







EVALUATION METHODS

TIP SHEET








QUANTITATIVE METHODS: Quantitative data collection methods consist of counts or frequencies, rates or percentages, or other statistics that document the actual existence or absence of problems, behaviors, or occurrences. This data can yield representative and generalizable information. These methods are usually objective and require the use of standardized measures so that varying perspectives and experiences can fit into a limited number of predetermined response categories. These methods are usually easier to summarize and compare than qualitative methods. Examples of quantitative data collection methods include the following:

-  Surveys
-  Questionnaires that ask close-ended questions such as pre- and post-tests
-  Performance tests
-  Clinical tests, such as urine and blood tests
-  Observation checklists
-  Archival research that provide statistical data such as from local, state or federal databases, agency service records, school records, and police and juvenile court records. Archival data already exists.

Advantages: Generally quantitative methods are easy to administer, can include relatively large number of questions, can yield large samples, are easier to summarize, and are more widely accepted as a form of evidence regarding program effectiveness.

Disadvantages: Data may not be as rich or as detailed as qualitative methods. Survey/written questionnaires may be difficult for some participants, may not provide all the information needed for interpretations of data findings, and the large amounts of data may require more sophisticated analysis approaches.

QUALITATIVE METHODS: Qualitative data collection methods result in descriptions of problems, behaviors or events, can provide narrative descriptions of people’s thoughts and opinions about their experiences, attitudes, and beliefs. These measures provide the “stories” that illustrate the nature of the problem addressed. Examples of qualitative data collection methods include:

-  Key informant or individual interviews
-  Focus groups
-  Open-ended questions on a survey or questionnaire
-  Logs, journals, diaries and/or essays
-  Stories/Case studies
-  Participant observations/field notes
-  Document review: examining written records such as logs, correspondence, meeting minutes, or news articles or other published accounts

Advantages: Qualitative data methods capture more depth and provide insights as to the “why” and “how” of attitudes and behaviors, clarify quantitative data and sometimes puts it into the context of people’s lives and experiences. This makes quantitative data easier to understand, provides more details and nuances, and explains what the program means to the people involved.

Disadvantages: Qualitative data collection methods are time consuming to capture and analyze. This data is more subjective and may be difficult to summarize and compare systematically. It is generally viewed as less reliable because qualitative data is more subjective than quantitative methods, and may yield smaller sample sizes.

Data Collection Methods At A Glance

Method	Advantages	Disadvantages	Cost	Time
Surveys and questionnaires (Close-ended questions)	Good for gathering descriptive data; can cover wide range of topics; easy to compare and analyze; can complete anonymously; can get lots of data from many people	Self-report may result in biased or untruthful responses; Data may provide a general picture but lack depth; Doesn't provide the "full story" Attrition is a problem for analysis	Relatively inexpensive, unless conducting telephone or mail surveys which can be quite expensive	Time required is moderate, but depends on the distribution system, such as mail or telephone surveys, which require more time.
Surveys and questionnaires (Open-ended questions)	Adds more in-depth and detailed information to a structured survey	People often do not answer May be difficult to interpret intended meaning of participants due to wording	Inexpensive	Adds another layer to analysis of responses
Interviews	Can explore topics in depth and detail; yields rich data and new insights; can get a full range and depth of information (varied perspectives); allows interviewer to be flexible in administering interview to particular individuals or in particular circumstances; allows interviewer to explain or clarify questions	Can be hard to analyze and compare; potential interview bias; requires well-qualified, highly trained interviewers; may be difficult to analyze; flexibility can result in inconsistencies; interviewee may distort information through recall error, selective perceptions, desire to please interviewer	Expensive	Can be very time consuming
Focus groups	Can quickly get information about needs, and community attitudes and norms; efficient way to get range and depth of information in a short time	Requires a good facilitator; Can be hard to analyze responses; Difficult to schedule to meet 6-10 people's time requirements	Can be done inexpensively if done in-house; can be expensive if you need to hire an expert facilitator	Depends on the number of focus groups you need to complete- -can be done in short time frame if only doing one or two groups; requires additional time for analysis

Data Collection Methods At A Glance

Method	Advantages	Disadvantages	Cost	Time
Observations	Gives the opportunity to view the operations of a program as they occur; can adapt to events as they occur; provides direct information about behavior of individuals and groups; data occurs in natural, unstructured, and flexible setting; provides opportunities for identifying unanticipated outcomes	Requires experienced, well-qualified and trained observers, observer may affect behavior of participants; selective perception of observer may distort data; behavior or set of behaviors observed may be atypical; can be difficult to interpret behaviors; can be complex to categorize	Can be expensive if you have to hire a skilled observer; will not be as expensive if completed with in-house staff	Depending on the number of times conducting the observations, can be time consuming
Tests	Provides objective information on what the test taker knows and can do; can be constructed to match a given curriculum or set of skills; can be scored in a straightforward manner; widely accepted as a credible indicator of learning or knowledge gained; can provide anonymity; easy to compare and analyze	May be oversimplified and superficial; may be biased against some groups of test takers; may be subject to corruption via coaching or cheating; may not provide careful feedback; does not provide the full story	Can be inexpensive and easy to administer	Can be quickly administered and analyzed
Document review	Available locally; useful for determining value, interest, positions, political climate and public attitudes; provide opportunity for study of trends over time; unobtrusive; provide a record or history that is not subject to recall bias	Records may be incomplete; may be inaccurate or of questionable authenticity; some records may be difficult to locate and/or access; analysis may be difficult; data restricted to what already exists	Inexpensive	Research to locate and access appropriate records can be very time consuming

Data Collection Methods At A Glance

Method	Advantages	Disadvantages	Cost	Time
Archival Data	Inexpensive data collection method that can provide an overall picture of substance use or abuse within the geographic area served. The data can be cross-referenced in various combinations, can be tracked over time to provide trends, and can provide rates, and percentages for comparisons with other similar populations. Often this data can be accessed on-line.	When this data are presented as “rates” or percentages, they may not provide an accurate “picture” of the local problem. (Rates based on larger populations, such as 100,000 or even 10,000, will be difficult to apply to small population bases.) Data may only be updated every 1-5 years, and may only be available for large geographic areas, such as states or counties, versus local areas, such as neighborhoods or small unincorporated communities.	Inexpensive; requires access to internet	Depending on the indicators, locating appropriate records may take considerable time. However larger geographic areas, such as states, provide data for multiple substance use/abuse indicators at one location.
Case studies	Fully depicts a person’s experience in the program; powerful means to portray program to outsiders; allows for a thorough exploration of interactions between the intervention and contextual factors; can help explain changes or facilitating factors that might otherwise not emerge from the data; can conduct comprehensive examination through cross comparison of cases	Requires a sophisticated and well-trained data collection and reporting team; can be costly in terms of time and resources; individual cases may be over-interpreted or over-generalized; although represents depth of information, it does not provide wide range of data (breadth)	Fairly inexpensive if this can be done in-house; expensive if you have to hire an expert	Usually quite time consuming

Data Collection Methods At A Glance

Method	Advantages	Disadvantages	Cost	Time
GIS Mapping	Focuses on events in selected geographic areas and/or settings ranging from individual addresses to geo areas such as zip codes and police districts, to entire jurisdictions; allows observations of relationships between two or more variables for designated areas or settings.	Requires special software; requires downloading of data that may involve legal and technical challenges; requires operation by a professional a specialist?; GIS data need to be explained and reported in a user-friendly form for lay users.	Initial start up costs may be needed for computer programming; must cover time of GIS professional or specialist. Utilization costs drop significantly over time.	Some set up time required (few days to a few weeks). Data are usually available on demand once system is set up.