequences in the State is critical —a critical as a first step for determining prevention priorities. Following the outcomes-based prevention model, once priorities are established, prevention planners then identify the factors influencing the prioritized use patterns and consequences to align relevant and effective strategies to address them.

SAMHSA/CSAP recommends that Epi Profiles and related prioritization processes focus predominantly on substance-related consumption and consequences as they implement an outcomes-based approach to prevention.

CONSUMPTION:

Consumption is defined as the use and high-risk use of alcohol, tobacco, and drugs. Consumption includes patterns of substance use including initiation of use, regular or typical use, and high-risk use.

CONSEQUENCES:

Substance-related consequences are defined as adverse social, health, and safety consequences associated with substance use. Consequences include mortality, and morbidity, and other undesired events for which alcohol, tobacco, and/or drugs clearly and consistently are involved. Although a specific substance may not be the single cause of the consequence, scientific evidence must support a link to substance use as a contributing factor to the consequence.

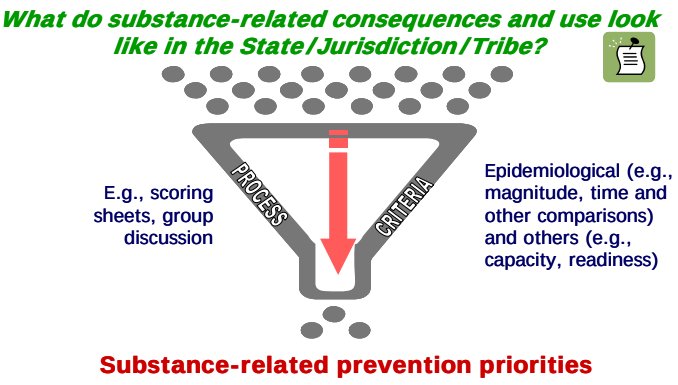
Focusing on consumption and consequences in the prioritization process does not undermine, by any means, the importance of measuring and understanding causal factors that lead to substance abuse and substance abuse-related consequences. Understanding the factors that contribute to substance use and related problems (also referred as "risk and protective factors" or "causal factors") is the logical next step after the State has developed a full understanding of the substance-use patterns and consequences it seeks to address and for which it has established priorities.

Data-Driven Prioritization

The goal of the prioritization process is to move from a broad understanding of substance use and consequences across the State to a determination of priorities through a systematic, data- driven prioritization process (see **Figure 2**).

Three key questions can help Epi Workgroups determine their State's data-driven prevention priorities[4]:

Figure 2: Data-driven Prioritization



[4] This document focuses on the prioritization of problems (i.e., substance-related consequences and/or consumption patterns). Some SPF SIG States choose to prioritize communities rather than problems by arriving at a set of high-priority communities. Priority is assessed through the development of indices that merge multiple indicators of multiple problems. Although this process can yield a set a high-risk communities, once chosen, the resulting index must be "unpacked" to determine why each community is deemed high-priority. Using a combined index of multiple problems may mean that one community is deemed high-priority due to an exceptionally high rate of smoking, another due to a high rate of alcohol-related cirrhosis, and so forth. To align these designations with an outcome-based prevention approach, SPF SIG States are encouraged to focus on the prioritization of problems rather than on populations (e.g., communities) across problems.

- What criteria will be used to compare and contrast substance-related problems?
- What process(es) will be used to synthesize data and define priorities?
- Who will be involved in the prioritization process, and what are their roles?

Data describing the epidemiological dimensions of substance-related problems (e.g., magnitude, severity, trends) provides the basis for the prioritization process; however, most States acknowledge that their prevention decisions are not determined by epidemiological data alone. Other social, political, and practical characteristics of substance use and related consequences may play a role in setting substance abuse prevention priorities. Given these realities, this document recommends a two-phase prioritization process. Phase I focuses on the comparison of different substance use patterns and related consequences solely by epidemiological dimensions. Phase II starts with the product of Phase I—that is, the epidemiological data priorities—and applies other considerations (e.g., public concern, preventability/changeability of problem) to establish final priorities.

Phase I: Using Epidemiological Data to Assess Problems

Several steps are involved in using epidemiological data to assess substance-related problems. Detail discussion about each of these steps is provided in the sections that follow.

Step 1: Determine epidemiological dimensions for prioritization

Through the process of developing a State Epi Profile, Epi Workgroups can establish a core set of substance use patterns and substance-related consequences. Each use pattern and consequence must be expressed through a set of indicators (e.g., measures). These indicators have multiple dimensions, and each dimension can provide the answer to a somewhat different question. The dimensions are used in the Epi Profile development process to assist States in comparing, synthesizing, and interpreting multiple indicators to form a broad picture of substance abuse in their communities.

To begin the task of prioritization, Epi Workgroups first must decide what dimensions they will use to make comparisons across problems for prioritization purposes. These dimensions, once chosen, form the criteria for the Workgroup's prioritization decisions. The prioritization process may involve all of the dimensions reflected in the Epi Profile or the Workgroup may choose to focus on a subset of dimensions believed to be critical for its particular context.[5]

<u>Epidemiological Dimensions</u>

Some commonly used epidemiological dimensions of data include:

- *Size/magnitude*: Data on size/magnitude explore the basic question, "how big is the problem?" in terms of its occurrence. Magnitude can be described in terms of absolute numbers (e.g., total number of cases), frequency of occurrence (e.g., percents), or rates (e.g., number of cases per some standard unit). Incidence and prevalence rates must be adjusted for population variations and are often expressed per 100,000 people. Such

[5] By comparing State to national data, Utah's Epi Profile shows that Utah has much lower rates of substance use and related consequence problems than the rest of the nation. The Utah SPF SIG team thus determined that a nationwide comparison was not a relevant dimension to assist it in determining State SPF SIG priorities.

standardization is important when comparing data on magnitude from populations of different sizes.

- *Time trends*: Data on time trends explore the question, "How are problems changing over time?" Comparisons over time help identify emerging or growing problems that may warrant increased attention.

- *Other relative comparisons*: Comparisons to other geographic areas and/or reference populations (e.g., other States, the nation) help answer the question, "How does the problem in this State compare when weighed against a reference population?" Comparisons to national rates provide a relative position or rank of a State on a specific substance abuse problem. States sometimes find it more useful to make comparisons to similar States such as those in the same region of the country. Alternatively, comparisons to standards such as the targets in *Healthy People 2010* can help track a State's progress on a particular issue.

- *Seriousness/severity*: Measures of seriousness/severity examine the potential impact or level of outcomes on individuals or society that are associated with different problems. Seriousness/severity addresses the issue, "How serious is the nature/extent of outcomes associated with the problem compared to those of other problems?" For example, among tobacco-related consequences, acute bronchitis (a short-duration illness) is a less severe problem than oral cancer or heart disease, which are chronic, life-threatening diseases that can cause substantial disability and death. Measures available to quantify problem severity include:

    - Years of Potential Life Lost (YPLL)—YPLL measures the total number of life years lost due to premature death (i.e., usually defined as death before age 65) from a certain cause in a population and reflects the social and economic losses to society associated with a problem. YPLL highlights the impact of premature death on younger segments of the population and balances mortality rates, which are much higher among older age groups.

    - Quality-Adjusted Life Years (QALY) or Disability-Adjusted Life Years (DALY)—QALY and DALY are health-gap measures that extend the concept of YPLL to include equivalent years of "healthy" life lost by virtue of being in states of poor health or disability. The DALY combines into one measure both the time lived with disability and the time lost due to premature mortality.

- *Economic costs/social impact*: Economic costs represent a way to quantify the dollar amounts associated with substance use and related consequences. Economic costs/social impact measures answer the question, "How much does it cost individuals, organizations, or States to deal with the consequences resulting from different patterns of use?"

<u>Applying Epidemiological Dimensions in Prioritization</u>

In prioritization, decisions must be made about what dimensions will be used as criteria to set priorities. In some cases, one epidemiological dimension may be used to for comparative

purposes (e.g., a problem will be considered high-priority if it causes a large number of deaths). In most cases, however, it is prudent for groups to consider several dimensions of epidemiological burden before deciding which problems represent high priorities. This is the case as problems often stack up differently against one another when different epidemiological criteria are examined. Sometimes the results from looking at different dimensions will result in similar conclusions; at other times, they will vary across dimensions.

The priorities assigned in **Table 1** reflect a consideration of two epidemiological dimensions: relative comparisons (e.g., State versus national) and time trends. For example, the rate for alcohol use among youth in the State compares favorably to the national rate as noted in the third column of the table ("Below U.S. Rate"). If the comparison to the nation as a whole was the only dimension examined, current youth alcohol use would be a low priority. However, when the second dimension (time trends) is included, the increasing rate of use among young people results in this problem being ranked as relatively high among State priorities.

Table 1. Prioritization: Applying Time Trends and Comparing State Rates to the National Rate

	Above US Rate	Similar to US Rate	Below US Rate
Rising ↑	*Priority 1* Inhalants, Binge Drinking	*Priority 2*	*Priority 3* Alcohol Use Among Youth
Stable —	*Priority 4* Marijuana use	*Priority 6*	*Priority 7*
Falling ↓	*Priority 5*	*Priority 8*	*Priority 9* Tobacco Use

Table 2 presents the same data as **Table 1** but adds a third epidemiological dimension: size/magnitude. In the case of 30-day binge drinking, all three dimensions are consistent in indicating this to be a high-priority problem. The percent of the population affected is relatively large (42%), the time trend is for increasing prevalence of this problem, and the State rates above the national average (rate ration >1) are high. By comparison, when the dimension of magnitude/size is added to the examination of 30-day inhalant use, which ranked high for both national comparisons and trends in **Table 3**, inhalant use is notable for its small number of users.

Table 2. Prioritization: Adding Magnitude to Time Trends and Comparing State Rates to the National Rate (Rate Ratios)

Note: This table presents an illustrative example to show how prioritization works when three epidemiological dimensions are considered.

	Number (%)	Trend	Rate Ratio
30-day Alcohol Use	55%	↑	0.80
30-day Binge Drinking	22%	↑	1.90
30-day Tobacco Use	51%	↓	0.70
30-day Marijuana Use	9%	Same —	1.50
30-day Inhalant Use	1%	↑	2.10

Step 2: Choose process and method for priority setting

Epi Workgroups also must decide which analytic method—"the nuts and bolts" of the data-interpretation process—they will use to develop rankings and compare problems. That is, they must integrate data on multiple epidemiological dimensions that are likely to vary in relative importance to make decisions about which problems to prioritize. To do this, Workgroups must determine what scoring or assessment strategy they will use to synthesize data on different epidemiological dimensions (e.g., categorical ratings, numerical scoring) and decide what tools they will use to support analytical processes (e.g., worksheets, matrices, etc.). Workgroups must also consider the rules they will apply to the interpretation of their research products (e.g., problem-importance scores, categorical lists of problems) to develop their final epidemiological data priorities.

Applying a systematic and explicit approach to the analytical methods for prioritization is important for several reasons. Defining the "rules of the game" upfront—that is, before trying to establish priorities—helps Workgroups ensure common understanding and buy-in among participants, which contributes to a smoother functioning group process. At the end of the prioritization process, Workgroup members will have a clear understanding of how the priorities list was developed and why any item is on or off the list. A well-defined approach is also important for communicating and justifying priorities to the public, most of whom will not have been involved in decision making. Finally, a clear and methodical process is critical to determining the quality of the end product—the priority list—which is the foundation for the next steps, implementation, and evaluation.

Using a systematic analytic approach to prioritization is critical, but the prioritization process does not need to be complicated. Several reasonable and simple approaches that consider available information may be used. These approaches are described below.

Categorical Ratings

A simple method for comparing and evaluating the different substance use problems that confront the States is to assign categorical ratings (e.g., *High*, *Medium*, *Low*) to each indicator by epidemiological dimension. The categories used for ratings represent an ordinal scale to which no numbers are assigned but which reflect a hierarchy or continuum (e.g., *High* is greater than *Medium*, etc.).

Matrices can be constructed to assess problem categories. They can have as many rows as there are substance abuse problems, and as many columns as there are epidemiological dimensions under consideration, with each rating entered into a cell. The end product, for example, could reveal that two problems are categorized as high-priority, three are classified as medium-priority, and four are among the low-priority group. To determine the relative importance of each problem within groups, further analysis and discussion may be needed for each grouping.

Table 3 provides an example of a matrix that was used to structure individual ratings for four substance abuse problems across four epidemiological dimensions: magnitude, relative comparison, severity, and economic cost. To create this matrix, the Workgroup computed the number of high, medium, and low ratings for each problem to develop a priority list. The Workgroup also created a list of problems with the most *High* scores, the most *Medium* scores, and the most *Low* scores. This approach involved no numerical scores; rather, it facilitated grouping the problems into high-, medium-, and low-priority groups based on epidemiological criteria ratings.

Table 3: Categorical Rating Table

Problem	Incidence Rate	Rate Ratio (compared to States in same region)	DALY	Economic Cost	Total High-Priority	Total Medium-Priority	Total Low-Priority
Alcohol-related motor vehicle fatalities	**H** 17.3 per 100,000 pop.	**L** 0.70	**H** 23,450	**H** $3.2 million annually	3	0	1
Neonatal complications due to smoking during pregnancy	**M** 5.9 per 100,000 pop.	**H** 1.80	**M** 10,445	**H** $2.8 million annually	2	2	0
Drug overdoses/ poisonings	**L** 1.2 per 100,000 pop.	**M** 1.05	**L** 1,440	**L** $0.35 million annually	0	1	3
Injection drug-related HIV/AIDS	**L** 1.6 per 100,000 pop.	**M** 1.16	**H** 30,278	**M** $1.3 million annually	1	2	1

Unweighted Scoring

Another approach to problem assessment involves computing simple unweighted scores to create a numerically ranked list of problems. For example, Workgroup members can use numerical ratings (e.g., *High* = 3 points, *Medium* = 2 points, *Low* = 1 point; or 1 = *Low* to 10 = *High*) to assign point values to each epidemiological dimension, either individually or as a group. **Table 4** provides a sample tool for recording numerical assessments across dimensions. Once each epidemiological dimension has been rated, a total Problem Importance Index (PII) or score can be calculated for each problem. If each group member has completed a rating sheet, an average PII can be calculated for each problem. Based on the total PIIs, an initial list or rank order can be created, with the highest-scoring problem listed on top and lesser problems listed in descending order. It is important to keep in mind that this scoring process is a heuristic device for compiling and assessing different information about problems, not an exact science. Thus, a problem that receives a score of 10 is not necessarily twice as important as a problem with a score of 5.

Table 4: Prioritization Using Unweighted Scoring

Problem	Incidence Rate	Rate Ratio (compared to States in same region)	DALY	Economic Costs	Total Score
Alcohol-related motor vehicle fatalities	***H* = 3** 17.3 per 100,000 pop.	***L*=1** 0.70	***H*=3** 23,450	***H*=3** $3.2 million annually	10
Neonatal complications due to smoking during pregnancy	***M*=2** 5.9 per 100,000 pop	***H*=3** 1.80	***M*=2** 10,445	***H*=3** $2.8 million annually	10
Drug overdoses/ poisonings	***L*=1** 1.2 per 100,000 pop.	***M*=2** 1.05	***L*=1** 1,440	***L*=1** $0.35 million annually	5
Injection drug-related HIV/AIDS	***L*** 1.6 per 100,000 pop.	***M*** 1.16	***H*** 30,278	***M*** $1.3 million annually	1

Weighted Scores

If some dimensions likely are more important than others and thus should have greater influence in determining the total score, a quantitative method for interpreting epidemiological data for priority setting that involves weighted scores should be used. Applying weights ensures that certain characteristics have more influence in the final priority ranking.

Table 5 presents data obtained from use of a weighted scoring approach. In this example, raters scored each data construct for the epidemiological criteria considered—that is, the size of the problem (A), the severity of the problem (B), and the economic costs of the problem (C). The weights for YPLL and economic costs, in this instance, are 3 and 2, respectively. Total scores for

each problem were computed as the sum of the products of the rating given to each epidemiological dimension and its multiplier. The following formula was used to produce the total score:

Prevalence + 3(YPLL) + 2(Economic Costs) = Total Score

Table 5: Prioritization Using Weighted Scoring

	Prevalence Rate (PR) Score	YPLL Score	Economic Cost (EC) Score	Total Priority Score
Problems	(weight = 1)	(weight = 3)	(weight = 2)	(PR + YPLL + EC)
Tobacco-related lung cancer	2 x 1 = 2	3 x 3 = 9	2 x 2 = 4	15
Alcohol-related violence	4 x 1 = 4	4 x 3 = 12	3 x 2 = 6	22
Drug-related crime	3 x 1 = 3	2 x 3 = 6	5 x 2 = 10	19

Appendix A contains a priority-setting worksheet adapted from the *Healthy People 2010 Toolkit: Setting Health Priorities and Establishing Objectives* that can be used to develop weighted scores for individual problems.

Step 3: Organize data to facilitate comparisons

After the Workgroup has selected the epidemiological dimensions it wants to use to weigh different problems, it must organize its data in a manner that facilitates the prioritization process. The method used to summarize State consumption and consequence data should serve to organize the data according to key dimensions in a way that is concise and informative and that supports decision making. In many cases, this is likely to be accomplished most easily by creating tables or matrices that organize problem constructs, relevant indicators, and epidemiological dimensions into rows and columns, as shown in **Table 6** below.

Table 6: Template for Organizing Results of Epidemiological Dimension Analyses				
Data	**Number**	**Time Trend**	**Rate Ratios**	**Other**
Problem/Construct 1				
Indicator A				
Indicator B				
Problem/Construct 2				
Indicator A				
Etc.				

Step 4: Apply the priority-setting process to the data

Once a Workgroup has determined the epidemiological dimensions, the decision-making process, and the analytical method for ranking problems, it can apply those data to decision making. Although rating or scoring each epidemiological dimension for each problem under consideration may seem tedious, such a methodical process will help maintain objectivity. It will also allow Workgroup members to contrast and compare reviewers and understand the final outcome of the prioritization process.

Multiple scoring methods are available to facilitate the prioritization process. Typically, the first step is to ask individual raters to fill out worksheets, the results of which are summarized to produce a group rating. Alternatively, Workgroup members can complete the ratings together as a group and then discuss and score each indicator by dimension, thus producing an overall group score collectively.

Step 5: Interpret and refine results

Irrespective of the scoring mechanism used (individual or group), after scores have been assigned and tallied, it is important for the Epi Workgroup to review the results and exercise their own judgment. Does the order of the

A WORD OF CAUTION

Indicators are measures of a broader construct, and more than one indicator may provide a measure of a single construct. It is critical for Epi Workgroup members to keep in mind that prioritization is focused on the larger construct or problem, not on the individual indicators. Generally, it does not make sense for a prioritization process to arrive at the conclusion that one indicator of a single construct is a high priority while another indicator of the same construct is a low priority. If a Workgroup concludes that its members have scored individual indicators of a single construct very differently, the group should discuss what each indicator is measuring and why such indicators may vary.

For example, several SPF SIG Workgroups have scored drinking and driving as a very low priority while scoring alcohol-related crashes as a high priority. If alcohol-related crashes are indeed a high priority, then by default States must focus on drinking and driving as the consumption variable of key importance.

However, the Epi Workgroup must consider carefully how such anomalies occur. Is its drinking and driving measure unreliable? Has it misclassified crashes as alcohol-related? Careful consideration of the relationships between indicators of the same construct, and of the relationship between consequences and consumption, will further develop Workgroup understanding of the issues confronting States and the final priorities chosen.

epidemiological priorities make sense? If not, the Workgroup should re-examine their data. Did a single rater's scores heavily influence the group score? Do the raters' scores reflect the data provided? If individual raters produce widely divergent scores, the Workgroup should discuss the scoring criteria and/or the process to reach agreement on the scores provided.

Step 6: State final priorities based on epidemiological criteria
The end product of Phase I is the establishment of a set of priorities based on epidemiological data. For some States, this may be the end of the prioritization process; others may choose to include other considerations beyond the epidemiological data to develop their rankings and final priorities (see Phase II).

Phase II: Considering Other Factors in Establishing Priorities

The results of Phase I are based on the epidemiological data used to compare and contrast substance use and related consequences. In Phase II, Workgroups may overlay additional and often more subjective considerations on the findings of their epidemiological analyses to see whether further refinement is necessary to establish the final problem priorities.

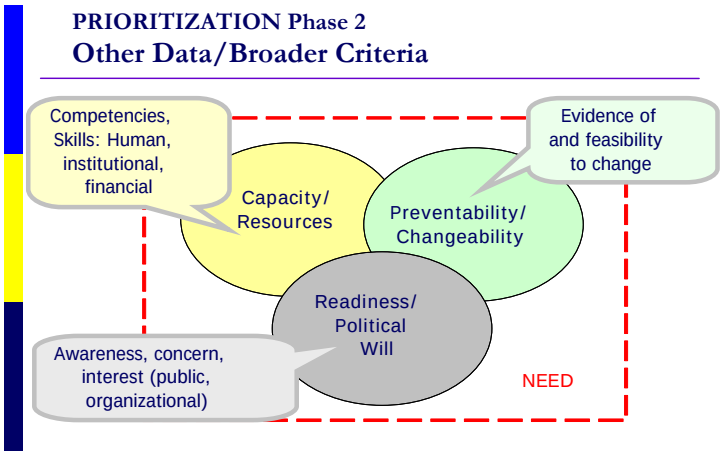
SPF SIG States are encouraged to base their priorities on the epidemiological dimensions of the problems under consideration. If States choose to consider additional criteria in their decision making, they should:

- document why such additional criteria are important in their prioritization process; and
- ensure that the results of Phase I prioritization are not lost in the Phase II process.

A review of the prioritization literature[6] suggests that three broad categories of other criteria often are used in prioritization processes. These categories are: (1) preventability/changeability, (2) readiness/political will, and (3) capacity/resources (see **Figure 3**).

- **Capacity/Resources:** Capacity/resources may include the availability of human, institutional, or financial resources (e.g., number of agencies that can provide resources and expertise, the level of

Figure 3: Phase II Prioritization Factors



[6] For example, see Feldman, D. L., Hanrahan, R. A., and Perhac, R. 1999. Environmental Priority Setting Through Comparative Risk Assessment. *Environmental Management*, 23(4): 483-493; North Carolina Department of Health and Human Services. February 2002. *Community Assessment Guidebook, Healthy Carolinians, North Carolina Community Assessment Process.* Monograph prepared by the Office of Healthy Carolinians/Health Education and the State Center for Health Education. Available online at http://www.healthycarolinians.org/pdfs/02Guidebook.pdf; and 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, available online at http://www.healthypeople.gov/state/toolkit/.

commitment of community groups, possibility of continued funding, etc.) as well as the commitment of these resources. If the Workgroup determines that a problem at the top of the epidemiological data priority list is receiving adequate resources, it may decide to move another problem, one receiving fewer resources, for example, up the priority list.

- **Preventability/Changeability:** Assessment of the preventability/changeability of substance abuse problems may focus on the opportunities that may affect present or future burden, feasibility to prevent or control the problem or its consequences, scientific evidence about effectiveness of interventions to change the problem, and application of knowledge about effectiveness of interventions to the current context. In some instances, Epi Workgroups may also be concerned with choosing problems that offer the probability of quick success. Such initial quick successes may be important to building support and momentum for prevention efforts that later can be applied to more intransigent problems.

- **Readiness/Political Will:** Assessment of readiness/political will may include a focus on the current levels of awareness, concern, and interest at the public, political, and organizational levels to support addressing a particular issue. It may also include a focus on the public/political level of acceptability and support associated with addressing the issue. For example, despite the problems associated with binge drinking among adults, some view drinking as a normative behavior. To the extent that such perceptions prevail, a decision may be made to make an issue with more political concern support a higher priority. That perception may also prompt a Workgroup's decision to begin educating key decision makers about the nature of substance issues that the epidemiological data prove to be serious problem but that have yet to receive the decision makers' attention and commitment.

As with the epidemiological dimensions, these other considerations can be assessed using categorical or numerical ratings. **Table 7** provides an example of a scoring sheet for additional criteria. Generally, these broader criteria are more difficult to assess as they are harder to quantify and rate and often reflect judgment and/or opinion. Nonetheless, such criteria may be important in establishing a State's final prevention priorities.

Table 7: Scoring Sheet for Additional Criteria

Criteria	High 5 points	Medium 3 points	Low 1 point
Extent of public concern			
Gap between resources and need			
Evidence of interventions' ability to change problem			
SCORE			

Combining Epidemiological Criteria With Additional Criteria

States that choose to conduct a Phase II prioritization process should first complete the Phase I prioritization process to establish epidemiological data priorities. Once these epidemiological priorities are established, additional broader social, political, and economic criteria may be applied. The sequential processing of the objective data, followed by the review of broader, more subjective information allows Workgroups to discover and apply what they have learned in stepwise fashion rather than by merging both types of criteria into an overall process or score. In this way, the epidemiological data assessment forms the basis for prioritization, with the subjective data overlaid upon the epidemiological data priorities to facilitate final priority determination. **Appendix B** presents several examples in which States applied epidemiological and other criteria to prioritization work via a two-phased process.

Making Prioritization Decisions

Before any priorities can be set, a decision-making process must be established. That process must detail the prioritization process that will be used to make decisions. It must also identify precisely who has what role in each stage of the process. Most importantly, the decision-making process must clearly define who has final authority for priority setting. In SPF SIG States, decision-making authority has varied greatly across grantees. In a few cases, the State Epi Workgroup has been charged to set final priorities. In most cases, however, the Workgroups have conducted the Phase I prioritization process and provided a set of recommendations to the SPF SIG Advisory Council or to an SPF SIG management team who then applied Phase II criteria to arrive at final priorities. In some instances, the Epi Workgroup and the SPF SIG Advisory Council jointly made decisions about the highest priorities for prevention through a combined Phase I and Phase II prioritization process. No matter which approach is taken, the decision-making process must fit the grantee context. What is most important is that the process is well articulated from the beginning, with the roles of all stakeholders clearly defined.

The decision-making process and its application must be clearly documented throughout all processes. Decisions about priorities have significant implications for resource allocation. Rarely can all stakeholders be in involved in all aspects of prioritization or agree with its outcome. Regardless of whether all stakeholders participate in or agree with the decisions, clear documentation of the decision-making process allows everyone involved at any stage of the process to understand how decisions were made and to recognize that the process as credible. Additionally, stakeholders, staff, and decision makers may change, making documentation of the process and product critical to ensure continuation of ongoing processes and application of results, even with new players.

Lessons Learned

The following lessons learned were derived from a review of the prioritization processes undertaken by SPF SIG grantees. Some reflect guidance provided in this document that experience has shown to be critical aspects of transparent, data-driven prioritization.

Establish decision rules at the start: Perhaps the most important lesson learned from the SPF SIG process is that clearly establishing a prioritization process and defining who makes what decisions is essential to producing concrete, data-driven priorities. Grantees who did not clearly define who could make final decisions about priorities or how those decisions would be made wasted considerable time laboring under uncertain tasks.

Be transparent: Conducting the prioritization process in a transparent, well-documented way facilitates the acceptance of decisions once made. Workgroups should keep records, preferably in written format, to document decisions made about criteria and process and to track analyses and products carefully so that it is a clear how priorities were developed. Both the process and the results of the process are important, as Workgroups must be able to explain both to various stakeholders. Although no decision-making process is perfect, transparent processes enable all stakeholders to understand how decisions were made even if they do not like or agree with the final priorities.

Keep it simple: Given the range and complexity of substance abuse problems across the States and the politics surrounding resource allocation in a constrained environment, the prioritization of problems will be, as a matter of course, a complex process. Considerable effort should be devoted toward creating and implementing a prioritization process that is as simple as possible to enable multiple stakeholders to participate, when and/or if appropriate, or, at minimum, to understand both the process and product of prioritization efforts. Complicated decision-making processes, data analyses, or prioritization schemas can slow down the prioritization process and create confusion around both the process and its products.

Acknowledge both the strengths and limitations of data available: All data have strengths and limitations. Epi Workgroups that acknowledged these limitations yet clarified the value of what data they had available moved through the prioritization process more quickly. Those that focused heavily on data limitations were stalled in the process and tended to minimize the use of the data they did have in the process, turning to less reliable influences (e.g., political pressure, capacity measures) for help in making decisions.

Organize data to match the prioritization process chosen: Unless data are provided and organized to facilitate their use in the prioritization process, they can easily be ignored. Workgroups that provided data that were clearly organized by construct, indicator, and dimension reported increased use of their data and consistent application of their data across raters in the prioritization process.

Conduct the process in phases: Workgroups should determine what their epidemiological data indicate about their priorities before considering other criteria.

Workgroups also should examine the data sequentially by clusters of criteria (e.g., magnitude, economic costs, seriousness first then capacity, changeability) to help maintain a level of consistency for interpreting results and moving on to the next step. Aggregating scores across disparate criteria can obscure "hot spots" within important dimensions (e.g., high mortality and low public concern) and lead to an overall score that lacks clear meaning.

Keep the data experts involved: Even if data experts are not involved in making decisions about State priorities, it is important for Workgroups to keep them involved. Questions about indicator data often surface as the prioritization process evolves, and finding answers to those questions often engages others who may be new to the effort. Data experts are best able to provide accurate information to answer such questions, and keeping them "in the loop" can improve Workgroup efficiency.

Remember that context matters: The application of seemingly "uniform" criteria and scoring techniques takes on different meanings across different sub-units (e.g., interpreting the weight of resource gaps at the State versus rural/urban county level). Workgroups should always consider their data in light of this reality.

Conclusion

Moving from creating a State Epi Profile to addressing problem substance-use patterns and related consequences is not an easy task, but it need not be an overwhelming one. That process will require, however, that States employ methods for getting "from A to Z" that begins with interpreting indicator data and ends with determining priority areas to steer effective prevention planning. Moreover, given that States are often in the position of needing to establish prevention priorities for various purposes and with respect to different funding streams and programs, this information is likely to be instructive for priority-setting purposes supported by other funding streams.

Toward these ends, this document presents a thorough discussion of strategies that Epi Workgroups can use to achieve data-driven problem prioritization and key lessons learned from their experiences. It also offers an appendix that is rich in examples of how States have implemented data-driven processes to determine their substance-use prevention priorities..