versies is careful and informative. The account of the opposition of the health commissioners of New York City and San Francisco to closing the gay baths on the grounds that the action would accomplish little to stem the course of the epidemic and would undermine cooperation with the gay community while encouraging even more drastic measures against this at-risk group is the best chapter in the book. Also, the chapters on testing for AIDS and the dilemmas of implementing effective education campaigns aimed at promoting safer forms of conduct that is legally or socially proscribed also reflect his knowledge of drug policy, recent Constitutional history, and public health thinking.

More than other authors, Bayer devotes space to the issues of drug addiction and its role in the spread of the AIDS virus. His previous work in analyzing the shifts in U.S. drug policy adds depth. Yet here, as in other writings on the subject, there is too little: the world of the intravenous drug user remains the great unexplored continent of the epidemic.

In perhaps the most interesting and controversial part of the book, Bayer issues a call for a morality of restraint in private conduct that potentially has grave social consequences. Bayer has in mind filling the void that exists between the majority, which views homosexuality and drug abuse as morally repulsive and disgusting, and a minority that treats these forms of conduct as essentially private and entirely beyond the reach of the majority. As he writes, "The fundamental challenge to public health officials is to foster a culture of restraint and responsibility that would inform sexual behavior, childbearing, and drug use" (pp. 230–31). This is the responsibility not only of health officials but of democratic leadership more broadly. As Bayer knows, one of the more controversial implications of a morality of restraint is that it would necessarily undercut the moral condemnation that now surrounds the conduct in question. A new culture and ethic of restraint not only would create new responsibilities, it would mean far more extensive democratic speech, using the fresh air of democratic discussion and facts about modern sexuality and private behavior to attack the moralism that is enmeshed in views of the viral epidemic.

One quarrel with Bayer's perspective is his equation of public health with communal values. This sets the story of the epidemic as a struggle between health officials seeking to protect the public and civil libertarians defending the epidemic's victims. This dichotomy doesn't survive beyond the first chapter. As Bayer's recounting of the bathhouse controversy reveals, many leaders in public health opposed closing the bathhouses. Even when bathhouses were closed in New York City, public health leadership in the city and the state took pains to delimit regulation of public and commercial facilities from policing of the home and the bedroom.

Though the history of public health in the United States has long been centered on the welfare of the community, it is a paradox that during the '60s public health professionals were among those who fought to establish family planning clinics, to make contraceptives available to everyone, and to secure the right to abortion. Indeed, the rights of privacy won in such landmark Supreme Court cases as *Griswold v. Connecticut* (1965) and *Roe v. Wade* (1973) were pressed and understood as expanding not just private rights but also the compelling society-wide interest in public health.

Behind what Bayer terms the "abstraction of communal welfare" lie many other abstractions and ancient conflicts, civil wars, and latent fears that the welfare of the community is defiled and imperiled by morally repugnant behavior. The AIDS epidemic discloses that society's interest in health and safety must confront both viral plagues and plagues issuing from the collective unconscious. Hence, modern public health must expand private rights and democratic discussion to undercut the moralism that shadows every epidemic. This challenge is captured in Camus's line in *The Plague*, "All I maintain is that on this earth there are pestilences and there are victims, and it is up to us, as far as possible, not to join forces with the pestilences."

DAN E. BEAUCHAMP
School of Public Health, State University of New York, Albany, NY 12222

Clinical Advances in Practice

The Diffusion of Medical Innovation. An Applied Network Analysis. MARY L. FENNELL and RICHARD B. WARNECKE. Plenum, New York, 1988. xiv, 285 pp. $34.50. Environment, Development, and Public Policy.

How do promising new methods of diagnosis, treatment, or prevention of illness move from the laboratory to the patient's bedside? How can the process be speeded up (or, if desirable, slowed down)? What levers does the federal government have at its disposal to influence the process?

At a time when the costs of health care are the subject of intense concern, when the federal government has changed the incentives for provision of inpatient care dramatically through its prospective payment system, when new medical technologies are seen by many as responsible for high health care costs, and when debates about "cost" and "quality" in health care are proliferating, a book with the title *The Diffusion of Medical Innovations* is likely to capture attention. And it should. The need for careful examination of the issues it addresses is all too apparent.

The approach taken in the book, however, limits its appeal. The authors are sociologists specializing in organization theory. Their book is likely to appeal primarily to organization theorists, medical sociologists, and researchers interested in the general problem of the diffusion of innovation. Health care economists, health policy analysts, and health care administrators will find less of direct relevance to their concerns.

The Diffusion of Medical Innovations is a carefully researched analysis of initiatives undertaken in the mid 1970s in Arkansas, the eastern Great Lakes, Mississippi, Wisconsin, the Greater Delaware Valley, Illinois, and northern California, with support from the National Cancer Institute, to create community-based networks to encourage wider use of advances in the management of patients with head and neck cancer. At the time the initiatives were launched, NCI believed that there was a gap between the development and the application of techniques for the management of such patients.

The authors' analysis of these initiatives is framed and guided by organization theory; organizations—principally hospitals and medical schools—and the linkages among them are the principal units of analysis. The authors explore how relationships among key organizations evolved in the seven settings in response to the mandate and financial support provided by NCI.

Three broad hypotheses are elaborated by the authors: first, to be accepted, innovations need to be defined as helping to solve performance problems; second, the environment constrains innovation by defining resource capacity and distribution; and, third, performance will be affected by the "fit" between environmental circumstances and network form. The better the fit, the better the performance. These hypotheses are not directly tested. Instead, they are explored indirectly in the context of a series of specific questions, each of which forms the basis for a separate chapter. Chapter 3, "Network environment and response to uncertainty," addresses two questions: what factors stimulated initial interest in innovation among the target audience? and how were perceptions of performance gaps related to agenda setting within the networks? In chapter 4, the authors examine how the environment influenced the formation of channels—inter-

personal or interorganizational—through which the innovation was diffused. Chapter 5, "Network form, network structure, and boundary management," examines specific structural characteristics of the network linkages. The title of chapter 6, "Variation across hospitals in network program participation," is self-explanatory. The factors that influenced participation by individual hospitals are explored. Chapter 7 examines the way multidisciplinary, state-of-the-art patient care was defined in each program and then reformulated for dissemination. The final chapter considers the question of outcomes and summarizes the results.

My overall evaluation is that although the book succeeds as a research monograph it fails to speak directly and clearly to broader policy concerns. Though the authors make no pretension in that direction, it is disappointing that a research team that worked so intensively on a set of issues of such obvious relevance to policy would leave the policy implications of their work largely unexplored.

What will those most likely to be interested in the book—organization theorists, medical sociologists, and innovation researchers—learn? In my judgment, the most interesting material is to be found in the two final chapters, particularly chapter 7, where the authors depart from classical diffusion research, in which one finds the implicit assumption that a given "innovation" is relatively concrete and is pretty much the same from one setting to the next. Coleman, Katz, and Menzel's classic study of the diffusion of the drug gammanym is an example of such research; the innovation Coleman *et al.* tracked, a drug, is the same in all of the settings in which it is adopted. Fennell and Warnecke, however, discuss how the innovation with which they are concerned had a large "software" component that needed to be adapted to particular circumstances in order to diffuse at all. They use the term "reinvention" to refer to the fact that in each of the seven settings they examined the innovation was defined somewhat differently. In fact, the differences were so great at the extremes as to cause one to wonder whether the innovations as defined were the same generic innovation or not. Parenthetically, this question raises the further question of how one might judge when there is a generic innovation or when the phenomena being analyzed are actually different. Although the concept of reinvention needs further development, a useful contribution of the study is to suggest that it is unlikely that the same dynamics would be involved in the diffusion of innovations with large and with small software components.

This discussion may seem somewhat distant from the main thrust of the authors' study, but my own view is that *The Diffusion of Medical Innovations* contributes most by illustrating, intentionally or not, the limitations of classical diffusion theory. The most interesting and stimulating observations are made when the authors break from the theoretical and linguistic shackles that bind them for the first six chapters. There is much to be learned about innovation and change and about outcomes and effectiveness from the final two chapters. And although recent changes in health policy in this country make the specifics of much of their work primarily of historical interest, Fennell and Warnecke do remind us once again of the profound inertia, born of divergent interests both within and without the medical community, that confronts those who would innovate. The results of their study are proof positive of the difficulties inherent in trying to determine the extent to which new medical discoveries are actually being incorporated into the practice of medicine, of the interplay of science and politics, of the multiplicity of agendas that form the context for new initiatives, and of the kaleidoscopic array of interests, levels, and layers that ultimately shape the end result.

JOHN R. KIMBERLY
Wharton School,
University of Pennsylvania,
Philadelphia, PA 19104

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