



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

**Section 5
Data Collection—Mixed Methods**

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Section 5: Data Collection—Mixed Methods

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Section 5: Data Collection – Mixed Methods

Intended learning outcomes

This section is designed to acquaint a learning community with mixed methods data collection and design. The intended learning outcomes follow.

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

1. Understand advantages and disadvantages of mixed method research for rapidly assessing needs 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 in a streamlined and efficient manner.

Chapter 1 provides readers with some advantages of this approach in the Rapid Ethnographic Assessment (REA).

Section 5, Chapter 1: Introduction to mixed method approaches for the Rapid Ethnographic Assessment

5.1.1 Introduction to mixed method approaches for the Rapid Ethnographic Assessment

Throughout this curriculum we have urged readers to consider use of more than one method in the REA. Teddlie and Tashakkori (1998) describe multiple or mixed methods as follows.

Mixed method studies are those that combine qualitative and quantitative approaches into the research methodology of a single study or multiphased study (pp. 17-18).

Thus mixed method approaches are not simply those where one or more methods are used (e.g., observation and interviews), but are those where both qualitative and quantitative approaches are combined into one study (or a multiphased study).

Before the late 1970s most research employed one method only. The interest in mixed methods more or less began with Denzin's argument for data "triangulation" in 1978. "Triangulation" is a way to crosscheck findings by searching for convergence of some results through use of different data sources, methods, theoretical perspectives, and researchers (more will be said about triangulation in the section, Data Verification).

Since the late 1970s the interest and use of mixed methods has grown dramatically. Today leading researchers on AIDS and STD-related assessments have also advocated for their use (Janz et al, 1996; Pederson, 1992; and Scrimshaw et al, 1991.) Pedersen argues that the use of mixed methods in rapid assessments of health issues is the pragmatic choice.

Some researchers experienced in using a combination of qualitative and quantitative methods have reported effects and results that transcend mere complementarity. Blending and integrating methods and data in studying the same phenomena can "...capture a more complete, holistic and contextual portrayal¹" of the subject under study, by eliciting data leading to new hypotheses or conclusions, for which single methods would be blind. (pp. 16-17)

The above citation describes precisely what the Rapid Ethnographic Assessment is designed to accomplish. The REA is, after all, ethnography. Ethnography by definition is designed to capture a more holistic and contextual portrayal of the topic under study, while maintaining rigor in the overall research project.

While mixed methods bring holism to the study they also give the researchers improved opportunities to fully explore the actual study questions and topics the REA has been designed to address. When studies are limited to only qualitative or quantitative methods, some questions/topics cannot be explored to the extent they need to be. For example, say that one study question the collaborating stakeholders wanted addressed was the following: "We want to know if services for women living with HIV in City's North Side are sensitive to the social, cultural, and economic needs of this target population." One's first impression might be that focus groups would be an ideal format for seeking this information. The team would want to assemble a group of women living with HIV at this location who did not know each other, and ask them to discuss this topic. Generally, the focus group findings would apply only to the sample of women who had participated in the focus groups. To know if these findings could be generalized to the larger population of area women living with HIV, a survey using random sampling would have to be conducted. The implementation team would ask questions informed by the focus group results, and the survey could confirm that these findings really represented the larger population of women living with HIV in City's North Side. If the study were limited to focus groups, this confirmation would not occur. If the study were limited to surveys, it is possible that key questions might not have been included in the questionnaire.

Chapter 2 will discuss the actual use of mixed methods.

¹ If this is a citation, the source is not cited by the author.

Section 5, Chapter 1: Introduction to mixed method approaches for the Rapid Ethnographic Assessment

5.1.2 Resources

Chapter references

Denzin, N.K. (1978). The logic of naturalistic inquiry. In N.D. Denzin (Ed.), *Sociological methods: A sourcebook*. New York: McGraw-Hill.

Janz, N.K., Zimmerman, M.A., Wren, P.A., Israel, B.A., Freudenberg, N., & Carter, R.J. (1996). Evaluation of 37 AIDS prevention projects: Successful approaches and barriers to program effectiveness. *Health Education Quarterly*, 23(1), 80-97.

Pedersen, D. (1992). Qualitative and quantitative: Two styles of viewing the world or two categories of reality? In N.S. Scrimshaw & G.R. Gleason (Eds.), *Rapid assessment procedures: Qualitative methodologies for planning and evaluation of health related programmes*. Boston: International Nutrition Foundation for Developing Countries.

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.

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Section 5, Chapter 2: Using mixed methods

5.2.1 Intended Learning Outcomes

The intended learning outcomes of this chapter on mixed methods follow.

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

1. Explain the advantages and limitations of using a mixed method design;
2. Differentiate the various mixed method designs, including
 - a. Sequential exploratory strategy
 - b. Sequential explanatory strategy
 - c. Concurrent triangulation strategy
 - d. Concurrent nested strategy;
3. Explain the three levels of difficulty in conducting mixed methods studies;
4. Explain methods to assure that mixed methods research is conducted systematically; and
5. Identify quality control measures for mixed methods research.

Section 5, Chapter 2: Using mixed methods

5.2.2 Introduction

The mixed method approach is also known by other terms. Some of these terms are “multiple method studies,” “synthesis of methods,” “quantitative and qualitative methods,” “multimethodology,” and “integration of methods.”

Advantages and limitations of mixed methods research

Advantages. As indicated in the introductory chapter, the strongest advantage of using mixed methods (qualitative and quantitative) in the REA is that this approach allows the implementation team to capture and explain the essence and complexity of the situation, which is the goal of ethnography and approaches such as community-based participatory research (CBPR). Mixed methods can help the researcher understand the holistic picture—from meanings derived from interviews and life histories, to sociocultural backgrounds captured from case studies or observation, to the prevalence of traits in a population derived from surveys, to confirmation of some change agent through experimental research. Mixed methods add depth and breadth to the study.

Second, in mixed methods, results from one method can inform results of a second method (Green et al., 1989). For example, the implementation team might conduct a survey to learn whether members of an STD-affected community are able to access needed services. The survey may indicate that a high percentage of people are not accessing services, but the closed-ended responses alone may not provide them with the detailed information on the barriers the community is facing. However, observation, open-ended questions in the survey, or qualitative interviews can shed light on this information.

Third, mixed methods studies allow researchers the opportunity to learn different or overlapping facets of a phenomenon (Green et al., 1989). For example, a survey questionnaire will include a limited number of questions, usually with predetermined answers. The introduction of qualitative methods will capture other unanticipated facets of the topic that may be relevant to the research problem.

Fourth, the use of mixed methods can actually maximize the findings from each method used. Creswell (2003) describes that process as follows.

A mixed methods design is useful to capture the best of both quantitative and qualitative approaches. For example, a researcher may want to both generalize the findings to a population and develop a detailed view of the meaning of a phenomenon or concept for individuals. In this research, the inquirer first explores generally to learn about what variables to study and then studies those variables with a large sample of individuals. Alternatively, researchers may first survey a large number of individuals, then follow up with a few of them to obtain their specific language and voices about the topic. (p. 22)

Lastly, the use of both qualitative and quantitative methods can help the implementation team develop the appropriate instruments that can capture what is happening in a relatively large population. This point cannot be underestimated. By studying a phenomenon qualitatively before conducting survey or experimental research, the implementation team can learn about the appropriate items to include in a questionnaire. This point is often dealt with lightly or not at all in textbooks about methodology. The researcher needs to be asking the right questions. See an example of how this can affect study findings below.

In the chapter on “Focus groups” in the section, Data Collection— Qualitative Strategies, I described a study we conducted on risky sexual practices of adolescents in a large Midwestern city. Although our major findings came from survey research, we first conducted a series of 13 focus groups on the topic. It was during these focus groups that participants told us about the relevance of neighborhood environments to their sexual risk-taking. This is not a topic of inquiry we had initially considered including in the survey questionnaire (as we noted other researchers had not), but did due to the focus group findings. When the survey data were analyzed we did find that neighborhood environments played the strongest role in influencing sexual risk-taking among teens—stronger even than types of family and peer group influences (Lackey & Moberg, 1998).

We were invited to present these findings in a panel discussion at a national conference on teen sexual risk-taking. Research teams that conducted studies in two other similar cities were there presenting findings on their studies as well. These researchers cited family and peer group factors as the strongest influences on adolescent sexual risk-taking. During the follow-up panel discussion, members of the audience expressed concerns that our study's findings deviated from the other two, despite the similarity of the cities involved. I then asked the other researchers if they had included any questions on neighborhood environments in their survey questionnaires. Members of both research teams said they had not.

The inclusion of questions on neighborhoods may not have significantly changed the results of the other researchers' studies, but no one now would ever know for sure. What makes the omission disturbing is that local governments and non-profits were planning on using the results of all the studies to plan adolescent programming for the next five to seven years.

Limitations. The greatest limitation in using mixed methods is that the researchers need to understand how to collect and analyze both quantitative and qualitative data.

Another limitation is time. It clearly takes more time to implement two or more methods than it takes to implement one. Protocols must be developed for each.

Finally, quantitative and qualitative samples are selected according to different criteria. Most researchers attempt to maintain random samples in quantitative research while the samples in qualitative research are purposeful, "so that individuals are selected because they experienced the central phenomenon" (Creswell, 2003, p. 220). Thus researchers planning two samples will have to do added work.

Mixed method designs

Creswell (pp. 215-222) defines six different designs for mixed methods studies. We will only deal with four of these in this curriculum². Two of these designs involve sequential (or back-to-back) collection of qualitative and quantitative data and the other two involve concurrent collection of qualitative and quantitative data.

Sequential exploratory strategy. This design will involve two full phases, and will begin with qualitative methods. Creswell refers to this strategy as "exploratory" because a major purpose of qualitative methods is to explore a research

problem inductively (by developing ongoing questions through what is learned in the field). The qualitative methods are implemented first, and then the resultant data are analyzed. This stage will be followed by implementation of quantitative methods, and then analysis of the quantitative data. Results from both methods are then integrated when the researchers interpret and/or write up the data.

This kind of design is particularly useful when the implementation team is attempting to learn something new from a small sample of a specific population and later generalize to that entire population through quantitative methods. This is also a good design to follow for helping the implementation team develop questionnaires. The aforementioned Lackey & Moberg study on sexual risk-taking by adolescents is a good example of this. During the study we learned valuable (and heretofore unknown) information from a limited number of focus groups, then included questions on this new information on questionnaires for the survey we later conducted. Through this we were able to generalize this information to a larger population.

Another way this design might be useful is if the implementation team had conducted observations and interviews on a particular subset of a target community and had noted interesting (and heretofore unknown) findings. For example, suppose that the team was learning through a limited number of qualitative interviews that some members of a particular ethnic group were using a strategy believed to be effective in preventing an STD. The team might then want to develop a questionnaire on this strategy and survey a wider sample of this ethnic group (or even members of different ethnic groups) to learn how widespread this strategy was.

Sequential explanatory strategy. This design will also involve two full phases, and will begin with quantitative methods. Creswell refers to this strategy as “explanatory” as researchers may attempt to explain results from statistical analysis, to try to understand the meaning of the numerical data. The quantitative methods are implemented first, and then analyzed. This stage will be followed by the implementation of qualitative methods, and then analysis of the qualitative data. Results from both methods are then integrated when the researchers interpret and/or write up the data.

This kind of design is particularly useful when the implementation team is attempting to shed light on some set of findings derived from the quantitative data, particularly if these findings are unexpected. For example, consider the hypothetical case described above. Researchers discovered that some members of a population were using a strategy believed to be effective in preventing an STD. Suppose that the research question the implementation team really wanted answered was if this strategy was really effective in preventing the STD. In this situation the team might implement a quasi-experimental design with an intervention group (a sample of the population using the prevention

strategy) and a comparison group (a similar sample of the same population not using the strategy). Let us then say that through comparison of self-report data or STD-testing the implementation team learns that those using the prevention strategy had significantly lower prevalence of the STD than those not using the strategy. But something might also be lacking in this information. For example, it may be the case that the implementation team and healthcare specialists may not fully understand all the reasons why this strategy works or why some groups or individuals use the strategy and others do not. This could signal the need for a short follow-up study using qualitative interviewing or focus groups with a sample of people from the intervention and comparison groups who are in positions to have insider knowledge about the issue. What is needed clearly is an ethnography—findings on meanings, sociocultural factors, prevalence of traits in a population, as well as confirmation of the factors influencing change through experimental research.

Another example of how this mixed method design works follows.

Jill Florence Lackey & Associates was under contract to conduct a very rapid evaluation of a community-based program that provided technical assistance to neighborhood organizations. The program's staff had been funded to provide the local organizations training and assistance in diverse domains such as proposal-writing, organizational leadership, fund-raising, and research. Because the program needed findings within a month in order to submit a report to their funding agency, we quickly organized a quasi-experimental project using only data from a retrospective pre/posttest survey to establish findings. We were able to construct a comparison group of neighborhood organizations in an adjacent area that were similar to those served in the program, but that had not received any of the services of the program being evaluated. The program's leaders gave us a list of outcomes they wanted measured for the organizations being served, such as growth in revenues and increased skill levels of staff.

Findings demonstrated only modest improvements in outcomes for the intervention group over the time they received program services, and the comparison group did nearly as well. An unexpected result was the finding that those organizations in the intervention group that had received maximum services did not fare better than those receiving minimal services.

Ultimately the program's funding agency wanted more information to explain the evaluation findings. We then followed up with observation of a sample of services and trainings in progress, and qualitative interviews with a sample of staff of organizations being served in the program. During observation we noted that the program's staff was unable to answer many of the questions the people they served asked, and that trainings were short, with more time being devoted to "ice-breaking" activities and eating than training content. During interviews, over half of those in the sample claimed that their organizations had personnel with at least as much expertise in the areas the program was supposed to improve as the program's staff. While these interviewees believed the program brought some benefits (particularly in the area of increased awareness of the need for ongoing staff development), they suggested that the actual knowledge and skills gained from the program were negligible.

The findings were ultimately helpful to the program being evaluated, as their funding source gave them a grant to seek additional training for their staff.

Concurrent triangulation strategy. This is the most common kind of mixed method design. According to Creswell (2003, p. 217), "This model generally uses separate quantitative and qualitative methods as a means to offset the weaknesses inherent within one method with the strengths of the other method." The two methods are implemented concurrently (as opposed to sequentially) and used to confirm or corroborate findings within a single study. In the ideal sense both quantitative and qualitative methods are given equal priority in the design. The strength of this design is that it allows researchers to triangulate data sources and methods and adds to the overall validation of results. This is also a good choice for the REA because the data are collected concurrently and this process shortens the overall time period of the study. Results from both methods are then integrated when the researchers interpret and/or write up the data.

The implementation team might consider this design when they are confident they have enough information from their pre-research or alternative sources to develop a questionnaire (or other type of quantitative measurement instrument), and will not need to rely on qualitative findings to do this. An example of where this model can be well used might be in a needs assessment to identify STD service gaps in a certain limited area. A questionnaire could be administered to service providers asking them to check off the actual services they provide. To verify and better understand these results, the implementation team could conduct a limited number of observations at the service sites and/or could interview clients of these providers. All methods would be implemented at roughly the same times.

Concurrent nested strategy. Like the concurrent triangulation strategy, this model also has one data collection phase, as opposed to sequential phases. The difference is that this model does not give equal priority to both qualitative and quantitative methods, but has one predominant and one subordinate method (it does not matter if the predominant one is quantitative or qualitative). The subordinate method will be embedded in the predominate method. The purpose of the model is less to verify findings than to expand the study to gain a fuller description and a broader perspective. With a combination of qualitative and quantitative strategies, different kinds of questions can be addressed. This is also a good choice for the REA because the data are collected concurrently and this process shortens the overall time period of the study. Results from both methods are then integrated when the researchers interpret and/or write up the findings.

The implementation team might again consider this design when team members are confident they have enough information from their pre-research or alternative sources to develop a questionnaire (or other type of quantitative measurement instrument), and will not need to rely on qualitative findings to do this.

But the study can surely give predominance to qualitative methods. An example of where this model might fare well and give predominance to qualitative methods is the following. Suppose the implementation team wishes to learn the needs of significant others of people living with HIV. Qualitative interviews or focus groups might be the predominant methods used, but the implementation team might also wish to develop a streamlined way of quantifying the intensity of the needs. The focus group facilitators could go into the groups with short questionnaires listing potential needs the group participants are likely to discuss. At the end of each session the facilitators might cross off those needs not mentioned in the group and add any that were not on the original instrument, then ask the participants to rank the needs in terms of importance. Let us say that most focus groups pointed out the need for (a) support groups for families and partners of those living with HIV, (b) a hotline where these significant others could call to get emergency information, (c) access to a nutritionist to help keep the infected family members and partners healthy, and (d) a guide book to help them know what to expect in the course of the disease. By asking the focus group participants to prioritize the needs, those stakeholders with a vested interest in the study will have information to guide them in implementing programs. The short survey can also include other questions that will help the implementation team better understand the problem. Recall, however, that if the implementation team wishes to generalize the findings on priorities or other information gathered, the sample selected for the focus groups will have to follow the guidelines for quantitative research.

A very common form of a concurrent nested strategy would occur when the researchers are giving a survey but also include a section where the respondents can fill in (or are asked) open-ended questions. The open-ended questions usually deal with processes, descriptions, and sociocultural factors that are not necessarily addressed very well through closed-ended questions. The reverse can also occur when a qualitative interview is being conducted but respondents are

asked at the end of each series of questions for a numeric summary rating for the topic of the questions. For example, a series of questions might have addressed services provided by a particular organization, and at the end of the series, the interviewee might be asked to rate the effectiveness of the services, on a scale of 1 to 10.

Conducting the mixed method study

The models mentioned in the previous section are not the only choices the implementation team has, but they are probably the easiest to implement. Creswell (2003) mentions two other models in his work. In addition, Tashakkori and Teddlie (1998) add a “mixed model” section to their inventory of mixed methodology. In the mixed model (as opposed to mixed methods), the authors describe strategies whereby quantitative data can be analyzed qualitatively (called “qualitizing”) and qualitative data can be analyzed quantitatively (called “quantitizing”). Patton (1990) also suggests something similar in his inventory of primarily qualitative evaluation designs.

The following is a list of possible mixed methods approaches that the implementation team can follow, beginning with the easiest to implement and ending with the most difficult (of the possibilities covered in this curriculum).

The levels of difficulty presented throughout this curriculum are designed to alert the implementation team to the time and complexity 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.*

Lowest level of difficulty. In most cases the concurrent nesting strategy just described is likely to be the most efficient to implement, using either a qualitative or quantitative approach as the predominant method. This is particularly true if the research questions and topics for the REA only necessitate:

- One sample from the target community (such as the examples given under the concurrent nesting strategy), and
- One type of qualitative and quantitative data collection method learned in this curriculum.

Medium level of difficulty. A medium level of difficulty might be approached where the implementation team is working with any of the four mixed method designs just described, but the research questions and topics for the REA necessitate:

- More than one sample from the target community, and still...
- Only one type each of qualitative and quantitative data collection method (as in the lowest level of difficulty).

For example, consider a case cited earlier of the hypothetical needs assessment to identify STD service gaps in a certain limited area. Here it was suggested that a questionnaire could be administered to service providers asking them to check off the actual services they provide. To verify these results, the implementation team could conduct a limited number of observations at the service sites. The service sites represent a second sample because the observations will not be of individuals acting alone but groups of people interacting. In the hypothetical example, another suggestion was to interview clients of these providers to verify the surveys results with the service providers. The clients then would be another separate sample.

Highest level of difficulty. A high level of difficulty might be approached where the implementation team is working with any of the four mixed method designs just described, but the research questions and topics for the REA necessitate

- More than one sample from the target community (as in the medium level of difficulty), and
- More than one type each of qualitative and quantitative data collection methods.

² The other two designs (the sequential transformative strategy and concurrent transformative strategy) are quite complicated, and Creswell admits that little has been written on these strategies thus it is hard to guide the methods.

Section 5, Chapter 2: Using mixed methods

5.2.3 Learning activities

Time to review

The implementation team should now do the following activities.

1. List three advantages of using mixed methods in the REA.
2. Identify one unique feature of each of the following mixed methods designs:
 - a. Sequential exploratory strategy
 - b. Sequential explanatory strategy
 - c. Concurrent triangulation strategy
 - d. Concurrent nested strategy

Managing mixed methods designs systematically

The implementation team should respond to the following questions to check for consistency (also see more detailed worksheets in the appendix).

MANAGING MIXED METHODS DESIGNS

1. List the design that will be used for the mixed methods study and why this design best fits the selected research questions/topics for the REA.
2. List the type[s] of data collection that will be used from the qualitative paradigm.
3. List the type[s] of data collection that will be used from the quantitative paradigm.
4. Describe each type of target population and sample that will be used for each type of data collection.
5. List the tentative start and stop date for each method.

The team is now ready to integrate methods.

Quality control: Checking progress

Once the data collection is underway, the implementation team should perform quality checks on the general design at agreed-upon intervals. The researchers can accomplish this by responding to a series of questions (also see more detailed worksheets in the appendix).

QUALITY CONTROL ASSESSMENT: MIXED METHODS DESIGN

1. Are members of the implementation team agreeing on some of the emerging patterns in the data at this point?
2. Where a sequential design is used, have preliminary findings from the first method helped refine a later method (such as helped identify questionnaire items or develop qualitative protocols)?
3. Where a concurrent triangulation design is used, has the implementation team found convergence in findings from the different methods?
4. Do preliminary findings suggest that the design being used will answer all of the team's research questions?

Section 5, Chapter 2: Using mixed methods

5.2.4 Resources

Chapter references

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

Green, J.C., Caracelli, V.J., & Graham, W.F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11*(3), 255-274.

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.

Patton, M.Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Additional resources on mixed methods

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

Morse, J.M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research, 40*(1), 120-121.

Section 5, Chapter 1: Appendix

WORKSHEET CHAPTER 2A: ORGANIZING MIXED METHODS DESIGNS SYSTEMATICALLY

1. List the design that will be used for the mixed methods study and why this design best fits the selected research questions/topics for the REA.

2. List the type[s] of data collection that will be used from the qualitative paradigm.

a. _____

b. _____

c. _____

3. List the type[s] of data collection that will be used from the quantitative paradigm.

a. _____

b. _____

c. _____

4. Describe each type of target population and sample that will be used for each type of data collection.

a. Method #1 _____

Target population[s] and sampling strategy.

b. Method #2 _____

Target population[s] and sampling strategy

c. Method #3 _____

Target population[s] and sampling strategy.

d. Method #4 _____

Target population[s] and sampling strategy.

5. When is the tentative start and stop date for each method?

a. Method #1 _____

Start date _____ Stop date _____

b. Method #2 _____

Start date _____ Stop date _____

c. Method #3 _____

Start date _____ Stop date _____

d. Method #4 _____

Start date _____ Stop date _____

WORKSHEET CHAPTER 2B: QUALITY CONTROL ASSESSMENT: MIXED METHOD DESIGN

1. 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 is agreed on (if anything) and set a future time to revisit this issue.

2. Where a sequential design is used, have preliminary findings from the first method helped refine a later method (such as helped identify questionnaire items or develop qualitative protocols)?

Yes _____ No _____

If no, how can this be corrected?

3. Where a concurrent triangulation design is used, has the implementation team found convergence in findings from the different methods?

Yes _____ No _____

If no, the implementation team needs to go back and review the instructions on use of these qualitative and quantitative methods, then make any needed modifications.

4. Do preliminary findings suggest that the design being used will answer all of the team's research questions?

Yes _____ No _____

If no, is it the research questions that need to be revised?

Yes _____ No _____

If no, do additional data need to be collected?

Yes _____ No _____

If yes, what is the best method to get the data?

If no, the implementation team needs to go back and review the instructions on use of qualitative and quantitative methods and sampling, then make any needed modifications.