

PLANNING A SURVEY

Surveys are another way to learn about and learn from a group of people. According to the book, *How to Ask Survey Questions* (Fink, 1995), the definition of a survey is, “a system for collecting information to describe, compare, or explain knowledge, attitudes, and practices or behavior.”

Doing a survey requires planning—planning what you want to ask; how to ask it; how many people to survey and how to reach them, either by mail, in person, or by telephone. Will you have team members asking the questions or will the respondents, those completing the survey, fill it out themselves? This guide addresses these issues step-by-step, so that you can make choices and initiate a survey as systematically as possible.

Although surveys are a great way of learning about a population, remember that the information you learn may not always be representative of the views of the population that you’re trying to assess. If only a small group of people completes a survey, there is always the risk that their views differ in some way from the opinions of the rest of the larger group. This issue will be discussed in more detail in the following pages.

This section of the manual will first address the issue of developing a *survey instrument*, the list of questions that you’ll be asking. Included in this section will be what to keep in mind in developing your questions and how to use a qualitative process, like the one described in Part II, to develop a questionnaire. Also included is information on drawing questions from existing surveys. After that comes sampling, the process of establishing a “sample” of a larger group and the size of this sample. Along with this, we’ll illustrate the variety of sampling methods that you can choose from to find out more information about your population.

Developing a Survey

Although we often think of surveys as pieces of paper or sets of questions, a survey is something bigger than that. It's the entire process that we'll be discussing in Part III of this guide, from deciding who will complete the questions and how to reach them to determining what questions to ask and what to do with the information once the survey questions have been completed.

Usually, the first issue involves the survey *design*. What is a design? It's the structure of the survey based on what you're trying to accomplish. If you were trying to determine the difference an intervention makes, such as the impact of a prevention strategy on condom use, you might have two groups. One would take advantage of the prevention strategy (known as the *intervention* group) and one would not (also known as the *control* group). Then you could use a questionnaire to see what changes have taken place in the use of condoms among the two groups. You can also use a strategy to measure what changed in terms of the use of condoms by surveying a group of people as a pretest, delivering the prevention strategy, then surveying them again afterwards to see what changed.

Measuring the difference a prevention strategy makes by using a survey is very complex and is best done with the help of a statistician, an epidemiologist or someone who is trained in statistics and survey design.

For the purpose of this guide, we're assuming that you would want to do a survey in order to be able to *describe* what's going on in the community. This is called an *observational* design.

Conducting a survey is just another form of assessment—the use of a set questions asked verbally or on paper to find out more. So that's where we'll start—developing the questionnaire.

STEP ONE:

Where do we start?

-  **Questions to ask**

There are several ways to approach developing a survey. If you followed the step-by-step approach presented in Part I, you already have a good start toward developing the survey. By this time, you will have established some goals and objectives and the “big questions” that you want to know about. You may have even followed the steps in Activity 1, the brainstorming session. Now it's time to get down what you want to know and establish some questions to get at it.

First, choose among the following three options, then go on to **How to ask the right questions** that follows Option 3.

Option 1: Establish a set of questions from your experience and knowledge.

This option assumes that you have not followed the steps in Part II. You can use an activity similar to Activity 1 and brainstorm as a team everything you'll want to know related to the major questions you've established. Then, type up all the concepts and sort through them.

Play with arranging them and grouping them the way you want. Think about how long you want the survey to be, and cut out any questions that don't seem to relate to your major questions. Some questions may be combined if they seem to be asking the same thing as long as they don't become too complicated. A lot will depend upon how you will want to collect the information, which we'll come to in Step Two. If the questionnaire is to be completed by the respondents, you'll need to have clear instructions on how they are to complete it. Also, decide what information you want about the *person* completing the survey. Do you want to know his/her sex, age, and/or ethnicity? What else is important to know?

Option 2: Use the methods in Part II to develop questions.

One thing to keep in mind about any method of gathering information: no one will tell you what you don't ask about. The procedures outlined in Part II—focus groups and interviews and observations—can give you an abundance of information and can help you define new categories. These categories can then be used in a questionnaire to be answered by those beyond the groups of people you interviewed.

Just as described in Option 1, decide what you want to know about the person completing the survey, such as his/her sex, age, and/or ethnicity. Then, look at what information came out of the exploratory work you did as you implemented some of the techniques in Part II. Organize your field notes, transcripts and summaries and brainstorm lists to turn this information into questions to be asked on the questionnaire. For example, what drugs did people mention? What risks and barriers to safer behaviors emerged from the interviews and/or visual techniques?

If you're going through this manual and have a survey in mind, one method particularly useful for creating survey questions is the "free list" method described earlier on page 48 in this guide.

Trotter (1995) described how free-listing can be used to create the ideas for survey questions in quantitative research. If you use free listing to gather all the responses to a question, you can then use these responses as choices on your "fixed answer" survey questions.

Option 3: Use existing questionnaires.

In some situations, you may be able to use questions from existing surveys. The questions from instruments developed by institutions such as the Centers for Disease Control or the National Institutes of Health have been carefully researched and validated, and they can sometimes be of use to you. Be careful, however, to use the questions as they are intended—in the same way that the original authors did. Also remember that the interpretation of the responses may not be the same in your population as in the one that the questions were originally directed to.

Following are some sources of questions on sexuality, STDs, HIV, and risk behaviors. The relevant questions in these questionnaires are often part of a survey dealing with much larger health issues. Some possible sources for questions include:

- The University of California-San Francisco Center for AIDS Prevention Studies. Online at www.caps.ucsf.edu/projects/instrumentindex.html. This site provides information from a number of surveys conducted by HIV/AIDS prevention researchers associated with UCSF. Topics include condom use among Hispanics, Latino gay/bisexual men, measures of sexual attitudes and behavior of Latino adults, and psychological measures related to HIV and homosexuality. All survey questions are available for use, and detailed descriptions of the uses of the surveys are available in some cases. Almost all surveys are online in both Spanish and English.
- The *Management Group* is a consulting firm in Los Angeles that has created a web site with copies of surveys used in evaluating national HIV/AIDS demonstration projects, with field note and intake forms available online. Website: www.tmg-web.com/evalbttm.htm.
- The Youth Risk Behavior Survey. Online at www.cdc.gov/nccdphp/dash, or also available on a CD-ROM from the CDC. This is a school-based, self-administered survey given every two years to high school students in grades 9 through 12. Information is collected on injuries, tobacco use, alcohol and drug use, sexual behaviors, dietary behaviors, and physical activity.
- The Behavioral Risk Factor Surveillance System (BRFSS). Online at www.cdc.gov/nccdphp/brfss/about.htm; a CD-ROM version is also available from the CDC. The BRFSS is a CDC-funded telephone survey conducted in all states, with 1200 to 1500 interviews conducted per state per year. The surveillance system is intended to measure the prevalence of health risk factors and preventative health care behaviors. Topics covered in 1998 include health status, health care access, diabetes, exercise, tobacco use, fruits and vegetables, weight control, demographics, women's health, and HIV/AIDS. The HIV/AIDS section includes questions on AIDS education, condoms, perceptions on chances of getting infected, HIV testing, and sexual behavior change due to HIV.
- The National Health and Nutrition Examination Survey (NHANES). Online at www.cdc.gov/nchs/nhanes.htm. Collects information on health, medical conditions, and diet, with 5000 surveys conducted annually. Information available on demographics, health insurance, income, and a large number of medical issues and conditions, including blood pressure, cardiovascular disease, dermatology, early childhood, immunizations, kidney problems, oral health, respiratory health, and much more.
- Also available from the National Center for Health Statistics, at www.cdc.gov/nchs/ is the National Health Care Survey (survey of health care providers, including information on hospital discharge, ambulatory and nursing home care); the National Health Interview Survey (information on basic health and demographics as well as questions on current health topics); the National Immunization Survey; the National Survey of Family Growth; and the State and Local Integrated Telephone Survey (state data for tracking and monitoring current and emerging health and welfare policy related issues).

Questions 1 and 2 above are closed; questions 3 and 4 are open. Let's look at each type of question and some issues around each one.

Closed question with choices (Question 1): This type of question is easy to answer; the respondent only has to choose by checking the answers. The caution with this type of question is something we brought up earlier—no one will tell you what you don't ask about. If you don't care about other drugs, following the example, then you don't have to ask about other drugs.

Closed question measuring attitude or belief (Question 2): Setting up a scale like the one above (called a "Likert Scale") is one way to assess beliefs and gives the respondent several options. You can also choose to have them answer 'Yes' or 'No' as an alternative. What is not included in this question is a "neutral" answer, or "no opinion," both of which you can add. To give them a more neutral option, you can make the scale from 1-5, with 3 determined to be the "no opinion" option. You can also choose to add a 'NO' to the side, for example, to allow them to opt out of giving an opinion on the subject. Another way of doing the scale is to use letters instead of numbers; for example, 'SA' instead of '1' means 'Strongly Agree.'

Some people believe that giving a "neutral" option is a way for the respondent to avoid answering the question, and answers from some respondents may all be answered as neutral or no opinion.

Another related issue has to do with asking embarrassing questions. One strategy is to ask the "negative" first when developing a scale, for reasons similar to the argument for including a neutral option. An example of this would be to have a question, "condoms are hard to use" and begin the scale with "Strongly Agree." That way, respondents have to move through the choices to disagree with the negative statement. This is especially important if someone is going to administer the survey face-to-face.

Open Question with Short Answer (Question 3): This type of question can provide specific information with minimal writing. If the exact number of partners or, say, the exact age of the respondent isn't important, you can develop categories where they simply have to check where they fall. For example, they can choose from among 0-4, 5-9, or 10 or more for number of partners. If you decide to go with categories for numerical information, make sure that the choices don't overlap; e.g., 0-5, 5-10, or 10 or more. If numbers overlap, and the respondent has had five partners, which one does s/he choose?

Open Question with Long Answer (Question 4): Although this type of question can give you a lot of information, there are two potential problems: (1) you can get too much information and (2) too many of these types of question can cause hand cramping. Ideally, you would keep these types of questions to a minimum and, in self-administered questionnaires, would put them as close as possible to the beginning or space them out throughout the questionnaire. Also, the more space you give him/her, the more the respondent will think that s/he has to fill it up.

Some General Guidelines When Developing Questions for a Questionnaire

The guidelines below are helpful tips that can make your questionnaire easier for respondents to complete, and can help ensure that you get the kind of answers that you want. **Remember to always pilot test your survey on members of your staff or others so that you can see how well the questionnaire works before you begin giving it out to your target population.**

The Basics:

- ❖ Be specific in your questions; avoid ambiguity.
- ❖ Use complete sentences in phrasing your questions.
- ❖ Avoid abbreviations.
- ❖ Use language the questionnaire takers will understand. This often means avoiding technical terms, and being careful with slang. Test out the questions with potential respondents. Also, check the reading level—will your participants be able to understand the questions you are asking?

Question & Survey Length:

- ❖ Keep it short. Test the questionnaire out and see how long it takes to be completed. Fifteen to twenty minutes is ideal; thirty minutes is pushing the limit, especially without offering an incentive.
- ❖ In most cases, it's best to use short questions. This helps keep the survey short, and also helps participants understand the questions better.

Types of Questions to Ask:

- ❖ Ask only relevant questions. If you want to know about condoms, don't ask about hobbies.
- ❖ Don't combine issues. For example, don't ask, "Do you have a problem with drugs and using condoms?" This should be two separate questions.

Common Pitfalls:

- ❖ Avoid negative questions. "Should people not practice unsafe sex in order to not get a disease?" is a negative question. It's often very difficult to assess what's being asked.
- ❖ Avoid questions with bias. "What is your opinion of *drug addicts who refuse to get any help?*" is a biased question. Similarly, avoid loaded questions as well: "*A lot of people use drugs, so how often do you use them?*"
- ❖ Be careful of leading questions. A leading question is a question that makes it more likely that a respondent will give the answer that the interviewer wants: for instance, "*Don't you think that this area deserves better health care access?*" or "*So you believe that injecting drugs is bad?*"

Improving Your Responses:

- ❖ Watch time frames. People have trouble remembering what happened more than a year before. Ask questions like, "In the last seven days, how often did you . . .?" or "When was the last time you . . .?" For condom questions, the general consensus is to ask, "The last time you had sex, did you use a condom?" if you really want to assess if someone uses a condom. Most people can easily remember *the last time* they did something.

- ❖ If you are going to ask about sensitive issues (like abuse, rape, or anything else that your population may find sensitive), save these questions for the end of the survey. In addition, make it clear that respondents do not have to answer any question that they feel uncomfortable with.
- ❖ If you are asking about behaviors that people may be a little wary of admitting, one way to elicit responses is to ask “*How many times have you had sex without a condom?*” rather than “*Have you ever had sex without a condom?*”
- ❖ Factual questions, or questions that assess a person’s knowledge of a subject, can be “set up” by using phrases like “*Can you recall how people get gonorrhea?*” or “*What do most people believe causes AIDS?*”

A final thought on designing your survey . . .

Self-Administered Vs. Interviewer-Administered Surveys

A survey can be either self-administered, where the respondent is given a form to fill out on his/her own, or interviewer-administered, where a member of the research team is on hand to read the respondent the questions and record the answers. There are advantages and disadvantages to each method.

Self-Administered:

The self-administered survey’s greatest advantage is that it is so easy to conduct. You can design your survey, distribute copies to your target group, and then sit back and wait for the surveys to be returned. This translates into a much lower cost to your organization because no one has to be out helping respondents with the surveys. Because of this low cost, you’ll probably be able to distribute more surveys and perhaps get a larger sample. In addition, when sensitive topics are included on the questionnaire, some people may be more willing to answer truthfully if they are returning the survey anonymously instead of telling their responses to an interviewer.

These surveys have disadvantages as well. Most important is the response rate—self-administered surveys have a far lower response rate than those given by an interviewer, so the gain that you get by increasing the number distributed may be diminished because no one returns the questionnaires. Writing good questions is even more crucial on this type of survey, because the respondents will have no one to ask for help when they are completing the questionnaire. Remember, again, to write at an appropriate reading level for the respondents. Finally, you may find that when the surveys are returned, many people have opted to skip lots of questions. This greatly reduces the quality of your data, especially if the respondents have skipped the questions that you are most interested in having answered.

Interviewer-Administered:

Interviewer-administered surveys definitely give you a higher quality of data than their self-administered counterparts. When an interviewer is present as the subject is responding to the survey, the respondent can clarify difficult questions, and the survey used can actually be more complex. You can write in things like skip patterns that wouldn’t be feasible on a self-administered form; for example, you ask certain questions if the subject is male and different questions if the subject is female. You also have a little more control over who takes the survey, because the completed surveys don’t depend simply on who decides to mail them

back. Finally, the response rate for interviewer-administered surveys is much better than for self-administered versions.

The biggest disadvantage of conducting an interviewer-administered set of surveys is the cost. Imagine the logistics of having an interviewer out at an apartment complex, every day, completing surveys—salary alone is a major cost consideration. The data-gathering may take more time with this type of survey. Staff training is essential, because each staff member must be able to ask the questions on the survey in *exactly the same manner* each time he or she administers it. Sensitive questions may also be a problem in that respondents may be unwilling to discuss such topics with a stranger. Socially acceptable responses (i.e., saying that you are drug-free when you are truly not) are more likely to be given in this type of survey.

Phone Surveys:

For the types of assessments this guide is meant to address—HIV prevention and similar situations—phone surveys are generally not a feasible alternative. The main problem with phone surveys is lack of response; people are getting increasingly annoyed and unresponsive to telephone survey intrusions into their home. In the case of HIV prevention, this method has many of the disadvantages of the interviewer-administered survey method, with few of the advantages of self-administered surveys.

SAMPLING STRATEGIES—RANDOM VS. NON-RANDOM

STEP TWO:

How do I choose whom to talk to?

- ***Sampling Strategies***

Once you've begun to think about what types of questions you want to ask, begin to consider to whom you're going to ask them. Sampling simply means determining how the participants of a survey will be selected. When a population is *sampled*, a smaller portion of the population is surveyed in order to get a good idea of the views of the whole group. The whole group is too large to interview everyone, which is why we sample. Your goal in developing a sample is to determine information about a larger population by surveying a limited number of people. By surveying 30 members of a 150-member group, your goal would be to identify information that is representative of the views of the *entire* group and not just the 30 members who were surveyed.

In an ideal situation, all members of the population would be surveyed to make a true determination of all of their thoughts on a subject; however, time and resource constraints generally prohibit us from being able to study the entire population. Sampling solves this problem by allowing you to draw conclusions based on only a part of the larger population. There are two basic methods of conducting sampling: *random* sampling and *non-random* sampling.

Random Sampling:

Random sampling is frequently considered the “best” method of choosing participants for a survey or other research design. Random sampling means that each member of the target population has an equal chance of being chosen to participate, and the selection of members for the sample is left completely to chance. The major advantage of this method is that it provides the smallest opportunity for *bias* to enter into the sample. A biased sample occurs when the sample you have chosen does not represent the entire population. For example, imagine you have a group of HIV positive people that consists of 100 men and 20 women. You take a sample, and the sample contains 17 women and 3 men. The sample in this case has a disproportionate number of women, and so it is considered to be biased.

Unfortunately, it isn't always possible to utilize random sampling. Random sampling's main shortcoming is that it requires that *all* members of the population be listed (so that each has equal opportunity of being drawn from the list). This condition can be difficult (if not impossible) to meet when you are dealing with hidden or hard to access populations, like injection drug users.

In general, if you want to use random sampling because you are going to draw generalizations about a larger population, you will need to consult a statistician or epidemiologist to decide upon the proper sampling technique. As a rule of thumb, however, consider the following example:

Random Sampling

You want to survey injection drug users in a rehabilitation clinic to determine how rehab affects other facets of their lifestyle. A nearby clinic has 200 patients in recovery; you want to interview one-quarter of them, or 50 patients. You would like to be able to generalize to the whole clinic, so you're going to use random sampling.

From the clinic administration, get a list of all the patients in recovery. Begin by choosing one *randomly*. This doesn't mean begin with the top of the list—instead, use a procedure like closing your eyes and setting your pencil down on the page, and choosing that name. This person is your first subject. To make your sample of 50, go down the list starting with the first person chosen, and choose every fourth person to make up your sample.

Non-Random Sampling

The second type of sampling, non-random sampling, takes place when all members of the population do *not* have an equal chance of being chosen for the sample. Although this non-random sampling doesn't let you make statistical statements about the target population like you can with random sampling, the methods are useful in cases where random sampling is undesirable or impossible. This type of sampling is used more with qualitative situations such as the ones detailed in this guide.

Non-random sampling is frequently used in accessing hard to reach populations, and the procedures tend to be less time-consuming and easier to accomplish. *Snowball sampling* (see below) is most commonly used with hard-to-reach groups. Remember, however, that if you want to state that the information obtained from your survey is truly representative of the entire target population, you are going to need to use random sampling.

Purposeful Sampling

Non-random sampling is also referred to as non-probability sampling or *purposeful* sampling, meaning that some members of the population have a chance of being chosen for the sample, while others do not. Using this method, *you* define who you want for your survey—what subgroup of the population—and then you recruit them. Fink (1995) gives three example situations where non-probability samples are good to use:

- 1. Surveys of Hard-to-Identify Groups:** As previously addressed, populations like gangs are notoriously difficult to conduct random sampling with, because not all members of the population are known and obtaining cooperation may be troublesome. These populations are well suited to non-probability sampling.
- 2. Surveys of Specific Groups:** You may want to survey about an extremely sensitive topic, such as rape recovery or childhood abuse. In this case, if possible, it may be best *not* to approach all the eligible participants for ethical reasons—you may want to just speak with as few people as possible to garner the information you need.
- 3. Surveys in Pilot Situations:** If you are conducting a survey simply for the purpose of program planning or for information on how to improve what you are already doing, random sampling is not considered necessary and a non-probability sample would be appropriate.

One type of sampling to avoid when you are conducting non-probability sampling is the *convenience sample*. A convenience sample means that you have no preset scheme for choosing participants for your survey, but instead decide upon the first few who come along. This method means that you know nothing about the characteristics of your sample as compared to the overall target population, and thus it is even more difficult to determine whether or not the results of your survey are applicable to the population that you want to learn about. Although convenience samples are undoubtedly the easiest to assemble, their use is strongly discouraged.

Special Sampling Strategies

Below are some specific sampling methods that may be useful for interviewing hard-to-access populations. All three are considered to be purposive sampling methods, as opposed to random sampling methods, *except* in cases in which they can be used to set up what's called a *sampling frame*, a list of all members of that population, from which a random sample can be drawn.

Technique #1: Snowball Sampling

Snowballing is a widely-used method of recruiting individuals for participation in focus groups, interviews, or surveys. The method builds upon initial contacts to help identify further contacts for interviewing or surveying. Snowballing has been used historically in major studies of populations and addictive behaviors, such as opiate addiction and marijuana use. The method works in this manner: one individual member of a group is identified, and this person is asked to refer another person, who then refers others. The technique is useful with hidden populations whose members are not easily identified any other way. The technique has other names, including *chain referral sampling*, *referral sampling*, *social networking*, *the cobweb technique*, and *spreading networks/spreading technique*.

Snowballing requires that the person you are interviewing knows and is willing to identify others within his or her social network. Contacts developed through snowballing can be interviewed directly, but remember that the results of such interviews are subject to potential bias (because snowballing is a non-random sampling method). Or, the contacts obtained could result in the creation of a frame or list from which members of a "rare" population can be randomly selected, reducing bias. For construction of the frame, a list of members of this population should be created to the point at which no new members are identified. Reduction of bias is best achieved by combining snowballing with other methods of identifying members of the target population.

Strengths & Weaknesses

You can easily use the snowball sampling method to help you recruit participants for activities like mail-back surveys, participant observation, and group and individual interviews *once you've identified at least some members of this population*. One of the really good things about snowballing is that it is a very inexpensive and simple way to build a sample for data collection. There are also a couple of weaknesses, however. For example, think of a situation in which the first population member you choose to sample isn't really a "true"

member of the target population, but is more of an outsider. The referrals that s/he gives you will be of more and more “outsiders”, and you will never get an appropriate view of your target population—the “non-representativeness” of the original selection snowballs just as the technique was intended, but in this case not to your advantage (Hagedorn, 1996).

To avoid the above problem, you can try to exercise increasing control over referrals, making sure that individuals recommended are truly representative of the target population. Be active in the referral process. If you like, you can also suggest that participants refer people who are somehow different from themselves, and this may help to increase the diversity of your snowball sample (Biernacki and Waldorf, 1981).

Another general weakness of the snowball method is its failure to identify socially isolated members of the population. If many of these socially isolated members are missing from the sample, and if they are different in significant ways from the population as a whole, then the survey will be seriously biased because of their exclusion (Kalton, 1993).

How to Implement Snowball Sampling

Step 1: At the beginning of the study, people known to fit the target population criteria are recruited; for example, injecting drug users in treatment. Respondents are then interviewed as they are identified and located. Depending upon the population, these initial contacts may be difficult to identify because of the hidden nature of their behaviors. Community members, agency staff (such as staff of drug treatment centers), and even small or large media may help in this initial identification and recruitment.

Step 2: Begin to verify how appropriate the respondents are to fit the survey’s purpose—are the respondents truly who they say they are in connection with the target group? One method to address this is to have the individual who initiates the chain make the initial contact with potential respondents. The assessment team may then choose to interview the individuals identified, or to compile the names and make a random selection among these individuals for the purpose of interviewing them. Take your time in the interviews: resist the tendency to rush to interview a potential respondent out of fear of losing contact with that person.

Step 3: You can facilitate the initiation and maintenance of the chains of respondents by using respondents as interviewers and consultants to the project. Make sure that these respondents truly understand the goals of the project, including the eligibility criteria (the specific characteristics you want) of the potential respondents they are recruiting. They should be able to represent these goals accurately to the community.

Step 4: You will be doing basic data analysis throughout the project, starting at the very beginning. Concentrate especially on sorting out and conceptualizing patterns (similar to coding around themes in the analysis section) and on monitoring the group of respondents to make sure that they reflect the general characteristics of the population.

Step 5: When using this method for qualitative research, determine when to stop interviewing. Repetition of themes that emerge from the interviews may be an indicator that the referral chain is nearing its logical end. Whether or not the sample is representational of the larger target group is another consideration when deciding whether to initiate new chains and continue interviewing. Unfortunately, finding certain types of respondents may be difficult to impossible.

Source: Biernacki & Waldorf, 1981

When in-person interviews are not the objective, snowballing can also be used to distribute mail-in surveys to hidden populations. For example, openly gay men can be asked to distribute packets to less open men. Each packet can contain an index survey (to be completed by the first, or *index*, respondent) and 2-3 network surveys marked as to the level of the network. The index man is asked to pass the other on to men in his network.

Snowballing can also be used to recruit members for focus groups. The researcher can approach people familiar with the target group and ask them to recruit 3-4 people who are then asked to recruit 2-3 people each.

EXAMPLES from RESEARCH: Using the Snowballing Method

Dispersed Populations

The sample for a study of the Mexican American population in Omaha, Nebraska was drawn from city census tracts. Five tracts were chosen for the sample. These tracts had reported a high concentration of Mexican American households. Randomly selected blocks were chosen (out of the five tracts), and households were screened for Mexican American families and interviewed. At each interview, the respondent was asked to refer another family within the tract area (via a map of the area). The names and addresses of each family referred were recorded. Using this referral method, the researcher was able to minimize the number of unproductive attempts to locate Mexican American households.

Lowering the number of unproductive contacts minimized costs. Based on the results of the study, it was found that this method was an efficient and cost effective way to locate subjects (Trotter, 1981).

Heroin Users

Dr. Stephen Koester, the recipient of a NIDA grant designed to reach heroin users in inner city Denver, has done extensive work with injection drug users (IDUs). Once he was in the community, Koester began connecting with other users from the network of current subjects. He used open-ended questions as a way to start conversations with subjects (i.e. "Think of a time when you weren't safe in your shooting and describe what happened."). Upon completion of the first set of open-ended questions, the subjects were asked to answer more difficult and thought provoking questions (i.e. "Think of a time when it is not so easy to be safe, what can you do about it?"). Koester used the snowball technique to contact individuals and employed narration/qualitative techniques to gather information (S. Koester, personal communication, 1997).

Adolescent Gang Members

Some methodological problems were found to exist with gang research. The problems stemmed from mistrust (of the system/researcher), and from the gang members' need to "front" (put up a false sense of who they really are). The main concerns of using snowballing with this population were: (1) lack of demographic recording, (2) determination of an appropriate gatekeeper (one to start the referral process), and (3) screening individuals for actual membership in the group. These problems were easily solved with careful attention to field notes/questions, and participant observation to identify both gatekeepers and authentic member of the group (Moore, 1991). (See **Survey by Roster** for an alternative strategy to identify gang members.)