Directions in Medicine

American Medical Schools and the Practice of Medicine. A History. WILLIAM G. ROTHSTEIN. Oxford University Press, New York, 1987. xii, 408 pp. $29.95.

The growth of the American medical establishment to its present dominant position in research, education, and care makes a fascinating and critically important story, and this detailed and scholarly analysis is rich in history, lore, and data. Rothstein begins by noting the grounds of three prevalent criticisms of the present establishment: its emphasis upon research rather than clinical skills, its emphasis upon the training of specialists and subspecialists, and its use of the severely ill patient as a training base rather than the more usual problems encountered in community care. The central conflict is viewed as one pitting theoretical medicine, favored by scientists and faculty, against practical medicine, favored by students and community physicians.

The forces leading to present systems are developed historically with a discussion of relevant events from 1750 through the present. In the earliest days discussed there was a medical non-system, based upon tradition, characterized by scientific ignorance, and implemented practically through apprenticeship programs. By 1825 medical schools, medical societies, and medical journals began to appear, together with a growth of private instruction. Heroic therapy consisting of bleeding and purgatives was taught. Only 20 active drugs made up the clinical formulary.

The years after 1860 featured improvements in infectious disease control, largely due to public health measures, and the introduction of anesthesia and major surgery. Hospitals increased their educational role, and some early treatments such as bloodletting gradually disappeared. Increased numbers of medical schools were formed, and there was expansion of curriculum from a repetitive mode into graded and sequential instruction. Vienna and Berlin were the major centers, and American students frequently trained at least briefly in those cities. Toward 1900 Osler and others began to urge active clinical teaching, including work in outpatient departments.

After 1900 infectious disease problems continued to decline. Specialties began to break away from the body of medicine, and increased numbers of more active medications were available. The hospital house staff took on an educational aspect with development of internships and residencies. The ratio of physicians to population actually decreased, however, in part because of improved standards and in part through the influence of the American Medical Association. Many medical schools closed, again partly because of increased standards and partly because of economic factors. It is customary to attribute these changes largely to the Flexner report, released in 1910. Rothstein, however, is not a great fan of this point of view and indulges in Flexner-bashing to a considerable extent. He argues that the beginning of reforms preceded Flexner, that school closures were often based on economics, and that many mergers and closures had occurred even prior to 1910.

This period was also associated with major changes in clinical teaching involving the professionalization of academic medicine. The full-time model for faculty became important although resisted by clinical departments. At Johns Hopkins, for example, Barker and Thayer, two of the most prominent clinicians of the day, declined full-time status in favor of maintaining their practices. With growth of the full-time system, however, teaching in hospitals increased and house-staff programs grew. Creation of the geographic full-time faculty model, exemplified by Harvard, represented a compromise mode but also decreased emphasis upon home visitation and tended to centralize care in large institutions. The full-time faculty, whether geographic or pure full-time, gained control of the educational institutions.

The years after 1950 accentuated these trends, aided by development of third-party payment systems, rapid growth of technology, increased specialization, and greatly increased costs (rising from 4.4% of the gross national product in 1950 to nearly 11% at present). Demographic changes led to an increased number of older patients, malpractice and quality issues arose, specialists began to provide primary care, and a shortage of family physicians and home care was noted. Hospitals became larger, utilized higher technology, were staffed more by foreign medical graduates, and had increasing numbers of nurses and residents.

The rapidly growing National Institutes of Health largely delegated their charge to academic medical centers, again increasing the rate of growth of these centers. In academic centers there was intellectual euphoria with the rapid growth in understanding of biology, to the near exclusion of prevention and treatment. Research was investigator-driven and the system was laissez-faire. With leveling of research funding in more recent years, medical schools increased attention to clinical earnings, often forcing part-time clinical faculty out and losing contact between faculty and community, with resulting town-gown controversies. Medical school enrollments were subsidized on the basis of a perception of inadequate numbers of physicians. Science and mathematics requirements for admission were increased. The undergraduate medical student was led toward specialization with increased elective time in the curriculum. He or she trained upon increasingly atypical patients. Graduate medical education involved increasing numbers of individuals with a decreased breadth of training and lax regulation of the quality of programs. Training in primary care had limited influence although it remained popular with medical students.

Rothstein's closing call for reform is focused upon a postulated need for additional family physicians. This is at once a natural result of the preceding analyses and a weakness in concept of the book, which focuses too strongly upon structure and process issues and not clearly enough upon outcome for the patient or for society. If the system, given finite resources, should direct itself toward the greatest good for the greatest number, there needs to be more emphasis upon the major contemporary areas of national morbidity and upon policies directed at the largest problems.

In scattered places, Rothstein does discuss these issues. He notes, for example, the discovery of prevention as the "second epidemiologic revolution" in recent years and the recognition of host and social factors leading to disease. He notes the relationship of personal behaviors and environmental factors to health. He notes that physicians seem to be falling behind patients in recognition of behavioral determinants of health and that they have no educational preparation for dealing with chronic diseases or for modifying risk factors. He notes the need for reform of the self-perpetuating peer review system for research and regrets that the social sciences have been essentially frozen out, limiting the contribution of the National Institutes of Health to national goals and priorities. But he fails to call for changes in curricular and research priority that would redress these problems.

It is not necessarily true, for example, that increased numbers of traditionally trained family physicians will improve care in complex chronic illnesses or will increase the frequency of effective preventive interventions. The central message of the book, therefore, pits specialists against generalists

while ignoring the broader questions of how accurately the priorities of the mega-center are aligned with the needs of the public. This book provides a detailed history of the structure and process of medical schools, medical centers, medical training, and the growth of the immense academic medical center. It remains for the reader to ask how this self-driven, self-serving, professionalized juggernaut can shift its paradigms so as to serve the public better.

JAMES F. FRIES
Department of Medicine,
Stanford University School of Medicine,
Stanford, CA 94305

Crisis Management

The AIDS Bureaucracy. SANDRA PANEM. Harvard University Press, Cambridge, MA, 1988. xiv, 194 pp. $22.50; paper, $9.95.

The AIDS crisis exemplifies the difficulties democratic systems face in resolving problems with broad social and ethical dimensions. Viewing the crisis primarily as a health emergency, many believe the nation's response to AIDS was slow and fragmented, particularly in light of the quality of our scientific infrastructure and in comparison with responses to other recent health threats, such as toxic shock syndrome, Legionnaire's disease, and the Tylenol poisonings. Despite remarkable scientific advances, including the rapid identification of the AIDS virus and the development of a diagnostic test, there is no national policy to prevent the spread of the disease, to reduce risk factors through education or other means, or to organize and finance an appropriate array of services for those already infected and seriously ill.

The failure to respond more rapidly and effectively to the threat of AIDS is attributed by Sandra Panem in *The AIDS Bureaucracy* to the absence of a centralized decision-making apparatus and resources that can be quickly mobilized in the event of a novel health emergency. Panem examines the federal health bureaucracy using AIDS as a case study of its ability to respond to a complex and urgent health problem. The overall objective of the book is to understand better how the bureaucracy might be strengthened for future health emergencies.

Much of the responsibility for protecting the public's health, notes Panem, is vested in state and local governments. The federal government exercises its influence primarily through budget priorities and policies governing publicly financed health services. Moreover, within the federal health bureaucracy there is little centralized strategic planning or adherence to a common agenda.

Panem focuses particularly on the Public Health Service, including the Centers for Disease Control and the National Institutes of Health, both of which were crucial in the early response to AIDS. She notes that competition and lack of communication among the agencies of the Public Health Service impeded progress in research. Likewise, the organizational separation between the Public Health Service and the Health Care Financing Administration contributed to the lag between advances in research and the development of health-services delivery strategies and patient-care policies.

Panem observes that the lack of clearly defined lines of authority and responsibility among officials at varying levels of government, the rivalries among federal agencies, the informal relationships between the public and private health sectors, and the sometimes adversarial relationships between the executive and legislative branches of government all may foster creative tension and provide checks and balances that are useful under normal circumstances. These factors tend to interfere with efficient handling of emergencies, however. Panem proposes a solution that will not be acceptable to all: the establishment of a national plan to facilitate the management of health emergencies that would include a central office or individual with the mandate, authority, and resources for action. Though we commonly feel frustrated by the pace and difficulty of achieving a workable plan of action, this reviewer finds it inconceivable that our society would give responsibility for policy of such far-reaching and complex consequences to a single individual or small group.

A competing explanation for our failure to develop a national AIDS policy has little to do with the organization and structure of government. Successful policy requires either a broad-based public consensus on key issues, such as the provision of clean needles to users of intravenous drugs or the testing of various risk groups, or a narrow consensus among a recognized elite on highly technical issues of a less controversial nature or about which the public appears unconcerned. Neither is apparent in the case of AIDS. There is disagreement about many aspects of the epidemiology and consequences of HIV infection and uncertainty and much conflict about the moral consequences of alternative social policies. These conditions do not usually encourage public deference to experts. AIDS is as much a social problem as a health problem, and AIDS policies have vast implications for the character of our society. An alternative federal health structure is not a substitute for consensus and political will on issues of such importance. Articulate and credible leadership is surely essential, but such leadership does not necessarily arise from a restructured bureaucracy.

Panem's proposal for an emergency plan is more viable as it pertains to research. The research establishment was initially slow in responding to the AIDS threat, and issues of prestige and competition with other priorities interfered with a coordinated scientific attack. Despite this, CDC and NIH made remarkable progress. We did less well in the services area, reflecting our inability to reconcile the recognition of need with budgetary concerns. Under urgent conditions, it should be possible for high-level health officials to tap existing research budgets to initiate a rapid response. Given the complexity and fragmentation of our health system overall, designing and implementing an appropriate response to need for care will remain a more formidable problem.

LINDA H. AIKEN
School of Nursing and Department of Sociology,
University of Pennsylvania,
Philadelphia, PA 19104–6096

A Service Profession

Beyond Monopoly. Lawyers, State Crises, and Professional Empowerment. TERENCE C. HALLIDAY. University of Chicago Press, Chicago, 1987. xx, 388 pp., illus. $29.95.

Lawyers are not as rotten as a lot of people think.

This might be the most valuable teaching of this able and earnest work. It is a welcome message, albeit not surprising, to those who have long associated with lawyers and their organizations. Hostility to lawyers, especially to their collective selves, is endemic and ubiquitous and as old as the profession. Professional work in law was in its adolescence in England in the 16th century when the radical Levellers and Diggers of the time focused on lawyers as the source of most human misery; it was a Shakespearean character drawn from that time who adjured his fellow revolutionaries to murder the lot. Similar rhetoric could be heard to echo along the frontier and throughout 19th-century America, although there were then few enough professionals in law that most states could have cleaned them out in an afternoon. And the spirit abides today, when a respected historian can liken the increase of lawyers to the pestilence or the plague of locusts and frogs that destroyed Egypt in the time of Moses. Yes, it is heartening to see the hard data presented here by Halliday, which show that lawyer organizations are not mere conspiracies