



## UCLA CENTER FOR HEALTH POLICY RESEARCH

### Section 3: Surveys

#### Purpose

Surveys are a popular approach to collecting data and are often used in conducting community assessments. Surveys are composed of carefully crafted questions on a topic or issue. They are often used to gather information about the level of residents' health, social well-being, and access to services.

Some survey training and experience is generally helpful before conducting a survey. Check to see if your partnership members have any prior experience in designing and implementing a survey. Their experience and insight may provide guidance and help you avoid common pitfalls.

The most commonly used survey methods are:

- Mailed Surveys
- Hand-out Surveys
- Face-to-Face Surveys
- Telephone Interview Surveys

Qualitative information is usually collected using open-ended questions while quantitative information is collected by using forced-choice or directed questions. A survey may incorporate both types of questions. For instance, surveys may have quantitative questions that ask respondents how often they participate in sports or physical activities each week. These questions are structured and most likely have preset answers. Qualitative questions on the other hand are unstructured and provide a free response from participants. For example, a qualitative question may ask the respondent to, *Tell me why basketball is your favorite physical activity?*

#### When to conduct a survey

A survey is a good choice when you want to:

- Learn more about your community's demographic characteristics
  - age
  - sex
  - income
  - education
  - health insurance status

- Gather information from community residents on
  - behaviors
  - opinions
  - attitudes
  - beliefs
- Determine the level of knowledge that community residents have on a particular issue.
- Support, expand, or better understand quantitative or qualitative data you already have.
- Make comparisons between the rates in different population groups.

## **Planning a Survey**

The following are some basic steps involved in planning and implementing a community survey:

- 3.1 Gather and review existing data*
- 3.2 Determine if the survey collection method is appropriate*
- 3.3 Determine your purpose*
- 3.4 Choose your target audience and sampling technique*
- 3.5 Select a survey method*
- 3.6 Design survey questionnaire*
- 3.7 Pre-test survey*
- 3.8 Publicize and distribute survey*
- 3.9 Compile and organize survey data*

### **3.1 Gather and review existing data**

Collect and review existing data to decide what additional information you need from survey respondents. You can piece together a great deal of information about a community or issue from different sources. Make sure to review existing data before deciding to do a survey. The information you are looking for may already exist.

### **3.2 Determine if the survey data collection method is appropriate**

Before designing a survey, determine what information you want to collect, and decide whether a survey would be the most appropriate method. For example, if you want a more detailed discussion on why teens in your community smoke, focus groups would be the more appropriate choice. But if you want to determine how many teens in your community smoke, how much they smoke, and how long they have smoked, a survey would be the best method. Before deciding to use a survey, be sure to review the various methods in this curriculum and determine which is the best approach to use in order to get the data you need.

### 3.3 Determine your purpose

Once you decide to use the survey method, define your purpose by identifying the information you need. *Step 3: Identify the Information (Data) You Need* in the “Performing a Community Assessment” curriculum (page 4-17) will guide you through this process. It provides direction on how to best prepare and write the primary questions to be answered. Once you have drafted your primary questions, determine what type of data you need. For example, do you want to collect data on community practice, community opinions, or existing services and service utilization, or other issues?

#### Define survey content

The purpose of your survey determines the questions to be asked. You should be very clear from the outset what data is needed since it is nearly impossible to change or add questions once data collection has started.

### 3.4 Choose your target population and sampling technique

Before you start the survey, select your target population. This defines your “sampling frame,” or the known population to select from. The following are two steps in determining your target population.

- *Define the target population:* identify your group of interest or target population. This is the group of individuals from your community you want your survey to represent. If it is teens at risk for STDs, define the age range and define what is “at risk.”
- *Identify the geographic area of your target population:* where is your group of interest located? What are the geographic boundaries of your target population? This determines where your survey is conducted.

#### Finding potential participants using sampling techniques

Since you will be unable to recruit and study every individual in a given target population, select a “sample” from that population. A sample is the subset or portion of the population you select to study. A good sample accurately represents the population you want to survey. Sampling allows you to assume that the patterns you see in your survey are the same as the patterns you would find if you interviewed the entire population.

The sampling technique is the method you use to select the sample of people you want to survey. The technique you select largely depends on the following criteria: target population, accuracy, convenience, and cost. The following are several sampling techniques you can use to choose participants:

### A. *Random Sampling:*

This is the best and most common process for selecting a survey sample that accurately reflects the population. It involves the following steps:

- First you need a list of people. This list is your population. For example, if you want a sample of students, go to local area schools and get their student rosters. The list can also be street addresses of houses or a range of telephone numbers (don't just select specific numbers in the phone book since a large number of phones are unlisted).
- Determine how many people there are in your population, and how many people you need to interview. If there are 1,000 students in a school and you want to interview 100 of them, you need to randomly select 100/1000 or one out of ten.
- You need to *randomly* identify those 100 students. Picking every tenth student is not random, so you need a table or computer program of random numbers to make the selection. One program is at <http://www.randomizer.org/form.htm>. You want one set of numbers (if you are doing one survey), you need 100 numbers in the set, and the numbers will range from 1-1000. Click on randomize and it will give you the numbers of the students to pick.

You can also do this in Excel. Let's assume you can copy and paste the list of students' names into a column in an Excel spreadsheet. Then, in the column right next to the names paste the function =RAND() which is Excel's way of putting a random number between 0 and 1 in the cells. Then, sort both columns—the list of names and the random number—by the random numbers. This rearranges the list in random order from the lowest to the highest random number. Then, all you have to do is take the first hundred names in this sorted list.

### B. *Systematic Sampling:*

You can use this method when random sampling (above) is not feasible.

- First you need to start with a list of people. Let's say you have a list of clients from a community clinic numbered from one to 400 and want a sample of 40 from the list. (Note: the list must not be in any specific order such as alphabetical, insurance status, id number, or other regular pattern.)
- Begin your sampling by selecting a random number. This random number will be your starting point. Let's say you randomly select the number three.
- Next you will need to calculate the sampling interval. This is easily done by dividing your population by the sample you need. In this case you want a sample of 40 from a list of 400 clients. You would then divide 400 by 40 ( $400/40=10$ ). Your interval is 10. Now let's go back to your random number

- of three. The first person chosen to be in your sample would be client number three. Your second person chosen would be client  $3 + 10 = 13$ , your third person chosen would be client  $13 + 10 = 23$ , and so on.
- If you come to the end of your list and don't have the sample size that you need, go to the top of your list and keep counting until you have the sample size that you need.
  - You can also achieve the same systematic sampling technique even if you do not have a list of your target population. For example, if surveying patients at a clinic, you could approach every fifth person walking through the door. In this case, you will want to approach patients at different times of the day and week to make sure you include in your sample the variety of different kinds of patients who get care. In other words, mothers who take their children to the clinic during the day will be different from individuals who come after work, and different from patients who come late at night.

[Note: The following two sampling techniques will not provide you with a sample that accurately represents your population. However, these sampling techniques may be useful and appropriate if dealing with a hard to reach population.]

#### C. *Snowball Sampling:*

This sampling process may be helpful if you do not have a list of individuals to start with, or are working with hard-to-find clients, such as illegal drug users or adolescent runaways. The main advantage of this process is that you can get referrals to potential participants that you would otherwise not be able to access. It includes the following steps:

- Start by identifying a person who meets the criteria you are looking for.
- Then ask them to refer you to others they know who also meet the criteria (friends or acquaintances).
- As they identify names, the snowball gets bigger.
- This sampling process can be very helpful in identifying the right target population members and getting the number of respondents that you need.

Keep in mind that this sampling process does introduce bias. Bias is introduced if people refer others who are just like them, and have similar perspectives and experiences. Through the snowball sampling process you may end up with a group of individuals that are not representative of the target population you are seeking to better understand, and are common only among this particular social group. For example, if you start a snowball sample with an intravenous drug user, your final sample may contain a much higher proportion of drug users than actually occur in the general population. Thus any findings you draw about your sample, such as high rates of imprisonment, will most likely be much higher than is true for the entire population. But if your intention is to reach as many intravenous drug users

as you can in order to describe the health status and perspectives of intravenous drug users, then this is an appropriate way to sample this hard-to-reach population.

D. *Convenience Sampling:*

This sampling process saves time and effort. It is also fast and less expensive, but gives information that does not reflect any larger population.

- A convenience sample is a sample where individuals are selected because they are easily accessible. For example, they could be clients from your organization or recruited from places your target population frequents often (shopping malls, laundromats, hair salons, or the *Women, Infants and Children* offices).

E. *Cluster Sampling:*

This sampling process saves time and effort, especially if doing surveys administered by someone in the community assessment partnership team. This method has been used in community surveys of people who live in certain geographic areas.

- This method divides your target population into groups or clusters. A number of clusters are selected randomly and then all of the random clusters are included in the sample.
- For example, let's say you want to know more about health insurance coverage in your community. The most commonly used clusters are neighborhoods (or zip codes or census tracts). Rather than collecting data from across an entire geographic area, a subset of neighborhoods is chosen that represents the entire community.

### 3.5 Select a survey method

Selecting the most appropriate method depends on a number of issues, including:

- types of questions being asked
- complexity of the questions
- timeline
- target population
- cost in terms of time and dollars

The following are various kinds of survey methods:

- A. Self Administered: These surveys are filled out by respondents themselves—without the assistance from interviewers—and can be given to the respondents in a number of ways. The following are two self administered surveys we review:
1. *Mail Surveys*
  2. *Hand-out Surveys*

B. Interviewer-Administered: These surveys are filled out with the assistance from trained interviewers and can be given to the respondents in a number of ways. The following are two administered surveys we review:

1. *Telephone Surveys*
2. *Face-to-Face Surveys*

	Advantages	Disadvantages
<p><b>Mail Surveys:</b> Questionnaires that are mailed to individuals, homes, or businesses.</p>	<ul style="list-style-type: none"> <li>• Lower in cost compared to other survey methods. Associated costs include printing, postage and staff-time for envelope-stuffing.</li> <li>• Participants control the time they need to complete the survey.</li> <li>• People may feel more comfortable sharing sensitive information in an anonymous way.</li> <li>• Through this method it is possible to reach more people and have a larger sample size.</li> </ul>	<ul style="list-style-type: none"> <li>• Response rates are not very high for mail surveys. Common return rates are 20-30%.</li> <li>• Respondents may not complete or answer all the questions as there is no one there to clarify confusing questions.</li> <li>• It may take a couple of weeks before you start receiving completed surveys.</li> <li>• May limit the number of survey participants. Only individuals with a certain level of reading and writing skills may be able to respond.</li> </ul>
<p><b>Hand-out surveys:</b> Used when you have a large and attentive audience in a room or gathering. Surveys are distributed to this captive audience. This method allows for personal contact and an opportunity to explain the importance of the survey. Participants complete the survey and a researcher or volunteer collects them.</p>	<ul style="list-style-type: none"> <li>• Participants control the pace and time needed to complete the survey.</li> <li>• More people are likely to complete the survey because they have exposure to a person explaining its purpose and importance.</li> <li>• The staff member collecting the surveys may review for completeness.</li> <li>• Surveys can be distributed wherever there is a captive audience (clinic waiting room, laundromat, health education class, high school class, or local festival.)</li> </ul>	<ul style="list-style-type: none"> <li>• Because of the time it takes to make personal contact with the respondents and distribute the survey you have to limit it to a smaller sample size.</li> <li>• People from your selected survey location may not be representative of your whole population.</li> </ul>
<p><b>Telephone Surveys:</b> Surveys taken over the phone. The respondent is asked the survey questions by a trained interviewer.</p>	<ul style="list-style-type: none"> <li>• The trained interviewer can build rapport with respondents over the phone.</li> <li>• More people are likely to complete the survey because they have a person explaining its purpose and importance.</li> <li>• A telephone survey usually has simple questions with limited choices for answers.</li> </ul>	<ul style="list-style-type: none"> <li>• You need accurate and up-to-date telephone numbers of your target sample.</li> <li>• You cannot control who answers the phone or may only get an answering machine or no answer.</li> <li>• Telephone surveys can be very expensive in terms of money and staff time.</li> <li>• Respondents may be suspicious about the legitimacy of the survey without a face-to-face interaction with the person administering it.</li> <li>• May exclude those who do not have telephones from your sample.</li> <li>• Response rates are about 50%.</li> </ul>

	Advantages	Disadvantages
<p><b>Face-to-Face Surveys:</b> Surveys conducted in person. The respondent is asked the survey questions by a trained interviewer.</p>	<ul style="list-style-type: none"> <li>• The trained interviewer can build rapport with respondents and explain the survey questions.</li> <li>• More people are likely to complete the survey as they have a person explaining its purpose and importance.</li> <li>• Longer and more complex questions can be asked and probing questions can be used to get detailed responses.</li> <li>• Respondents with low literacy and reading skills can be surveyed.</li> </ul>	<ul style="list-style-type: none"> <li>• It takes some time to administer this type of survey.</li> <li>• Face-to-face surveys can be very expensive in terms of money and staff time.</li> </ul>

### Training Interviewers

If conducting face-to-face surveys or telephone surveys it is important to provide training for your interviewers. The purpose of the training is to provide the interviewer with some general guidelines on how to administer the survey in a consistent manner to all respondents. It is very important that they read the instructions and questions as written and not deviate from them. Finally, the training should also instruct them on how to clarify questions appropriately without influencing responses, as well as instructions on when to use probing questions.

### **3.6 Design survey questionnaire**

The next step is to determine what types of questions to ask, either qualitative (open-ended) or quantitative (directed/close-ended) or both.

Once the question structure is determined you can start drafting your questions. Your survey questions should relate directly to the project purpose and goals. Asking too many unrelated questions fragments the survey.

#### ***The following are some considerations in designing survey questions:***

- Survey questions should be directly in line with your Community Assessment goal(s) and objectives. Including too many interesting but unrelated questions may be distracting and does not provide the quality of information you want or need.
- The questions and reading level should be appropriate to the participants.
- Ask about topics with which your participants are familiar.
- Self-administered surveys should be visually attractive, clearly printed, well organized, and generally easy to complete.
- Questions should be logically ordered.

- Pay attention when writing questions with “skip patterns.” Skip patterns are directions that guide respondents where to go next based on how they answered the previous question.
- Avoid questions that have two questions in one (double-barreled questions).
- Avoid leading or loaded questions—questions that seem to guide respondents to answer in a certain way.
- When possible, use short and specific questions. Avoid vague or long questions.
- Assure respondents about their confidentiality in writing at the top of self-administered surveys, and discuss it before beginning an administered survey.
- Establish legitimacy by providing information about the agency or agencies in your Community Assessment partnership that are sponsoring the survey project.

### Some tips on getting high response rates

General recommendations:

- Publicize widely.
- Give incentives to participants.
- Distribute your survey widely in order to ensure largest number of completed surveys.
- Clarify issues of confidentiality. This may encourage more people to complete the survey (see *Section 3.9 Compile and organize survey data* on page 5-36 for more information on confidentiality).

It is also a good idea to provide the name and contact information of the lead person or partnership organization heading the survey, in case the respondent wants to verify the legitimacy of the survey or has specific questions about the survey.

### **3.7 Pre-test survey**

Before distributing the survey to your target audience it is a good idea to pre-test the survey with a small group of people from your target population. The purpose for pre-testing the survey is to get feedback on the survey questions and structure before sending it out. Completed pre-test surveys and respondents’ comments may tell you whether any questions were not clear, the instructions were confusing, the questions were too general, or if the survey instrument was too long. Pre-testing can also help identify questions that might be inappropriate or unanswerable.

### **3.8 Publicize and distribute survey**

Try to publicize your survey a couple of weeks before distribution. Letting people know what you are trying to do and how the information collected will benefit them may help increase your response rate. Distribute your survey as scheduled. Try to adhere to the timeline you created, as significantly postponing the survey distribution date may cut short the time you have set aside for data collection and analysis.

### 3.9 Compile and organize survey data

As soon as your partnership starts the process of collecting the survey data, you will suddenly have a lot of data to manage. It is important to think about this while in the planning phase. Specifically, discuss the following with your partnership and note your decisions:

A. *What will the survey data look like once it is collected?*

- This depends on what the survey data collection instrument looks like and what types of questions are asked. Depending on the questions asked, either open-ended or closed-ended, you may have a mix of both quantitative and qualitative survey responses.

B. *How will the survey data be compiled? (See Appendix B: Computer Software to Compile and Analyze Data on page 5-63 for software programs and computer resources that may help you compile your survey data.)*

- ⇒ **If the survey data is quantitative**, then you want to develop a spreadsheet to tally the responses to each question. This can be as simple as a table with the survey question numbers across the top and each individual respondent along the side. Each person's responses to each question is put in the columns below the survey questions. This provides you with an easy way to make comparisons and see patterns between questions and responses.
- The spreadsheet should be developed along with the data collection instrument.
  - One individual or agency should take responsibility for coding the responses and entering the data into the spreadsheet.
- ⇒ **If the survey data is qualitative**, then you want to cut and paste all of the issues and key points into one word processing document. This may be a really long document, depending on how many open-ended questions you included in your survey. Really long documents are not be very helpful, as there is no easy way to see relationships or common themes across the different surveys. So you may want to consider organizing qualitative survey responses right from the data entry stage into major categories. These categories are most commonly the survey questions you asked. This way, you have in your document all of the participants' responses organized under each question. For more information about developing codes for analysis, see *Step 5 Determine How to Understand the Information (Analyze Data)* on page 4-37 in the "Performing a Community Assessment" curriculum.
- One individual or agency should take responsibility for creating the master file, developing the categories, and cutting and pasting the responses into the corresponding categories.

- One individual or agency should take responsibility for keeping track of the completed surveys.

B. *Where will the survey data be processed and compiled?*

- Plan where the data is at all times during the data collection process. This eliminates any confusion that may arise when multiple partnership members and agencies take on the survey data collection and compilation activities. It also clarifies ahead of time what specific steps need to be undertaken to collect, enter, compile, and analyze the different data pieces.

C. *What about respondent confidentiality?*

- Ensuring confidentiality is very important. With any kind of survey it is a good idea to avoid collecting identifying information about your respondents, such as name, address, phone number, medical record number, or social security number. This is particularly important when surveying hard-to-reach populations such as recreational drug users. If you need to collect their addresses or phone numbers in order to administer the survey, then communicate very clearly to respondents that you will not use this information in any reports, nor will you share it with anyone else.
- After collecting data from respondents—referred to as human subjects, there are a few important rules to consider when handling their responses:
  - Keep any identifying information in a locked place (such as name, phone number, and address). This can be simply a locked filing cabinet drawer or password protected computer, which ensures that no one has access to the confidential responses of your sample population.
  - Keep identifying information in one place. This ensures that fewer people have access to private information. (repeat of above?)
  - Once the data is compiled, remove any identifying information associated with it. For example, if the data is from a quantitative survey, assign each respondent in your spreadsheet a unique number. You can start with “1” and just assign a different number to each survey instrument entered into the spreadsheet. If you need to know which person was assigned which number, then keep a sheet with names and numbers in the same locked drawer.
  - Destroy the list with names and contact information as soon as possible to avoid accidental or intentional disclosure. Some information collected may be very sensitive. For instance, if working with substance abusers you could potentially get served with a subpoena from a lawyer to turn in all of your documentation.

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