

Introduction to *Food Health: Nutrition, Technology, and Public Health*

Janet Chrzan



Introduction, Research Design, and Ethics

This volume, the third in the three-volume set **Research Methods for Anthropological Studies of Food and Nutrition**, begins with a discussion of the volume followed by a chapter on research ethics by Sharon Devine and John Brett. Their chapter will be reproduced in all three volumes because ethics must be understood by all researchers, and a consideration of the ethics of methods used to collect, analyze, store, and publish must be an essential and initial element of the planning of any project. In their chapter they expand the idea of research ethics beyond publication and permissions to include the ethics of study design, recruitment, enrollment, and obtaining informed consent. They present a brief history of the research problems that led to the current ethics regulation requirements as well as a primer on the principles that guide ethical research: respect for persons, beneficence, and justice. They conclude with two short case studies highlighting application of these ethical principles in hypothetical food studies.

Volume and Section Overviews: Volume Three, Sections Seven and Eight

Section Seven: Public Health and Nutrition

It is probably fair to state that many nutritional anthropologists are interested in and involved with public health interventions. Indeed, many of the earlier chapters in this volume have outlined research projects that contain elements of public

health and nutritional outreach, often embedded within a research paradigm focused on biocultural patterns of health and well-being in individuals and groups. This section explicitly examines the methods and theory behind public health and interventionist nutritional anthropology from perspectives as diverse as famine relief, food praxis, and ethics. Readers will note that the authors of these chapters employ many of the methods discussed earlier in this volume, though often adapted for assessment and field-based programming. Public health/nutrition is a framework that introduces the cultural and the biological into public health and community perspectives, a perspective much in vogue due to the growing popularity of global health studies.

Ellen Messer introduces this section, first tracing the history of the intersection of food and nutrition research and policy development starting in the 1990s, and following with a discussion of how the anthropological differs from other academic/outreach approaches, such as those of psychological and standard public health. She then details her experiences teaching these differing methods in policy courses and concludes with reflections on how anthropologists can incorporate public health into their research and outreach. The next chapter, by Alyson Young and Meredith Marten, describes how health indicators can be used to assess program effectiveness. They focus on dietary intake, biomarkers and overall nutritional health evaluation, starting with a discussion of how nutritional epidemiologists establish baselines and assess effectiveness. They introduce monitoring strategies for programming, and then explore methods including dietary diversity measures, biomarkers, and nutritional analyses in the field. They conclude with a thoughtful review of how to choose a laboratory for sample analysis and a description of statistical analysis for these kinds of projects. Gretel Pelto's essay describes how focused ethnographic studies (FES) can be used in nutrition interventions and program development. Similar in some ways to rapid assessment, focused ethnography is a mixed-methods approach that investigates a specific set of questions or issues for which data and insights are required in a relatively short time. The first half of the chapter provides the theoretical background and methodology of FES, discusses the need for emic and etic perspectives, and describes the ethnographic techniques used in the field. Pelto then provides three case studies from her own work developing and using FES, including assessment and intervention with regard to acute respiratory infections in children, vitamin A deficiency, and infant and young child nutrition.

The remaining contributions in this section focus clearly on community involvement, ethics, and the philosophy of intervention. David Himmelgreen, Sara Arias-Steele, and Nancy Romero-Daza describe methods for ensuring participation in nutrition programming with the goal of including community in planning, research, and implementation. They analyze the pros and cons of a variety of methods including community action research (CAR), community based research (CBR), participatory action research (PAR), and participatory rural ap-

praisal (PRA). In addition to a discussion of these methods, the authors also provide a description of the ideas and goals of community participation as well as two case studies of their use of participatory methods in anthropological research. Miriam Chaiken's chapter provides insights into famine recognition, measurement, and relief by highlighting the changes in assessment and intervention that have occurred in the last several decades. Her comprehensive review of the theory and methods of famine assessment includes famine early warning systems (FEWS), organizations that respond to famines, and a discussion of resources available to those who wish to become better informed and involved. She also discusses the problems sometimes created by famine response and the realization among planners that famine is often an ongoing problem rather than a discrete event. Assessment measurements and indicators of long-term hunger and decreased community resilience are elucidated and analyzed. In conclusion, she provides a comprehensive list of organizations and how they work with famine that is sure to be an excellent starting point for understanding the complexities of hunger and famine in the world today.

A similar ethos of "getting things done" infuses the treatment of food activism in the next chapter, written by Joan Gross. She documents the growing arena of organizations seeking to promote changes in food access, production, or use. The chapter begins with an explanation of differing organizations' scale, focus (mission), and types of action, and then discusses the topics and subjects that can be pursued when investigating such organizations. Gross provides examples of ethnographic methods she has used, including participant observation, textual analysis, and what she terms "participant participation." The latter involves acting with the group as a fellow activist, and she discusses the roles that the anthropologist can effectively (and ethically) perform in such a capacity. Penny Van Esterik also examines food advocacy, but through a slightly different lens. She discusses how action involving food—what she terms food praxis—is appropriately incorporated into academic research and how such actions alter the nature of the academic endeavor. She argues that food activism and academic research are often kept separate even though many if not most nutritional anthropologists regard food praxis as central to their lives as professionals and community members. Van Esterik explores the ethical methodology of such integrated food work and suggests that because it blurs boundaries between research and advocacy, it needs to be more robustly contemplated by researchers in nutrition and food studies. In particular, we must think carefully about how information is disseminated and how it might affect community members. Together, the chapters included in this section break new ground in understanding how we think through and conduct our research and food work, and provide a roadmap for nutritional anthropologists—whether students or established professionals—who aim to effectively and ethically use academic skills for community intervention and programming.

Section Eight: Technology and Analysis

The final section focuses on technology and analysis and is meant as a companion to the earlier sections. John Brett introduces the technology section with a brief review of the technological changes that have occurred within the last two decades, describing how they have altered and expanded anthropologists' study of food use, diet, and nutrition. New technological possibilities have also altered how research is designed and conducted, and have caused some degree of confusion for researchers as constant innovation and development sometimes make the choices of programs and protocols seem overwhelming. Brett explains how to think through the use of technology during the design phase of research and provides information on where and how to find programs suitable for anthropological research in food. Finding and using technology is a primary focus in all of the chapters that follow, starting with Barrett Brenton's chapter on using Geographic Information Systems (GIS) for nutritional anthropology. GIS methods have enormous potential to improve the analysis of the spatial complexity of food system and nutrition research because the inclusion of layers of information allows for robust data collection and integration. Brenton reviews the theories and capacities that shape GIS, its potential for field use, and applications for qualitative and quantitative analyses. He compares and contrasts GIS systems available to researchers, both free and fee-based, and provides a list of web resources for planning and implementation that will aid those interested in GIS. He concludes with a case study of use of GIS to map food deserts and an analysis of how such technologies can allow for community participation in research and implementation. Another participatory method using technology is photo- and videovoice, described by Helen Vallianatos. Recording ethnographic data on film is not new, but the relative simplicity of digital cameras has made doing so ever easier. In this chapter, Vallianatos provides an overview of the method, discusses the theoretical uses and goals of photo- and videovoice, and describes the history of its use by anthropologists.

Digital storytelling is a first-person video with narration and personal photographs and video created by individuals around topics of importance to them. Marty Otañez describes how such videos are made, what utility they have in ethnographic work, and how to conduct a workshop in order to create meaningful digital stories. He reminds the reader that these videos, which are not simply movies of an interview but are created and constructed by individuals, are "a method and process for sharing our own stories and using our skills to create a platform for community collaborators to make their own visual narratives." Otañez discusses the ethics of such creations, especially in light of social media platforms and the sharing of personal narratives within communities.

Kristen Borre and James Wilson have co-authored two chapters on using secondary quantitative datasets to add to and contextualize ethnographic research.

They begin with an introduction to what is available and how to access it; provide a list of key websites and portals, including the gray literature and datasets available from NGOs, government agencies, and international multilateral groups such as the FAO and WHO. They discuss the type and scope of information and data available, and describe the nature of what is available, especially the ties to place and time that allow robust GIS models to be built. Finally, they provide a GIS case study alongside an explanation of statistical considerations for research design and analysis. Their second chapter focuses more specifically on using nutrition datasets during research planning, implementation, and analysis. They present a compendium of sources and discuss both their strengths for nutritional anthropology research and examples of how combining secondary and primary research allows for greater scope in design, planning, and policy work.

The final chapter contains a lesson in statistics via a case study of food insecurity. Authors Craig Hadley and Lesley Jo Weaver discuss the theory and history of food insecurity research, paying particular attention to the difficulty of collecting accurate measurements. They then use a case study from their work in Tanzania to take the reader through assessment, analysis, statistics, and measures of reliability. They also contribute an important analysis of food insecurity scales and measures of association that test relationships between food security and other biological and sociocultural variables. Also embedded in this chapter is information on where and how to find statistical software and how to choose the appropriate program for research.