PREVENTION SOLUTIONS@EDC



Evaluation Tool—Providing Evaluation Technical Assistance: Questions to Guide Evaluation Planning

The following tables include a series of questions to help prevention practitioners plan for program evaluation. By responding to the proposed questions, practitioners can begin to think through how to select appropriate evaluation measures, address data collection challenges, and collect quality data. The questions are organized according to the following seven themes:

- Defining the target population
- Reviewing existing data
- Selecting a sample
- Increasing response rates
- Addressing ethical considerations
- Administering a quantitative survey
- Following up and sharing results

DEFINING THE TARGET POPULATION

Prevention efforts should focus on a population that demonstrates risk for substance misuse based on data. During evaluation planning, it's important to understand this targeted population and the changes you hope to expect as a result of programmatic efforts.

Key Questions	Follow-up Questions	Considerations
Which population group(s) are your prevention efforts targeting?	 Is this population group at increased risk for substance misuse? What characteristics place them at increased risk? How did you determine that this population group was at increased risk? Are there subgroups within your target population who are at even higher risk? 	 Depending on data findings, target populations might include, for example, adolescents, emerging adults, college students, alcohol retailers, prescribers, or specific racial/ethnic groups.

Key Questions	Follow-up Questions	Considerations
How large is your population of interest?	 Is it feasible to survey at the individual level or is your sample so large that it would make sense to survey at a higher level, such as the school level? 	 The larger the sample, the more expensive it becomes to collect the necessary data. Power analysis can help determine the sample size required to detect an effect with confidence. It may be appropriate to consult with a statistician before selecting a sample. For more information on sample size, see <u>Selecting a Sample</u>.
Are you expected to demonstrate change at the state or local level?	 How many subrecipients are funded? What is the total number of units from which you can potentially sample? 	 Some grantees may be working with every county in the state, or they may fund only one agency, county, or town. Units can be, for example, individuals, schools, organizations, or communities.
What changes do you expect to see in that population?	 What performance outcome(s) are you measuring and monitoring? Do you have access to measures that include indicators relevant to your outcomes? 	 For example: PFS grantees must submit at least six measures for each sub-recipient to the cross-site evaluation (PEP-C): three underage drinking and three prescription drug measures.

REVIEWING EXISTING DATA

Before deciding to collect original data (which can be resource intensive), it can be helpful to look into what data are already being collected and whether those sources can be used for evaluation purposes.

Key Questions	Follow-up Questions	Considerations
Are you able to monitor change in your population of interest using indicators from existing datasets?	 Does the existing data include information at the level for which you want to show change (i.e., local, state, or national)? What is the quality of the existing data? 	• Be sure to understand the psychometric properties of the survey and the methodology used to collect the data in order to determine the quality and rigor of the data set and have confidence in the findings.

Key Questions	Follow-up Questions	Considerations
Are you able to monitor change in your population of interest using indicators from existing datasets? (cont.)	 How accurately do these data represent the population you are trying to study? Who is collecting the information? Are data collected consistently in standard intervals (e.g., annually, biannually, every 3 years)? Are the same questions asked each time the survey is administered? Have the response categories remained consistent or have they changed? 	 Example of local data: school district suspension/expulsion data Example of state-level data: state- level youth surveys and state-level adult surveys Example of national-level data: U.S. census data to access population and demographic information about the country
Will these datasets provide available baseline data on outcomes of interest in your timeframe?	 What outcomes do you expect to change in your population of interest? Over what time period are you expected to show change in those outcomes? Does the timing of the existing data collection align with the timing of your reporting needs? How long is the delay in accessing data? Will you have access to all of the data you need with the demographic breakdowns required for reporting? Do these data sources provide accurate indicators of outcomes? Is the sample size large enough to produce a stable estimate? Can the data be disaggregated in order to draw conclusions about the population of interest? 	Examples of outcomes: prevalence of binge drinking, number of heroin deaths

Key Questions	Follow-up Questions	Considerations
Are these datasets part of ongoing collection efforts that will provide (timely) future outcome data on your population of interest?	 How often are data collected? How sustainable is the data source? In other words, if you are considering using a student survey, you may want to ask stakeholders about the likelihood that this survey will continue to be used to collect data in the future and the likelihood that the dataset will be made available in the future. 	 Examples of ongoing data collection: annual town census, 11th grade youth survey Data may be collected weekly, monthly, biannually, or annually. The more data points, the better when showing trends over time. If a survey is only administered once every two years, but yearly data are needed, then that dataset may not be appropriate. Fiscal constraints can sometimes mean surveys are discontinued. It is important to check in with key stakeholders on the sustainability plans of existing surveys or measures.
Do existing data sources provide information on sample representativeness and response rates?	 Is the sample represented in the existing survey data set reflective of your community demographics? Do you have a minimum response rate that you need to meet for grant requirements? 	 Response rates for national surveys are often available on websites or in methodological reports. For example, in 2015 the YRBSS¹ reported a school response rate of 69%, a student response rate of 86%, and an overall response rate² of 60%.ⁱ If sample representativeness or response rate information is not provided, consider using other data sources.
Will datasets provide (timely) baseline and subsequent data for a control or comparison population?	• Some existing data sources may allow you to gather data for comparison purposes—in which you compare individuals or groups who have been exposed to intervention activities to others who have not	 Consider comparing data (e.g., YRBSS, NSDUH,³ BRFSS⁴) from your state or community with data from another state, community, or the nation. Comparisons should be made only with states or communities that share

¹ YRBSS: Youth Risk Behavior Surveillance System (https://www.cdc.gov/healthyyouth/data/yrbs/index.htm)

² Overall response rate = (number of participating schools/number of eligible sampled schools) x (number of usable questionnaires/number of eligible students sampled)

³ NSDUH: National Survey on Drug Use and Health (https://www.samhsa.gov/data/population-data-nsduh)

⁴ BRFSS: Behavioral Risk Factor Surveillance System (https://www.cdc.gov/brfss/index.html)

Key Questions	Follow-up Questions	Considerations
Will datasets provide (timely) baseline and subsequent data for a control or comparison population? (cont.)	(controlling for possible alternative explanations).	key relevant characteristics (e.g., similar on demographics, core risk factors, and political and legislative climates).

SELECTING A SAMPLE⁵

Once it is decided that original data will be collected, various decisions need to be made regarding choosing a sampling frame.

Key Questions	Follow-up Questions	Considerations
Will you collect data from all members of your target population (a census) or a sample of the target population?	 How large is the entire population of interest? Is it feasible and necessary to collect data from everyone considering that number? 	 For example, it may be feasible to collect census data from a whole grade within a school and include all the students, but it may not be feasible to collect data from all high school students within a district because of the size of the student body; therefore, surveying a random sample of high school classrooms may be more feasible if you want to capture data from multiple grades that is representative of the district
Will a statistician help you create a sampling strategy?	 Have you selected a population or subset that you'd like to target for data collection? Do you know a statistician who can help you think through your sampling needs? 	 Examples of sampling strategies: stratified random sampling, cluster sampling, systematic sampling

⁵ For further discussion on selecting a sample, see <u>Sample Representativeness and Nonresponse Bias: Frequently Asked</u> <u>Questions</u>.

Key Questions	Follow-up Questions	Considerations
What is your sampling unit?	 Are you interested in outcomes at the individual level? At the school level? At the community level? 	 For example, sampling units could be individual people, classrooms, church congregations, or young adults across a community.
What steps will you take to recruit participants?	 Where are you likely to find potential participants? Where do your potential participants like to congregate? What media platform might catch their eye and entice them to participate? 	 Include your target population in discussions (if possible) concerning recruitment efforts, because they'll know the social norms and have insights to inform your methods. If you are working with a specific population, it may be helpful to have someone from that community act as a liaison/facilitator.
How large does your sample need to be?	 Have you conducted a power analysis to determine the likelihood that your data collection activities will include enough participants to understand whether there is a significant effect? 	 Studies of outcomes with larger effect sizes, larger sample sizes, and higher significance levels (p<.01 vs. p<.05) are more likely to detect a statistically significant effect if the intervention works as intended. There are many online calculators available to help conduct power analysis. Examples include: http://statpages.info/#Power, http://www.gpower.hhu.de/, and http://www.ncss.com/software/pass/; however, these may not take into account all factors involved in your research. It is recommended that you work closely with a statistician when conducting power analyses.

INCREASING RESPONSE RATES⁶

Often the greater the response rate, the more trust that the sample is representative. There are ways to plan ahead as well as methods that can be employed to increase survey response.

Key Questions	Follow-up Questions	Considerations
Do you plan to send out frequent reminders and/or additional surveys to respondents in order to increase participation?	 What type of reminders would be most effective for respondents? Post- cards? Emails? Text messages? What time intervals would be most effective for reaching your target population without overtaxing them? 	 Mail-back Surveys: Some general guidance regarding follow-up for mail-back surveys includes the following: After one week of nonresponse, send a reminder postcard; if still no response, send out the initial mail-out with a replacement survey 3 and 7 weeks after the initial mail-out.ⁱⁱ Additional postcards and/or follow-up postcards might be necessary. The actual schedule for follow-up depends on your resources and the level of response to each wave of the survey. Online surveys: Consider sending up to three reminder emails for online surveys, personalizing each message, and including the average time to complete the survey.ⁱⁱⁱ
Do you plan to provide incentives?	Will you compensate individual participants and/or organizations helping you access those individuals (e.g., schools)?	 Some research participants may receive monetary compensation before or after completing a survey. Others may be given non-monetary incentives, such as a "free homework pass" for students or a free meal. Consider connecting with an appropriate IRB to consider the ethical implications of the incentives to make sure participants do not feel coerced into participation.

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⁶ For further discussion on increasing response rates, see <u>Sample Representativeness and Nonresponse Bias: Frequently</u> <u>Asked Questions</u>.

Key Questions	Follow-up Questions	Considerations
What information is useful for assessing the representativeness of the final sample?	 What information will you be able to collect on non-respondents? Does the final sample represent the target population proportionally? 	 For example, if you want to find out what percentage of males responded to the survey, you can compare the proportion of male non-responders to the proportion of males in the final sample. Many times a sample should represent the larger population of interest demographically. For example, if 90% of the entire school district is female, but your school district survey responses include a sample of 20% females and 80% males, then there might be bias in your sampling strategy.
What steps will you take to promote the survey?	 What is your purpose for promoting the survey? Will you involve the community to convey the value of the survey? Who are key opinion leaders in the targeted community? What media channels does the target population access most frequently? 	 Consider conducting focus groups or key informant interviews to determine what media channel(s) would be best to reach the targeted sample population (e.g., radio, T.V., social media). Examples: Consider setting up a booth at a community event where you have information about the upcoming survey and intent for the research. It also may be helpful to write the local newspaper or campus newspaper to see if the survey could be explained in a news story.

ADDRESSING ETHICAL CONSIDERATIONS

Ethical considerations must be taken into account when conducting evaluation, especially when collecting data from vulnerable populations such as youth.

Key Questions	Follow-up Questions	Considerations
What human protections requirements must be met before data collection can begin?	• Will you be required to submit your data collection procedures and instruments to an institutional review board (IRB), a college/university research office, university board of trustees, college president, dean of students, department chair, or classroom instructors? Or, if working with Native American populations, the Tribal Council?	 Design a protocol to ensure the confidentiality of data. Design a protocol to make sure that all respondents understand the purpose of the survey and that they have a right to not participate.
	 If so, how long does the approval process take and what deadlines might be relevant for submission? Can the instrument be an amendment to an existing IRB- approved application? 	
Are there any questions included in your data collection instruments to which community members might oppose? Are there questions about illegal behaviors?	 Are there any questions on the survey that might be a "red flag" for key stakeholders or participants? What steps will you take to engage key stakeholders and secure stakeholder buy-in for the survey? What procedures can you put in place to ensure that participants feel comfortable providing sensitive information? 	 Examples: Some key stakeholders may not approve of asking youth about topics like sexual orientation, sexual behavior, suicide, or other sensitive topics.
Will you be collecting data from one of the following population groups: youth under age 18, prisoners, or military personnel (or any others that require special clearance)?	 Who has the authority to grant permission to collect data in the target area (e.g., tribal council, school district, and/or school principal)? Is there a special application process researchers are required to complete? If so, what is the timeframe for this process (e.g., weeks or months)? 	 Buy-in at the community level and from the population you are targeting (e.g., youth) can assist in successful data collection. To conduct a school survey, permission may need to be granted through the school district superintendent, school board and/or principals. This may require making a presentation to the school board describing the purpose and intent of

Key Questions	Follow-up Questions	Considerations
Will you be collecting data from one of the following population groups: youth under age 18, prisoners, or military personnel (or any others that require special clearance)? (cont.)	 If you don't obtain permission to collect certain types of data/survey certain populations, what alternative plans exist to meet any grant-specific reporting requirements? 	the data collection, as well as sharing drafts of survey items. It may also require notifying parents in advance of the survey to provide them with the opportunity to permit or refuse their child's participation.
Does your state/school/district require active ⁷ or passive ⁸ parental consent for surveying youth under age 18?	 If you are collecting survey data from minors, how will you obtain parental consent? Keep in mind that passive consent might be allowed at the state or district level, but individual schools may require active consent. 	 Requirements regarding passive or active consent vary by state, by school district, and sometimes by school. Passive permission is usually preferred because it requires the fewest resources and does not often lead to many refusals.
		 Response rates may be substantially lower when active consent is required. This also requires many more resources to track which students have receiveved parental permission to participate.
		• It is important to create a plan for contacting parents and following up with them to address questions and make sure that they return the active consent form.

⁷ Active consent: Requires distributing a form to parents explaining the study and having parents sign it in order to allow their child(ren) to participate.

⁸ Passive consent: Requires distributing a form to parents explaining the study and having parents sign it if they refuse having their child(ren) participate.

ADMINISTERING A QUANTITATIVE SURVEY

Administering a quantitative survey can be resource intensive, but there are ways to be efficient and ethical while still collecting high quality data.

Key Questions	Follow-up Questions	Considerations
Have you (or others you know of) collected data on outcomes of interest from the same population?	 How often are these data collected? Who collects it? Do you have a good relationship with that individual, agency, department, or stakeholders? 	 For example, a survey that is administered through the state's department of education may already include data on the outcomes of interest; therefore, it may be unnecessary to conduct another survey. Data-sharing agreements may need to be formalized depending on the protocols to which the data owner needs to adhere.
Can you build on other surveys that target population(s) may complete during your timeframe?	 What surveys are currently being implemented with your target population? What are the content of the surveys? How long or burdensome are the surveys for participants? How will time of data collection be managed so that staff and participants are not overburdened? 	 Consider adding items to an existing survey that the school district or other entity is conducting. This may not be an easy task and may require some negotiation and discussion with the survey originator.
Is the population defined by, and therefore reached in, specific settings?	 Are there specific places where the survey can be administered that are frequented by the target population? 	 Consider meeting the population at the locations they normally patron to administer a survey. For example, meet students at their school or college; meet community members at their faith-based organizations, out-of-school community groups, or clubs. If you are working with specific populations, it may be helpful to have someone from that community act as a liaison/facilitator.

Key Questions	Follow-up Questions	Considerations
Do you plan to use a standardized questionnaire already being used out in the field?	 Does its use require permission? If so, do you have permission? Is there an associated fee? Are the questions worded in the survey sensitive enough to capture change (i.e., lifetime vs. past-year vs. past 30-day substance use)? 	 For example, the Communities That Care Youth Survey and the <u>YRBSS</u> are free and readily available, while the Monitoring the Future Survey may not be used widely without permission from the developers. If designing a new survey, try to create/craft items that parallel (or duplicate) the national surveys to allow some comparability of results, especially if the national survey is used as a baseline measure. It's helpful to double check wording to make sure the same question is asked with the same response options, and that the national survey methodologies haven't changed over time.
What method will you use to administer your survey?	How will the mode of administration affect your ability to implement the survey and obtain an adequate response rate?	 Methods may include: in-person interview, pencil-and-paper, audio- assisted computer, online, telephone interview, mail, or combination. In general, web-based surveys typically have lower response rates than in- person interviews^{iv} and face-to-face interviews typically have higher responses than mail-in surveys. Consider how choices about administration impact who is (and is not) included in your survey. For example, in-person administration in schools means high-risk students might be missing—like those with histories of truancy or those who have dropped out. Similarly, online surveys can impact who is (and is not) included, omitting those who lack access to technology.

Key Questions	Follow-up Questions	Considerations
Is the survey written so that participants will understand the questions' content?	 What is the reading level or literacy skill of your target population? Are the survey questions worded in a way that is easy for participants to understand? Can accomodations be made to support members of the target population who may need extra assistance in completing the survey? 	 Reading level can be assessed using computer programs. Microsoft Word can generate a readability statistic that will report the Flesch-Kincaid Grade Level, which corresponds to U.S. school grade level. For the general population, it is recommended that surveys not include items that require more than 8 years of formal schooling and, for vulnerable populations, no more than 5 years of formal schooling.^v For example, the Massachusetts Youth Risk Behavior Survey, designed for high school students, was written at the 7th grade reading level.^{vi}
Is the survey culturally competent for the intended participants?	 Are you targeting immigrant population(s) or non-English speaking populations? Will you need to administer the survey in languages other than English? What translation services are available? 	 Translation of surveys requires multiple steps. A simple model includes 3 steps: (1) write survey in English; (2) translate survey into second language (translation); (3) translate survey from the second language back into English (back- translation). Once back translation is finished, the text is compared to the original survey. The translators meet to negotiate changes to ensure that the final translation matches the original English translation as closely as possible.^{vii} It may be helpful to consult a linguist. Consider seeking input on questionnaire wording from a community advisory board or representatives of the target population to get feedback regarding cultural appropriateness.
How much will it cost to collect data on outcomes of interest in your target population?	 How much money and resources do you have available for data collection purposes? 	 The cost of data collection varies according to collection method. For example, face-to-face survey interviews are usually the most costly because they require training survey

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Key Questions	Follow-up Questions	Considerations
How much will it cost to collect data on outcomes of interest in your target population? (cont.)	 How many participants do you need to survey and what response rate is expected? What quality of data is sufficient? 	administrators and perhaps paying them for their time. Web-based survey methods may cost less (due to free to low-cost online programs) but the quality of the data and response rates may be lower. For more on the pros and cons of different data collection methods, visit: <u>https://preventionsolutions.edc.org/</u> <u>services/resources/data-collection- methods-pros-and-cons</u>
Who will conduct data collection activities?	 Has this individual (or individuals) been trained in data collection? Is additional training needed? 	 Interviewers need to be trained on data collection processes, as well as on the human protection protocol. They may also need refresher trainings throughout the data collection process if there are changes to the survey or procedures.
Who will take primary responsibility for developing and ensuring that the data collection protocols are followed?	 Are the data collection protocols documented and standardized? Are the protocols clear, understandable, and easy to follow? Have data collectors been adequately trained in data collection protocols? Have the instruments and protocols been approved by an Institutional Review Board (IRB), if necessary? 	 If possible, hire a data collection coordinator to make sure that data collection procedures are followed and standardized. Periodically during data collection, review randomly selected surveys to determine completeness. Conduct routine check-in meetings with interviewers or data collectors to ensure they are following protocol, and brainstorm solutions to potential barriers to following protocol.
What measures will you take to assure respondents that their responses will be kept private?	 Are you asking questions about illegal behaviors? Are you asking other sensitive questions, such as about suicidal thoughts and behaviors, or experiences of abuse (emotional, physical, and/or sexual)? What protocols do you have in place to protect the confidentiality of participants and their responses? 	 Consider connecting with an appropriate IRB (may be required) to review the methods and measures in order to ensure the protection of the participants. Instead of names, pair each participant with a unique identifier (code) marked on their survey form. Keep the list of paired names and identifiers stored in a locked cabinet or password-protected file and

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Key Questions	Follow-up Questions	Considerations
What measures will you take to assure respondents that their responses will be kept private? (cont.)		 separate from the surveys—and limit who has access to this list. Train interviewers on research ethics and human protection protocols and ensure they are followed. Require password protection and security software for the computers used for tracking participation and data input. Only allow password access to necessary people who are trained in confidentiality and ethics. If possible, store data only on external hardware and lock up the hardware in a secured cabinet and room when not in use.

FOLLOWING UP AND SHARING RESULTS

In order to make evaluation respectful, useful, and purposeful, decisions need to be made regarding the dissemination of evaluation results.

Key Questions	Follow-up Questions	Considerations
Will results be shared with key stakeholders?	 In what format will key stakeholders be most receptive to reading and understanding evaluation results? How can you best convey program/strategy successes as well as barriers/challenges? When would it be best to share results? 	 Evaluation results can be used to improve and strengthen programs or strategies. Consider discussing a process with key stakeholders for realigning resources or strategies to put the evaluation results to beneficial use. Sharing evaluation results with stakeholders helps to build relationships and trust. This is particularly important when working with minority populations, such as Native American/Alaska Native populations or lesbian, gay, bisexual, or transgender populations.

Key Questions	Follow-up Questions	Considerations
What type of follow- up are you prepared to implement with participants?	Will you provide survey results to participants?How will you thank participants?	 Consider sending a thank you via letter or email or postcard. Consider sharing some of the key results from the study so that participants feel that there will be positive outcomes as a result of their involvement.
How will evaluation results be used?	 What process will you follow to realign resources to improve, replace, or augment strategies or programs based on the evaluation results? 	 Reflect on process evaluation measures that document implementation and see if adaptations were associated with more or less positive outcomes.

ⁱ Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Hawkins, J., ... & Zaza, S. (2016). Youth Risk Behavior Surveillance — United States, 2015. *MMWR Surveillance Summaries, 65*(6), 1–174.

ⁱⁱ Hoddinott, S. N., & Bass, M. J. (1986). The Dillman Total Design Survey Method: A sure-fire way to get high survey return rates. *Canadian Family Physician, 32,* 2366–2368. Retrieved from: <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2328022/pdf/canfamphys00201-0076.pdf</u>

ⁱⁱⁱ Monroe, M. C., & Adams, D. C. (2012). Increasing response rates to web-based surveys. *Journal of Extension*, *50*(6), 6–7.

^{iv} Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? Assessment & Evaluation in Higher Education, 33(3), 301–314.

^v Paz, S. H., Liu, H., Fongwa, M. N., Morales, L. S., & Hays, R. D. (2009). Readability estimates for commonly used health-related quality of life surveys. *Quality of Life Research, 18*(7), 889–900. Retrieved from: <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2724639/</u>

^{vi} Massachusetts Department of Education. (2006). Introduction & survey methods. In: 2005 Massachusetts Youth Risk Behavior Survey (pp.1–5). Retrieved from: <u>http://www.doe.mass.edu/cnp/hprograms/yrbs/05/ch1.pdf</u>

^{vii} Bernard, H. R. (2011). *Research methods in anthropology: Qualitative and quantitative approaches*. Lanham, MD: AltaMira Press.