



Conducting Epidemiological Needs Assessment

SAMHSA's Strategic Prevention Framework (SPF) provides a comprehensive approach for prevention planners to understand and address substance misuse and related behavioral health problems facing their state and communities.

With cross-cutting principles of Sustainability and Cultural Competence integrated throughout, SPF is guided by the following 5 steps that build on each other to guide prevention planning and decision:

1. Assess prevention needs and priorities based on existing data,
2. Build capacity to understand and address prevention needs,
3. Develop prevention plan that aligns prevention priorities to evidence-based programs and practices to allocate resources,
4. Implement prevention plan through community partners, and
5. Monitor and evaluate program processes and outcomes to reduce inefficiencies and enhance effectiveness.



Purpose of this Document

While non-epidemiological data such as community capacity and readiness can be valuable and can/should be considered during planning, the purpose of this document is to provide guidance on how to conduct a Needs Assessment based on epidemiological data on substance misuse and associated behavioral health problems.

Epidemiological Needs Assessment

The overarching goal of the Epidemiological Needs Assessment is to develop a solid understanding of substance misuse and associated behavioral health problems in your community. To achieve this goal, your epidemiologist, with input from your

Epidemiological Workgroup is a network of people and organizations charged with bringing analytical thinking and behavioral health data to prevention planning.

epidemiological workgroup, can follow the following core steps:

Create Inventory and Collect Data

The first step to conducting a successful needs assessment is identifying *all* existing behavioral health data sources and indicators available relevant to your community from national, state (jurisdiction or tribal if applicable), and local sources. For each data source identified, these indicators can be classified into behavioral health consequences (e.g., overdose deaths, hospitalizations, treatment admissions), consumption patterns (e.g., binge drinking, heroin use, prescription opioid misuse), and risk and protective factors (e.g., Social Determinants of Health or SDOH, perceptions). While collecting data for all indicators identified is ideal, it can be a time-consuming and expensive task. Therefore, focusing on datasets and indicators that are most closely related to behavioral health problems in your communities is the logical end goal for this step. [Appendix A](#) provides a list of commonly used data sources and indicators that you can use to start your needs assessment and modify it to include additional data to match your community needs as necessary.

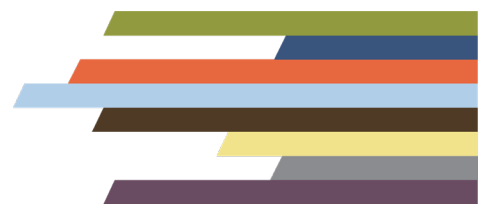
Creating inventory of all existing behavioral health indicators can help with creating analysis plan data products, and identifying data gaps.

Analyze Data and Interpret Findings

Analyzing data acquired in the step above to assess measures of prevalence (e.g., counts, rates, percentages), distribution (e.g., rates by age, gender, county), and trends can help uncover potential health disparities and at-risk populations. Since you will likely analyze data from multiple sources, organizing analytical findings in a systematic manner is critical to keep this step manageable and meaningful. Some of the commonly used best practices while interpreting data are as follows:

Create and maintain analytical plan that includes statistical methods and limitations. Exercise caution while interpreting findings based on small numbers as they are often unreliable.

- Always review overall prevalence (e.g., overall overdose rate for the state) when reviewing subgroup prevalence (e.g., overdose rate by age group) for context and comparison,
- Group findings by substances and/or topic areas (e.g., opioid-related overdose followed by opioid misuse) as opposed to data sources (e.g., all NSDUH prevalence estimates),
- Consider organizing data by outcomes (e.g., opioid overdose and misuse) before risk factors (e.g., prescribing rate),
- Consider both counts (e.g., total number of overdose deaths) and rates (e.g., overdose death rate per 100,000 population), as counts are often biased towards larger geographic areas and may not present a complete picture, and



- Review and communicate dataset/indicator-specific limitations (e.g., unstable estimates with large confidence intervals due to small sample size) and suppress estimates to minimize disclosure risk whenever required and/or applicable.

As a rule, create and maintain an analytical plan that includes input datasets, statistical methods, software and source code, output file and codebooks, decisions, and possible limitations/implications of the decisions (if any).

Generate Data Products

Summarizing and presenting data findings in a user-friendly format, and then disseminating these data summary reports to prevention planners, decision-makers, and key stakeholders is as important as analyzing data. Incorporating key stakeholder and consumer data needs while generating these reports can be very helpful in promoting data-guided prevention planning. Some of the most common behavioral health-related data reports are as follows:

Since majority of data product users are non-technical, keeping the reports short, simple, and visually appealing with infographics can be helpful.

- Behavioral Health Epidemiological Profile is a detailed report that summarizes all major data findings and limitations at your state, jurisdiction, or tribal level. While it can be long and tedious to read, it can serve as a reference guide for all other data products and supplement grant/program requirements. It is advisable to generate *one* epidemiological profile during the life of your prevention program/grant and make annual updates as necessary.
- Data Briefs are 3- to 5-page reports that typically highlight specific, emerging problems and/or at-risk populations (e.g., prescription drug abuse, young adults in the workplace) in your community.
- Data Factsheets are short (i.e., 1 to 2 pages) and quick-read reports (e.g., with one or two simple infographics) that highlight a specific behavioral health problem (e.g., Methamphetamine use and overdose) and/or subpopulation (e.g., county, population under 21).

Finally, using simple graphs (e.g., bar charts, trend lines) and infographics (e.g., presenting emergency department visit data within a hospital icon) can increase the likelihood of data being used for decision-making, and should be considered for all report types described above.

Identify and Monitor Prevention Priorities

While detailed epidemiological profiles and topic-specific factsheets are helpful, identifying prevention priorities based on analytical findings is the most significant step

that can help your state, jurisdiction, tribe, or community policy decision-makers. Although there is no one-size-fits-all approach for this step, data-guided prioritization in the context of SPF generally involves the following two steps:

1. Ranking priority problems or indicators (e.g., stimulant overdose, binge drinking) based on in-depth examination and comparison of data *across* various key indicators and your state, jurisdiction, tribe, or community context, and
2. Selecting communities that have the highest rates (e.g., top 5 counties with the highest rate of stimulant overdose) for the priorities identified in step 1 to allocate resources for implementing appropriate prevention programs and strategies.

Ranking priorities based on analytical findings is probably one of the most challenging tasks, as it involves synthesizing findings from multiple indicators across various datasets that vary in availability (e.g., yearly vs. 2-yearly), content (e.g., mortality vs. morbidity), and collection methods (e.g., archival vs. survey). Additionally, ranking priorities can be subjective, and often involves assessing non-epidemiological data such as community readiness

and capacity. Clear and concise presentation of quantitative findings that include, at a minimum, a brief description of indicator and type (e.g., mortality, morbidity, misuse, risk factor), prevalence and trends, statistical significance (if any), and data limitations (if any) should be conducted *before* bringing non-epidemiological data to ranking priorities. Keeping the list of prevention priorities manageable (e.g., top 3 or top 5) can be critical to avoid spreading your resources too thin.

Selecting prevention priorities often involves a qualitative process, and can benefit from clear and concise presentation of analytical findings to policy decision-makers.

Finally, keep in mind that Epidemiological Needs Assessment is an *ongoing* process that involves regular monitoring of chosen prevention priorities to assess progress, and updating analytical plan and findings as new data comes in. Regular monitoring of additional key indicators can also uncover emerging trends, and help your state, jurisdiction, tribe, or community be proactive in mobilizing resources early to address the emerging problem.

Additional Resources

- Conducting Needs Assessments in Virtual Environment: Best Practices, Challenges, and Solutions, <https://www.pttcnetwork.org/centers/pacific-southwest-pttc/product/webinar-data-collection-during-covid-19-part-1-best>
- A Guide to SAMHSA's Strategic Prevention Framework, <https://www.samhsa.gov/sites/default/files/20190620-samhsa-strategic-prevention-framework-guide.pdf>
- Data-Based Planning for Effective Prevention: State Epidemiological Outcomes Workgroup, <https://store.samhsa.gov/sites/default/files/d7/priv/sma12-4724.pdf>

Appendix A

Table 1: List of commonly used data sources available at state level*

Name (Agency)	Source URL	Subgroups available	Indicators available
Multiple Causes of Death (CDC)	https://wonder.cdc.gov/mcd.html	Age, Sex, Race, Ethnicity, County	Substance and mental health disorders related to mortality
State Trends in Hospital Use (AHRQ)	https://www.hcup-us.ahrq.gov/faststats/landing.jsp	Age (19-64, 65+)	Inpatient and emergency department stays by mental health/substance use
Treatment Episode Data Set or TEDS (SAMHSA)	https://www.datafiles.samhsa.gov/dataset/treatment-episode-data-set-admissions-2018-teds-2018-ds0001	Age, Sex, Race/Ethnicity	Admissions and discharge from substance use and mental health treatment facility
National Survey of Drug Use and Health or NSDUH (SAMHSA)	https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2020	Age (12-17, 18-25, 26 and over)	Substance misuse, mental health, co-occurring disorders, and relevant risk factors
Youth Risk Behavioral Surveillance System or YRBSS (CDC)	https://yrbs-explorer.services.cdc.gov/#/	Age, Grade, Sex, Sexual Identity, Race	Substance misuse and initiation, suicidal ideation
Behavioral Risk Factor Surveillance System or BRFSS (CDC)	https://www.cdc.gov/brfss/data/documentation/index.htm	Age, Sex, Gender, Sexual Orientation, Race/Ethnicity	Alcohol use and mental health
American Community Survey or ACS (Census)	https://www.census.gov/programs-surveys/acs/data.html	Age, Sex, Race/Ethnicity	Population estimates for select Social Determinants of Health (SDOH)

*Table 1 lists publicly available, commonly used, national data sources that are available by state to provide you with a starting point, and is by no means an exhaustive list of all available data sources on behavioral health indicators. There are other key data sources that are available nationally (e.g., Monitoring the Future by NIDA), as well as restricted data sources available by state (e.g., Prescription Drug Monitoring Program) that provide valuable information, and should be reviewed for inclusion as needed. Lastly, table 1 should be expanded to list all key behavioral health data sources that are available at your state, jurisdiction, tribe, or community level.