CHAPTER 1

INVITATION TO EXPLORE

OBJECTIVES:

- To introduce researchers to qualitative methods in public health research, including those whose training and experience may be predominantly in quantitative methods
- To describe the basic characteristics of a qualitative research approach
- To show how qualitative methods can shed new light on complex questions in public health
- To highlight the aspects of qualitative research methodology presented in this book, including content new to this second edition

WHY DO SOME PROGRAMS succeed and others fail? Why are screening programs underused? Why does chronic disease go untreated? Why do countless couples know how to protect themselves from sexually transmitted infection but do not do so? How does a community mobilize itself to solve a persistent health problem? Questions like these may be all too familiar to readers of this field guide—public health practitioners, researchers, and program planners, many of whom have worked for years to protect health and prevent disease in highly vulnerable populations.

Advances in the biomedical and population sciences have brought the means to better health within reach of people around the world. Yet, evidence of escalating disease and inadequate health systems and resources in many countries tell us that there is still much we do not know. How do women and men understand and actually use the technical information they receive to make critical decisions that affect their lives and their children's lives? By opening windows on cultural understandings of health and disease, methods of qualitative research can help us comprehend some of these old problems in new ways.

Our Purpose

The purpose of this book is to make the methods of **qualitative** science more accessible to researchers and practitioners challenged by problems that affect the public's health. Qualitative design can help us understand the underlying behaviors, attitudes, and perceptions that determine health outcomes; it can identify the social, programmatic, and structural impediments to use of existing services; and it can shed light on how to design new development interventions so they align with the socioeconomic realities of their intended beneficiaries and therefore have a greater potential for success.

We write not only for the qualitative researcher but also for applied social scientists, epidemiologists, health providers, health educators, program managers, and others whose training and experience may be predominantly in **quantitative** methods. Our readers will be students as well as professionals looking for ways to probe more deeply the whys and hows of questions they may partially have answered in terms of how much and how many. They will want to know what qualitative methods can offer to improve their practice or strengthen their research findings. And many of our readers will be training others to ask the same kinds of questions, to listen, and to observe.

Numerous disciplines have contributed to the phenomenal growth of public health research and practice. Sociology, anthropology, psychology, economics, demography, environmental science, medical geography, medicine, and nursing, among others, have brought their unique perspectives and methods to a multidisciplinary understanding of health and wellness. Parallel advances in these disciplines have resulted in different ways of conceptualizing and addressing issues as diverse as health decision making, health promotion, health systems strengthening, child survival, compliance, substance abuse, adolescent sexuality, domestic violence, and gender relations. Similar progress in service delivery research and evaluation has given us a broader understanding of providers' knowledge and values, client–provider communication, and issues related to the accessibility and quality of health care for populations at risk.

Much of this work has focused on objective questions, such as numbers of births, patterns of illegal drug use, trends in disease prevalence, and numerous factors that predict health behavioral outcomes. Research designs traditionally have been quantitative, describing measurable phenomena, projecting trends, and sometimes discovering causal relationships. Psychological research in health behavior has developed primarily from a quantitative perspective, contributing useful rating scales and behavioral indicators, along with case study methods and tools for **observation**. Anthropologists and qualitative sociologists have approached some of the same problems

from different perspectives, focusing on cultural norms and relationships that influence how people interact and act on everyday experiences (Bernard, 1995; Knodel, 1997). Their methods rely primarily on techniques of observation, participation, guided discussion, in-depth interviewing, life histories, and secondary analysis of documentary data. Emerging methods increasingly used in qualitative research include network analysis and geo-health mapping, using innovative technologies such as data visualization applications and mobile data collection tools.

To conduct rigorous research, investigators must use an appropriate study design, data collection methods, and analytic procedures. Yet there is much overlap among different disciplinary approaches. Quantitative researchers at times use qualitative methods to guide a sampling design or to develop a sensitive data collection tool. Anthropologists and qualitative sociologists turn to quantitative methods when they want to describe a population or measure some tendency they may have observed qualitatively. Quantitative research with representative samples can produce hard, factual, reliable outcome data that usually are generalizable to wider populations (Steckler, McLeroy, Goodman, Bird, & McCormick, 1992). But most quantitative studies lack contextual detail and reflect a limited range of responses (Carey, 1993). On the other hand, qualitative methods elicit rich, contextual data, but their small samples and flexible design usually are not appropriate if the study objective is to describe larger populations with statistical accuracy (Patton, 2002). As a result, researchers have increasingly adopted creative new ways to combine techniques in a research design (Creswell, Klassen, Plano Clark, & Smith, 2011; Teddlie & Tashakkori, 2009), letting the strengths of one method compensate for the limitations of another to yield a more powerful methodology.

We have written this guide not to promote one methodology over another, but because many quantitatively trained health professionals, policymakers, and researchers are looking for ways to expand their methodological options with new tools for answering difficult questions.

In searching the literature on qualitative research, we found it divided between manuals that summarize specific techniques for designing and conducting health-related studies (Campbell, 1999; Hudelson, 1994; Yoddumnern, Mahidon, & Sangkhom, 1993) and more comprehensive texts for general academic audiences (Denzin & Lincoln, 2005, 2011; Guest, Namey, & Mitchell, 2012; Patton, 2002; Rossman & Rallis, 1998). Missing from most manuals was a theoretical basis for qualitative decisions, and few texts included strategies to address practical health research issues and problems that arise in the field. Nor did we find clear guidelines for dealing with the large volume of transcripts that qualitative data collection on sensitive topics often generates. Another gap in the literature was the lack of direction for writing and disseminating qualitative results. Our intent, therefore, is to show first how qualitative methods

can shed new light on perplexing questions and, second, to provide basic skills to design, conduct, and disseminate the research.

This volume presents practical strategies and methods for using qualitative research, along with the basic logic and rationale for qualitative research decisions. The guide makes researchers aware of the complexities, advantages, and limitations of qualitative research. Its eight chapters cover a wide range of topics and guide readers through every phase of research—from defining the language and logic of qualitative research, to study design, to the collection, analysis, interpretation, reporting, and dissemination of data.

What Is Qualitative Research?

A challenge to the author of any book on qualitative research is to answer the common sense question: What is it? Although there is no short, comprehensive definition, the unique organizing framework is a theoretical and methodological focus on complex relations between (1) personal and social meanings, (2) individual and cultural practices, and (3) the material environment or context. Similarly, there is no universal blueprint for doing qualitative research, but some basic concepts and principles, described next and summarized in Box 1.1, are common in most qualitative research approaches.

Qualitative research is systematic discovery. Its purpose is to generate knowledge of social events and processes by understanding what they mean to people, exploring and documenting how people interact with each other and how they interpret and interact with the world around them. It also seeks to elucidate patterns of shared understanding and variability in those patterns.

Qualitative researchers value natural settings where the researcher can better understand people's lived experiences. The natural context of people's lives is a critical component of qualitative design because it influences the perspectives, experiences, and actions of participants in the study. It is the interpersonal and sociocultural fabric that shapes meanings and actions.

Many problems central to public health research and practice are deeply embedded in their cultural contexts. People in communities confront decisions and challenges that are conditioned by membership in multiple social groups: whether to vaccinate children, how to prevent obesity, where to go for help in times of illness, and how to give young people the skills and confidence they will need for healthy adulthood. Contradictions and competing priorities can make many seemingly commonplace decisions difficult: Spend money on prescription drugs, or

BOX 1.1 CHARACTERISTICS OF QUALITATIVE RESEARCH

- Explores and discovers
- Seeks depth of understanding
- Views social phenomena holistically
- Provides insight into the meanings of decisions and actions
- Asks why, how, and under what circumstance things occur
- Uses interpretive and other open-ended methods
- Is iterative rather than fixed
- Is emergent rather than prestructured
- Involves respondents as active participants rather than as subjects
- Defines the investigator as an instrument in the research process

save for retirement? Protect oneself from sexually transmitted infection and risk losing the attention and economic support of a sexual partner, or accept the risk of disease? Running through the fabric of economic, sexual, and reproductive lives are the pervasive influences of gender and power, themes that resonate in the voices of the women and men in our research.

Researchers express qualitative data in participants' words, in images, and sometimes in numbers. Language, both verbal and nonverbal, has symbolic meaning; an expression may mean one thing to the study participant and a different thing to the interviewer. Qualitative researchers listen carefully to language as participants tell about their experiences without the constraints of externally imposed structure. When we refer to raw data as narrative, we mean participants relating their ideas and experiences in ways that can offer insight into important research concepts and questions.

The fact that people differ in the ways they interpret—and consequently act on—ordinary situations has profound implications for health research. If it is true that what people define as real is real in its consequences (Thomas & Thomas, 1928), then applied behavioral research in public health must have the capacity to uncover multiple perspectives and understand their implications for health decision

making. Qualitative researchers have taken this charge seriously, with the result that we now have at our disposal powerful techniques for "hearing data" (Rubin & Rubin, 1995, p. 12), that is, listening to what people are saying about their own lives in their own words.

The qualitative research process is flexible, emergent, and iterative. The study design is never wholly fixed, but enables an interplay between data collection and discovery. Qualitative studies usually include an iterative design, meaning that findings emerge continuously. The investigator is always in touch with the research process, observing how participants respond to the topic and examining data for fresh insights that might lead to altering a technique, modifying questions, or changing direction to pursue new leads. Analysis does not wait until all the data are collected; it begins in the field.

Reflexivity—the researcher's critical self-awareness—is a vital process of questioning and observing oneself while at the same time listening to and observing the participant.

With their emphasis on egalitarian relationships, feminist and transformative methodologies have contributed greatly to this point. In contrast to the detachment required in many quantitative studies, the observer is a vital component of the qualitative research process in two ways. First, the researcher is in partnership with the participant, working together to explore themes and find answers. Second, he or she is also a key research instrument, not only recording information but at the same time influencing how it is elicited. Self-examination, documented with other observations in the field notes, is part of the iterative process of interpretation and revision that moves the data collection toward its goal.

Qualitative researchers know that there are always at least two key players: the participant who contributes the information and the researcher who, as learner and co-interpreter, guides the process toward the understanding that both seek to articulate. Together they form a partnership for exploring different social understandings of reality. Creating a qualitative research partnership requires a high level of skill. It also carries with it profound ethical obligations because the relationship is based on trust and mutual understanding of a common goal.

Quantitative or Qualitative?

What is social reality, and how do we explain it? The question has stirred debate and polarized social science research between quantitative and qualitative methods. The issue of whether a given approach is appropriate

centers on "the capacity of the data, as collected by one method or the other, to describe, understand, and explain social phenomena" (Pedersen, 1992, p. 43). Depending on their academic training and theoretical orientation, researchers often have strong opinions about the relative merits of qualitative and quantitative approaches (Guest, 2013). Theoretical purists argue that because each methodology reflects a different understanding of research, human behavior, and the nature of social life, the two are incompatible (Greenhalgh, 1997). A purist would choose one or the other approach on the principle that mixing quantitative and qualitative methods violates the assumptions on which either framework is constructed (Carey, 1993; Patton, 1990). The debate between those who espouse use of either particular approach revolves around fundamental questions such as, "what is health and disease, who decides what are important research questions, and whose 'truth' is the 'real truth'?" (Meetoo & Temple 2003, p. 6).

Our position, like that of many quantitative and qualitative researchers today, chooses pragmatism over "one-sided paradigm allegiance" (Patton, 1990, p. 38). Our purpose in presenting more than one theoretical framework is to help readers understand similarities and differences, strengths and limitations, and the contribution that each can make to applied health research. The methods that emerge from these frameworks "offer a distinct set of strengths and limitations that are markedly different but potentially complementary when combined in a mixed-method research design" (Wolff, Knodel, & Sittitrai, 1991, p. 2).

Throughout this book, we advocate methodological appropriateness—using theory and related methods to make reasoned decisions "appropriate to the purpose of the study, the questions being investigated, and the resources available" (Patton, 1990, p. 39).

Application of Research to Action

We have chosen to focus on applied research because it informs action and enhances decision making on practical issues, unlike basic research, which is conducted to generate theory and produces knowledge for its own end. Although applied research can add immeasurably to our understanding of human, institutional, and systems behavior, its outcomes are "judged by their effectiveness in helping policymakers, practitioners, and the participants themselves make decisions and act to improve the human condition" (Rossman & Rallis, 1998, p. 6). Most well-designed qualitative studies have elements of both the basic and the applied, because rigorous applied research has a theoretical base and scholars ground their theory in concrete findings. Unfortunately, however, too many examples of hastily constructed qualitative research attempt to apply faulty findings to policy

or program issues. Such studies often have inadequate theoretical bases or use data collection techniques that are inappropriate to the purpose of the research. These misguided efforts do not constitute science and seldom contribute significantly to solutions to problems.

At least three important developments are fueling the demand for qualitative expertise in both domestic and international health arenas:

1. Advances in cross-cultural understanding of health and health-related behavior
2. Global health patterns
3. Increased awareness of issues in human rights and health equity, particularly implications for access to health care services by the underserved, including the poor and ethnic and sexual minorities

Advances in Cross-Cultural Understanding of Health and Health-Related Behavior

Sophisticated quantitative methods have produced an extensive base of knowledge for understanding such phenomena as population growth, disease patterns, and many aspects of human behavior that are determinants of health and sickness. But each new finding leads to more questions and new research problems that often require a different approach to data collection and analysis. For example, knowing the number of tuberculosis cases in a given region leads us to ask why infection is still high in some populations. Or with the wide availability of primary health care services, we must ask why so many potentially serious diseases continue to go undetected in their early stages. Qualitative methods are adding a new dimension to the ongoing search for answers to these and other complex questions.

Designs for quantitative surveys are increasingly incorporating qualitative techniques in an effort to improve the validity of interview tools through better understanding of the language and perspectives of study populations (see Case Study 1 in Appendix 1). Hearing participants' customary language for sexual issues helps the survey researcher compose standardized items in familiar words or prestructured response categories from actual experience. Program planners too are finding that participation of affected groups in collecting qualitative data and analyzing local problems leads to more relevant programs and a greater sense of community ownership. In eastern North Carolina, for example, a study to investigate the potential impact of industrial swine operations on decreased health and quality of life employed

trained interviewers in a household survey of three rural communities. A community resident accompanied each interviewer to explain the purpose and importance of the survey, resulting in a participation rate of 86% (Wing & Wolf, 2000).

At the same time, technological innovations, such as analytic tools based on geographic information systems (GIS), are fueling rapid changes in the range of perspectives that qualitative research can explore. Use of new information, communication, and technology tools for data collection, such as mobile phones and tablets, are fueling creative approaches to implementing study designs, such as participatory action research, that "prioritize flexibility and accessibility in the processes and products of our inquiry" (Cope & Elwood, 2009, p. 171).

Global Health Patterns

Demographic and health statistics speak to the urgent need for solutions to public health problems everywhere. Growing health disparities between rich and poor countries, as well as between urban and rural areas of many countries, highlight different research needs. In an Ebola outbreak, for example, the strength or weakness of a country's health system and deeply rooted cultural practices for burial of the dead, if not understood and addressed, can contribute to a pandemic, endangering global health security (West African Health Organization [WAHO], 2015). In the United States, heart disease, cancer, respiratory diseases, and stroke account for more than half of total annual deaths (Hoyert & Xu, 2012), and many instances of these health issues are related to tobacco use, poor diet, physical inactivity, and alcohol consumption. In the poorest areas of the world, preventable and treatable diseases, such as diarrhea, measles, and malaria, take a heavy toll on human life. In Africa alone, more than 2.3 million people die from vaccine-preventable diseases annually (Carr, 2004). Complications of pregnancy, childbirth, and unsafe abortion claim the lives of over 500,000 women every year, 99% of them in developing countries (World Health Organization [WHO], 2014). Globally, 15% of all women living with HIV (aged 15 years and older) are 15 to 24 years old; of these, 80% live in sub-Saharan. (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2014). Moreover, many health experts are only just beginning to acknowledge the full impact of social problems such as gender-based violence, the feminization of poverty, homelessness and mental illness, economic crises, persistent regional conflict, and refugee resettlement—all play out in a climate of increasing globalization and overburdened resources.

This book illustrates the principles of qualitative research in the context of global health, with reference to social and behavioral determinants of many preventable health problems. Qualitative research is not a solution but rather a route to better understanding of the human condition, with the hope of contributing to more rational decision making for improved health program effectiveness and impact. Given the magnitude of the problems we face, we must use all the tools at our disposal, and use them well.

Increased Awareness of Issues in Human Rights

A growing awareness of the impact of social environment on health has focused attention on the interplay among population and development, human rights, and gender. If we hope to address pressing needs for improved health and social development, we urgently need better understanding of the complexities of human and institutional behavior. The desire to probe interrelationships among, for example, health decisions, human rights, gender equity, equality, and empowerment calls for new ways to address old, intractable questions. Investigators from the fields of women's studies and applied disciplines in the social sciences continue to search for better understanding of key developmental processes such as gender socialization and role awareness, raising new questions that invite a more qualitative approach to research.

Concern for the status of women is a critical element in development policy, but human rights and the ethics of inclusion add another dimension. We are seeing a gradual shift of priorities toward new goals for community participation, human rights advocacy, gender equity, and health equity broadly defined (United Nations Human Rights, 2008). These trends have strengthened research outcomes by influencing how research is conceptualized and conducted. Our research questions are more likely now to include attention to gender relations in health decision making and to status and power as significant factors in the study of health service delivery. Qualitative methods enable researchers to explore more fully the nature and consequences of gender identities and relations not only in reproductive health but also, for example, in access to and use of malaria prevention and treatment services (Kenya Ministry of Health, 2015). As they become more aware of the powerful role of status in everyday life, researchers themselves are increasingly adopting participatory, transformative approaches to research that are consistent with qualitative work. This shift is creating new collaborative relationships with study participants and heightened awareness of the researcher's ethical responsibility in the data collection partnership.

Getting Started

Like the first edition, this second edition takes you step-by-step through the qualitative research process from its theoretical base to its application in public health problems, to dissemination of findings for program and policy change. Key elements in the process are interaction and interpretation. By interaction, we mean broadly the art and science of asking, observing, listening, reflecting, and probing—always with the purpose of engaging people in meaningful dialogue. We advocate qualitative techniques, independent of or in association with quantitative methodology, as a way of discovering how people act and interact in the familiar contexts of their lives. Our purpose is to share what we have learned with other researchers who are similarly committed to systematic analysis to inform policy and program development for healthier and more empowered populations.

The chapters that follow build the qualitative process: understanding, designing, implementing, and using methods to answer questions and solve problems that challenge workers in public health.

Chapter 2, The Language and Logic of Qualitative Research, begins with a brief overview of the theoretical basis for qualitative research, emphasizing the practical application of theory to research design and analysis. To help the reader locate qualitative research in the theoretical universe, we review three important paradigms, or theoretical frameworks, that have guided methodological decisions in social and behavioral health research. We emphasize the complementarity of these frameworks and the added value of linking them in well-coordinated designs to solve complex problems. Chapter 2 also presents examples of substantive theories and conceptual models that public health researchers may use to guide their research designs or synthesize study findings. We conclude Chapter 2 with a discussion of standards for judging the scientific rigor of qualitative research. We maintain that different assumptions and purposes make the criteria for evaluating quality in quantitative and qualitative studies analogous but not interchangeable.

In Chapter 3, Designing the Study, we present and discuss important design questions in a sequence that follows a typical research proposal. Basic steps move from defining the area of inquiry and the purpose and problem of the research to analyzing, writing, and disseminating the findings. We also discuss conceptual frameworks that link concepts and relationships to qualitative data collection strategies. We then review aspects of informed consent that are particularly relevant to qualitative studies, including the ethical responsibility of the researcher in an open-ended interview or discussion.

To underscore the point that combining qualitative and quantitative methods can increase the power of the design and result in a more comprehensive understanding of the topic of study, we present practical strategies and resources for mixed-method design.

Chapter 4, Collecting Qualitative Data: The Science and the Art, describes the principal methods of data collection. We identify three fundamental methods—observation, in-depth interviewing, and focus group discussion. Observation is further divided into nonreactive (including documentary research) and participant observation. Techniques of in-depth interviewing and focus group discussion are presented in detail, along with participatory research methods and other selected structured qualitative approaches: freelisting and pile sorts, photo narrative, storytelling, network analysis, and body mapping. We recommend a semi-structured approach to data collection and discuss the construction and use of topic guides.

In Chapter 5, Logistics in the Field, we focus on implementation. This chapter contains practical recommendations for introducing a study; building a research team; working with stakeholders and policymakers; selecting and training data collectors; developing field materials; and recording, transcribing, and translating data.

Chapter 6, Qualitative Data Analysis, is a comprehensive overview in which the reader learns how to process and interpret text by working through five interrelated steps. We draw on a single case study to provide concrete examples of how to read, code, display, reduce, and interpret qualitative data. Included in this discussion are guidelines for analysis of data in mixed-method studies. We then detail the concept of rigor in qualitative studies, showing how qualitative concepts analogous to validity and reliability can be used to judge the trustworthiness of the findings. In this chapter, we also emphasize the importance of selecting appropriate software for computer text analysis, and we summarize some of the distinguishing features of several programs in common use.

Chapter 7, Disseminating Qualitative Research, outlines ways to effectively disseminate and promote the use of results. We suggest some possible outcome indicators for dissemination and use of study findings and challenge researchers to reconsider their roles in planning and implementing dissemination.

Chapter 8, Putting It Into Words: Reporting Qualitative Research Results in Scientific Journals and Reports, discusses the steps in writing up qualitative study findings. These steps incorporate ethical norms that govern how we present results, integrate thematic ideas into a meaningful narrative, determine our audiences, and select a presentation format that is both appropriate to the study methods and relevant to potential readers. The chapter offers practical advice on how to organize qualitative findings in articles for peer-reviewed

journals as well as written reports, how to report combined qualitative and quantitative results, and considerations for enhancing the credibility and communicability of qualitative writing. We include criteria that external reviewers commonly use to evaluate journal manuscripts, discuss authorship issues, and provide suggestions for the submission process.

One of our objectives in writing this field guide is simply to share with readers the rewards and frustrations of doing qualitative research. Therefore, we offer numerous examples from our own research and from the practical experiences of others who already have embarked on this journey. In Appendix 1 you will find short case studies, based on qualitative or mixed-methods research. They provide real-life examples of how different researchers have designed studies to address pressing public health problems, including decisions they have made about theory, data collection methods, data sources, and dissemination approaches, and what they have learned in the process.

Comments about this book are invited, and they can be sent to publichealth@wiley.com.

Key Terms

1. **Qualitative:** An approach to research that seeks to understand the complex relationships between personal and social meanings, individual and cultural practices, and the material environment or context. Preference is given to textual or other non-numeric data.
2. **Quantitative:** An approach to research that seeks to predict, describe, and/or explain observable phenomena using mathematical and/or statistical techniques.
3. **Iterative design:** A nonlinear research approach in which data collection and analysis may occur in parallel, or where preliminary findings may lead to modifications in data collection approaches.
4. **Observation:** A range of data collection methods that rely on observing, as well as listening or use of other senses, to describe social interactions within their social and physical contexts.
5. **Reflexivity:** In qualitative research, recognition that the researcher both influences and is influenced by the research process. A researcher's questions, participants' responses, and the meaning that is constructed from these exchanges will be influenced by the background and prior experiences of those engaged in the research process.

Review Questions

1. What are the key characteristics of qualitative research, and how does it differ from quantitative research?
2. Which trends in health are spurring the demand for use of qualitative approaches?
3. Why is reflexivity an essential aspect of qualitative research?

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