

The Health Foundation of Central Massachusetts, Inc. (THFCM)

Data Collection Methods at a Glance

Methods	Pros	Cons	Costs	Time to Complete	Response Rate	Expertise Needed
Self-Administered Surveys	Anonymous; cheap; easy to analyze; standardized so easy to compare to other data	Results are easily biased; misses information; Attrition is a problem for analysis	Moderate	Moderate, but depends on system (mail, distribute at school)	Moderate but depends on system (mail has the least)	Little needed to gather, need some to use
Telephone Surveys	Same as paper and pencil but allows you target a wider area and clarify responses	Same as paper and pencil but misses people without phones (those with low incomes)	More than Self-administered	Moderate to high	More than self-administered	Need some to gather and to use
Face-to-Face Structured Surveys	Same as paper and pencil but you can clarify responses	Same as paper and pencil but requires more time and staff time	More than Telephone and self-administered surveys	Moderate to high	More than self-administered survey (same as Telephone survey)	Need some to gather and to use
Archival Trend Data	Fast, cheap, a lot of data available	Comparisons can be difficult; may not show changes	Inexpensive	Quick	Usually very good, but depends on the study that collected it	None needed to gather, need some to use
Observation	Can see a program in operation	Requires much training; can influence participants	Inexpensive, only requires staff time	Quick, but depends on the number of observations	Not an issue	Need some device coding scheme
Record Review	Objective, quick, does not require program staff or participants, pre-existing	Can be difficult to interpret, often is incomplete	Inexpensive	Takes much time	Not an issue	Little needed; Coding scheme may need to be developed
Focus Groups	Can quickly get info about needs, community attitudes and norms; info can be used to generate survey questions	Can be difficult to run (need a good facilitator) and analyze; may be hard to gather 6 or 8 people together	Cheap if done in house; can be expensive to hire facilitator	Groups themselves last about 1.5 hours	People usually agree if it fits into their schedule	Requires good interview/conversation skills; technical aspects can be learned easily

Data Collection Methods at a Glance (continued)

Methods	Pros	Cons	Costs	Time to Complete	Response Rate	Expertise Needed
Interviews-Face-to-Face and Open ended	Gather in depth, detailed info; info can be used to generate survey questions	Takes much time and expertise to conduct and analyze; potential interview bias possible	Inexpensive if done in-house; can be expensive to hire interviewers and/or transcribers	About 45 minutes per interview; analysis can be lengthy depending on the method	People usually agree if it fits into their schedule	Requires good interview/conversation skills; formal analysis methods are difficult to learn
Open-ended Questions on a Written Survey	Can add more in depth, detailed info to a structured survey	People often do not answer them; may be difficult to interpret meaning of written statements	Inexpensive	Only adds a few more minutes to a written survey; quick analysis time	Moderate to low	Easy to content analyze
Participant-Observation	Can provide detailed information and an "insider" view	Observer can be biased, can be a lengthy process	Inexpensive	Time consuming	Settings may not want to be observed	Requires skills to analyze the data
Archival Research	Can provide detailed information about a program	May be difficult to organize data	Inexpensive	Time consuming	Settings may not want certain documents reviewed	Requires skills to analyze the data

Archival Trend Data

Archival data already exists. There are national, regional, state and local sources (i.e., health departments, law enforcements agencies, the Centers for Disease Control). This data is usually inexpensive and may be fairly easy to obtain. Several examples include rates of DUI arrests, unemployment rates, juvenile drug arrest rates. Many sources can be accessed using the Internet. However, you may have little choice in the data format since it was probably collected by someone else for another purpose. *It will probably require most quality programs several years to change archival data indicators* (if it is even feasible) since archival trend data usually covers larger groups (schools, communities, states).

Observations

Observations involve watching others (usually without their knowledge) and systematically recording the frequency of their behaviors according to pre-set definitions (e.g., number of times 7th graders in one school expressed anti-smoking sentiments during lunch and recess). This method requires a great deal of training for observers to be sure each one records behavior in the same way and to prevent their own feelings from influencing the results.

Review of Records

Using existing records from different groups or agencies (e.g., medical records or charts) as a data source begins your record review. Record reviews usually involve counting the frequency of different behaviors. One program counted the number of times adolescents who had been arrested for under-age drinking said that they obtained the alcohol by using false identification.

Focus Groups

Focus groups are typically used for collecting background information on a subject, creating new ideas and hypothesis, assessing how a program is working, or helping to interpret the results from other data sources. "The contemporary focus group interview generally involves 6 to 12 individuals who discuss a particular topic under the direction of a moderator who promotes interaction and assures that the discussion remains on the topic of interest." (Stewart and Shamdasani, 1990). Focus groups can be advantageous because they are a quick and inexpensive way to collect information from a group (as opposed to a one-on-one interview), allow for clarification of responses, can provide information in more depth, and create easy to understand results. The limitations of focus groups are that they use a small number of people who may not accurately represent the larger population. Also, they can be affected by the bias of the moderator and/or the bias of one or two dominant group members.

Unstructured Interviews

Similar to a focus group, but with just one person, in an unstructured interview the interviewer had a set of open-ended questions designed to obtain very rich and detailed information. The interviewer guides the participant through the questions, but allows the interview conversation to flow naturally, encouraging the participant to answer in his or her own words. The interviewer will often ask follow-up questions to clarify responses and to get more information. It takes a great deal of skill to conduct an unstructured interview and analyze the data. It is important to define criteria that determine who will be interviewed if you decide to use unstructured interviews.

Open-ended Questions on a Self-Administered Survey

Usually at the end of a self-administered survey, these open-ended questions ask those being surveyed to write their responses in sentences or phrases. Content of this data can be analyzed similarly to focus group data. The analysis requires some skill.

Participant-Observation

This method involves joining in the process that is being observed to provide more of an "insider" perspective. Participant-observers then record the processes that occur as well as their own personal reactions to the process. This method produces detailed information, but it takes time (i.e., to gain trust, to gather enough data). It can be biased by the observer's personal feelings. The information is analyzed like focus group data, which requires a fair amount of skill.

Archival Research (qualitative focus)

Rather than counting frequencies of behaviors, qualitative archival research involves reviewing written documents (e.g., meeting minutes, logs, letters, reports) to get a better understanding of a program. This method may clarify other quantitative information or create new ideas to pursue later.

Strengths and Weaknesses of Commonly-Used Evaluation Designs

Methods	Pros	Cons	Costs	Expertise Needed
Post Only – Deliver program, assess program group	Easy to do, provides some info	Cannot assess change	Cheapest	Low
Pre-Post – Assess program group (baseline), deliver program, assess program group again	Still an easy way to assess change	Only moderate confidence that your program caused the change	Moderate	Moderate
Pre-Post with Comparison Group – Assess program group and comparison group (baseline), deliver program only to program group, assess program group and comparison group again	Provides good level of confidence that your program caused the change	Can be hard to find group similar to the program group	High; Doubles the cost of the outcome evaluation	Moderate to high
Pre-Post With Control Group – Randomly assign people from the same target population to either the program or control group, assess program group and control group (baseline), deliver program only to program group, assess program and control group again	Provides excellent level of confidence that your program caused the change	Hard to find group willing to be randomly assigned; ethical issue of withholding beneficial program	High; Doubles the cost of outcome evaluation	High