Commentary

The Politics of Evidence-Based Medicine

Marc A. Rodwin
Indiana University

The impetus for these essays on evidence in medicine and law is commonly called evidence-based medicine: the movement to evaluate the safety, effectiveness, and cost of medical practices using tools from science and social science and to base clinical practice on such knowledge. Evidence-based medicine is portrayed as an alternative to medicine based on authority, tradition, and the physician's personal experience. The role of politics is rarely mentioned. When discussed, politics is portrayed as what evidence-based medicine will avoid.

Rational evaluation of evidence plays an important role in medicine. However, it is not an alternative to medical politics. Rather, evidence is a tool for institutional control and policy argument. Today evidence-based medicine is used to oversee individual physicians and the practice of medicine. It thus helps to alter the balance of power among doctors, payers, and patients. Changing medical practice requires the development of political, legal, and medical institutions that oversee medical care. Promoting medical practice based on evidence will therefore necessitate more, not less politics.

An Investigator Award from the Robert Wood Johnson Foundation supported work for this commentary. Thanks are due to Michael O'Connor for research assistance.

Journal of Health Politics, Policy and Law, Vol. 26, No. 2, April 2001.

The Significance of Evidence-Based Medicine

Until recently physicians practiced medicine based primarily on their medical training, individual experience, and local custom. Few people understood what doctors did and medical work was shrouded in secrecy. Patients had little access to information about medical options or the performance of physicians. Payers also had little information and relied largely on physicians to exercise their best judgment. Doctors knew about their colleagues' work by direct observation or reputation, but there was little in the way of external assessment or control over medical practice outside of informal professional self-regulation. These conditions promoted physician autonomy and sovereignty.

Over the past half-century this situation has changed. Payers have sought to control spending. Patients have sought greater control over their treatments. Both patients and payers aimed to improve the quality of medical care. Physicians and other providers could accept the goals of payers and patients in principle. However, achieving these goals required changes in physician behavior and redistribution of income. Cutting costs, for example, requires reducing the income of physicians, hospitals, and other providers as well as changing the way medicine is practiced. Such changes do not come about without political struggles. In this fight, physicians traditionally possessed significant clout: their authority based on medical expertise. Doctors decided what was medically appropriate with little need to explain or justify their decisions.

Over the past quarter century, managed care organizations (MCOs) have shifted power away from physicians to payers. MCOs required, in one way or another, that doctors and medical institutions change their conduct. Along with new institutions there have arisen new professionals, a class of managers whose job it is to rationalize medicine. They evaluate, oversee, and control medical practice, particularly the conduct of physicians.

Evidence-based medicine helps promote this shift in power and facilitates the work of medical managers. To begin with, evidence-based medicine reduces the discretion and autonomy of physicians. While in the past the authority of doctors prevented questioning of their clinical choices, with evidence-based medicine, payers and managers can ask physicians to justify their decisions, thereby reducing the clinical discretion of doctors.

Moreover, when relying on evidence-based medicine, clinical choices

are not justified based on clinical insight, medical training, or personal experience. Instead, they are based on data from journal articles in medicine, epidemiology, and economics, which rely on such analytical techniques as random clinical control trials, multiple regression analysis, and cost-effectiveness analysis. These methods don't require a medical education and place nonphysicians trained in social science, science, or public policy analysis on par with physicians.[1] Relying on such studies breaks the lockhold that the medical profession traditionally has had over judging medicine.

Furthermore, evidence-based medicine has enabled payers, purchasers, and governmental authorities to use their financial clout to alter the practice of medicine. Traditionally doctors defined the standard of care. Now, armed with more and better information about medical practices, payers and purchasers can deny payment for medical services that they deem medically unnecessary or ineffective. In so doing, they redefine standards for appropriate medical practice.

The Politics of Expertise and Evidence

The genius of American politics, as Robert Paul Wolff has noted, is its ability to turn ideological issues into questions of interests that allow for compromise (Wolff 1965). In a similar vein, Americans frequently avoid contentious disputes over distribution of resources and power by framing policy issues as technical management questions that are best resolved by experts. This approach came to the fore in the progressive movement of the 1890s, which attempted to substitute governance by politics with governance by experts. In place of a spoils system, administrators were to be chosen based on merit, using competitive exams and guaranteed tenure. Administrators were supposed to be trained to rationally evaluate evidence and to then make decisions in the public interest.

Even today, the progressive ideal is central to our ideas about governance. For who would advocate having public servants without education and training? And who would forego analysis of policy issues and social problems? Yet the progressive ideal neglects an important point. Policy making, by its nature, requires making choices that are not value free or reducible to technical issues over which there is little controversy. It is not possible to purge issues of value, purpose, or politics from public policy.

1. Using such methods and studies is generally good. However, excluding other sources of knowledge or insight impoverishes medical practice. See, Lantos and Frader 1990; Tanenbaum 1993; Hanfling 1981; Frankford 1994.

Nevertheless, when faced with contentious health policy issues, Americans often try to do just that. They draw on their progressive era heritage, appeal to evidence and expertise, and search for a technocratic fix (Brown 1985; Belkin 1997; Matthews 1999). In doing so, they hope to defang political conflict. The progressive ideal is implicit in the hope that medical information will lead, without controversy or politics, to better clinical decision making, better medical care, and better health policy. It is implicit, too, in attempts to develop practice guidelines based on evidence and science, as a way to get physicians to rise above their parochial views and self-interest.

Sometimes defining issues as questions of technique or evidence masks the underlying political disputes. (An example of this is the use of resource-based relative value scales in the Medicare program to redirect payment among medical specialties.) But the political issues are still there, even when they are addressed indirectly using the language of technique and evidence. Battles over income, turf, and the goals of medicine and policy lie just below the surface. Under these circumstances, evidence becomes an instrument of politics rather than a substitute for it.

Evidence in Policy Debates

When evidence suggests that one therapy is superior to another, this information can be used to change prevailing medical practice. Such change typically requires that some medical specialties and medical suppliers lose income while others gain, sometimes also, that physicians alter the manner in which they are accustomed to working. Physicians, no less than other groups, tend to resist unsettling changes. When the difference between competing therapies is dramatic, indisputable, and well-known, a better and least costly therapy is likely to be adopted in medical practice. Medical professionalism will often spur such change but if not, the demands of nonmedical groups are likely to do so.

Alas, often evidence is not so clear that there is no room for debate. Sometimes evidence may be preliminary rather than well established, or the therapies may be so new that their long-term effects are not known. Assessments of the effectiveness of a therapy may vary across studies depending on the population studied, the questions asked, or the methodology employed. Even when an area is carefully scrutinized, there is frequently significant uncertainty and ambiguity about what approach will work best. The pros and cons of different therapies may also vary depending on the patientís other medical conditions. There may be trade-offs

between effectiveness and safety, or between effectiveness in treating the medical condition and quality of life.

The complexity of performing good studies and interpreting evidence provides openings for medical providers and suppliers who want either to resist change or to promote new therapies. They usually begin with clear views about how medicine should be practiced and then search for evidence that supports these positions. Not surprisingly, the way they select and interpret evidence fits with their interests.

Evidence and Accountability

Of course, health policy should promote medical practice that is generally based on science and evidence of effectiveness. How can this be done? Studies evaluating medical practices are necessary, but they are not sufficient. Producing data, evidence, even knowledge alone won't always change the behavior of physicians. Doctors have their own financial interests and biases. Third-party payers and medical providers encourage doctors to act in ways to promote their financial interest when they make medical decisions. They provide doctors with financial incentives and also use institutional controls to influence the choices physicians make.

To promote the practice of medicine based on evidence, then, these influences must be minimized and counteracted. There should be rewards for physician behavior that conforms to practice guidelines based on evidence. We also need institutions and incentives that reduce or counter physician conflicts of interest (Rodwin 1993). Most important, there must also be institutions that promote physician oversight and accountability, which are needed to change physician behavior. Such institutions require political and institutional infrastructures that oversee medical practice (Rodwin 2000a).

There are already a range of tools to influence physician behavior, including financial incentives, utilization review, peer review, group practice, and medical information systems. Much of the managed care infrastructure is designed to make doctors accountable. However, accountability to MCOs is a means, not an end. It leaves unanswered the two most important issues. What goals and values will MCOs promote? To whom will MCOs be accountable? (Rodwin 2000b).

The divergence between what is recommended by evidence-based medicine and actual medical practice suggests that we should be skeptical that the medical profession will promote good medical care without oversight. However, we have no reason to be less skeptical that MCOs,

or any other organization, will perform as the public desires without oversight. The same reasons that prompt doctors and hospitals to ignore evidence may also prompt managers, MCOs, insurers, purchasers, or other medical providers to ignore evidence (Rodwin 1999). We need mechanisms to promote accountability of MCOs and other medical organizations to promote evidence-based medicine.

The Role of Courts

Courts resolve disputes, make policy, and promote legal accountability. The way courts evaluate evidence provides some lessons for proponents of evidence-based medicine. Courts perform their work both as experts (in law) and as laypeople (interpreting facts and nonlegal issues). Although we typically speak of courts finding the "truth" or "facts," U.S. legal procedure is skeptical about the ability of experts to find "truth."

American courts resolve disputes using an adversary system that allows each party to present evidence and experts most favorable to its legal claims, and to cross-examine, discredit, and rebut the expert witnesses of opposing parties. Judges initially are supposed to admit all evidence tendered by parties that is relevant, probative, and not prejudicial to parties (Federal Rules of Evidence, Rules 401, 402, 403). When the parties dispute the facts, the responsibility for sorting through the evidence and determining what facts to believe is left to a jury of laypeople or to a judge that acts not as an expert but as a lay fact finder. This system, whatever defects it has, recognizes that evidence, and even facts are disputable, that experts may disagree, and that therefore there is a political element to interpreting evidence. It aims to promote fair procedure for evaluating evidence rather than fair outcomes, results, or truth. The process makes use of experts but is not controlled by them. For a range of cases, courts rely on lay juries as a democratic check on the power of judges (Abramson 2000).

Proponents of evidence-based medicine sometimes seem to wish that parties in court proceedings would behave more like scientific investigators. They view courts as unwieldy, inexperienced at addressing questions involving medical evidence and lacking scientific expertise. Such critics have a romantic view of science and are selectively harsh on courts.[2] Whenever evidence is evaluated in policy settings rather than in

2. Science, too, has its politics, See, for example, Kuhn 1970; Feyerabend 1988; Lakatos and Musgrave 1970.

peer review journals, the process is always messy and subject to politics. Confronting such politics directly by channeling the political process, rather than denying or avoiding the political element, best addresses the limitations of political processes. Indeed, politics is not necessarily adverse to rational assessment. There is, after all, an element of courts and politics that proponents of evidence-based medicine approve of in principle: the robust criticism and testing of positions by opposing camps rather than reliance on authority and eminence. It would be ironic, indeed, if in an effort to promote evidence-based medicine, American society encouraged resolution of thorny health policy issues by experts without the check of the political process.

References

Abramson, Jeffrey B. 2000. *We the Jury: The Jury System and the Ideal of Democracy*. Cambridge: Harvard University Press.

Belkin, Gary. 1997. The Technocratic Wish: Making Sense and Finding Power in the Managed Medical Market Place. *Journal of Health Politics, Policy and Law* 22(2):509–532.

Brown, Lawrence. 1985. Technocratic Corporatism and Administrative Reform in Medicare. *Journal of Health Politics, Policy and Law* 10(3):579–599.

Feyerabend, Paul. 1988. *Against Method*. London: Verso.

Frankford, David. 1994. Scienticism and Economics in the Regulation of Health Care. *Journal of Health Politics, Policy and Law* 19(4):773–799.

Hanfling, Oswald. 1981. *Logical Positivism*. Oxford: Blackwell.

Kuhn, Thomas A. 1970. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

Lakatos, Imre, and Alan Musgrave. 1970. *Criticism and the Growth of Knowledge*. Cambridge: Cambridge University Press.

Lantos, John D., and J. Frader. 1990. Extracorporeal Membrane Oxygenation and the Ethics of Clinical Research in Pediatrics. *New England Journal of Medicine* 323(6):409–413.

Matthews, T. Rosser. 1999. Practice Guidelines and Tort Reform: The Legal System Confronts the Technocratic Wish. *Journal of Health Politics, Policy and Law* 24(2):275–304.

Rodwin, Marc A. 1993. *Medicine, Money and Morals: Physicians' Conflicts of Interest*. New York: Oxford University Press.

_____. 1999. Backlash as Prelude to Managing Managed Care. *Journal of Health Politics, Policy and Law* 24(5):1115–1126.

_____. 2000a. Exit and Voice in American Health Care. *University of Michigan Journal of Law Reform* 32(4):1041–1066.

_____. 2000b. *Promoting Accountable Managed Care: The Potential Role for Consumer Voice—A Report to Consumer Federation of American, Families U.S.A., and the National Health Law Program*. Indianapolis: Center for Law and Health, Indiana University Law School. Also available on-line at www.familiesusa.org/pubs/acctmc.htm and www.healthlaw.org/pubs/2000rodwin.html.

Tanenbaum, Sandra. 1993. What Physicians Know. *New England Journal of Medicine* 329(17):1268–413.

Wolff, Robert Paul. 1965. Beyond Tolerance. In *A Critique of Pure Tolerance*, ed. Robert Paul Wolff, Barrington Moore Jr., and Herbert Marcuse. Boston: Beacon.