Third Edition

Peter Conrad and Rochelle Kern Editors

# The Sociology of Health and Illness

# Critical Perspectives

Third Edition

Edited by

Peter Conrad & Rochelle Kern

Brandeis University
School of Public Health

St. Martin's Press New York Editor: Debra Nesbitt

Managing editor: Patricia Mansfield

Cover design: John Jeheber

Library of Congress Catalog Card Number: 88-63073

Copyright © 1990 by St. Martin's Press, Inc.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted by any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, except as may be expressly permitted by the 1976 Copyright Act or in writing by the Publisher. Manufactured in the United States of America.

43210 fedcba

For information, write: St. Martin's Press, Inc. 175 Fifth Avenue New York, NY 10010

ISBN: 0-312-02360-X

### Acknowledgments

- John B. McKinlay and Sonja J. McKinlay, "Medical Measures and the Decline of Mortality." Under the title "The Questionable Contribution of Medical Measures to the Decline of Morality in the United States in the Twentieth Century," this article originally appeared in *Milbank Memorial Fund Quarterly/Health and Society*, Summer 1977, pp. 405–428. Reprinted by permission of the Milbank Memorial Fund and John B. McKinlay.
- S. Leonard Syme and Lisa F. Berkman, "Social Class, Susceptibility, and Sickness." Reprinted by permission from *The American Journal of Epidemiology*, vol. 104, pp. 1–8, 1976.
- Wornie L. Reed, "Racism and Health: The Case of Black Infant Mortality," was written for the first edition of this book, Copyright © 1981 by St. Martin's Press, Inc.
- Ingrid Waldron, "What Do We Know about Causes of Sex Differences in Mortality?" Reprinted with permission of the United Nations. Source: *Population Bulletin of the United Nations*, No. 18 (Sales number 85. XIII. 6).
- Victor R. Fuchs, "A Tale of Two States." Reprinted with permission of the author and Basic Books, Inc., from Who Shall Live? Health Economics and Social Change. © 1974.
- Barbara Ellen Smith, "Black Lung: The Social Production of Disease." Reprinted with permission of the author and Baywood Publishing Company, Inc., from the *International Journal of Health Services*, vol. 11:3, 1981, pp. 343–359.

Acknowledgments and copyrights are continued at the back of the book on pages 517-519, which constitute an extension of the copyright page.

# Preface

The third edition of *The Sociology of Health and Illness: Critical Perspectives* maintains the overall framework of the previous editions, while adding some sixteen new selections and updating two others. We have included selections that examine important new health concerns—AIDS, toxic wastes, social networks, the "corporatization" of medicine, and wellness programs. Moreover, we have added a new section examining the dilemmas of medical technology, refocused another section on the social and cultural meaning of illness, and presented new perspectives on medical language in the section on medicine in practice.

We continue to draw upon a variety of sources and to reflect several critical perspectives. It is encouraging that over the years we have found more and more first-rate sociological material from which to choose. We believe that the book, while keeping our critical orientation toward health and illness, is more broadly based and conceptually stronger than the previous editions. Our hope is that instructors and students will continue to find the book

useful and challenging.

We want to thank many of the book's adopters, who took time to share their reactions to the previous editions. In particular, Irving Kenneth Zola, Renee Anspach, and Libby Bradshaw provided helpful comments on some of the changes incorporated here. We especially want to acknowledge P. J. McGann for her diligent and creative assistance with many tasks involved in revising this book. Finally, we thank Don Reisman, Debra Nesbitt, and Patricia Mansfield of St. Martin's Press.

Peter Conrad Rochelle Kern

# Contents

Preface v

### General Introduction 1

Part One	1	The Social	Production	of Disease	and Illness	7
----------	---	------------	------------	------------	-------------	---

The Social Nature of Disease 7

1. Medical Measures and the Decline of Mortality, John B. McKinlay and Sonja M. McKinlay 10

## Who Gets Sick? The Unequal Social Distribution of Disease 24

- 2. Social Class, Susceptibility, and Sickness, S. Leonard Syme and Lisa F. Berkman 28
- 3. Racism and Health: The Case of Black Infant Mortality, Wornie L. Reed 34
- 4. What Do We Know about Causes of Sex Differences in Mortality?

  \*Ingrid Waldron\*\* 45
- 5. A Tale of Two States, Victor R. Fuchs 57

### Our Sickening Social and Physical Environment 60

- 6. Black Lung: The Social Production of Disease, Barbara Ellen Smith 64
- 7. Popular Epidemiology: Community Response to Toxic Waste-Induced Disease, *Phil Brown* 77
- 8. Social Relationships and Health,

  James S. House, Karl R. Landis, and Debra Umberson 85
- 9. Social Class and Cardiovascular Disease: The Contribution of Work, Michael Marmot and Tores Theorell

### The Experience of Illness 108

- 10. Uncertainty and the Lives of Persons with AIDS, Rose Weitz 111
- 11. Managing Chronic Illness at Home: Three Lines of Work, Juliet Corbin and Anselm Strauss 122

viii Contents					
Part Two / The Social Organization of Medical Care 137					
Creating and Maintaining the Dominance of Medicare 137					
12. Professionalization, Monopoly, and the Structure of Medical Practice, Peter Conrad and Joseph W. Schneider 141					
13. Notes on the Decline of Midwives and the Rise of Medical Obstetricians, Richard W. Wertz and Dorothy C. Wertz 148					
14. Corporatization and the Social Transformation of Doctoring,  John B. McKinlay and John D. Stoeckle 161					

The Social Organization of Medical Workers and Services 173

- 15. The Changing Health Care System, Office of Technology Assessment 176
- 16. A Caring Dilemma: Womanhood and Nursing in Historical Perspective, Susan Reverby

17. The Health Labor Force: The Effects of Change, Nancy Aries and Louanne Kennedy

#### Medical Industries 207

- 18. The New Medical-Industrial Complex, Arnold S. Relman
- 19. A Marxian Interpretation of the Growth and Development of Coronary Care Technology, Howard Waitzkin 218

#### Financing Medical Care 231

- 20. Blue Cross—What Went Wrong? Sylvia A. Law
- 21. The Commercial Edge and the Accommodation of Insurance, Paul Starr
- 22. Uninsured and Underserved: Inequities in Health Care in the United States, Karen Davis and Diane Rowland

#### The Social and Cultural Meanings of Illness 266

- 23. The Sexual Politics of Sickness. Barbara Ehrenreich and Deirdre English
- 24. The Social Meaning of AIDS, Peter Conrad 285

### Medicine in Practice

- 25. The Struggle between the Voice of Medicine and the Voice of the Lifeworld, Elliot G. Mishler
- 26. Some Contingencies of the Moral Evaluation and Control of Clientele: The Case of the Hospital Emergency Service, Julius A. Roth 308
- 27. The Language of Case Presentation, Renee R. Anspach
- 28. Midwives in Transition: The Structure of a Clinical Revolution, Barbara Katz Rothman

Dilemmas of Medical Technology	348
--------------------------------	-----

- 29. The Misguided Quest for the Artificial Heart, Barton J. Bernstein 351
- 30. Issues in the Application of High Cost Medical Technology: The Case of Organ Transplantation, Nancy G. Kutner 358

## Part Three / Contemporary Critical Debates 373

Individual Responsibility and Health 373

- 31. The Responsibility of the Individual, John H. Knowles 376
- 32. Individual Responsibility and Health Politics, Robert Crawford 387

The Medicalization of American Society 396

- 33. Medicine as an Institution of Social Control, *Irving Kenneth Zola* 398
- 34. The Medicalization and Demedicalization of American Society, *Renee C. Fox* 409

### Part Four / Toward Alternatives in Health Care 415

Community Initiatives 415

- 35. Improving the Health Experiences of Low Income Patients, Catherine Kohler Riessman 419
- 36. Politicizing Health Care, John McKnight 432
- 37. Helping Ourselves, Ann Withorn 436

Comparative Health Policies 445

- 38. Comparing Health Care Systems: Lessons from East and West Germany, *Donald W. Light* 449
- 39. Canada's Path, America's Choices: Lessons from the Canadian Experience with National Health Insurance,

  Theodore R. Marmor 463
- 40. A National Health Service: Principles and Practice, Derek Gill 474

Prevention and Society 488

- **41.** Wellness in the Workplace: Potentials and Pitfalls of Work-site Health Promotion, *Peter Conrad* 491
- **42.** A Case for Refocussing Upstream: The Political Economy of Illness, *John B. McKinlay* 502

# General Introduction

Three major themes underlie the organization of this book: that the conception of medical sociology must be broadened to encompass a sociology of health and illness; that medical care in the United States is presently in crisis; and that the solution of that crisis requires that our health care and medical systems be reexamined from a critical perspective.

### Toward a Sociology of Health and Illness

The increase in "medical sociology" courses and the number of medical sociological journals now extant are but two indicators of rapid development in this field. The knowledge base of medical sociology has expanded apace so that this discipline has moved in less than two decades from an esoteric subspecialty taught in a few graduate departments to a central concern of sociologists and sociology students. The causes of this growth are too many and too complex to be within the scope of this present work. However, a few of the major factors underlying this development may be noted.

The rise of chronic illness as a central medical and social problem has led physicians, health planners, and public health officials to look to sociology for help in understanding and dealing with this major health concern. In addition, the increase of governmental involvement in medical care has created research opportunities (and funding) for sociologists to study the organization and delivery of medical care. Sociologists have also become increasingly involved in medical education (as evidenced by the large number of sociologists currently on medical school faculties). Further, since the 1960s, the social and political struggles over health and medical care have become major social issues, thus drawing additional researchers and students to the field. Indeed, some sociologists have come to see the organization of medicine and the way medical services are delivered as social problems in themselves.

Traditionally, the sociological study of illness and medicine has been called, simply, medical sociology. Strauss (1957) differentiated between sociology "of" medicine and sociology "in" medicine. Sociology of medicine focuses on the study of medicine to illuminate some sociological concern (e.g., patient-practitioner relationships, the role of professions in society). Sociology in medicine, on the other hand, focuses primarily on medical problems (e.g., the sociological causes of disease and illness, reasons for delay in seeking medical aid, patient compliance or noncompliance with medical regimens). As one

2

might expect, the conceptual dichotomy between these two approaches is more distinct than in actual sociological practice. Be that as it may, sociologists who have concentrated on a sociology of medicine have tended to focus on the profession of medicine and on doctors and to slight the social basis of health and illness. Today, for example, our understanding of the sociology of medical practice and the organization of medicine is much further developed than our understanding of the relationship between social structure and health and illness.

One purpose of this book is to help redress this imbalance. In it, we shift from a focus on the physician and the physician's work to a more general concern with how health and illness are dealt with in our society. This broadened conceptualization of the relationship between sociology and medicine encourages us to examine problems such as the social causation of illness, the economic basis of medical services, and the influence of medical industries, and to direct our primary attention to the social production of disease and illness and the social organization of the medical care system.

Both disease and medical care are related to the structure of society. The social organization of society influences to a significant degree the type and distribution of disease. It also shapes the organized response to disease and illness—the medical care system. To analyze either disease or medical care without investigating its connection with social structure and social interaction is to miss what is unique about the sociology of health and illness. To make the connection between social structure and health, we must investigate how social factors such as the political economy, the corporate structure, the distribution of resources, and the uses of political, economic, and social power influence health and illness and society's response to health and illness. To make the connection between social interaction and health we need to examine people's experiences, how "reality" is constructed, cultural variations within society, and face-to-face relationships. Social structure and interaction are, of course, interrelated, and it is central to the sociological task to make this linkage clear. Both health and the medical system should be analyzed as integral parts of society. In short, instead of a "medical sociology," in this book we posit and profess a sociology of health and illness.<sup>2</sup>

#### The Crisis in American Health Care

It should be noted at the outset that, by any standard, the American medical system and the American medical profession are among the best in the world. Our society invests a great amount of its social and economic resources in medical care; has some of the world's finest physicians, hospitals, and medical schools; is no longer plagued by deadly infectious diseases; and is in the forefront in developing medical and technological advances for the treatment of disease and illness.

This being said, however, it must also be noted that American health care is

in a state of crisis. It has been judged to be so, not simply by a small group of social and political critics, but by concerned social scientists, thoughtful political leaders, leaders of labor and industry, and members of the medical profession itself. Although there is general agreement that a health-care crisis exists, there is, as one would expect, considerable disagreement as to the cause of this crisis and how the crisis should be dealt with.

What are some of the major elements and manifestations of this crisis as reflected in the concerns expressed by the contributors to this volume?

Medical costs have risen exponentially; in four decades the amount Americans spend annually on medical care increased from 4 percent to nearly 12 percent of the nation's gross national product. In 1986, the total cost was over \$450 billion. Indeed, medical costs have become the leading cause of personal bankruptcy in the United States.

The increasing specialization of medicine has made *primary-care* medicine scarce. Fewer than one out of four doctors can be defined as primary-care physicians (general and family practitioners, and some pediatricians, internists, and obstetrician-gynecologists). In many rural and inner-city areas, the only primary care available is in hospital emergency rooms, where waits are long, treatment often impersonal, and continuity of care minimal (and the cost of service delivery very high).

Although it is difficult to measure the quality of health and medical care, a few standard measures are helpful. *Life expectancy*, the number of years a person can be expected to live, is at least a crude measure of a nation's health. According to United Nations data, the U.S. ranks nineteenth among nations in life expectancy for males and ninth for females. *Infant mortality*, generally taken to mean infant death in the first year, is one of our best indicators of health and medical care (particularly prenatal care). The U.S. ranks seventeenth in infant mortality, behind such countries as Sweden, Finland, Canada, Japan, the German Democratic Republic (East Germany), and the United Kingdom (United Nations Demographic Yearbook, 1985).

Our medical system is organized to deliver "medical care" (actually, "sick care") rather than "health care." Medical care is that part of the system "which deals with individuals who are sick or who think they may be sick." Health care is that part of the system "which deals with the promotion and protection of health, including environmental protection, the protection of the individual in the workplace, the prevention of accidents, [and] the provision of pure food and water. . ." (Sidel and Sidel, 1983: xxi-xxii).

Very few of our resources are invested in "health care"—that is, in *prevention* of disease and illness. Yet, with the decrease in infectious disease and the subsequent increase in chronic disease, prevention is becoming ever more important to our nation's overall health and would probably prove more cost-effective than "medical care" (Department of Health, Education and Welfare, 1979).

There is little *public accountability* in medicine. Recent innovations such as Health Systems Agencies, regional organizations designed to coordinate medical services, and Professional Standards Review Organizations, boards man-

#### 4 General Introduction

dated to review the quality of (mostly) hospital care, have had limited success in their efforts to control the quality and cost of medical care. (The recent incredible rise in malpractice suits may be seen not as an indication of an increase in poor medical practice but as an indication that such suits are about the only form of medical accountability presently available to the consumer.)

Another element of our crisis in health care is the "medicalization" of society. Many, perhaps far too many, of our social problems have been redefined as medical problems (e.g., alcoholism, drug addiction, child abuse). Many, again perhaps far too many, of life's normal and natural events have also come to be seen as "medical problems," regardless of pathology (e.g., birth, death, sexuality). It is by no means clear that such matters constitute appropriate medical problems per se. Indeed, there is evidence that the medicalization of social problems and life's natural events has itself become a social problem (Zola, 1972).

Many other important elements and manifestations of our crisis in health care are described in the works contained in this volume, including the uneven distribution of disease and health care, the role of the physical environment in disease and illness, the monopolistic nature of the medical profession, the role of government in financing health care, sexism and racism in medical care, and the challenge of self-help groups. The particularities of America's health crisis aside, however, most of the contributors to this volume reflect the growing conviction that the social organization of medicine in the United States has been central to its perpetuation.

### Critical Perspectives on Health and Illness

The third major theme of this book is that we must examine the relationship between our society's organization and institutions and its medical care system from a "critical perspective." What do we mean by a critical perspective?

A critical perspective is one that does not consider the present fundamental organization of medicine as sacred and inviolable. Nor does it assume that some other particular organization would necessarily be a panacea for all our health-care problems. A critical perspective accepts no "truth" or "fact" merely because it has hitherto been accepted as such. It examines what is, not as something given or static, but as something out of which change and growth can emerge. Moreover, any theoretical framework that claims to have all the answers to understanding health and illness is not a critical perspective. The social aspects of health and illness are too complex for a monolithic approach.

Further, a critical perspective assumes that a sociology of health and illness entails societal and personal values, and that these values must be considered and made explicit if illness and health-care problems are to be satisfactorily dealt with. Since any critical perspective is informed by values and assump-

tions, we would like to make ours explicit: (1) The problems and inequalities of health and medical care are connected to the particular historically located social arrangements and the cultural values of any society. (2) Health care should be oriented toward the prevention of disease and illness. (3) The priorities of any medical system should be based on the needs of the consumers and not the providers. A direct corollary of this is that the socially based inequalities of health and medical care must be eliminated. (4) Ultimately, society itself must be changed for health and medical care to improve.

Bringing critical perspectives to bear on the sociology of health and illness has informed the selection of readings contained in this volume. It has also informed editorial comments that introduce and bind together the book's various parts and subparts. Explicitly and implicitly, the goal of this work is toward the awareness that informed social change is a prerequisite for the elimination of socially based inequalities in health and medical care.

### **NOTES**

- 1. Until 1960 only one journal, Milbank Memorial Fund Quarterly (now called Health and Society), was more or less devoted to medical sociological writings (although many articles on medicine and illness were published in other sociological journals). Today there are five more journals, all of which specifically focus on sociological work on health, illness, and medicine: The Journal of Health and Social Behavior; Social Science and Medicine; International Journal of Health Services; Sociology of Health and Illness; and annual volumes, Research in the Sociology of Health Care, and Advances in Medical Sociology. Such medical journals as Medical Care and American Journal of Public Health frequently publish medical sociological articles, as do various psychiatric journals.
- 2. Inasmuch as we define the sociology of health and illness in such a broad manner, it is not possible to cover adequately all the topics it encompasses in one volume. Although we attempt to touch on most important sociological aspects of health and illness, space limitations precluded presenting all potential topics. For instance, we do not include sections on professional socialization, the social organization of hospitals, and the utilization of services. Discussions of these are easily available in standard medical sociology textbooks. We have made a specific decision not to include materials on mental health and illness. While mental and physical health are not as separate as was once thought, the sociology of mental health comprises a separate literature and raises some different issues from the ones developed here.

### REFERENCES

Sidel, Victor W., and Ruth Sidel. 1983. A Healthy State. rev. ed. New York: Pantheon Books.

Straus, Robert. 1957. "The nature and status of medical sociology." American Sociological Review 22 (April): 200–204.

U.S. Department of Health, Education and Welfare. 1979. Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention. Washington, D.C.: U.S. Government Printing Office.

Zola, Irving Kenneth. 1972. "Medicine as an institution of social control." Sociological Review 20:487–504.

# The Social Production of Disease and Illness

Part One of this book is divided into four sections. While the overriding theme is "the social production of disease and illness," each section develops a particular aspect of the sociology of disease production. For the purposes of this book, we define *disease* as the biophysiological phenomena that manifest themselves as changes in and malfunctions of the human body. *Illness*, on the other hand, is the experience of being sick or diseased. Accordingly, we can see disease as a physiological state and illness as a social psychological state presumably caused by the disease. Thus, pathologists and public health doctors deal with disease, patients experience illness, and, ideally, clinical physicians treat both (cf. Cassell, 1979). Furthermore, such a distinction is useful for dealing with the possibility of people feeling ill in the absence of disease or being "diseased" without experiencing illness. Obviously, disease and illness are related, but separating them as concepts allows us to explore the objective level of disease and the subjective level of illness. The first three sections of Part One focus primarily on disease; the final one focuses on illness.

All the selections in Part One consider how disease and illness are socially produced. The so-called *medical model* focuses on organic pathology in individual patients, rarely taking societal factors into account. Clinical medicine locates disease as a problem in the individual body, and although this is clearly important and useful, it provides an incomplete and sometimes distorted picture. With the increased concern about chronic disease and its prevention (U.S. DHEW, 1979), the selections suggest that a shift in focus from the internal environment of individuals to the interaction between external environments in which people live and the internal environment of the human body will yield new insights into disease causation and prevention.

# The Social Nature of Disease

When we look historically at the extent and patterns of disease in Western society, we see enormous changes. In the early nineteenth century, the infant mortality rate was very high, life expectancy was short (approximately forty

years), and life-threatening epidemics were common. Infectious diseases, especially those of childhood, were often fatal. Even at the beginning of the twentieth century, the United States' annual death rate was 28 per 1000 population compared with 9 per 1000 today, with the cause of death usually being pneumonia, influenza, tuberculosis, typhoid fever, and various forms of dysentery (Cassell, 1979: 72). But patterns of *morbidity* (disease rate) and *mortality* (death rate) have changed. Today we have "conquered" most infectious diseases; they are no longer feared and few people die from them. Chronic diseases such as heart disease, cancer, and stroke, are now the major causes of death in the United States (see Figure 1-3, p. 16).

Medicine is usually credited for the great victory over infectious diseases. After all, certain scientific discoveries (e.g., germ theory) and medical interventions (e.g., vaccinations and drugs) had been developed and used to combat infectious diseases and, so the logic goes, must have been responsible for reducing deaths from them. While this view may seem reasonable from a not too careful reading of medical history, it is contradicted by some important social scientific work.

René Dubos (1959) was one of the first to argue that it was social changes in the environment rather than medical interventions that led to the reduction of mortality by infectious diseases. He viewed the nineteenth-century Sanitary Movement's campaign for clean water, air, and proper sewage disposal as a particularly significant "public health" measure. Thomas McKeown (1971) showed that biomedical interventions were not the cause of the decline in mortality in England and Wales in the nineteenth century. This viewpoint, or the "limitations of modern medicine" argument (Powles, 1973), is now well known in public health circles. The argument is essentially a simple one: Discoveries and interventions by clinical medicine were not the cause of the decline of mortality for various populations. Rather, it seems that social and environmental factors such as (1) sanitation, (2) improved housing and nutrition, and (3) a general rise in the standard of living were the most significant contributors. This does not mean that clinical medicine did not reduce people's sufferings or prevent or cure diseases in some people; we know it did. But social factors appear much more important than medical interventions in the "conquest" of infectious disease.

In the keynote selection in this book, John B. McKinlay and Sonja M. McKinlay assess "Medical Measures and the Decline of Mortality." They offer empirical evidence to support the limitations of medicine argument and point to the social nature of disease. We must note that mortality rates, which are the data on which they base their analysis, only crudely measure "cure" and don't measure "care" at all. But it is important to understand that much of what is attributed to "medical intervention" seems not to be the result of clinical medicine per se (cf. Levine et al., 1983).

The limitations of medicine argument underlines the need for a broader, more comprehensive perspective to understanding disease and its treatment (see also Turshen, 1977), a perspective that focuses on the significance of social structure and change in disease causation and prevention.

### **REFERENCES**

Cassell, Eric J. 1979. The Healer's Art. New York: Penguin Books.

Dubos, René. 1959. Mirage of Health. New York: Harper and Row.

Levine, Sol, Jacob J. Feldman, and Jack Elinson. 1983. "Does medical care do any good?" Pp. 394–404 in David Mechanic (ed.), Handbook of Health, Health Care, and the Health Professions. New York: Free Press.

McKeown, Thomas. 1971. "A historical appraisal of the medical task." Pp. 29-55 in G. McLachlan and T. McKeown (eds.), Medical History and Medical Care: A Symposium of Perspectives. New York: Oxford University Press.

Powles, John. 1973. "On the limitations of modern medicine." Science, Medicine and Man 1: 1-30.

Turshen, Meredeth. 1977. "The political ecology of diseases." The Review of Radical Political Economics 9 (Spring): 45–60.

U.S. Department of Health, Education and Welfare. 1979. Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention.

# 1 longer life expectancy

# Medical Measures and the Decline of Mortality

# John B. McKinlay and Sonja M. McKinlay

... by the time laboratory medicine came effectively into the picture the job had been carried far toward completion by the humanitarians and social reformers of the nineteenth century. Their doctrine that nature is holy and healthful was scientifically naive but proved highly effective in dealing with the most important health problems of their age. When the tide is receding from the beach it is easy to have the illusion that one can empty the ocean by removing water with a pail.

R. Dubos, Mirage of Health, New York: Perennial Library, 1959, p. 23

### Introducing a Medical Heresy

The modern "heresy" that medical care (as it is traditionally conceived) is generally unrelated to improvements in the health of populations (as distinct from individuals) is still dismissed as unthinkable in much the same way as the socalled heresies of former times. And this is despite a long history of support in popular and scientific writings as well as from able minds in a variety of disciplines. History is replete with examples of how, understandably enough, self-interested individuals and groups denounced popular customs and beliefs which appeared to threaten their own domains of practice, thereby rendering them heresies (for example, physicians' denunciation of midwives as witches, during the Middle Ages). We also know that vast institutional resources have often been deployed to neutralize challenges to the assumptions upon which everyday organizational activities were founded and legitimated (for example, the Spanish Inquisition). And since it is usually difficult for organizations themselves to directly combat threatening "heresies," we often find otherwise credible practitioners, perhaps unwittingly, serving the interests of organizations in this capacity. These historical responses may find a modern parallel in the way everyday practitioners of medicine, on their own altruistic or "scientific" grounds and still perhaps unwittingly, serve present-day institutions (hospital complexes, university medical centers, pharmaceutical houses, and insurance companies) by spearheading an assault on a most fundamental challenging heresy of our time: that the introduction of specific medical measures and/or the expansion of medical services are generally not responsible for most of the modern decline in mortality.

In different historical epochs and cultures, there appear to be characteristic ways of explaining the arrival and departure of natural viscissitudes. For salvation from some plague, it may be that the gods were appeared, good works rewarded, or some imbalance in nature corrected. And there always seems to be some person or group (witch doctors, priests, medicine men) able to persuade others, sometimes on the basis of acceptable evidence for most people at that time, that they have the explanation for the phenomenon in question and may even claim responsibility for it. They also seem to benefit most from common acceptance of the explanations they offer. It is not uncommon today for biotechnological knowledge and specific medical interventions to be invoked as the major reason for most of the modern (twentieth century) decline in mortality.1 Responsibility for this decline is often