

STRATEGIC MANAGEMENT AND HEALTH WORKFORCE POLICY

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ABSTRACT

Among the many consequences of health care restructuring is the impact such changes have on the training requirements for the health professions. Since workforce planning has been difficult and sometimes controversial in relatively stable times, it is likely to be even more problematic amid the turbulent changes ahead as the U.S. health care system restructures for the 21 century. Strategic management models emphasizing stakeholder involvement offer a middle ground between the extremes of government mandates and free markets by engaging a variety of participants with a stake in the planning outcome. The following report on the New Jersey effort to engage a variety of health care stakeholders in a participatory management process to shape the state physician workforce may provide useful insights for both managers and policy-makers.

INTRODUCTION

In the first half of the twentieth century, the structure of the U.S. health care system was significantly influenced by two major responses to advances in the field of medical science. At the beginning of the century, the development of complex technologies such as x-ray machines shifted the focus of medical treatment from individual physicians' offices to the hospital that could afford and support such expensive resources. The successful application of these technologies for both diagnostic and treatment purposes brought physicians and their patients into the hospitals and gradually changed the perception of the hospital from that of a place to die to that of a place to survive. The success of medical advances during the second World War provided a

second boost to the role of science in shaping the health care system. Developments in preventive and rehabilitative medicine attracted the attention of the federal government and led to a post-war investment in health care that included the creation of the National Institutes of Health and support for major expansion in hospital construction (Stevens, 1989).

In the second half of the century, the structure of the health care delivery system was profoundly affected by changes in the financing of health care. The development of private insurance and the passage of Medicare made health care available to most Americans and turned it into a growth industry with a significantly expanded infrastructure. However, within a mere fifteen years after the creation of Medicare, the percent of GNP spent on health care tripled and the federal government began considering ways to constrain that growth (Vladeck, 1999; Rice and Labell, 1989). Stimulated by the shift in financing to prospective reimbursement of services, managed care and the privatization of hospitals began restructuring health care delivery back towards the ambulatory model that prevailed at the beginning of the 20th century (Shortell *et al.*, 2000).

These changes in the structure of the delivery system during the past century were reflected in the evolution of the health care workforce. The Carnegie Commission's *Flexner Report* and the initiation of a science-based medical school curriculum at Johns Hopkins University set a standard for medical training early in the century that was soon emulated by the other health professions. The post-WWII federal support for health professions training spurred the expansion of medical and public health schools. The middle of the century witnesses the development of extensive educational support that ranged from scholarships to Medicare subsidization of medical residencies and the

development of extensive health professions training programs in the growing Veterans Administration hospital system (Starr, 1982; Williams and Torrens, 1999).

However, like the health care systems in general, the workforce began to experience pressure to contract as the century drew to a close. The Graduate Medical Education National Advisory Commission (GMENAC) suggested that the United States might be creating an oversupply of physicians and produced the scientific basis to justify the financial interest in reducing the growth of the health care workforce which, in turn, affected the developments in the other health professions (Tarlov, 1988; Iglehart, 1995).

Among other things, the GMENAC findings of specialty and geographical maldistribution resulted in a recommendation to shift medical training to focus more on primary care. Combined with the shift to prospective payment and the growth of managed care, these findings set the stage to restructure the health care workforce to match the changing treatment delivery system (Cromwell, 1999; Kindig, 1998). The following examines the effort in one state to restructure the health workforce by strategically shaping medical education policy.

HISTORICAL PERSPECTIVE

A little more than a decade ago, industry analysts were claiming that health care was not a business, did not conform with the general principles of economics, and was a local service phenomenon that could not be globalized (Thurow, 1985; Schramm, 1986). Whether such statements were due to industry myopia or to romantic attachments to the past, we now realize that the health care industry is facing many of the same challenges that other businesses are confronting. New alliances, mergers, and other forms of

organizational restructuring are occurring among a wide range of health care organizations and the implications of these changes for managers and policy-makers are considerable (Ginsburg and Lesser, 1999).

Prior to the 1989s, health care providers inhabited a relatively stable environment. However, as concern over the cost of medical care increasingly shaped the political agenda of the 1980s, health administrators and government policy-makers encountered immense pressure to redesign the health care system to make it more responsive to changing market conditions (Ginzberg, 1985a; Relman, 1989). Yet, in spite of all the attention generated by the Reagan era rhetoric and the Clinton health reform plan, actual changes in the public sector have continued to be limited. Only recently has the threat of major spending reductions in Washington stimulated an increase in activity and much of that has focused on changes in Medicare and Medicaid.

In the private sector, however, there has been a flurry of merger and acquisitions ranging from purchase of community not-for-profit hospitals by for-profit chains to megamerger international pharmaceutical deals. These changes in the institutional structure of the health care industry combined with the reimbursement changes imposed by managed care have affected everything from the treatment of patients to the very survival of many organizations (Herzlinger, 1999; Blair and Fottler, 1998). This rapid rate of change further complicated decision-making in an industry already straining from the burden of government regulation and competitive pressures of the marketplace.

One area of particular strategic importance for health care managers and policy-makers involves the training of the nation's workforce. Changes in issues ranging from reimbursement criteria to scope of practice definitions can

shift a profession from being in a state of shortage to one of oversupply overnight. The recent shift to prospective payment in the long-term care sector, for example, is having devastating effects on the physical therapy workforce. Such changes in the health care workforce will impact everyone from educators and insurers to administrators and patients. Consequently, the way that workforce changes are managed will have major implications for the future of health care.

Workforce planning is particularly serious in professions where training takes many years to complete and is further complicated when training is subsidized by government. For example, physician residency training can take five or more years after medical school and is heavily dependent upon the federal government for support. Much of the training has historically been subsidized through Medicare payments or training at Veteran Affairs hospitals.

Since congressional discussions of Medicare overhaul plans often include provisions for restructuring the financing of medical residence training, managing future physician workforce planning is becoming more important than ever. Concern over the politics of physician workforce planning has been reflected in the AMA House of Delegate's health reform statement that, in many of the proposals, planning the physician workforce has been taken out of the hands of professionals and delegated to agencies of the government (*Guidelines*, 1994).

With the continuing turbulence of health care restructuring and the continuing political rhetoric about decreasing the impact of government in business, it is more important than ever to think strategically about how to shape policy on managing the health care workforce (Mechanic, 1999; Mullan and Lundberg, 2000).

WORKFORCE RESTRUCTURING

One place where the physician workforce was examined as a strategic planning issue is New Jersey. Throughout the 1980s, fear of the surplus of physicians predicted by the Graduate Medical Education National Advisory Committee (GMENAC) *Report* generated interest in limiting physician supply and applicants to medical schools declined in anticipation of the changes ahead (Rice and Labelle, 1989; Ginzberg, 1985b; *Report*, 1986). In addition to medical school enrollment, policy-makers were concerned about the graduate medical education (GME) system that controls entry into the medical profession from both home and abroad (Jonas, Etzel, and Barzansky, 1989; "Graduate," 1981; Jacoby, 1981; Iglehart, 1981).

In New Jersey, health administrators and policy analysts had special reason to be concerned about the continuing increase in the size of their GME system. While professional organizations such as the American College of Surgeons had called for constraint on physician supply growth in the late 1970s, the New Jersey system was continuing to expand and had acquired the highest percentage of foreign medical graduates (FMGs) in the nations (*Policy Prospectus*, 1985). State health policy analysts were concerned that the increasing size of their GME system could lead to an excess supply of physicians as well as a decline in treatment quality. There was also concern that the New Jersey GME system was becoming one of the largest and most troubled in the nation with the highest percentage of FMGs of any state and nearly twice as many GME positions as state medical school graduates.

The problem in New Jersey was that successful efforts to expand state programs in the late 1970s had not been curtailed in response to the anticipated decline in the demand

for physicians. Consequently in the fall of 1985, the Department of Higher Education in conjunction with the Department of Health, the New Jersey Hospital Association and the University of Medicine and Dentistry initiated a year-long attempt to address that issue. In an effort to avoid heavy-handed government mandating of the state's health workforce policies, an attempt was made to utilize a strategic management approach in order to maximize participation and provide the stakeholders of the GME system with the opportunity to control their own future. The five-year follow-up analysis of that effort to manage the physician workforce may prove instructive to health care administrators and other health care professionals facing similar workforce challenges ahead.

RESEARCH CONTEXT

New Jersey's dilemma can be traced to the origins of its graduate medical education system as a group of relatively autonomous hospital residency programs affiliated with medical schools in the neighboring states of New York and Pennsylvania. It was only with the passage of the Medical and Dental Act of 1970, which created the University of Medicine and Dentistry of New Jersey, that hospitals were assured of an opportunity to secure medical school affiliations within the state.

In 1977, the New Jersey State Legislature passed Public Law 1977, Chapter 390, which initiated a statewide effort to coordinate and fund the promotion of high quality graduate medical education. The Advisory Graduate Medical Education Council (AGMEC) was created to guide the development of GME programs and to "determine the number of graduate medical education programs which

needs" (*Policy Prospectus*, 1985:13). AGMEC was designed to function in an advisory capacity to the Department of Higher Education and to be chaired by the President of the University of Medicine and Dentistry. With responsibility for statewide graduate school education planning, AGMEC came into existence with an initial charge to expand state programs. By the 1980s, however, its success in that endeavor had resulted in the problem of excess program capacity.

With a ratio of approximately 228 physicians per 100,000 population, the New Jersey physician population in 1985 was near the national average of 221 (Manard and Lewin, 1983). However, the anticipated continuation of program growth threatened to exceed the recommended physician supply for the year 2000 and cost the state millions of dollars of unnecessary education and treatment expenses (Angelides, 1986). Consequently, a study was commissioned by the Department of Higher Education to determine the supply of practicing physicians in New Jersey as a basis of shaping physician manpower planning. That research, conducted at the University of Medicine and Dentistry, expanded upon the findings of GMENAC to update data in accord with changing conditions (Fagan, 1996). As a result of that research, projections were developed for use in shaping future residency training policy.

In addition to program size, GME stakeholders were also concerned about program quality. Only 44% of their residents training in New Jersey in 1984-85 were graduates of U.S. medical schools (USMGs) in comparison with a national figure of 83%. Since the ability to attract U.S. medical school graduates is often viewed as an indicator of program quality, the high percent of state residency positions filled by foreign medical graduates (FMGs) was a concern. In addition, the percent of U.S. citizens among

foreign medical school graduates (USFMGs) had been increasing due to the growth of the “off shore” medical schools. While these U.S.-born students reduced potential language and cultural difficulties, some educators believed there was even more reason to be concerned about the quality of their medical school training than that of the non-U.S. citizens (Johnson *et al.* 1996).

Intervention Strategy

The publication of *A Policy Prospectus for Graduate Education in New Jersey* by the Department of Higher Education in 1984 initiated a period of anticipated change in New Jersey graduate medical education, raised a number of issues, and provided general guidelines for future action. The publication was followed by a Department of Health moratorium on GME program growth in the form of the refusal of the Department to finance any future residency positions beyond the number approved for 1985 programs but enforcement of that moratorium was weak and there was concern that such an approach placed too much decision-making power in the hands of a centralized agency of the state government.

The need for restructuring of residency training into a more cohesive system attuned to statewide objectives was becoming readily apparent. By the summer of 1985, health care leaders in the state realized that the time had arrived for a revised approach to confronting the issue of quality graduate medical education. However, some health care constituents were concerned that an approach increasing the centralization of power might result in a reduction in program size at the cost of clinical and educational factors essential to the provision of quality health care. Since participatory management principles were gaining influence in

the public as well as the private sector at that time, a strategic management approach emphasizing the active involvement of organizational stakeholders, as a means to enhancing the potential for successful policy change, seemed appropriate (Ackoff, 1994; Valentine, 1993).

After considerable analysis, the Department of Higher Education (DHE) created two state task force to examine the quality and scope of GME programs and the financial issues affecting them. An outside consultant was hired to coordinate these activities. The task forces contained teaching hospital directors of medical education (DMEs), government policy-makers, representatives of the state hospital association, and other constituents of the graduate medical education system.

Following a year of analysis and planning, the task forces presented a new set of policy recommendations to the AGMEC in January of 1987 (*New Generation*, 1987). While a number of issues were addressed in the report, program size was the major concern for most participants. However, since residents could not simply be dropped from programs in order to downsize the system, it was acknowledged that size reduction plans would have to be spread over a period of several years and, due to the lag time between when residents begin their training and when they enter the physician labor market, actual reductions in the number of new practicing physicians in the state could not be expected to begin until several years after the reductions in new residents were initiated.

POLICY IMPACT

The key task force recommendation was for an annual 5% reduction in the existing 615 first-year residency positions (PGY-1) within the state system for the next five

years which translated into a decrease of at least 31 positions per year. But participants were also concerned about improving program quality and reducing size. Since teaching hospitals have traditionally had considerable autonomy, a centralized reduction strategy such as across-the-board cuts threatened to shrink strong programs as well as weak ones. Therefore, a strategy was devised to involve major stakeholders such as directors of medical education in a statewide strategic planning group that would annually negotiate reductions on a voluntary basis. Those most familiar with the programs could thereby redesign the system based on program strengths and weaknesses instead of letting government bureaucrats dictate the changes on the basis of dollars or political favors.

Since the overall task force goal was to achieve a balance of physicians in the state by the end of the century, the final impact of the strategy intervention will not be known for several more years. However, one can hopefully learn something of the impact of such an approach to workforce planning by looking at New Jersey's success in achieving its initial objectives. In order to do so, data for the five years following the recommended policy changes were examined. Due to staff changes at the University of Medicine and Dentistry and the dissolution of the Department of Higher Education, the data on program size changes were obtained from the Accreditation Council for Graduate Education (ACGME) of the American Medical Association for the five years following the policy changes (Crowley, Personal Communication, April 7, 1989; Etzel, Personal Communication, September 27, 1990).

When the change in five-year residents is observed it can be seen that the number of PGY-1 declined by nineteen from 1986 to 1987 (Table 1). Although the goal of a reduction of 31 positions (5%) was not met, there was limited

TABLE 1
NEW JERSEY PGY-1 RESIDENTS
(BY YEAR)

YEAR	TOTAL
1986	615
1987	596
1988	559
1989	522
1990	556
1991	589

**SOURCE: ACGME annual survey of
graduate medical education programs
(Crowley, 1989)**

TABLE 2
NEW JERSEY PGY-1 FMG RESIDENTS
(BY TYPE OF MEDICAL SCHOOL)

YEAR	TOTAL	USFMGs	AFMGs
1986	264	162	102
1987	280	175	105
1988	271	151	120
1989	262	127	135
1990	300	110	190
1991	338	93	245

SOURCE: ACGME annual survey of graduate medical education programs (Etzel, 1990)

opportunity to implement the policy recommendations for that year since the 1987 class was nearly selected by the time the task force report was completed. However, the reduction in PGY-1 residents for each of the next two years rose to 37, thereby meeting the policy change objectives. Unfortunately, those changes did not continue for the last two years.

The impact of policy changes on foreign medical graduates (FMGs) was somewhat similar (Table 2). While the earlier upward trend in FMGs continued in 1987, the FMG situation improved in 1988 and 1989. Equally important, while total FMGs decreased only by 9 for each of the next two years, the more questionable USFMGs were reduced by 24 each year and, since AFMG totals increased by 15 in both 1988 and 1989, the total of New Jersey PGY-1 AFMGs outnumbered USFGs for the first time in several years. Thus, not only were PGY-1 reduction goals met for two consecutive years but FMG ratios improved in those years as well. Unfortunately, those changes did not continue for the following two years. However, the decline in USMGs did continue through the fifth year, resulting in a reduction from 1987 to 1991 of 47% and the decline in US medical graduates slowed from nearly 30% per year during the first three years to less than half a dozen during the last two years. Thus, improvements in both the USMG and the USFMG trends continued over the five-year period.

CONCLUSION

As we observe the continuing restructuring of the U.S. health care system, it is important to remember that not all changes occur at the same pace. Thus, while hospital mergers and reductions in services may occur relatively quickly, changes in the training of the workforce may occur

more slowly. The New Jersey experience demonstrates that these workforce training changes include not only issues related to increasing the workforce but also to decreasing it. Once programs have been developed and staff hired, institutions adapt their services to the existing resources (Perrow, 1970). Medical education directors, for example, become invested in their GME programs and hospitals grow accustomed to having certain services provided by medical residents. Consequently, any efforts to reduce the programs involved are likely to meet with resistance from a variety of constituents.

It was to deal with such forces that an effort was made to engage New Jersey's various GME stakeholders in the actual planning done for their state. Unfortunately, after a successful start, changes, that appeared to be moving in the right direction during the early years following the policy changes, began to wane. Whether this was due to fading enthusiasm among GME planning participants or the demise of the Department of Higher Education is hard to tell. However, the early policy change successes would indicate that potential exists for successful workforce planning through the use of a wide range of stakeholder involvement. This idea may hardly seem earth-shaking since it has been espoused in management human relations circles for more than half a century (Rothsberger and Dickson, 1941). Yet, in spite of all the adulation showered on the use of teamwork and democratic processes these days, stakeholder participation continues to be neglected in policy formulation.

When community stakeholders, such as the directors of graduate medical education, believe they know which programs are good quality and which are not, it seems reasonable to provide them with the opportunity to make the decisions required for planning their profession's future

and the responsibility for taking the risks associated with those decisions. As the data on residency training in New Jersey indicate, participatory planning has the potential to shape the future health care workforce without heavy-handed government mandates that can threaten treatment quality in the quest for cost savings. With so much change going on in the health care system, this is a lesson worth keeping in mind. As system restructuring continues, policy-makers will need management models that can deal flexibly with the evolving health care environment. The results in New Jersey provide reason to believe that the extra work required to engage health care stakeholders in the management of policy planning can be worth the effort.

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