

Epidemiology and Culture

This book shows how practitioners in the emerging field of “cultural epidemiology” describe human health, communicate with diverse audiences, and intervene to improve health and prevent disease. It uses textual and statistical portraits of disease to describe past and present collaborations between anthropology and epidemiology. Interpreting epidemiology as a cultural practice helps to reveal the ways in which measurement, causal thinking, and intervention design are all influenced by belief, habit, and theories of power. By “unpacking” many common disease risks and epidemiologic categories, this book reveals unexamined assumptions and shows how sociocultural context influences measurement of disease. Examples include studies of epilepsy, cholera, mortality on the *Titanic*, breastfeeding, and adolescent smoking. The book describes methods as varied as observing individuals, measuring social networks, and compiling data from death certificates. It argues that effective public health interventions must work more often and better at the level of entire communities.

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Cambridge Studies in Medical Anthropology

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Medical Anthropology is the fastest-growing specialist area within anthropology, both in North America and in Europe. Beginning as an applied field serving public health specialists, medical anthropology now provides a significant forum for many of the most urgent debates in anthropology and the humanities. It includes the study of medical institutions and health care in a variety of rich and poor societies, the investigation of the cultural construction of illness, and the analysis of ideas about the body, birth, maturity, ageing, and death.

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Cambridge University Press
0521790506 - Epidemiology and Culture
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CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press
40 West 20th Street, New York, NY 10011-4211, USA

www.cambridge.org
Information on this title: www.cambridge.org/9780521790505

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First published 2005

Printed in the United States of America

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication data

Trostle, James A., 1954–
Epidemiology and culture / by James A. Trostle
p. cm. – (Cambridge studies in medical anthropology ; 13)
Includes bibliographical references and index.
ISBN 0-521-79050-6 – ISBN 0-521-79389-0 (pbk.)
1. Epidemiology. 2. Medical anthropology. I. Title. II. Series.
RA652.T76 2004
614.4-dc22 2004051869

ISBN-13 978-0-521-79050-5 hardback

ISBN-10 0-521-79050-6 hardback

ISBN-13 978-0-521-79389-6 paperback

ISBN-10 0-521-79389-0 paperback

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Foreword

I have been waiting to read this book for 20 years. In 1983, I had a student in one of my classes at Berkeley, a young man named Jim Trostle, who challenged almost everything I said. Trostle was at the time a doctoral student in the Medical Anthropology program at Berkeley (a joint program with the Medical School in San Francisco), and he had taken off a year to get a Masters of Public Health degree. I was a Professor of Social Epidemiology in the School of Public Health, and my research and teaching involved the study of psychosocial factors as they influenced the causation of disease. Trostle argued that I was not paying enough attention to the concept of culture and that my research would suffer as a result. He said that epidemiologists and anthropologists had to find a way to work together so that both could be more effective contributors to human welfare.

I thought he might be right, but it was too difficult an idea to take seriously. Epidemiologists use quantitative methods in studies of large populations, whereas anthropologists do qualitative, ethnographic studies in remote Pacific islands. We read different books, we use a different language, and we have very different intellectual histories and traditions. Nevertheless, here was Trostle in my class, learning the new language and trying to find a way to bridge the gap between us. I didn't know if he could accomplish this difficult feat, but I was betting against it.

Since that time, we epidemiologists have suffered a whole series of very embarrassing failures. We had been doing our research attempting to identify disease risk factors. That is what epidemiologists do. But the reason for this type of research is to help people lower their rate of disease. Our model is to identify the risk factors and share that information with a waiting public so that they will then rush home and, in the interests of good health, change their behaviors to lower their risk. It is a reasonable model, but it hasn't worked. In intervention study after intervention study, people have been informed about the things they need to do, and they have failed to follow our advice.

For example, in California, the State Health Department has for the last 15 years made it a major priority to inform people about the importance of eating five fruits and vegetables a day. Over the course of these 15 years, surveys of representative samples of the population have clearly shown that people understand the message. These same surveys, however, also show no change at all in eating behavior. There has been no increase in the frequency of fruits and vegetables in diets. The only thing that has increased during this time is obesity.

I myself have devoted enormous amounts of time and energy in the design and conduct of superb intervention studies. These studies were brilliant in conception, and they were implemented as well as any studies could be. All failed to produce their intended result. After many years of brooding, I have finally come to an opinion about one reason for this: We in public health have important messages to give to people, but people have lives to lead. There often is a major gap between these two priorities. This is an issue that anthropologists think about, and it would be good to incorporate that thinking into the design of better interventions.

I have come to another conclusion: I decided that Trostle had been right all along, and I hoped that one day he would write a book about the issue. This book comes none too soon. We all know that our medical care system is at a very strained point. The baby boomer population in the United States will enter the over-65-year-old group very soon (between 2020 and 2030), and when they do, the number of old people in the United States population will have doubled. If we think the medical care system is in difficulty now, we ain't seen nothin' yet. We must learn how to prevent disease in the first place and not simply wait until people are already sick. To develop effective interventions, epidemiology must learn how to understand the concept of culture, and epidemiologists must learn how to work with anthropologists as partners. And anthropologists must learn to work with epidemiologists as partners. This book goes a long way toward making this a realistic possibility.

In addition to the crucial issues discussed in this important book, attention must be given to the way in which both anthropologists and epidemiologists define such issues as health and illness and suffering. As long as the focus of our work is limited to specific diseases (asthma, coronary heart disease) and disease-specific risk factors (obesity, cholesterol), our research will always be removed from many of the things that people care about in their everyday lives, such as their jobs, children, debts, family, and happiness. It is important that both anthropologists and epidemiologists find ways to focus their research on these fundamental determinants of disease susceptibility.

For example, we are now doing an intervention among fifth graders living in a low-income community in California. The grant we received to do this work was intended to influence smoking and other drug use among these children as well as violence and school performance. But we are in fact intervening on the culture of hope. If these children believe they will be dead by the age of 20, it really does not matter much if they smoke or do badly in school. Hope, on the other hand, is something they care about, and if we are successful, the results might influence smoking, drugs, school behavior, and many other health-related issues. In another study, we are observing a large group of bus drivers who have high rates of hypertension, back trouble, gastrointestinal complaints, respiratory difficulties, and alcohol problems. We could (and should) deal with each problem, but we also must learn to focus on the fundamental and underlying determinant of all of these problems: the culture of the job itself. This is an issue that the drivers care about deeply.

The effort to identify fundamental problems that people care about and that also influence rates of health and illness is one that requires a partnership between anthropologists and epidemiologists. If these two groups could find a way to collaborate, we hopefully could design more effective and meaningful interventions.

This book lays out the principles necessary to help this process along. It is a courageous and visionary book. It has taken me many years to understand the wisdom of Jim Trostle's views, and I am pleased that now a whole group of new people all over the world will be exposed to them.

S. Leonard Syme, Professor Emeritus
University of California, Berkeley

Acknowledgments

In 1978 an anthropology professor at Columbia University, Ida Susser, told me that she was enrolled in a postdoctoral training program in “psychiatric epidemiology” at Columbia’s medical school. As a naive undergraduate I thought it alarming – and wonderful – that one could study a field that contained so many syllables. My anthropological training at Columbia under Lambros Comitas, Alexander Alland, Charles Harrington, Marvin Harris, Leith Mullings, Joan Vincent, Ida Susser, and George Bond enabled me to build larger pictures out of the fine-grained details of individual observations and interviews. Anthropology provided ways to understand the variability, context, and rationales for health-related practices. I hoped epidemiology would give me theories and tools to understand the frequency and correlates of such practices. As I learned more, I found epidemiology to be a powerful strategy for describing health-related social problems at scale, summarizing multiple disease occurrences into patterns and flows, and looking for broad causes without descending into individual accounts.

I took up a series of paid internships, summer jobs, and, eventually, fulltime employment at the Sergievsky Center, an epidemiological research institute at Columbia’s College of Physicians and Surgeons. Al Hauser and Mervyn Susser gave me good training and real responsibilities, and I will be forever grateful to both of them. At Sergievsky, Gerry Oppenheimer, Richard Neugebauer, and Ruth Ottman encouraged and answered my naive questions. Len Syme at University of California, Berkeley, and Fred Dunn at University of California, San Francisco, were my primary mentors during my doctoral training. I could not have done better than to find them both. And Al Hauser, Len Kurland, and Frank Sharbrough helped my doctoral research find its way through the Mayo Clinic bureaucracy, seven committees deep.

As I continued to mix anthropological and epidemiological methods I became passionate about finding others who had explored these disciplines before me. During library work and interviews in Los Angeles, Jerusalem, Chapel Hill, New York City, and Berkeley, I met such folks as

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Sidney and Emily Kark, Eva and Harry Phillips, Jack Geiger, Art Rubel, and Shirley Lindenbaum, who were gracious in sharing their time, memories, and many published and unpublished books and papers.

In 1988 I moved to the Harvard Institute for International Development, where many of my ideas about interdisciplinary exchanges were tested and revised during seven years of work in 10 countries. I am grateful to Richard Cash, Heidi Clyne, Fitzroy Henry, Bradley Nixon, Jon Simon, and Laura Tesler for providing a stimulating and supportive environment in which to confront new ideas and try to come up with creative solutions to unexpected problems. Johannes Sommerfeld was my intellectual colleague in the social sciences at the Institute. I continue to appreciate and benefit from his persistent enthusiasm for the topic.

In the early 1990s I started sharing my ideas about anthropology and epidemiology with Spanish-language audiences in Latin America. This was made possible primarily through teaching in the International Course on Applied Epidemiology run by Mexico's Ministry of Health and through classes I gave at the Center for the Study of State and Society in Buenos Aires, Argentina; the National Institute of Public Health in Cuernavaca, Mexico; and the Universidad Austral in Valdivia, Chile. I am grateful to these institutions for creating opportunities for me to develop and disseminate many of the ideas expressed here. Mario Bronfman has been a colleague and friend for most of my professional career, and he was instrumental in helping me develop and teach the ideas written in this book through an appointment at Mexico's National Institute of Public Health. Ana Langer, Carlos Coimbra, Jr., Edmundo Granda, Roberto Tapia, Hernan Manzelli, Monica Gogna, Silvina Ramos, and Mariana Romero helped me generously despite their busy schedules. Steve Gehlbach and Harris Pastides at the School of Public Health of the University of Massachusetts and Richard Cash at the School of Public Health at Harvard also helped me learn how to teach this material. Trinity College, through a sabbatical leave and faculty research grant, gave me almost all the time I needed to finish this book.

A number of students have given me research and editorial assistance on this project over the years, including Dorothy Francoeur, Jessica LaPointe, Cynthia Lopez, Andrew Noymer, Brian Page, Camvan Phu, and Elisabeth Woodhams. Librarians at Mount Holyoke College; Trinity College; the Watkinson Library; University of California, Berkeley, School of Public Health; and the Epidemiology Division of Mexico's Ministry of Health all helped find references. Friends and colleagues Beth Conklin, Kitty Corbett, Joe Eisenberg, Mitch Feldman, Craig Janes, Jane Kramer, Lois McCloskey, Steven Katz, Dan Perlman, and Frank Zimmerman helped me to think more synthetically about

interdisciplinary work and modeled it themselves. Fernando Barros, Jim Carey, Robert Hahn, and Paul Slovic graciously provided important data and references, and Jennifer Fichera and Luiselle Rivera gave secretarial assistance at critical moments.

Those who read and commented on chapter drafts also made welcome contributions to this work, including Charles Briggs, Mario Bronfman, Peter Guarnaccia, Don Joralemon, Abby Marean, Meredith Miller, Gerry Oppenheimer, Mariana Romero, Jay Schensul, Jeremy Sussman, and Lissy Woodhams, as well as anonymous reviewers. Jessica Kuper originally asked me to write this book, but I owe my largest debt to Alan Harwood, master editor and extraordinarily patient advisor.

Many of the ideas in this book have been traveling with me for a long time. Portions of Chapter 2 are drawn from Trostle (1986a and 1986b) and from Trostle and Sommerfeld (1996). Parts of Chapter 3 were first presented in 1997 at an International Symposium on the Role of Medical Anthropology in Infectious Disease Control at Heidelberg University and in 1999 at the American Anthropological Association annual meeting. Early drafts of Chapter 4 were presented at the Department of Social Medicine at Harvard University in 1990 and at the annual meeting of the American Anthropological Association in 1993. Early versions of Chapter 5 were presented at the 1995 and 1998 meetings of the American Anthropological Association and at the London School of Hygiene and Tropical Medicine in 1999. Portions of Chapter 7 were presented at the joint meeting of the Society for Medical Anthropology and the Society for Applied Anthropology in 2000, the Sixth Latin American Congress of Social Science and Medicine in Peru in 2001, and the CIEPP/COTES meeting in Bolivia in 2001. I am grateful to the audiences at all these venues for their questions and suggestions.

I now fully understand why so many authors dedicate books to their families. My parents, John and Sue Trostle, always encouraged me to be curious and to question boundaries. Noah and Juliana graciously gave up their dad to this book for more time than any of us wanted. And my wife, Lynn Morgan, continues to be my first and last reader. This book is for them.

Cambridge University Press
0521790506 - Epidemiology and Culture
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