APPENDIX II-G

AN INTRODUCTION TO
QUALITATIVE METHODS

WHAT ARE QUALITATIVE METHODS?

Qualitative Methods are techniques for conducting research that rely on open-ended explorations of people's words, thoughts, actions, and intentions. They supply detailed and in-depth information to provide outside audiences with an understanding of what a target population may think or feel about a specific issue or a specific project in their community. For example, qualitative methods can be used to describe how your project functions in a community and how the members of that community view your project.

Qualitative research provides a depth of information about populations that may not be provided through quantitative research.

"Quantitative and qualitative research compliment each other "

Purely qualitative methods include Observation, Case Studies, and Focus Groups and generate data in a narrative format. Questionnaires and Interviews can be used to generate both qualitative and quantitative data (numerical data; e.g. numbers, ratios and percentages). A combination of qualitative and quantitative methods is often the best and most efficient approach to collecting in-depth and complete information. The two compliment each other and make up for what the other method is lacking.

Qualitative Methods include:	Qualitative and Quantitative Methods include:
Observation Case Studies Focus Groups	Interviews Questionnaires

OBSERVATIONS

Observations provide the evaluator with an opportunity to gather data while capturing a great variety of interactions. Observational techniques are also a way to learn about things the participants or the evaluators are unaware of or unable to discuss in a focus group or interview.

There are two kinds of observations, participant observation and direct observation.

In **Participant Observations,** also known as fieldwork, the researcher must be a participant in the culture or context being observed and may require months to years of intensive work. An example of a participant observation is the urban anthropologist who lives with, becomes part of, and observes a drug using community. Through conversations and actions, a participant observer becomes engaged in the lives of the people being studied.

What is seen and heard by the participant observer are recorded as field notes and written largely from memory. The field notes are then studied to identify recurring events, themes, and explanations.

Direct Observations, on the other hand, require that the observer is as unobtrusive as possible and refrains from interfering so as not to bias the observation. The researcher watches but does not take part. One-way mirrors and videotapes are often used. Direct observations take a shorter amount of time. An example of a direct observation is a public health nurse who observes parent-child interaction during a home visit.

Direct observations are a good method for observing actual behavior, but a poor method for inferring attitudes or beliefs. Advantages and disadvantages of observations are listed below. Using a well qualified and trained observer will help minimize selective perception, one of the disadvantages of observations that can lead to the distortion of data.

Advantages and Disadvantages of Observations

Advantages	Disadvantages
• Provide direct information about behavior of individuals and groups • Permit evaluator to enter into and understand situation/context • Provide good opportunities for identifying unanticipated outcomes • Exist in natural, unstructured and flexible setting	• Expensive and time consuming • May affect behavior of participants • Need well-qualified, highly trained observers • Selective perception of observer may distort data • Investigator has little control over situation • Behavior or set of behaviors observed may be atypical • Immersion of observer in the situation over time can be stressful for the observer

Observations can be used to obtain information on the environment (e.g. a child's home) that might not be obtained using some other qualitative or quantitative technique. They are also useful when the native language or jargon of the targeted population is to be included as part of the research. Observations allow one to include clues from non-verbal communication and notable non-occurrences (i.e. observing that something is not happening that should be happening under other circumstances) as well as to observe social networks.

CASE STUDIES

A case study (ethnography, field study, participant observation) is an intensive study of a specific individual or context, drawing conclusions only about that participant or group and only in that specific context. A combination of methods can be used in a case study. Case studies are a preferred method when the researcher has little control over the events, and when there is a contemporary focus within a real life context.

Types of case studies include **Illustrative Case Studies** which are descriptive studies, **Exploratory or Pilot Case Studies** which are condensed and are performed before implementing a large scale investigation, **Cumulative Case Studies** which help to aggregate information from several sites collected at different times and, **Critical Instance Case Studies or Sentinel Events** which are useful for answering cause and effect questions about rare occurrences of unexpected outcomes (e.g. maternal mortality).[1]

Using Case Studies in MCH

A case study examines an individual health event and the circumstances surrounding that event. Detailed information is collected and presented, and conclusions are drawn only about the case being studied. When this process is extended to study multiple cases of a health event, it is referred to as a case series.

Case studies are the preferred method of analysis when numbers are too small to obtain meaningful statistics. The classic case study in the Maternal and Child Health field is the fetal infant mortality review. Detailed information is collected and presented about a fetal or infant death to determine preventability in an effort to reduce the number of future cases. Examples of other rare MCH events that are often analyzed using case studies include: child deaths, maternal deaths, vaccine preventable diseases, and birth defects.

Case studies provide a richness of information that cannot be obtained in quantitative analysis. They afford an opportunity to gather information that would have ordinarily gone undetected, to obtain a holistic understanding of an event, and to examine quality of care issues and gaps in services, which may have contributed to an event. Although valuable information can be obtained about a single case, case studies do not explain why other cases have occurred nor do they establish risk factors for a disease. Additional qualitative and quantitative research must accompany the case study to determine this information.

As with other methods of analysis, case studies have associated advantages and disadvantages that should be recognized before proceeding with an investigation.

Advantages and Disadvantages of Case Studies

Advantages	Disadvantages
• Method for analysis when numbers are too small to analyze using traditional quantitative techniques. • Flexibility to explore multiple broad questions rather than focusing on a single hypothesis. • Helps bridge the gap between abstract research and real public health practice. • Potential for inclusion and coalition building within a community.	• Inherent subjectivity and biases of investigators. • Risk of inferring too much from what might be an insolated circumstance. • Results usually not generalizable to populations.

[1] http://writing.colostate.edu/references/research/casestudy/com2b1.cfm

Outlined below are the steps involved in the case study process. After a case is identified for review, a panel of experts is convened. The make-up of the panel depends on an individual case but often includes a public health nurse, a physician, a mental health worker, a substance abuse expert, a social services case manager, and a parent advocate. It is important that the panel outline specific objectives and information they want to obtain while maintaining flexibility to explore issues that may arise during data collection. After the information is collected and reviewed, patient specific factors and systems issues relating to the outcome are identified. Patient specific factors include genetic, biological, and environmental factors that contributed to the event. System issues include poor quality of care and gaps in services that contributed to the event. The panel determines preventability of the event and reports their findings. If upon completion of the review it is determined that the event was preventable, additional research should be conducted to determine the extent of the problem in the community. After conducting further research, recommendations designed to prevent future events are made, and a community action group is established to guide systems change.

The Case Study Process

- Convene review panel
- Panel outlines objectives and data to be collected
- Collect information
- Panel reviews information
- Identify patient specific factors relating to outcome
- Identify systems issues
- Determine whether event was preventable
- Report findings

FOCUS GROUPS

A focus group is a small, facilitated group discussion where about 5-12 people are brought together to explore attitudes about a particular topic of interest. According to Patton (1990), focus groups are essential as part of a needs assessment, during a program, at the end of the program, or months after the completion of a program to gather perceptions on the outcome of that program. Focus groups use the group dynamics to generate data and insights that would be unlikely to emerge without group interaction.

"Focus groups are carefully planned group discussions designed to obtain participant attitudes on a defined topic."

Constructing the Focus Group Content

"Focus Groups are carefully planned group discussions designed to obtain participant attitudes on a defined topic." [2] The number of participants should range between 5 and 12, since a larger group will be hard to facilitate in a short period of time and a smaller group

[2] *Evaluations of HIV prevention programs using Qualitative Methods*, CDC, Booklet 9

will have limited feedback. There are times when you may want detailed information. CDC recommends having 4-6 participants under these circumstances.

When to Use Focus Groups

Focus groups are useful in answering the same type of questions as in-depth interviews, except in a social context. Specific applications of the focus group methods include:

- Identifying and defining the needs of a specific group
- Identifying problems in project implementation
- Assisting with interpretation of quantitative findings
- Obtaining perceptions of project outcomes and impacts
- Generating new ideas
- When interested in understanding some issue from a perspective of a specific population or have reason to believe that previous treatments of that issue have not sufficiently included that essential perspective
- To inform survey instrument development
- Formative research – needs assessment
- Community participation and mobilization
- Orienting oneself to a new field
- Generating hypotheses based on key informants' insights (observe process of idea formation)
- Identifying what people know or don't know
- Identifying barriers people experience[1]

Guides for Focus Group Facilitator

Before convening the focus group, the facilitator must assure confidentiality and have a guide based on objectives and questions. The guide should be a list of questions or issues to be explored. This will not only keep the facilitator and the session on track but will also assist the facilitator in times when the discussion may need extra facilitation to flow and will keep the interaction focused.

Helpful Tips

- Have a guide based on the objectives and questions
- Develop goals and objectives of the focus group
- Assure confidentiality
- Make sure that the participants are comfortable
- Keep the discussion flowing and the interaction focused

Number of Focus Groups

You should have a minimum of two focus groups and a minimum of two groups for each population segment (e.g. male and female, users and non-users). The number of groups depends on the number of subgroups in the target population (2 to 4 per sub-group).

Number of Questions

According to Kreuger (1988) a group guide should include less than ten questions (often around five or six). Stewart and Shamdasani (1990), concur by suggesting that group guides should consist of fewer than a dozen questions.

Recruiting for the Focus Group

According to Stewart and Shamdasani, the participants selected for the focus group must be representative of the target population, and various subgroups of the intended audience should be represented so that a range of opinions is heard (1990, p.53). The criteria for selecting participants should be established before the interview/session. You must select the participants in advance and should remind them one or two days prior to focus group date as people have busy schedules and often forget. It is best to over recruit by 20%, because some people may decide not to participate or may not show up for the focus group (Morgan, 1988).

Conducting the Focus Group

Focus groups should be conducted by an experienced moderator/facilitator, possibly a facilitator from within the community – based on gender, race/ethnicity, age etc. The focus group should take place in a comfortable setting and in a location that is easily accessible to your target audience. If a focus group is going well, the participants will interact amongst themselves. This group interaction should be used to produce data and insights that might not be accessible in a one-on-one interview.

The facilitator's job involves engaging all members and not letting the discussion be dominated by one or two individuals. All of the participants should be encouraged to express their feelings, ideas, perceptions and opinions freely and to feel as comfortable as possible. It is highly recommended that incentives be offered such as a monetary amount and refreshments/ food during the session. Remember that a session should last between one and two and one half hours. A session that lasts longer than that may be too long. A session that is shorter than an hour may not be sufficient for the group to go into detail about a topic.

Beginning the Discussion

A list of guidelines and ground rules must be developed and presented before the focus group begins. Guidelines include a review of confidentiality and etiquette (e.g. respecting each others' opinions, not talking over someone else or interrupting, no name calling etc).

According to Kreuger, it is a good idea to have group members introduce themselves and tell a little about themselves (1988, p.80). This method can help "break the ice".

The recommended pattern for introducing the group discussion includes:

- Welcome
- Overview of the topic
- Ground rules

- The first question

Recording Information

One way to record information is to tape record and transcribe the information, however, be sure to first have the permission of participants. The facilitator must ensure confidentiality during the session and inform the participants of the tape recording. Tape recording allows for confirmation of what was heard. The microphones and recorder should be set up prior to the interview and should be visible to the participants. Transcribing the tapes can be quite costly but is necessary to obtain a complete record of the focus group.

It is important to have a note taker in addition to a facilitator. While the note taker focuses on observing and taking notes, the facilitator can concentrate on asking questions, facilitating the group interaction, following up on ideas, and making smooth transitions from issue to issue. Notes should be complete and useable in the event the tape recorder stops working. Morgan (1988) suggests that regardless of the method of data collection, the facilitator should also make field notes after each session in order to facilitate data analysis.

In focus groups, group dynamics are especially important. The notes, and results report should include comments on group interaction and dynamics as well. Remember that whatever the approach to gathering detailed data, informed consent is necessary and confidentiality should be assured.

Ethical Issues to Consider

- Use of names/identification
- Who sees data/confidentiality
- Tape recording and data management
- Video taping (although much more intrusive)
- Inherent invasion of privacy issues

Data Analysis

The information collected from a focus group discussion is raw data. The first step is to transcribe the sessions. This will provide a complete record of the focus group discussions and will facilitate analysis of the data. The next step is to analyze the content of the discussion. The goal of this content analysis is to look for trends and patterns that reappear within either a single focus group or among various focus groups. Content analysis begins with a comparison of the words used in the answer (Kreuger 1988, p.109). One must also consider the emphasis or intensity of the respondents' comments. Another consideration is the consistency of comments and the specificity of responses in follow up probes. [3]

[3] http://www.ehr.nsf.gov/EHR/REC/pubs/NSF97-153/CHAP_3.HTM

Advantages and Disadvantages of Focus Groups

Advantages	Disadvantages
• Provide in-depth insight into how the participants feel about a specific topic • More cost effective than individual interviews • Findings are presented in a narrative form (with actual participant quotations) • Participants are free to volunteer information on points that are important to them	• The open-ended questions/responses generate a narrative that can make summary and interpretation time consuming and difficult • Respondents may hesitate to express concerns in a group setting depending on the facilitator or the group participants (or their comfort level in a group setting) • The interaction between participants and facilitator may bias opinions • The small number of respondents and the lack of random selection limits the ability to generalize to a larger population

MIXED METHODS:
QUALITATIVE AND QUANTITATIVE

QUESTIONNAIRES

A questionnaire is a series of written questions on a topic about which the respondent's opinions are sought. Examples include mail surveys, group administered questionnaires, and household drop-off surveys. Questionnaires are often used in survey research and can be used to collect both quantitative data (i.e. data we typically represent in numbers that provides a measurement of something – e.g. 64% of new working mothers bottle feed exclusively), and qualitative data (i.e. a description of the reasons mothers listed for breast feeding). Two general types of Questionnaires are **self-administered** in which respondents fill out themselves and **interviewer administered** in which the interviewer asks questions and records the answers.

There are two kinds of questions on a questionnaire. One is open-ended which asks a question but provides no answers to chose from, just a space for writing in an answer. The other is closed ended which provides a list of possible answers to chose. An example of an open-ended question would be "What do you like most about your health care provider?" Answers to open ended questions are usually in the forms of phrases, sentences or paragraphs and provide you with qualitative data. The analysis of qualitative data from questionnaires often involves reading the answers trying to identify common themes or developing ways to code your qualitative data to allow you to describe your findings.

Open-Ended Questions are Useful

- When you want information in the respondent's own words
- When you don't know what all the possible answers to a question are

- When you want to avoid suggesting answers

Some of the advantages of questionnaires are that the administration is quicker than an interview and that they can be anonymous. This may be desirable for investigating sensitive attitudes or behavior. Also questionnaires are more economical than interviews. However, analysis of qualitative data from open-ended questions can be on a questionnaire may be time consuming, difficult to interpret and still expensive.

Advantages and Disadvantages of Questionnaires

Advantages	Disadvantages
• Administration is quicker than an interview • Questionnaires can be anonymous, so they may be desirable for investigating sensitive attitudes or behavior • Generally more economical than interviews	Analysis of qualitative data from open-ended questions can be: • Time consuming • Difficult • Expensive • Very subjective

Questionnaires are useful when you want to gather information from people about the beliefs, attitudes, values and behaviors in a systematic way. They are also useful when you want to gather information directly from people in written form. Also they offer a way to systematize and guide observations.

INTERVIEWS

Interviews are completed by the interviewer based on the feedback of the responder and they are more personal than self-administered questionnaires. Examples include telephone interviews, personal interviews, group interviews, and key informant interviews.

Two main types of interviews are used in evaluation research. The first, **Structured Interviews,** emphasize obtaining answers to carefully worded questions. Interviewers are trained to deviate only minimally from the structured questions to ensure uniformity of the interview administration. Interviewers do not follow a rigid form when conducting **In-depth Interviews**, the second type of interview. An In-depth interview is a dialogue between a skilled interviewer and the person being interviewed. Open-ended questions and extensive probing characterize in-depth interviews. The interviewer follows an interview guide that includes a list of questions or issues to be explored designed to assists in pacing the interview and make it more systematic.

Helpful Tips

- Select a setting that provides privacy for the participants and a location that is accessible, comfortable and quiet
- Make sure sitting arrangement encourages interaction
- Select a facility that is equipped for tape or video recording (unless you are bringing your own equipment)
- Stop outside interruptions (i.e. phone calls or visitors)

- Make sure it is located in a non-threatening environment

In-depth interviews are useful when the subject matter is complex and when you need detailed information. They are also useful when the interview is about a highly sensitive matter where the respondents would feel more comfortable with an in-depth interview than with a group discussion or a questionnaire. When you wish to gather information on an individual who is busy or of high-status, interviewing allows for flexibility. Individuals with special needs (e.g. physical disabilities) may not be able to participate in questionnaires, but can be easily accommodated in an interview setting.

Advantages and Disadvantages of In-depth Interviews

Advantages	Disadvantages
• Rich data and more details as well as in-depth exploration of a topic • New insights • Face-to-face contact with participant • Interviewer has the opportunity to clarify questions and to follow-up question and probes, increasing the likelihood of useful responses	• Expensive and time-consuming • Possible inconsistency due to flexibility • The amount of information might create difficulty in transcribing and reducing data • Need qualified and well-trained interviewers • Interviewee may be biased by interviewer and distort information

HUMAN SUBJECTS REVIEW

Title 45 Part 46 of the Code of Federal Regulations, Protection of Human Subjects (45 CFR 46) specifies that research involving the use of human subjects requires approval from an Institutional Review Board. Research that is typically exempt from this requirement includes observations, record reviews, historical studies, surveys, questionnaires, and interviews. Research of this kind is NOT exempt from IRB if 1) subjects can be identified directly or through identifiers; and 2) disclosure of subjects' responses could reasonably place the subject at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

If you are going to be doing research that requires approval from an Institutional Review Board, you can submit an application for approval to the State Board. Applications seeking approval must meet the ethical principles of conducting research with human subjects: respect for person (which involves informed consent), beneficence (the benefits outweigh the risks), and justice (selection of research subjects must be the result of fair selection). Applications typically require a description of the study aim, background and design, a written protocol of how the research will be conducted including subject selection, procedures, risks and benefits, and consent procedures, and copies of questionnaires, tests or other instruments being used to conduct the research (check with the State for specific application materials and procedures). It may take up to 3 months for an application to receive approval from the State, so take that into consideration when developing your project timeline.

REFERENCES AND SUGGESTED READING MATERIALS

Buckley, K, Koontz, A, and Casey, S. *Fetal and Infant Mortality Review Manual: A Guide for Communities*. ACOG and HRSA. 1998. Copies available by e-mailing: nfimr@acog.com

Debus, M. A. (1990). *Handbook for Excellence in Focus Group Research*. Washington, DC., Academy for Educational Development.

Denzin, N.K., and Lincoln, Y.S. (Eds.). (1994). *Handbook of Qualitative Research*. Thousand Oak, CA: Sage.

Folch-Lyon, E. and Trost, JF (1981). *Conducting Focus Group Sessions. Studies in Family Planning*, Vol. 12.

Greenbaum, T.L.. (1993). *The Handbook of Focus Group Research*. NewYork: Lexington Books.
Judd, C.M., Smith, E.R., and Kidder, L. (1991) *Research Methods in Social Rlations*. 6th Ed. Holt, Reinhart, and Winston, Inc.

Krueger, R.A. (1988). *Focus Groups: A Practical Guide for Applied Research*. Newbury Park, CA: Sage.

Morgan, D.L. (1988). Focus groups as qualitative research. London: Sage.

Morse, J.M. and P.A. Field, *Qualitative Research Methods for Health Professionals*.
1995, Thousand Oaks, California: Sage.

Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods*, 2nd Ed. Newbury Park, CA: Sage.Sommer, B. and Sommer, R. (1991) *A Practical Guide to Behavioral Research: Tools and Techniques*, New York: Oxford University Press.

Stewart, D.W., & Shamdasani, P.N. (1990). Focus groups: Theory and practice. London: Sage.

The Writing Center at Colorado State University. *Case Studies*. Last modified January 29, 2002. http://writing.colostate.edu/references/research/casestudy.