



**Curriculum for Rapid, Participatory Research & Evaluation  
Designed for use in community studies of STDs and HIV/AIDS**

**Section 4  
Data Collection—Quantitative Strategies**

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## Section 4: Data Collection—Quantitative Strategies

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## Section 4: Data Collection – Quantitative Strategies

### **Intended learning outcomes**

This section is designed to acquaint the implementation team with quantitative data collection strategies. The intended learning outcomes follow.

At the end of this section, the implementation team will be able to:

1. Describe advantages and disadvantages of specific quantitative strategies for rapidly assessing needs and evaluating programs in an ethnographic context.
2. Understand ways that these strategies have been used and can be used to study specific STD-related topics.
3. Use these strategies.

Chapter 1 introduces the quantitative approach in the Rapid Ethnographic Assessment (REA).

## Section 4, Chapter 1: Introduction to quantitative approaches in the Rapid Ethnographic Assessment

### 4.1.1 Introduction to quantitative approaches in the Rapid Ethnographic Assessment

Quantitative inquiry is appropriate when researchers want to describe and analyze data in numbers rather than words. At times these data can be collected by just counting (e.g., counting the number of clients a particular program serves or the number of reported cases of an STD in an area). At other times researchers collect quantitative data through survey or experimental research. The findings are often presented in forms such as percentages, averages, and cross-tabulations (which will be discussed in the section on Data Analysis).

Quantitative research may be preferred when the implementation team:

- Is concerned primarily with collecting data on outcomes (such as whether a particular practice/event/intervention resulted in a significant change in the target community);
- Wants to repeat the study over time to compare results;
- Is interested in securing information relatively quickly from a large number of people;
- Is interested in knowing how consumers of services (or other resources) rate these services;
- Is seeking information on the prevalence of some phenomenon (such as a disease or an attitude); and
- Expects to present findings in a time-efficient way (such as in percentages, as opposed to stories), and in a way that is more likely to influence policy (the underlying goal of community-based participatory research (CBPR), or action research).

Room (1993) describes the political and philosophical importance of using survey research in tailoring programs to particular communities.

*Now survey research is, if you like, an inherently democratic methodology, in one sense of the term. Everyone gets one vote in survey research . . . So this is a model of community opinion and how to define community readiness that is very much attuned to weighing the powerless' opinion equally with the powerfals' opinion. (p. 110)*

Quantitative research alone is not preferred when the implementation team:

- Desires a fluid model for the research design, where some strategies, protocols, and questions can be modified as the study proceeds (Lincoln and Guba, 1985);
- Has a primary interest in meanings, or how people make sense of their lives, experiences, and the structures of their worlds;
- Needs an understanding of the “the underlying social and cultural characteristics influencing, or associated with, specific patterns of behavior” (Scrimshaw et al, 1991, p. 112); or
- Needs to actually see activities in process in order to establish the validity of the research.

### **Why quantitative inquiry is important for the REA**

This curriculum advocates the use of multiple methods in the Rapid Ethnographic Assessment. Some of the questions that might be addressed in the assessment through quantitative data collection and analysis are the following:

- What is the prevalence of STDs in this community?
- What is the prevalence of STD transmission factors in a community?
- What is the prevalence of needs related to STDs in this community?
- What is the prevalence of STD prevention and/or treatment services in a community?
- What is the level of awareness of STDs and their transmission in this community?
- How frequent are the various attitudes on STDs in this community?
- What does a community actually know about STDs?

- What impacts are particular interventions related to STDs having on a target community?
- How do belief and behavioral patterns associated with STDs break down by categories of the target community?
- How can a researcher find out if the activities observed in a small group also apply to a larger group?

Before beginning any form of data collection, the implementation team should have reviewed the chapters on “Ethical issues involving research participants”, “Establishing rapport with research participants”, and “Sampling: Selection of research participants” in the section on Research Participants. It is critical to review research ethics, have any needed human subjects protocols in place, and understand the ways that rapport can be established with target communities before collecting most forms of data.

The next chapter will discuss survey research.

## Section 4, Chapter 1: Introduction to quantitative approaches in the Rapid Ethnographic Assessment

### 4.1.2 Resources

#### Chapter references

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury: Sage.

Room, R. (1993). Tailoring programs to communities: Commentary and reflections on the day. In T.K. Greenfield & R. Zimmerman (Eds.), *Experiences with community action projects: New research in the prevention of alcohol and other drug problems* (pp. 93-196). Rockville, MD: Center for Substance Abuse Prevention.

Scrimshaw, S., Carballo, M., Ramos, L., & Blair, B. (1991). The AIDS anthropological assessment procedures: A tool for health education planning and evaluation. *Health Education Quarterly*, 18(1): 111-123.



## Section 4, Chapter 2: Survey research

### 4.2.1 Intended learning outcomes

The intended learning outcomes of this chapter on survey research follow.

Upon completion of this chapter, the implementation team will be able to:

1. Explain the advantages and limitations of survey research.
2. Begin development of a survey.
3. Compare and contrast different survey formats.
4. Describe ways to collect demographic data.
5. Describe the advantages and limitations of administering surveys through face-to-face, self-administered, and telephone interviews.
6. Explain methods to assure that quantitative data are collected systematically.
7. Identify quality control measures for survey research.

## Section 4, Chapter 2: Survey research

### 4.2.2 Introduction

This chapter will introduce the subject of survey research. Survey research can be highly complex. However, this chapter is limited to providing enough information to conduct surveys at a basic (and “rapid”) level. Beginning researchers who wish to learn more about survey research can refer to the additional resources at the end of the chapter. Creswell (2003) defines a survey design as follows:

*A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. From sample results, the researcher generalizes or makes claims about the population. (p. 153)*

Thus, properly done survey research is contingent to a large degree on how well the implementation team has selected its population sample. At this stage, the team should have decided on a sampling plan for the proposed survey. The team should have also reviewed some of the literature on STD-related topics, previewed the target population, and completed all human subjects protocols. The implementation team may have also collected some qualitative data.

**Terms.** Those individuals who take the survey are either called “respondents” or “participants.” The documents that include survey questions and directions are called “questionnaires” or measurement “instruments” or “tools.” Where surveys are conducted through interviews, the documents are called “interview schedules.” The combination of the questionnaire and any other related documents such as informed consent forms, interview schedules, or cover letters are often referred to as “survey protocols.”

In general, surveys can be “cross-sectional” or “longitudinal.” In a cross-sectional survey, data are collected at one point in time. In a longitudinal survey, data are collected over time. This curriculum will only deal with the cross-sectional survey here, as surveys conducted over more than one period of time are beyond the scope of the “rapid” assessment.

### **Advantages and limitations of survey research**

**Advantages.** Perhaps the strongest advantage of surveys is their efficiency. Researchers can collect data from a large number of people in a time-efficient (and hence cost-efficient) way. Survey interviews, even when conducted over the telephone or face-to-face, rarely take longer than 25 minutes per participant. In our experience at Jill Florence Lackey & Associates, qualitative interviewing and life histories tend to average over twice that time. In many cases the respondents also fill out the questionnaires themselves, which will be discussed later.

Another advantage of survey research related to efficiency is the ease in which researchers can present assessment results. It is much more time-efficient to explain findings in terms of averages and percentages than it is to generalize findings from a series of observations and interview excerpts. This is particularly important for the REA where the implementation team is likely to present findings to a number of stakeholder groups in printed summaries and brief presentations.

A third advantage of surveys is their role in crosschecking qualitative data. For example, the implementation team may learn about a particular way an STD is being transmitted among 20 or 30 people they have interviewed qualitatively, but may not know if this finding can be generalized to a larger community. A survey with a well-planned population sample can verify (or fail to verify) the qualitative findings.

On the other hand, surveys can also be used to collect explorative data (Pelto & Pelto, 1987). For example, the researchers might hope to study STD preventive behaviors in a particular group, but might first want to know what members of this group actually know about preventive behaviors. In this case a short survey to test group knowledge might be appropriate before moving to a study about their actual use of the preventive measures.

Surveys can also help focus subsequent qualitative research. For example, a survey can identify a subpopulation at high risk or with unique attitudes relating to STDs. Qualitative research can then target that subpopulation or subculture to learn more in depth information about the risk behavior or aberrant attitudes.

A final advantage of survey research is that researchers often find this approach to be the easiest way to maintain confidentiality and anonymity of participants/respondents. Participants in survey research respond mainly to closed-ended questions, and hence have little chance that their responses will identify them in some inadvertent way.

**Limitations.** A major limitation of survey research is its dependence on a rigorous sampling plan (as discussed in the section, Research Participants). When the researchers cannot argue that the sample is representative of a larger population, the benefit of the survey is negligible.

Another limitation of survey research is its dependence on well-written questionnaires. Unlike qualitative research, the questionnaire or interview protocol is not “a work in progress.” If a questionnaire must be re-written in mid-stream, the researchers probably will have to discard the earlier collected data.

Survey research also limits the scope of questions and relevant responses to inquiry. There is no opportunity to understand a person’s responses better, and answers that do not fit pre-determined categories are typically coded as an irrelevant “other” category. There is little or no opportunity to discover new dimensions of a problem.

Closely related to all of the above is the need for consistency in all aspects of survey research. This includes more than questionnaire wording and sampling, but also the way that interviews are conducted, the places they are conducted, cover letters for mailed surveys, and follow-through on sampling plans. While the authors of this curriculum have strongly advocated for systematic qualitative data gathering, the need for consistency in quantitative data gathering is even more critical. (See more information on this in the chapters on “Validity” and “Reliability” in the section, Data Verification.)

## Developing a survey questionnaire

This section will discuss introductory information for questionnaires, questionnaire formats, demographic data, scales, and examples of questionnaires at the lowest to highest degrees of difficulty (for this curriculum).

**Preliminary information.** Survey questionnaires/protocols should always include some introductory information. If the surveys are conducted face-to-face or over the telephone, the interviewers will read (or if memorized, verbalize) the introduction. If the questionnaires are mailed or otherwise self-administered, the cover letter should include the introductory material<sup>1</sup>.

The minimal information in the introductory material should include:

- The purpose of the study
- Reason[s] why the respondent was selected for the study
- Reason[s] why the respondent's participation is important
- Appropriate human subjects language, with all informed consent forms (if used) or alternative protocols for the study
- Directions on who should fill out the questionnaire (if the questionnaire is self-administered)

In addition to the introductory material, the questionnaires (or interview protocols) should also allow space for the preliminary information that follows:

- Name of interviewer (in cases of face-to-face or telephone surveys)
- Date
- Names of respondents, or (where confidentiality/anonymity are at issue) codes such as identification numbers that may be needed to insure that individuals selected for the sample have responded<sup>2</sup>
- Space for reflective notes for respondents and interviewers (e.g., concerns, special circumstances)

**Format.** Survey questionnaires can include both open- and closed-ended questions. Open-ended questions are usually only slightly different in format than those researchers would develop for purely qualitative interviewing in that open-ended questions in surveys seek shorter responses than those in qualitative interview guides. Closed-ended questions limit the responses that can be made. Whether the questions are open-ended or closed-ended, they should always be clear. Wherever possible, questions should be written in simple sentences (without clauses), plain words, and easy-to-follow formats. Bernard (2006) advises writers of questionnaires to leave considerable white space on the pages and line up answers vertically rather than horizontally. See examples of the open- and closed-ended questions below.

<b>Easy-to-follow style</b>	<b>Harder to follow style</b>
<p>A. Were you born in Rice City? [CIRCLE ONE]</p> <ul style="list-style-type: none"><li>1. No</li><li>2. Yes</li></ul> <p>B. In what neighborhood do you now live? [CIRCLE ONE]</p> <ul style="list-style-type: none"><li>1. Valley Hills</li><li>2. Jones Park</li><li>3. Selleville</li></ul> <p>C. Please briefly describe your neighborhood's housing stock.</p>	<p>A. Were you born in Rice City? [CIRCLE ONE]</p> <p>1. No 2. Yes</p> <p>B. In what neighborhood do you now live? [CIRCLE ONE]</p> <ul style="list-style-type: none"><li>1. Valley Hills 2. Jones Park 3. Selleville</li></ul> <p>C. Please briefly describe your neighborhood's housing stock.</p>

As indicated in the above example, instructions to the interviewer or to the person filling out the questionnaire are

commonly printed in capital letters. We at Jill Florence Lackey & Associates have also found that enclosing these instructions in brackets adds further clarity.

Question ordering is a key issue. To avoid confusing respondents, questions should be ordered by topics. While some researchers believe that question ordering should at times be randomized (for various reasons not really relevant for our streamlined REA process), Bernard (2006) argues that the slight benefits in data verification made by shuffling questions will not make up for the confusion (and hence chances for error) that it might create for those responding to the questions. When topics are changed, transition sentences are also helpful. An example of question ordering for a resource network survey appears below (see a modified/improved form of this example later in the section).

<b>IV. Client information</b>
A. Do the clients you serve appear to have adequate information about ways to prevent sexually transmitted infections? [CIRCLE ONE]  1. No 2. Yes 3. Don't know
B. Do the clients you serve appear to have adequate information about where to go to get STD services? [CIRCLE ONE]  1. No 2. Yes 3. Don't know
BUT WE ALL KNOW THAT INFORMATION IS ONLY PART OF THE STORY. NOW YOU ARE GOING TO BE ASKED A SERIES OF QUESTIONS ABOUT YOUR CLIENTS' ABILITY TO ACCESS THESE SERVICES.]

## V. Client access

A. Do most of the clients you serve have health insurance? [CIRCLE ONE]

1. No
2. Yes
3. Don't know

**Demographic data.** Most studies need socioeconomic and/or demographic information about respondents. Because this information can be sensitive, many researchers opt to place these questions at the end of the questionnaire (to avoid "turning off" potential respondents too early in the process). The implementation team should select the categories of information relevant to the study. Examples of the way this information can be worded in the questionnaires appear below.

A. What is your sex? [CIRCLE ONLY ONE]

1. Female
2. Male

B. What is your ethnic (or "racial") background? [CIRCLE ONLY ONE]

1. African American (black)
2. Asian American
3. European American (white)
4. Hispanic/Latino
5. North American Indian
6. Mixed
7. Other \_\_\_\_\_
8. Don't know



*In the above example, the categories should reflect the aims of the study. If, for example, an aim of the study is to compare the prevalence of some factors in a Jewish or Latino population vis-à-vis all other populations, the response categories might be limited to "Jewish" and "Gentile" in one case, or "Hispanic/Latino" and "Anglo" in another. If the study is measuring prevalence of some factor among all Latinos then the categories might be nations or areas of origin, such as "Latinos of Mexican descent" and "Latinos of Caribbean descent." The same applies to North American Indians<sup>3</sup>. The researchers might also want the respondent to specify what is meant by "Mixed," if the category is circled.*

A question on age might be worded as follows.

C. I am \_\_\_\_\_ years old.

*In the above example, the researchers may be more interested in getting age groupings of (say) adults than specific ages of individuals. The implementation team can select the age categories most relevant to the study. Here is one example.*

C. How old are you? [CIRCLE ONE]

1. 18-24
2. 25-29
3. 30-39
4. 40-49
5. 50-59
6. 60-64
7. 65-75
8. Over 75

*One of the most common errors made by beginners writing questionnaires is repeating numbers in the sequences, such as the following:*

*Wrong wording*

C. How old are you? [CIRCLE ONE]

1. 18-24
2. 24-29
3. 29-39
4. Etc.

*If the respondent were 24 years old, s/he would then have to circle two responses rather than the required one. The same possibility for sequencing error applies to the remaining example questions.*

D. How many people live in your household? (CIRCLE ONE]

1. 1-2
2. 3-4
3. 5-6
4. 7-9
5. Over 9

*An alternative writing of the above question, of course, is to ask respondents to fill in the blank on the number in the household.*

E. What is the annual (yearly) household income for the total household you have just described? [CIRCLE ONE]

1. Under \$5,000 a year
2. \$5,000-\$8,000 a year
3. \$8,001-\$10,000 a year
4. \$10,001-\$15,000 a year
5. \$15,001-\$20,000 a year
6. \$20,001-\$25,000 a year
7. Etc.

*The actual categories of income should be selected by the implementation team as they reflect the aims and target population of the study. For example, if the study’s target community is the homeless, the first response category (“under \$5,000 a year”) would probably be expanded to several categories. In the case of income questions, we have found that asking respondents to fill in the blank on income tends to invite errors. Many people fill in the amount the household earns by month or by week, instead of the annual amount. People are also less hesitant to fill in a range category than to provide an actual dollar amount.*

**Response options.** Response options (also called “values” in some data entry programs) in questionnaires can be categorical or scaled. They can be continuous scales (such as “strongly agree” to “strongly disagree”) or they can be categorical or “mutually exclusive” response options (such as “yes” and “no” or “male” and “female”)⁴ . Categorical responses are not graded or numerically ordered in relation to each other.

When continuous scales are used, most researchers prefer to offer an odd number of possible response categories (usually three, five, or seven points) to allow for a mid-point or neutral response. Two examples of the ways continuous scales can be written appear below⁵ .

[CIRCLE ONE]

Disagree	1	2	3	4	5	Agree
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[CIRCLE ONE]

- 1. Strongly disagree
- 2. Disagree
- 3. Neutral
- 4. Agree
- 5. Strongly agree

Bernard (2006) provides a list of good examples of continuous scales.

*Use clear scales. There are some commonly used scales in survey research—things like: Excellent-Good-Fair-Poor; Approve-Disapprove; Oppose-Favor; For-Against; Good-Bad; Agree-Disagree; Better-Worse-About the Same; etc. (p. 273).*

The use of these scales will be important in the development of questionnaires.

**Length of questionnaire.** For the REA, a rule of thumb is that the number of questions may vary, but the full questionnaire should not take more than 10 minutes to complete.

**Lowest degree of difficulty.** In a questionnaire with a low level of difficulty, all of the minimum preliminary information listed earlier in the section must be included. Also included should be any demographic or socioeconomic questions on the target community that the implementation team finds relevant to the study. The body of the questionnaire in the lowest level of difficulty might include some open-ended questions, and closed-ended questions with mainly simple “true/false” or “yes/no” (categorical) response options. (Wherever possible also include the “don’t know” option.)

For example, suppose that one aim of the study is to find out what a general population in some limited area knows about the transmission of STDs. Questions might be written in the following format.

[YOU HAVE COMPLETED THE QUESTIONS ON BACTERIAL INFECTIONS. THE NEXT SERIES OF QUESTIONS ARE ABOUT VIRAL INFECTIONS.]

**III. Viral Infections**

[PLEASE CIRCLE ONLY ONE RESPONSE FOR EACH QUESTION]

A. A person can sometimes catch herpes by kissing an infected person.

1. True
2. False
3. Don't know

B. A person can sometimes catch syphilis by kissing an infected person.

1. True
2. False
3. Don't know

C. Etc.

The above example will also appear in the appendix. As a practice exercise, add five more questions (if needed, refer to the chapter on "Introduction to sexually transmitted diseases" in the section, Problem and Target Population).

Here is another example of a minimum difficulty questionnaire. Let us say that the implementation team is thinking about developing an STD program that centers on parents talking to their adolescent children about sex and sexually transmitted diseases. To assess needs, the team might want to know initially if adolescents who report more communication with parents about sex and sexual risk-taking are less likely to report having been diagnosed with STDs. A question sequence for a self-administered survey can be worded as follows.

[NOW WE ARE GOING TO ASK YOU SOME QUESTIONS ABOUT SEX AND SEX EDUCATION. IF YOU FEEL ANY OF THESE QUESTIONS ARE TOO PERSONAL, JUST LEAVE THEM BLANK. IF YOU ARE UNSURE ABOUT DEFINITIONS OF THINGS LIKE "SEX" OR "SEXUALLY TRANSMITTED DISEASES," PLEASE SEE THE DEFINITION LIST ON THE BACK PAGE.]
<b>III. Sexual experience</b> [SELECT ONLY ONE RESPONSE PER QUESTION]
A. Have you had one or more sexually transmitted diseases in the past year?  1. No 2. Yes 3. Don't know
B. How many times did your parent[s] talk to you about sex in the past year?  1. _____ number of times 2. Don't know

The implementation team can then compare the responses to these questions (which will be discussed in the section on Data Analysis).

**Medium level of difficulty.** Examples of questionnaires at medium levels of difficulty might include the use of continuous scales and skip patterns. A skip pattern might be employed when the author of the questionnaire wants some questions answered by only some respondents. For example, suppose that a major aim of the study is to learn the prevalence of sexual risk-taking by adolescents in a limited area. Certain questions might only apply to those young people who are sexually active (a term that would be defined in the questionnaire). There are two ways that the questionnaire can accommodate this circumstance. One way is demonstrated in the two-question example below.

- A. How many times have you had sex in the last 30 days? [SELECT ONLY ONE RESPONSE]
  - 1. I have never had sex
  - 2. \_\_\_\_\_ number of times
  - 3. Don't know
  
- B. How many different sexual partners have you had in the last 30 days? [SELECT ONLY ONE RESPONSE]
  - 1. I have never had sex
  - 2. \_\_\_\_\_ number of partners
  - 3. Don't know

The above option is often used for self-administered questionnaires, particularly if the respondents are expected to be young or have limited education. Every respondent can answer every question using this format. If the questionnaire will be administered by members of the implementation team, or will be self-administered by adult respondents with higher educational levels, a skip pattern might be used. See the example that follows.

- A. Have you ever had sex? [THIS INCLUDES SEXUAL INTERCOURSE AND ORAL SEX.] [CIRCLE ONLY ONE]
  - 1. No [THEN SKIP TO section IV]
  - 2. Yes
  - 3. Don't know [THEN SKIP TO section IV]

B. How many times have you had sex in the last 30 days? [SELECT ONLY ONE RESPONSE]

1. \_\_\_\_\_ number of times
2. Don't know

C. How many different sexual partners have you had in the last 30 days? [SELECT ONLY ONE RESPONSE]

1. \_\_\_\_\_ number of partners
2. Don't know

At the medium level of difficulty, the implementation team may wish to use a continuous scale for responses. For example, look back at the rudimentary excerpt from a possible resource network survey earlier in this chapter. Team members may have noticed that responses of "yes" and "no" probably would not tell the full story about the respondents' clients. The service provider responding to these questions may have some clients who have adequate knowledge about STDs and some clients who do not, thus asking them to respond either affirmatively or negatively to these questions may not yield the most desirable results. Here the implementation team may want to develop a continuous scale for the responses with interval categories that make more sense. One example of how this could be done follows. We have also included a skip pattern to accommodate respondents who may not serve clients in the affected community directly (and hence may not be able to respond to this series of questions).

#### **IV. STD client information**

A. Do you serve clients directly in either STD treatment or prevention? [CIRCLE ONE]

1. Yes
2. No [THEN SKIP TO section VI]



B. How often do these clients come to you with adequate information about ways to prevent sexually transmitted infections? [CIRCLE ONE NUMBER]

Never	1	2	3	4	5	Always
6. Don't know						

C. How often do these clients come to you with adequate information about where to go to get STD services? [CIRCLE ONE NUMBER]

Never	1	2	3	4	5	Always
6. Don't know						

[BUT WE ALL KNOW THAT INFORMATION IS ONLY PART OF THE STORY. NOW YOU ARE GOING TO BE ASKED A SERIES OF QUESTIONS ABOUT YOUR CLIENTS' ABILITIES TO ACCESS THESE SERVICES.]

**V. STD client access**

A. How often do these clients (in STD treatment or prevention) come to you with health insurance? [CIRCLE ONE NUMBER]

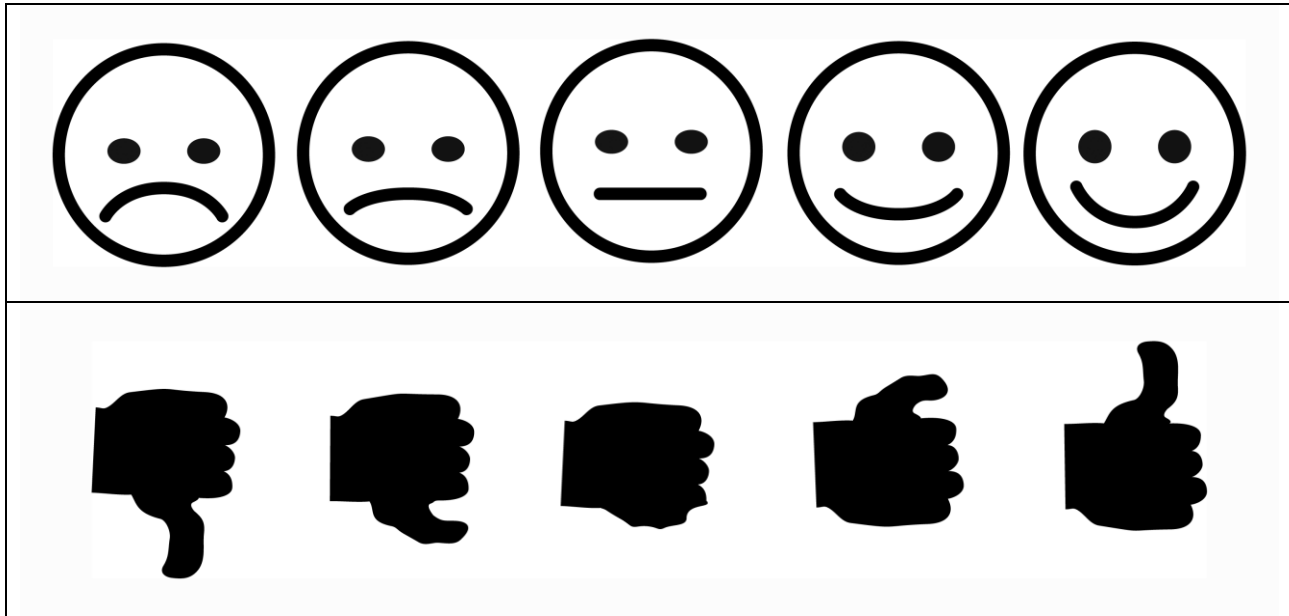
Never	1	2	3	4	5	Always
6. Don't know						

The above example will also appear in the appendix. As a practice exercise, add five more questions on client access and then develop a skip pattern. It is not necessary to use a uniform scale for response options under the same topic[s], but the team will find it much easier both to analyze data and present findings later if the same scale can be maintained.

**Highest degree of difficulty.** A questionnaire developed at the highest level of difficulty for this curriculum can include all the features in the lowest and medium levels of difficulty, such as open- and closed-ended questions, categorical and continuous scales, and skip patterns. In addition, the questionnaire may include visual aids that can be developed by the implementation team. This strategy can only be applied when the survey is self-administered (where the visual aids can be included in the questionnaire) or when the survey is conducted face-to-face (where interviewers can show the visual aids or props to the respondents). This strategy cannot be used in telephone surveys.

Pelto and Pelto (1987) recommend the use of visual aids where respondents may be asked to rank a series of things. For example, one aim of the REA might be to learn who has the highest status in sexual relationships—which categories of people are likely to be those making decisions about preventive behaviors. Here is one way the visual aids might work. Face-to-face interviewers will carry a set of pictures of romantic couples and show these to female heterosexual respondents. An introduction might look like the following: “You will see the same woman in each of these pictures, but each time she is with a different man. This woman wants to have sex with the man in each picture but also wants to avoid getting a sexually transmitted disease. She really hopes that the man will use [an effective prevention strategy]. None of the men you see is at first willing to use prevention strategies. I would like you to rank these pictures of the couples. Begin with the couple where you think the man would be most likely to use prevention strategies, then rank the second most likely, then the third, and so on until you have reached the couple most unlikely to use prevention strategies.” The pictures can depict the woman with a variety of types of men. One picture might depict a younger man, another an older man, another a handsome man, another a homely man, another a professional man, another a working class man, others might be men of different ethnic backgrounds, etc. The idea behind the exercise is to learn something about the circumstances in which the female respondent believes the woman has more power to exercise her will in sexual decision-making. If for example, the study shows that the picture depicting a couple with a handsome man ranks lowest in use of prevention strategies, then programs might be developed to teach women counter strategies for dealing with this particular situation.

The use of visual aids can also be useful among non-literate, very young, or disabled populations. The strategy is also effective with a population from diverse linguistic backgrounds. In some cases the pictures might comprise scales themselves. For example, consider the usefulness of the series of drawings below.



Another use of visual aids occurs in a time-line follow-back strategy aimed at achieving more precise recollection of recent past behaviors. This approach uses the visual aid of a calendar with specific anchoring events such as holidays or birthdays, to improve recall.

Please go to the appendix and see if team members can develop visual aids that will depict several other scales.

It is now time to begin thinking about the team's own questionnaire that addresses the research topics the team and collaborating stakeholders have selected. Because this is a "rapid" assessment process, the questionnaire should be as streamlined as possible. But before the team can decide on the length of the questionnaire or some of the wording, team members need to know which survey format they will want to use.

The levels of difficulty presented throughout this curriculum are designed to alert the implementation team to the time that may be involved in learning and implementing procedures early in the REA planning process. However, the actual procedures must be selected because they would best answer the questions that the REA is asking or the information being gathered, not the level of difficulty.

### **Conducting and documenting survey research**

There are three chief ways questionnaires can be administered: (1) face-to-face interviewing, (2) self-administered (where the respondent fills out the questionnaire), and (3) telephone interviews<sup>6</sup>. Each has its own advantages and disadvantages.

**Face-to-face interviewing.** Here members of the implementation team conduct the interviews with respondents on a face-to-face basis at their offices, homes, or places where they congregate.

Face-to-face interviewing is particularly effective for the REA when:

- Some respondents may be non-literate, blind, disabled, or bedridden;
- There might be a need to give more detailed explanations of some questions or procedures;
- The interview needs to be longer than 15 minutes in length (it is easier to hold the attention of respondents when the interview is conducted in-person);
- There is concern that someone other than the intended respondent might complete a questionnaire (Bernard, 2006); and
- The questionnaire is complicated to follow (such as use of visual aids and skip patterns).

Face-to-face interviewing also has some drawbacks, such as:

- Respondents being concerned about giving highly sensitive or embarrassing information to interviewers in-person;

- Introduction of interviewer bias (giving clues through gestures and facial expressions on the way the interviewer hopes the respondent will answer); and
- The time involved in call backs when the intended respondent is not at the site when expected (although the implementation team is seeking the respondents where they tend to congregate, some in the sample will always be missed the first few times around).

**Interviewing over the telephone.** Telephone interviewing is particularly effective for the REA when:

- The areas where respondents are likely to congregate are dangerous;
- The intended respondents are rarely together in the same place (intended respondents such as members of a resource network whose offices are dispersed);
- A short survey will be conducted with members of the general population in a dispersed area using random digit dialing (rarely recommended for the REA, however, because of the dispersed geographical area); and
- The appearance of the interviewer may be an issue (if, for example, questions are being asked on ethnically/"racially" sensitive issues) (Bernard, 2006).

Telephone interviewing also has some drawbacks, such as:

- Accessing personal numbers when specific individuals in the sample need to be interviewed;
- The number of temporary disconnections and lack of phones among low-income people;
- Problems getting past voice mail, answering machines, and caller ID (some people never answer their phones unless they are expecting a call from someone they know); and
- The relatively short length of time the interviewer can keep the respondent engaged while on the phone (we find respondents beginning to become distracted after 15 minutes).

Now would be a good time to watch the video on Interviewing to collect quantitative data for effective strategies in face-to-face and telephone interviews. The video also offers examples of the best and the worst in interviewing styles and what can happen when an interviewer inadvertently shows a bias or when all interviewers do not maintain a consistent pattern or protocol during interviews. Follow the practice exercises offered.

**Self-administered questionnaires.** Self-administered questionnaires can be mailed or dispersed to respondents in some other way, such as handing them out, sending them through email, having them available at area sites, or asking respondents to access them on web sites. Respondents fill these out themselves, sometimes with the assistance of a group facilitator.

Self-administered questionnaires are particularly effective for the REA when:

- Budgets are very limited but the implementation team needs a high number of respondents;
- The questionnaire asks a long string of questions using the same scales (here respondents can answer these much quicker than they could if an interviewer had to repeat every word of the questions and response options);
- Respondents come together in groups and can all be surveyed together (e.g., classrooms, programs);
- The questionnaire deals with questions on socially undesirable behavior (respondents are usually more likely to respond truthfully to these questions if they are not answering to another person); and
- Interviewer bias is a concern.

Self-administered questionnaires also have some drawbacks, such as:

- No one usually being available to clarify questions;
- Researcher not knowing if the intended person has really filled out the questionnaire;
- When any potential respondents may be non-literate, blind, or disabled; and
- Problems with low response rates, particularly when the questionnaires are mailed.

Mailed questionnaires should always include a cover letter and self-addressed stamped envelope. However, response rates for these often run between 10 and 20 percent on the first try. According to Bernard (2006), an acceptable response rate should be 70 percent or higher on any type of survey. He and other methodologists recommend the following procedures to increase the response rate:

- When the respondent has not replied after one week, send out a reminder;
- If the respondent still has not replied after two weeks, send out the full survey again; and
- If the respondent has not replied after four weeks, send out the survey again by registered mail<sup>7</sup> .

For any type of survey (face-to-face, telephone, or self-administered), the implementation team should expect to follow-up on missed respondents a minimum of three times.

At times the best approach is to combine ways of administering questionnaires. See the example below.

In the Lackey & Moberg teen sexual risk study, I was working with a local university where we were conducting a needs assessment for an urban health department on teen sexual risk-taking (including teen pregnancy). The area in which the assessment focused had recently experienced a sharp rise in adolescent pregnancy. The health department wanted to know what personal, family, and community factors might be contributing to the trend. Thus we expected to ask a number of questions about issues that directly related to sexual attitudes, knowledge, and practices, but also questions on the everyday lives of the adolescents. We ended up conducting a door-to-door survey in the area using a random cluster sample, relying primarily on face-to-face interviewing. However, we decided to put the more sensitive questions about adolescent sexual attitudes, knowledge, and behavior in a short, self-administered questionnaire. When the adolescents completed these questionnaires outside our view, they sealed them in envelopes and returned them to us. The envelopes, coded to match the face-to-face questionnaires, were not opened until we reached the analysis stage.

In this way we were able to combine the advantages of two types of questionnaires. We were always sure that the person filling out the questionnaire was the intended respondent; we were able to conduct a slightly longer interview than we could with just a self-administered questionnaire; but we were also able to collect optimal information on sensitive issues because the adolescents were not giving us this information face-to-face (Lackey & Moberg, 1996).

**Piloting the survey.** No questionnaire should be administered in any way without it being tested first. First the implementation team should try to answer the questionnaire themselves, making modifications where necessary. Then the team should select a group of mock respondents with similar traits to those of the target population (but who are not members of the target population) and try the survey out on them. We at Jill Florence Lackey & Associates recommend no fewer than 20 mock respondents, as errors emerge frequently during piloting. Even experienced questionnaire writers often comment on the number of questions that end up being rewritten or the prevalence of just plain “dumb mistakes” they find when they pilot their instruments. If interviews are required (telephone or face-to-face),

this is a good time for the implementation team to observe each other in action and make suggestions to control for interviewer bias.

**Documenting survey research.** How does the implementation team keep a record of the responses? It is very unusual during survey research to audio- or videotape responses, and this is not recommended for the REA. The next stage in the process will be cleaning of data, which will be discussed in the section on Data Analysis. After this, the team can simply leave the responses as they are (with the intent to analyze the data by paper and pencil) or members of the team can record them in a data entry program. The advantages and disadvantages of some data entry (as well as data analysis) programs will be addressed in the chapter on "Quantitative data analysis" in the section, Data Analysis. A table on the utility and cost of these programs also appears in the appendix.

<sup>1</sup>Bernard (2006) suggests that the lead researcher also personally signs each cover letter.

<sup>2</sup>In the case of mailed questionnaires that address very sensitive topics, an alternative to the ID number printed on the questionnaire can be used. The implementation team could enclose a self-addressed, stamped post card with the ID number on it, so that the respondent can mail it back separately when the questionnaire is sent; or the team may include no identifier at all and just count the number of responses. These strategies preserve anonymity.

<sup>3</sup>The researchers should also be aware of the fact that most North American Indians do not refer to themselves as "Native Americans," as is commonly believed, but usually prefer the tribal designations or the terms "Indians," "native persons," or "indigenous persons."

<sup>4</sup>For more information on specific types of scales (e.g., ordinal, nominal, interval, ratio), see Pelto and Pelto (1987) pp. 142-146.

<sup>5</sup>If the implementation team will be using a data entry computer program, they should check to see how the program labels the response options (or values) to avoid having to reorder the numbers or letters when entering the data.

<sup>6</sup>Recently, computer-aided personal interviews (CAPI) and computer-aided self interviews (CASI) have become common technological solutions, but are beyond the scope of this curriculum.

<sup>7</sup>Where complete anonymity needs to be maintained, one can send out a combined thank you/reminder card to the entire sample after several weeks, with information on how to obtain another copy of the survey.



## Section 4, Chapter 2: Survey research

### 4.2.3 Learning activities

Time to review

The implementation team should now do the following activities.

1. Explain why quantitative data collection is needed in the Rapid Ethnographic Assessment.
2. List three advantages and limitations of survey research.
3. Describe three types of preliminary information that is important to collect in a survey.
4. Complete the matrix below to compare and contrast methods used to collect and document quantitative data in a REA process (see larger version in the Appendix).

	Advantages	Limitations
Face-to-face interviewing		
Telephone interviewing		
Self-administered surveys		
Combined approaches		

## **Conducting survey research systematically**

We cannot overly stress the importance of maintaining systematic protocols in quantitative data collection. The implementation team should respond to the following questions to check for consistency (also see more detailed worksheets in the appendix).

### **CONDUCTING SURVEY RESEARCH SYSTEMATICALLY**

1. How many surveys does the implementation team expect to recover over what period of time?
2. Has the survey been piloted and modified (modification will almost always be required)?
3. Does the team have a consistent follow-up plan for intended respondents who cannot be reached?
4. When is the tentative start and stop date for survey completion?
5. Are all protocols involving human subjects in place for any kind of questionnaire?
6. If interviews are conducted, how are these divided up? If more than one category of respondent will be interviewed, does every member of the implementation team have an opportunity to interview someone in each category (this is to assure checks on the validity of the information)?
7. What consistent format[s] will be followed for administering questionnaires to each category of respondent (i.e., face-to-face, telephone, mailed, otherwise self-administered)?
8. If interviews are conducted and interviewers are allowed to explain some questions, has a plan been developed for this to insure consistency?
9. Have members of the implementation team done the video exercises and watched each other during piloting to control for interview bias?
10. How will each type of survey be documented? Does the team expect to use any data entry system or simply leave the responses as they are on the questionnaires?

If all of the above is answered thoroughly, the implementation team should now look over the section on Data Collection--Mixed Methods Strategies, then begin the survey.

### **Quality control: Checking progress**

Once the survey is underway, the implementation team should perform quality checks on the work at agreed-upon intervals. The researchers can accomplish this by responding to a series of questions. (The more detailed worksheets are printed in the appendix.)

#### **QUALITY CONTROL ASSESSMENT: SURVEY RESEARCH**

1. Are team members following a survey protocol that includes (at minimum) a questionnaire with the appropriate information on it (as indicated in the least to most difficult descriptions) and a consistent way of administering the questionnaire?
2. Have team members examined the completed questionnaires to determine if the respondents understand the directions and questions?
3. If the implementation team is conducting interviews, have team members examined the completed questionnaires to make sure that no interviewer is getting substantially different results than another interviewer?
4. Is the implementation team agreeing on some of the emerging patterns in the data at this point?
5. Are team members getting (or expecting to get) a response rate that is at least 70 percent?
6. Have members of the implementation team selected other forms of data collection to verify that the findings from these surveys are valid?

The next chapter will discuss another form of quantitative data collection—the experimental model.

## Section 4, Chapter 2: Survey research

### 4.2.4 Resources

#### Chapter references

Bernard, H.R. (2006). *Research methods in anthropology: Qualitative and quantitative approaches* (4th ed.). Lanham, MD: AltaMira.

Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Lackey, J.F., & Moberg, D. P. (1998). Understanding the onset of intercourse among urban American adolescents: A cultural process framework using qualitative and quantitative data. *Human Organization*, 57(4), 491-501.

Pelto, P.J., & Pelto, G.H. (1987). *Anthropological research: The structure of inquiry* (2nd ed.). Cambridge: London.

#### Additional resources on survey research

Babbie, E. (2001). *Survey research methods* (9th ed.). Belmont, CA: Wadsworth.

Davis, C., Yarber, W., Bauserman, R., Schreer, G., & Davis, S. (1998). *Handbook of sexually-related measures*. Thousand Oaks, CA: Sage.

Fink, A. (2003). *The survey handbook* (2nd ed.). Thousand Oaks, CA: Sage.

Fowler, F.J. (2002). *Survey research methods* (3rd ed.). Thousand Oaks, CA: Sage.

## Section 4, Chapter 2: Appendix

## WORKSHEETS CHAPTER 2A: QUESTIONNAIRE WRITING

In order to practice writing questionnaires, add five new questions to the questionnaire below.

YOU HAVE COMPLETED THE QUESTIONS ON BACTERIAL INFECTIONS. THE NEXT SERIES OF QUESTIONS IS ON VIRAL INFECTIONS.]

### III. Viral Infections

[PLEASE CIRCLE ONLY ONE RESPONSE FOR EACH QUESTION]

A. A person can sometimes catch herpes by kissing an infected person.

1. True
2. False
3. Don't know

B. A person can sometimes catch syphilis by kissing an infected person.

4. True
5. False
6. Don't know


Add a minimum of five new questions to the following questionnaire and at least one skip pattern.

<b>IV. STD client information</b>	
1. Do you serve clients directly in either STD treatment or prevention? [CIRCLE ONE]	
1. Yes	
2. No [THEN SKIP TO SECTION VI]	
2. How often do these clients come to you with <i>adequate information</i> about ways to prevent sexually transmitted infections? [CIRCLE ONE]	
Never      1      2      3      4      5      Always	
6. Don't know	
3. How often do these clients come to you with <i>adequate information about where to go</i> to get STD services? [CIRCLE ONE]	
Never      1      2      3      4      5      Always	
6. Don't know	
[BUT WE ALL KNOW THAT INFORMATION IS ONLY PART OF THE STORY. NOW YOU ARE GOING TO BE ASKED A SERIES OF QUESTIONS ABOUT YOUR CLIENTS' ABILITIES TO ACCESS THESE SERVICES.]	
<b>V. STD client access</b>	
A. How often do these clients (in STD treatment or prevention) come to you with health insurance? [CIRCLE ONE]	
Never      1      2      3      4      5      Always	
6. Don't know	





Try and develop a series of visual aids below to illustrate a scale.

_____ 1	2	3	4	5 _____
_____ 1	2	3	4	5 _____

## WORKSHEET CHAPTER 2B: REVIEW MATRIX

	Advantages	Limitations
Face-to-face interviewing		
Telephone interviewing		
Self-administered surveys		
Combined approaches		

## WORKSHEET CHAPTER 2C: CONDUCTING SURVEY RESEARCH SYSTEMATICALLY

1. How many surveys does the implementation team expect to recover over what period of time?

\_\_\_\_\_ number of surveys over \_\_\_\_\_

2. Has the survey been piloted and modified? (Modification will almost always be required.)

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, what alternative arrangements have been made to pretest the survey? (Rarely should any survey be taken into the field without being piloted first.)

3. Does the team have a consistent follow-up plan for intended respondents who cannot be reached?

Yes \_\_\_\_\_ No \_\_\_\_\_

“No” is not an acceptable alternative here. The team needs to develop the plan.

4. When is the tentative start and stop date for survey completion?

Start date \_\_\_\_\_

Stop date \_\_\_\_\_

5. Are all protocols involving human subjects in place for any kind of questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, why were these protocols not necessary?

6. If interviews are conducted face-to-face or over the telephone, how will these be divided up among implementation team members?

If more than one category of respondent will be interviewed, does every member of the implementation team have an opportunity to interview someone in each category? (This is to ensure checks on the validity of the information.)

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, why?

7. What consistent format[s] will be followed for administering questionnaires to each category of respondent?

- a. Face-to-face \_\_\_\_\_  
For which group (if this applies)
  
- b. Telephone \_\_\_\_\_  
For which group? (if this applies)
  
- c. Self-administered) \_\_\_\_\_  
How and for which group? (if this applies)

8. If interviews are conducted and interviewers are allowed to explain some questions, has a plan been developed for this to insure consistency?

Yes \_\_\_\_\_ No \_\_\_\_\_

Please explain.

9. Have members of the implementation team done the video exercises and watched each other during piloting to control for interviewer bias?

Yes \_\_\_\_\_ No \_\_\_\_\_

If the video exercises have not been done, now would be the time to do them. If members of the implementation team have not watched each other during piloting, please explain here.

10. How will each type of survey be documented?

- a. Leaving the responses on the questionnaires only \_\_\_\_\_
- b. Entering the responses on a data entry program \_\_\_\_\_

If “b,” please indicate the program below. (Also see chart that follows.)



**Table of computer programs that handle data entry/statistical analysis**

<b>Program Name</b>	<b>Web site</b>	<b>Pros</b>	<b>Cons</b>	<b>Other notes</b>
Microsoft Excel	www.microsoft.com	Commonplace; inexpensive	Limited and somewhat difficult to use statistical features	Can be purchased alone or as part of a Microsoft Office package
XLStat	www.xlstat.com	Inexpensive; expands and simplifies Excel's statistical routines	Must have Excel to run; somewhat uncommon outside of academia	An Excel add-in
Analyse-It	www.analyse-it.com	Inexpensive; expands and simplifies Excel's statistical routines	Must have Excel to run; somewhat uncommon	An Excel add-in
Minitab	www.minitab.com	Easy to learn and use; numerous, full-featured statistical routines	Expensive; somewhat uncommon outside of academia	
SPSS	www.spss.com	Somewhat common; numerous, full-featured statistical routines	Expensive; more difficult to learn than Minitab	Most full-featured program; more for serious researchers
Stata	www.stata.com	Somewhat common; numerous, full-featured statistical routines	Expensive; somewhat uncommon outside of academia	

For a list of other statistical software providers go to [www.stata.com/links/stat\\_software.html](http://www.stata.com/links/stat_software.html)

### **Other Resources for Statistical Analysis**

Statistics with Microsoft Excel 2/E by Beverly J. Dretzke : Prentice Hall Copyright 2002 ISBN: 0-13-022357-3

This soft cover textbook shows step-by-step how to do basic statistical routines using Microsoft Excel.

TI-83 Plus Graphing Calculator by Texas Instruments

This graphing calculator is extremely popular in academia and has numerous statistical capabilities.

## WORKSHEET CHAPTER 2D: QUALITY CONTROL ASSESSMENT: SURVEY RESEARCH

1. Are team members following a survey protocol that includes (at minimum) a questionnaire with the appropriate information on it (as indicated in the least to most difficult descriptions) and a consistent way of administering the questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, the team needs to go back and do this.

2. Have team members examined the completed questionnaires to determine if the respondents understand the directions and questions?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, now is the time to do this.

If yes, do they seem to understand the questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, what alternative plans has the team made to correct this?

3. If the implementation team is conducting interviews, have team members examined the completed questionnaires to make sure that no interviewer is getting substantially different results than another interviewer?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, now is the time to do this.

4. Is the implementation team agreeing on some of the emerging patterns in the data at this point?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, indicate below what these emerging patterns appear to be.

If no, indicate below what the team does agree on (if anything) and set a future time to revisit this issue.

\_\_\_\_\_ future date

5. Are team members getting (or expect to get) a response rate that is at least 70 percent?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, explain. What new strategies can the team develop to increase the response rate?

6. Have members of the implementation team selected other forms of data collection to verify that the findings from these surveys are valid?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, explain.

If yes, describe

## Chapter 3: Experiments

### 4.3.1 Intended learning outcomes

The intended learning outcomes of this chapter on experiments follow.

Upon completion of this chapter, the implementation team will be able to:

1. Explain the advantages and limitations of experiments.
2. Differentiate between the pure experiment, the pre-experiment, and the quasi experiment.
3. Compare and contrast different questionnaire formats used in experiments.
4. Describe the advantages and limitations of administering questionnaires through face to face methods, self administered, and telephone interviews when conducting experiments.
5. Explain methods to assure that experimental research is conducted systematically.
6. Identify quality control measures for experimental research.

## Section 4, Chapter 3: Experiments

### 4.3.2 Introduction

This chapter will introduce the subject of experimental research. This research model can be highly complex. This chapter will provide enough information to conduct experiments at a basic (and “rapid”) level only. Beginning researchers who wish to learn more about experiments can refer to the additional resources at the end of the chapter. We do not recommend this kind of research if this is the implementation team’s first study because of its complexity. On the other hand we also recognize that some research questions will require this model.

Experimental models are often used to evaluate some kind of intervention, such as social services or medical treatment. Creswell (2003) distinguishes experiments from survey research in the following way.

*In an experiment, investigators may also identify a sample and generalize to a population; however, the basic intent of an experiment is to test the impact of a treatment (or an intervention) on an outcome, controlling for all other factors that might influence that outcome (pp. 153-154).*

At this stage, the team should have reviewed the principles of sampling. The team should have also reviewed some of the literature on STD-related topics, previewed the target population, and completed whatever human subjects protocols are deemed necessary. The intervention team may have also collected some qualitative data.

**Terms.** Because the experiment is so often associated with program evaluation, experimental models may often be called “evaluation models.” Those individuals who are studied in experiments (or evaluations) were once called “subjects,” but today are more likely to be called by the more friendly term of “participants.” The documents that include evaluation survey questions and directions are called “questionnaires” or measurement “instruments” or “tools.” The combination of the questionnaire and any other related documents such as informed consent forms or cover letters are usually referred to as “experiment protocols” or “evaluation protocols.”

## **Advantages and limitations of experiments**

**Advantages.** The strongest advantage of experiments for the REA is the opportunity they afford to evaluate the effectiveness of some kind of intervention. For example, a resource network might want to expand a particular program that prevents transmission of STDs into a wider community, but does not know if the particular program actually produces the desired outcomes. A study based on an experimental model will help answer that question (i.e., did the program as implemented cause the intended outcome?).

A second advantage of experiments for the REA is the way they can be included with other research strategies to expand the value of the assessment. For example, suppose a resource network wants to assess knowledge of STD transmission in a community. A questionnaire might be developed to assess this knowledge. Public health educators might then ask the participants to engage in a discussion of their responses, informing them of the correct answers in the process. The participants can then fill out the questionnaire again to determine whether the discussion actually improved their knowledge. In this case a needs assessment also can serve as a small program to increase community knowledge of STDs.

**Limitations.** Experimental research is very contingent on the research design in order to make generalizations about a particular intervention. (A range of experimental models and issues of design will be discussed in the next section.) It is very difficult to conduct a scientifically rigorous experiment in most human service programs, and the resource demands in doing so may outweigh the benefits in many situations. Specialized knowledge of statistical techniques, sampling, and research design is needed to conduct rigorous experiments.

Another limitation of experimental research is its limited purpose. It is used primarily to test the impact of an intervention and is not normally used to assess needs or strengths/resiliency factors in a community.

Finally, even well conducted experiments may be limited in generalizability to different participant populations, communities, or providers of the program. The level of funding, oversight, and organizational capacity is typically very high in experimental research but not so in future replication.

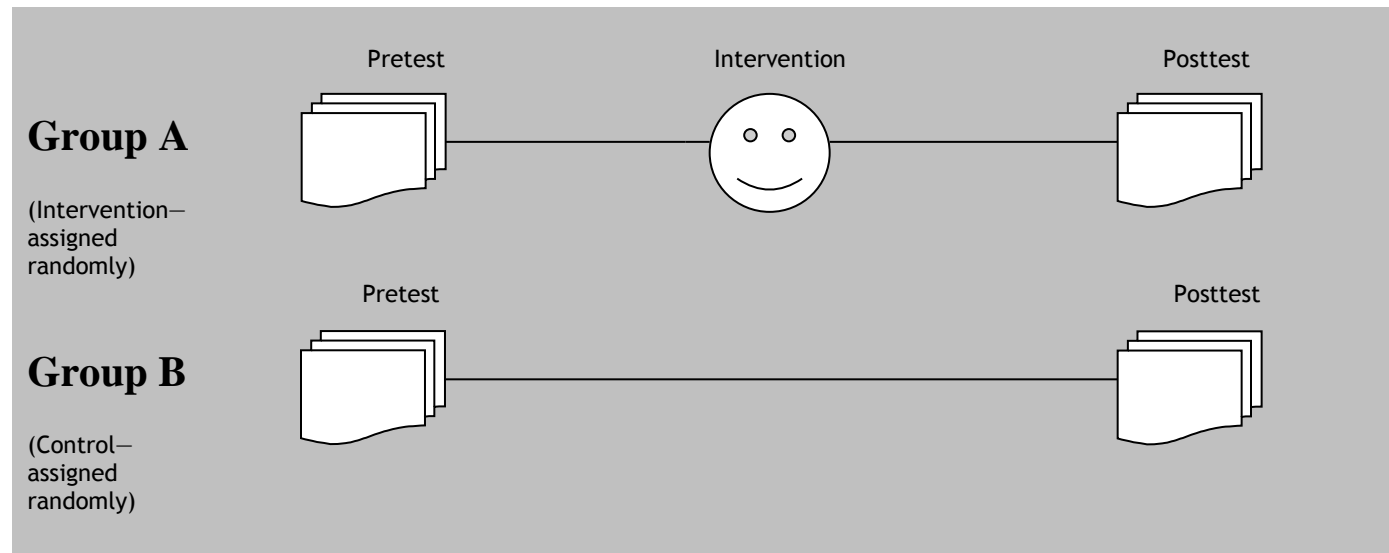
## Experimental designs

This section will introduce the implementation team to pure experiments, pre-experiments, and quasi-experiments.

**Pure experiments.** According to Bernard (2006, pp. 110-112) a pure experimental model requires five circumstances. The design needs:

1. An intervention (or treatment) group and a control group that does not receive the intervention;
2. Random assignment of participants to the intervention and control group. "This ensures that any differences between the groups is the consequence of chance and not of systematic bias" (p.111);
3. A pretest (usually a survey) given to both groups on things the intervention is expected to change;
4. The intervention; and
5. A posttest given to both groups (which will include the same measurements as the pretest).

A pure experiment can be conceptualized as follows.



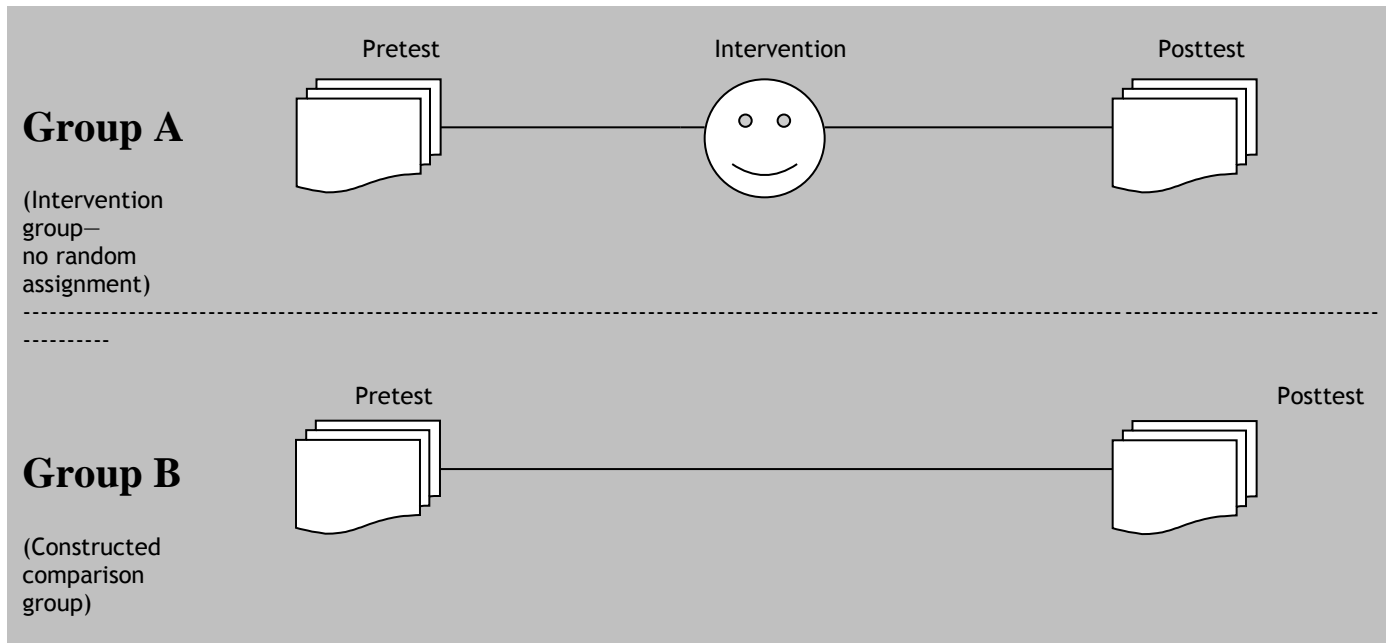


The results are then compared at the data analysis stage. (See the chapter on “Quantitative data analysis” in the section, Data Analysis.)

This model can be used in the Rapid Ethnographic Assessment when the intervention is very short in duration, results are expected fairly quickly and can be readily measured, and when participants can be randomly assigned to the intervention and control groups. Members of the control group may receive some alternative intervention that lacks the features that are being measured in the pretest/posttest. For example, recall the potential micro-program described earlier. This is where a population was being assessed on knowledge of STD transmission and later discussed the responses with health educators, ideally increasing their knowledge level during the discussions. In this case the health educators or the implementation team could randomly assign participants into two groups before the initial assessment is given. Both groups then take the knowledge assessment (which would act as a pretest survey). Those in the intervention group then discuss the responses with health educators, and in the process learn the correct answers. Those in the control group could either receive no intervention or could be given an alternative intervention that would not be expected to increase their knowledge immediately of STD transmission (such as information to take home and read). The posttest survey is then given to both groups at the time that the intervention group has completed its discussion with health educators (but before the control group would likely read its information). To serve the cause of STD prevention, the alternative intervention for the control group should offer some kind of resource that could result in prevention (such as HIV testing, or information the participants can take home and read later)<sup>8</sup>.

**Quasi-experiments.** These designs can be useful when the implementation team wants to test some intervention but has no opportunity to do random assignments. Random assignments are not always feasible. In some cases it would be unethical to deny individuals access to a particular treatment by assigning them to a control group. But the researchers would still want some comparative data to argue that any changes found between the pre- and posttest periods could be attributed to the program and not to some other intervening factors. In the model visualized below, the implementation team would attempt to construct a comparison group<sup>9</sup> with similar features as the intervention group<sup>10</sup>.

This model can be conceptualized as follows.



\* Dashed line indicates non-randomized comparison group.

Comparison groups can be matched on an aggregate or individual basis (Rossi, Lipsey, & Freeman, 2004). In aggregate matching the overall distributions in the intervention and comparison groups are expected to match relatively well. In individual matching, the researchers attempt to draw a “partner” for each program client in an unexposed pool of individuals on traits deemed potentially relevant to the study (such as gender or ethnicity). In any cases where comparison or control groups are used, the implementation team must monitor the assignment of people into groups, as program personnel often attempt to recruit participants into the program that they feel will gain the most by the program.

See an example of aggregate and individual matching strategies below.

Researchers at Jill Florence Lackey & Associates evaluated an independent housing program for people living with HIV. Eligible clients had to be HIV positive, and have histories of substance abuse, homelessness, and/or mental illness. Clients then received housing subsidies in their own apartments and extensive case management to help them learn daily living skills. A major outcome expected in the program was a positive change in the clients' ability to live independently, which included medical compliance and risk reduction behaviors.

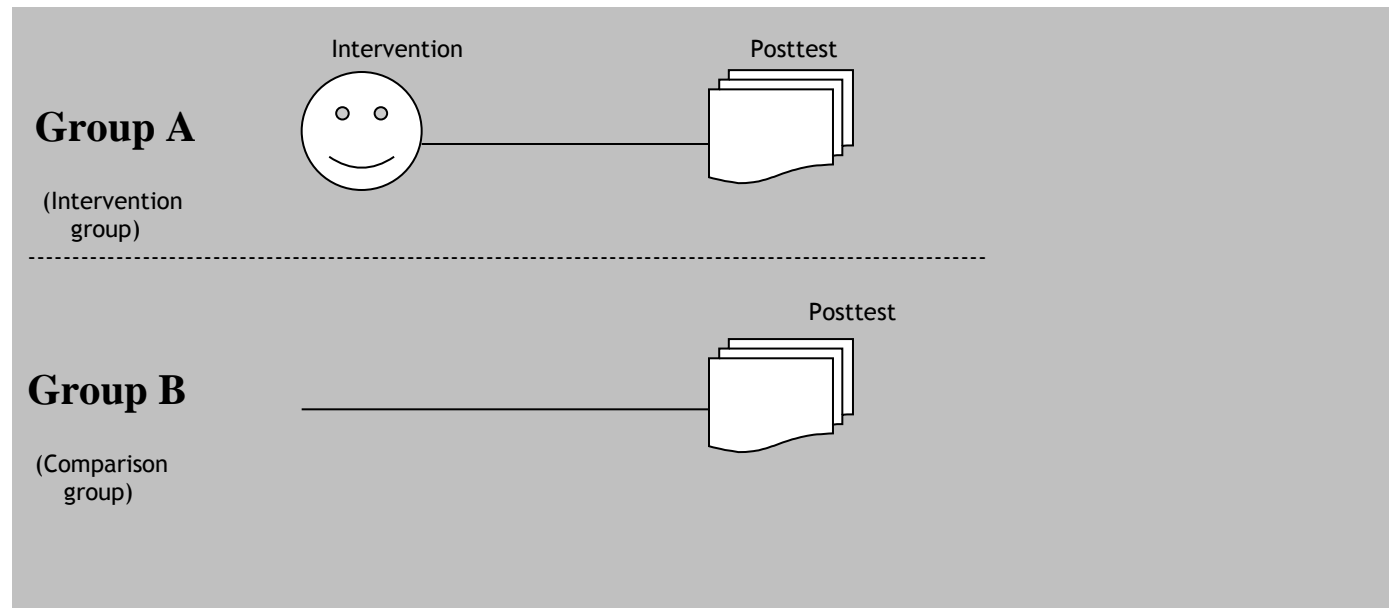
When our firm was contacted to conduct the evaluation, the clients had already been enrolled in the program, thus there was no opportunity for random assignment. The researchers constructed a comparison group using both aggregate and individual matching. For aggregate matching, the researchers sought a group with the HIV+ diagnosis and additional risk factors. They learned about another housing program for people living with HIV and a history of homelessness and substance abuse. This housing program was a group living situation and offered no individual case management. Thus the comparison group would not be receiving the same relevant services as the intervention group.

However, the comparison participants in the group home had a different distribution of demographic characteristics than the intervention clients. The clients in the independent housing program were culturally diverse, while most of the clients in the group homes were African American. Thus the researchers also opted for individual matching. They did not include every one from the group home in the study, but rather just sought individuals that matched the diverse ethnicities of those in the independent housing program.

During data analysis, the statistician compared key questionnaire responses from the pretest survey and found no statistically significant differences. The match appeared relatively successful. However, the research team had no way of knowing if the comparison participants were not different in some key way because they had chosen to enter a group home rather than independent housing. When study participants are randomly assigned to the intervention and control groups, as in pure experiments, researchers can assume that individuals in both groups had equal motivation to enter a program.

**Pre-experimental designs.** Pre-experimental designs are relatively easy to implement for the Rapid Ethnographic Assessment, although they lack the rigor of the pure experiments and quasi-experiments. Two of these models are the “posttest only with non-equivalent group” and the “one-group pretest/posttest” design (Creswell, 2003, pp. 168-169)<sup>11</sup> . These designs can be useful when the implementation team wants to test some intervention but has no opportunity to do random assignments or (in some cases) pretests.

The design called “posttest only with non-equivalent group” can be employed when researchers have no opportunity to conduct pretest surveys with the intervention group (usually because the intervention is already long underway when the study is introduced)<sup>12</sup> . Here the implementation team would also construct a comparison group with similar features as the intervention group, and then compare posttest results. This model can be conceptualized as follows.

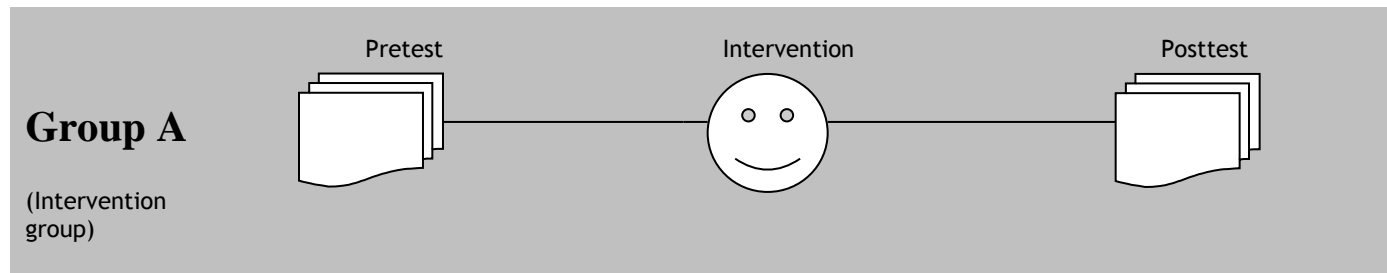


\* Dashed line indicates non-randomized comparison group.

The problem with this model is that no matter how well the implementation team might try to match the two groups, there is no way of knowing how similar the groups were at the pretest period (note that in the example of the housing program, pretests of the two groups can be compared). Without pretest surveys, there is also no way of knowing if the intervention group changed in any way after the intervention, or if their circumstances at the posttest period were really the same as they were at the pretest period.

Another pre-experimental model is the “one-group only pretest/posttest” design. In this case a pretest is actually given to the group receiving the intervention, but without a comparison group.

The model can be conceptualized as follows.



At times this design becomes necessary because random assignment is not possible, nor would the implementation team be able to construct a comparison group. See the example that follows.

Jill Florence Lackey & Associates was contracted to evaluate a needle exchange program designed to prevent the transmission of HIV and other infections. The clients were intravenous drug users who accessed their drugs on the streets. Program staff provided needle exchanges and counseled clients on risk reduction behaviors, such as reduced substance use and STD prevention. The role of our firm was to discover whether the clients were sharing needles less than they had before the intervention and if they experienced any changes in their substance use and STD prevention behaviors.

Random assignment to the needle exchange was clearly not an option in this program, nor was constructing a comparison group. A comparison group would have to be IV drug users on the streets. It would have been too dangerous to recruit possible comparison group participants on the street by asking them if they used intravenous drugs and purchased their drugs on the streets, and no alternative program was available for active IV drug users alone.

The intervention group did report more positive behaviors at the posttest period than at the pretest period. However, without a control or comparison group, it is difficult to know whether they would have exhibited these changes for reasons other than the intervention. Simple maturation (or even "burn out") might have played roles. If, for example, maturation had been the reason for some positive changes, a comparison or control group not receiving the intervention probably would have also demonstrated some positive changes.

### **Developing a questionnaire for experiments**

For information about introductory information for questionnaires, questionnaire formats, demographic data, skip patterns, and scales, please see the section on "Developing a survey questionnaire" in the preceding chapter on "Survey research". As with questionnaires developed for survey research, the questionnaire for the experimental models can include both closed- and open-ended questions. All questionnaires should be piloted. This chapter will include examples of questionnaires from the lowest to highest levels of difficulty.

**Lowest level of difficulty.** For this level the implementation team should consider developing a questionnaire using one of the pre-experimental designs outlined above.

The team may select the “posttest only with non-equivalent group” where an intervention is already underway and no pretest was conducted. An example of a program where this design might be appropriate is where the intervention would require a time period of more than a few months to demonstrate impacts. The implementation team might then select a program that is currently in operation and administer the questionnaire to the target community that has experienced the intervention for the satisfactory period of time. For this design, the implementation team will have to construct a comparison group using aggregate and individual matching, which is not a simple task.

Let us say that the program being evaluated is the housing program for people living with HIV that was described several pages earlier. Let us also say that program staff have concluded that clients must be in the program for at least a year to demonstrate any positive changes (such as medical compliance and participation in support groups). Those clients taking the posttest only questionnaire shall then be those that have been in the program for approximately one year. Because most of the questions should read the same for both the intervention and comparison groups, the name of the program is not mentioned as a reference point for time intervals. (However, a section can be added for the intervention group only, if this is desired.) An example of questionnaire items for this kind of program using the “posttest only with non-equivalent group” design appears below. This specific questionnaire would be administered by an interviewer, and not self-administered. A question should also be added somewhere in the instrument indicating whether the participant belongs to the intervention or comparison group.

**VI. Changes in health**

[INTERVIEWER: CIRCLE ONLY ONE NUMBERED RESPONSE FOR EACH QUESTION]

**During the past year ...**

A. ...Did any health professionals prescribe medicine for you?

- 1. No [SKIP TO C]
- 2. Yes

B. ...How would you describe any changes in the way you have taken your medicine?

Less consistently	1	2	3	4	5	More consistently (as prescribed)
-------------------	---	---	---	---	---	-----------------------------------

C. ...Did anyone close to you (including yourself) want you to participate in a substance abuse program?

- 1. No [SKIP TO F]
- 2. Yes

D. ...Have you participated in that program?

- 1. No [SKIP TO F]
- 2. Yes

E...How would you describe any changes in the way you have participated in that program?

Less consistently	1	2	3	4	5	More consistently (per program recommendations)
-------------------	---	---	---	---	---	---



In the above questionnaire example one might note that skip patterns are required. For example, not all people living with HIV are on medication. Some may not yet need it. On the other hand, this program is designed to admit clients living with HIV, but also with other barrier behaviors such as mental illness, histories of homelessness, and substance abuse. Thus the medication mentioned might be for mental illness or substance abuse, and compliance would be a desired outcome here as well. On the other hand, not every client necessarily has all these risk factors. Thus questions are added to screen out those who do not require substance abuse programs, for example.

It should also be noted that the “don’t know” option is not provided here. This is arbitrary. In the case of our firm, we did not use the option for many items in the questionnaire for the housing program because program staff felt the participants might abuse the option to avoid answering some questions truthfully.

The data from these questionnaires are then analyzed by comparing the results of the program clients (the intervention group) with the comparison participants. This is discussed in the chapter on “Quantitative data analysis” in the section, Data Analysis.

But suppose that the implementation team chose instead to select the alternative pre-experimental model--the “one-group only pretest/posttest” design. In this case a pretest (as well as posttest) is actually given to the group receiving the intervention, but without a comparison group. For example, imagine that the researchers could not construct a comparison group for people living with HIV in the housing program. Also imagine that the program staff believed that a couple of months would be a long enough time to test some preliminary results for the program (assuming enough clients entered the program in two months to adequately assess the program)<sup>13/14</sup>. In this case a pretest and posttest questionnaire could be given—the pretest at the time the clients first enter the program and the posttest after two months. But here the implementation team is not asking participants to assess changes in behavior, but is rather asking about current behavioral trends at two different points in time.

The same behaviors would be measured, but the questions would then look more like the following example.

**VI. Health**

[INTERVIEWER: CIRCLE ONLY ONE RESPONSE FOR EACH QUESTION]

**During the past two months ...**

A. ...Did any health professionals prescribe medicine for you?

- a. No [SKIP TO C]
- b. Yes

B. ...How consistently have you taken your medicine?

Never	1	2	3	4	5	Always (as prescribed)
-------	---	---	---	---	---	------------------------

C. ...Did anyone close to you (including yourself) want you to participate in a substance abuse program?

- a. No [SKIP TO F]
- b. Yes

D. ...Have you participated in that program?

- a. No [SKIP TO F]
- b. Yes

E. ...How often have you participated in that program?

Never 1 2 3 4 5 Always (per program recommendations)

Never	1	2	3	4	5	Always (per program recommendations)
-------	---	---	---	---	---	--------------------------------------

Look for this questionnaire example in the appendix and complete a section on another risk factor the clients might have (e.g., history of homelessness, mental illness).

The data from these questionnaires are then analyzed by comparing the results of the pretests with the results of the posttests.

**Medium level of difficulty.** For this level the implementation team might need to develop a questionnaire using a pure experimental design outlined earlier in the chapter. In this case the model will employ both an intervention and control group. For example, imagine that the same set of circumstances existed for evaluating the housing program for people living with HIV as existed in the latter “one-group only pretest/posttest” design. The program staff believed that the intervention could show impacts after a time interval of approximately two months (assuming enough clients entered the program in two months to adequately assess the program) and the implementation team could access the clients at both the pre- and posttest periods. Now imagine one added circumstance. Imagine that the program staff saw no unethical dilemma in randomly assigning incoming clients to intervention and control groups. For a short period of time, those assigned to the control group would receive no independent housing and case management services. However, they might receive alternative services.

In this situation the questionnaire excerpts on the previous page could be used for both groups, except that a question would be inserted somewhere in the instrument indicating whether the participant is a member of the intervention or control group. The data could then be compared two ways—by pretest and posttest results and by groups (see the chapter on “Quantitative data analysis” in the section, Data Analysis).

However, the pure experimental model is not likely to be used in the REA because few programs would expect to show outcomes in a “rapid” period of time. Additionally, few programs could accumulate sufficient cases in this time frame. Some might, such as programs that attempt to increase knowledge of STDs over the short term. But for most cases, an alternative research strategy is likely.

**Highest level of difficulty.** The pre-experimental designs tend to lack rigor and the pure experimental designs are often inappropriate because of ethical concerns of denying some participants a full range of services and the short length of time of the REA. The quasi-experimental model outlined earlier is a well-trodden alternative path for evaluation of social and healthcare programs. This design employs pretests and posttests and adds a comparison group with similar traits as the intervention group. The questionnaire could again follow the same pattern as the example provided for the "one-group only pretest/posttest" design, except that a question would be inserted somewhere in the instrument indicating whether the participant is a member of the intervention or comparison group.

However, few programs show results in a matter of two months or less. Here the authors would like to insert an alternative to the traditional pretest and posttest survey. It is called the "retrospective pretest and posttest survey." This is a strategy that collects data on two (or more) time intervals at once. The individual taking the survey is asked about current circumstances and is then asked about these same circumstances, but as they existed at an earlier point[s] in time. This pretest alternative is a very useful strategy for any type of evaluation where time is critical. Some researchers (e.g., Howard, 1980; Aiken et al, 1990) have found results from retrospective pre-testing to be more valid at times than standard pretesting. A sample question sequence is the following:

1. During the past three months, how many times did you go to an emergency room?  
\_\_\_\_\_ # of times
  
2. During the same three months one year ago, how many times did you go to an emergency room?  
\_\_\_\_\_ # of times

The results are then compared by time intervals.

Let us return then to the case of the housing program for people with HIV. Imagine that the program is designed to take approximately one year for program impacts to fully take hold, and these impacts would probably begin showing up during the last two months of the year. If this is the case, then the questionnaire using retrospective pre-testing might look like the following example.

<b>VI. Health</b>	
[INTERVIEWER: CIRCLE ONLY ONE RESPONSE NUMBER FOR EACH QUESTION]	
<b>During the past two months ...</b>	<b>During the same two months one year ago ...</b>
A. ...Did any health professionals prescribe medicine for you?  1. No [SKIP TO C] 2. Yes	AA. ...Did any health professionals prescribe medicine for you?  1. No [SKIP TO C] 2. Yes
B. ...How consistently did you take your medicine?	BB. ...How consistently did you take your medicine?
Never   1   2   3   4   5   Always (as prescribed)	Never   1   2   3   4   5   Always (as prescribed)
Etc.	Etc.

The data could then be compared two ways—by retrospective pretest and posttest results and by the two groups—intervention and comparison (see the chapter on “Quantitative data analysis” in the section entitled Data Analysis).

The levels of difficulty presented throughout this curriculum are designed to alert the implementation team to the time that may be involved in learning and implementing procedures early in the REA planning process. However, the actual procedures *must be selected because they would best answer the questions that the REA is asking or the information being gathered, not the level of difficulty.*

### **Conducting and documenting experimental research**

Please see the section entitled “Conducting and documenting survey research” in the previous chapter for information on conducting quantitative data collection generally and documenting the findings. This section includes descriptions of: (1) face-to-face interviewing, (2) telephone interviews, and (3) self-administered surveys (where the respondent fills out the questionnaire). Please also review the video on Interviewing for quantitative research for tips on achieving the best results.

<sup>8</sup>For information on more complex experiments involving random assignments (the “posttest only control group” and “Solomon four-group” design), see Creswell (2003, p. 170).

<sup>9</sup>Some researchers use the term “control group” to refer to non-equivalent groups as well as those that involved random assignment. For our purposes we will distinguish the two by referring to non-equivalent groups as “comparison groups.”

<sup>10</sup>Other types of quasi-experimental designs involve measurements at various intervals before and after an intervention, but these would rarely be feasible for the REA because of the time involved,

<sup>11</sup>Creswell also mentions a “one shot case study” design, but we do not recommend this model for the REA because of its unmistakable lack of rigor.

<sup>12</sup>Another version of this model is called “alternative treatment: posttest with non-equivalent group,” which basically offers an alternative intervention in place of that of the treatment group, then compares differences.

<sup>13</sup>To determine whether or not this would be the case, refer to the chapter on “Sampling” in the section, Research Participants.

<sup>14</sup> The maximum period of time that the REA extends is three months. And it takes time to develop the research design, write and pilot the questionnaire, and do preliminary analysis of data. Thus two months would be the longest interval probably possible for testing results.

## Section 4, Chapter 3: Experiments

### 4.3.3 Learning activities

Time to review

The implementation team should now address the following:

1. What is the strongest advantage in using an experimental design?
2. Please complete the following matrix to compare and contrast experimental designs.

	Random assignment?	Control/comparison group?	Pretest?	Posttest?
Pure experimental design				
Quasi-experimental design				
Posttest only with comparison group				
One group only pre/posttest design				
Retrospective pre/posttest design				

### Conducting experimental research systematically

We cannot overly stress the importance of maintaining systematic protocols in quantitative data collection. The implementation team should respond to the following questions to check for consistency (also see more detailed worksheets in the appendix).



## **CONDUCTING EXPERIMENTAL RESEARCH SYSTEMATICALLY**

1. How many pre-/posttest surveys does the implementation team expect to recover over what period of time? (If this applies, how many for each group?)
2. Has the questionnaire been piloted and modified (which will almost always be required)?
3. If a comparison group is used, what consistent criteria have team members developed to conduct aggregate and individual matching?
4. If comparison or control groups are used, does the implementation team have a plan in place to insure that program personnel maintain the integrity of the groups? (Program personnel often try to add members to the intervention group that they believe are most likely to be helped by the program.)
5. Does the team have a consistent follow-up plan for intended participants who cannot be reached?
6. When is the tentative start and stop date for survey completion?
7. Are all protocols involving human subjects in place for any kind of questionnaire?
8. If interviews are conducted, how are these divided up? If the team is using control/comparison groups, does every member of the implementation team have an opportunity to interview someone in each category (this is to assure checks on the validity of the information)?
9. What consistent format[s] will be followed for administering questionnaires to each category of respondent (i.e., face-to-face, telephone, mailed, otherwise self-administered)?
10. If interviews are conducted and interviewers are allowed to explain some questions, has a plan been developed for this to insure consistency?
11. Have members of the implementation team done the video exercises and watched each other during piloting to control for interviewer bias?
12. How will each type of survey be documented? Does the team expect to use any data entry system or simply leave the responses as they are on the questionnaires?

If all of the above is answered thoroughly, the implementation team should now review the section, Data Collection—Mixed Methods Strategies and then begin the evaluation.

### **Quality control: Checking progress**

Once the evaluation is underway, the implementation team should perform quality checks on the work at agreed-on intervals. The researchers can accomplish this by responding to a series of questions. (The more detailed worksheets are printed at the end of this chapter.)

#### **QUALITY CONTROL ASSESSMENT: SURVEY RESEARCH**

1. Are team members following a survey protocol that includes (at minimum) a questionnaire with the appropriate information on it (as indicated in the least to most difficult descriptions) and a consistent way of administering the questionnaire?
2. Have team members examined the completed questionnaires to determine if the respondents are understanding the directions and questions?
3. Where pretests are employed and the implementation team is conducting interviews, have team members examined the completed questionnaires to make sure that no interviewer is getting substantially different results than another interviewer?
4. If comparison or control groups are used, has the team checked the names periodically to make sure no one has been "reassigned" into other groups?
5. If comparison or control group pretests are used, have team members looked through responses to make sure the groups do not have fundamental dissimilarities?
6. Is the intervention team agreeing on some of the emerging patterns in the data at this point?
7. Is the team getting (or expecting to get) a response rate that is at least 70 percent?
8. Have members of the implementation team selected other forms of data collection to verify that the findings from these pretests/posttests (where applicable) are valid?

Please use the worksheets in the appendix to measure team progress.

## Section 4, Chapter 3: Experiments

### 4.3.4 Resources

#### Chapter references

Aiken, L.S., & West, S.G. (1990). Invalidation of true experiments: Self-report pretest biases. *Evaluation Review*, 14 (4): 374-390.

Bernard, H.R. (2006). *Research methods in anthropology: Qualitative and quantitative approaches* (4th ed.). Lanham, MD: AltaMira.

Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Howard, G.S. (1980). Response-shift bias: A problem in evaluation interventions with pre/post self-reports. *Evaluation Review*, 4(1): 93-106.

Rossi, P.H., Lipsey, M.W., & Freeman, H.I. (2004). *Evaluation: A systematic approach* (7th ed.). Thousand Oaks, CA: Sage.

#### Additional resources on experimental research

Campbell, D.T., & Stanley, J.C. (1963). Experimental and quasi-experimental designs for research. In N.L. Gage (Ed.), *Handbook of research on teaching* (pp. 1-76). Chicago: Rand-McNally.

Cook, T.D., & Campbell, D.T. (1979). *Quasi-experimentalism: Design and analysis for field settings*. Chicago: Rand McNally.

Dennis, M.L. (1990). Assessing the validity of randomized field experiments: An example from drug abuse treatment research. *Evaluation Review*, 14, 347-373.

Dennis, M. L., & Boruch, R. B. (1994). Improving the quality of randomized field experiments: Tricks of the trade. In Conrad, (Ed.), *Critically evaluating the role of experiments in program evaluation* (New Directions in Program Evaluation 63. pp. 87-101). San Francisco, CA: Jossey-Bass.

Moberg, D.P. (1984). *Evaluation of prevention programs*. Madison, WI: University of Wisconsin.

Shadish, W. R., Cook, J.D., & Houts, A.C. (1986). Quasi-experimentation in a critical multiplist mode. In W.M.K. Trochim (Ed.), *Advances in quasi-experimental design and analysis* (New directions in program evaluation 31. pp. 29-46). San Francisco: Jossey-Bass.

## Section 4, Chapter 3: Appendix

# WORKSHEETS CHAPTER 3A: QUESTIONNAIRE WRITING

In order to practice writing questionnaires, add another section to this questionnaire.  
The section can deal with another risk factor, such as mental illness.

VI. Health	
[INTERVIEWER: CIRCLE ONLY ONE RESPONSE FOR EACH QUESTION]	
<b>During the past two months ...</b>	
A....Did any health professionals prescribe <u>medicine</u> for you?	a. No [SKIP TO C] b. Yes
B....How consistently have you <u>taken your medicine</u> ?	Never 1 2 3 4 5 Always (as prescribed)
C....Did anyone close to you (including yourself) want you to participate in <u>a substance abuse program</u> ?	c. No [SKIP TO F] d. Yes
D....Have you <u>participated</u> in that program?	e. No [SKIP TO F] f. Yes
E....How often have you <u>participated in that program</u> ?	Never 1 2 3 4 5 Always (per program recommendations)


## WORKSHEET CHAPTER 3B: CONDUCTING EXPERIMENTAL RESEARCH SYSTEMATICALLY

1. How many pre-/posttest surveys does the implementation team expect to recover over what period of time?

\_\_\_\_\_ number of surveys over \_\_\_\_\_

How many of these will be from the intervention group? \_\_\_\_\_

(If applicable) How many of these will be from the control/comparison group? (Try to make the groups as equivalent in numbers as possible) \_\_\_\_\_

2. Has the questionnaire been piloted and modified (modification will almost always be required)?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, what alternative arrangements have been made to pretest the survey? (Rarely should any survey be taken into the field without a pilot first.)



3. If a comparison group is used, have team members developed consistent criteria to conduct aggregate and individual matching?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, the team needs to develop the criteria now in at least one level (aggregate or individual)

If yes, please describe the criteria.

Aggregate

Individual

4. If comparison or control groups are used, does the implementation team have a plan in place to insure that program personnel maintain the integrity of the groups? (Program personnel often try to add members to the intervention group that they believe are most likely to be helped by the program.)

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, the team needs to develop the plan now.

If yes, please describe the plan.

5. Does the team have a consistent follow-up plan for intended respondents who cannot be reached?

Yes \_\_\_\_\_ No \_\_\_\_\_

“No” is not an acceptable alternative here. The team needs to develop the plan.

6. When is the tentative start and stop date for survey completion?

Start date \_\_\_\_\_

Stop date \_\_\_\_\_

7. Are all protocols involving human subjects in place for any kind of questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, why were these protocols not necessary?

8. If interviews are conducted, how are these divided up?

If the team is using control/comparison groups, does every member of the implementation team have an opportunity to interview someone in each category (this is to assure checks on the validity of the information)?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, why?

9. What consistent format[s] will be followed for administering questionnaires to each category of respondent? Wherever possible intervention and control/comparison groups should have their questionnaires administered the same way.

d. Face-to-face \_\_\_\_\_  
For which group (if this applies)

e. Telephone \_\_\_\_\_  
For which group (if this applies)

f. Self-administered) \_\_\_\_\_  
How and for which group (if this applies)?

10. If interviews are conducted and interviewers are allowed to explain some questions, has a plan been developed for this to insure consistency?

Yes \_\_\_\_\_ No \_\_\_\_\_

Please explain response?

11. Have members of the implementation team done the video exercises and watched each other during piloting to control for interviewer bias?

Yes \_\_\_\_\_ No \_\_\_\_\_

If the video exercises have not been done, now would be the time to do them. If members of the implementation team have not watched each other during piloting, please explain why here.

12. How will each type of survey be documented?

- i. Leaving the responses on the questionnaires only \_\_\_\_\_
- ii. Entering the responses on a data entry program \_\_\_\_\_

If “b,” please indicate the program below. (Also see chart that appeared in the previous section.)

## WORKSHEET CHAPTER 3C: QUALITY CONTROL ASSESSMENT: EXPERIMENTAL RESEARCH

1. Are team members following a survey protocol that includes (at minimum) a questionnaire with the appropriate information on it (as indicated in the least to most difficult descriptions) and a consistent way of administering the questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, the team needs to go back and do this.

2. Have team members examined the completed questionnaires to determine if the respondents understand the directions and questions?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, now is the time to do this.

If yes, do they seem to understand the questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, what alternative plans have team members made to correct this?

3. Where pretests are employed and the implementation team is conducting interviews, have team members examined the completed questionnaires to make sure that no interviewer is getting substantially different results than another interviewer?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, now is the time to do this.

4. If comparison or control groups are used, has the team checked the names periodically to make sure no one has been “reassigned” into other groups?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, now is the time to do this.



5. If comparison or control group pretests are used, have team members looked through responses to make sure the groups do not have fundamental dissimilarities?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, now is the time to do this.

If yes, do the groups appear fundamentally similar?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, what strategies can the team add to make them more similar? (Strategies can include adding more participants to the comparison group, eliminating some cases.)

6. Is the implementation team agreeing on some of the emerging patterns in the data at this point?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, indicate below what these emerging patterns appear to be.

If no, indicate below what the team does agree on (if anything) and set a future time to revisit this issue.

\_\_\_\_\_ future date

7. Is the team getting (or expecting to get) a response rate that is at least 70 percent?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, explain. What new strategies can the team develop to increase the response rate?

8. Have members of the implementation team selected other forms of data collection to verify that the findings from these surveys are valid?

Yes \_\_\_\_\_ No \_\_\_\_\_

If no, explain.

If yes, describe