POLICY PAPER #2

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TO: Subscribers and Clients

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SUBJECT: MEDICAL SCHOOL ENROLLMENTS IN MICHIGAN

The Statewide Health Coordinating Council, the State Office of Health and Medical Affairs, and the Governor's Commission on the Future of Higher Education in Michigan all have recommended reducing university medical school enrollments. These bodies argue that Michigan has an oversupply of physicians and that this contributes to increased health care utilization and hence expenditures. This policy paper assesses the short- and long-term factors influencing the future need for physicians in Michigan.

ISSUE

Physician supply, its implication for health care costs, and state policy governing medical school enrollments are issues that require consideration of both the short- and long-term effects. In the short term, there is great pressure to restrict the number of physicians; in the long term, the health care delivery system could be greatly stressed by unanticipated demands. That system is already changing in ways unexpected just a decade ago. The world of medicine is being buffeted by fundamental shifts in reimbursement methods; growing competition among health care providers; continuing advances in medical science; and enormous pressure by government, business, and labor to restrain utilization, ration access, and reduce costs.

Policies responding to today's problem of health care costs must also anticipate the medical world of the year 2000 and beyond. Students entering medical school this year will be practicing well into the first quarter of the next century, and the decisions made now by universities and state government with respect to medical school enrollments and medical specialization must be geared not only to short-term concerns about the oversupply of physicians, but also to the changes foreseen in the health care delivery system with a population increasingly more elderly and more susceptible to illness.

SHORT-TERM FACTORS

Current Physician Supply in Michigan

In 1961, Michigan had one active physician for every 877 residents.[1] By 1983, this ratio had increased to 1:508.[2] By 1991, the Office of Health and Medical Affairs projects the ratio will increase to 1:425.[3] Projections of the "desirable" number of physicians vary widely. The State Health Coordinating Council, in its 1983-87 State Health Plan, recommended a ratio of 1:725.[4] The Graduate Medical Education National Advisory Committee recommended a ratio of 1:497-551, depending on need for specialty.[5] Public Sector Consultants, Inc.,

suggested a ratio in Michigan of 1:595.[6] As of October 1, 1984, there were 19,473 active physicians in Michigan.[7] The Department of Management and Budget estimates that the population in the state as of July 1, 1984, was 9,075,000.[8] The ratio of physicians to population in 1984 was therefore 1:466, a higher ratio than deemed desirable under any of the above estimates of need.

Health Care Costs and Physician Supply

The growth of health care costs, regardless of the causes, has emerged as the single most important health care issue in the political arena. Its place at the top of the health care agenda in legislative bodies is assured for the immediate future by the growing discontent among employee unions and employers about increases in health care benefit costs and by concern of federal and state governments about mounting Medicare and Medicaid expenditures. It will come as no surprise to anyone in the health provider or payer communities if the issue of physician supply, and its links to overall expenditures, becomes a significant political issue in Washington, D.C., Lansing, and other state capitals.

A large body of research by health care economists, such as Uwe E. Reinhardt, Eli Ginsberg, and members of the Graduate Medical Education National Advisory Committee, documents that an oversupply of physicians results in higher health care costs. Reinhardt best summarizes the conclusions of most health economists when he writes: "The economic costs of excess supply are likely to fall primarily on individual consumers of health care or, through insurance premiums and taxes, on society at large."[9] It has been estimated that physicians control decisions affecting 70 percent of all health care costs. As the supply of physicians expands, health care expenditures grow. Between 1972 and 1981, per capita expenditures for physician services grew in Michigan by 55 percent, and during the same period, expenditures per physician grew by 22 percent, adjusted for inflation.[10]

Political Vulnerability of Medical Schools in Michigan

It is important to keep in mind that Michigan medical school enrollments are only one factor in future physician supply. The in-migration of both United States residents and foreign nationals trained in other states and in foreign medical schools is also a major source of physician supply. Only 40 percent of newly licensed osteopathic physicians and 27 percent of newly licensed allopathic physicians are educated in Michigan.[11] About 60 percent of Michigan's medical school graduates acquire licensure in the state, with the remainder moving to other states or nations.[12]

Consequently, medical school enrollments in Michigan's four colleges (Michigan State University's College of Human Medicine and College of Osteopathic Medicine, Wayne State University's College of Medicine, and the University of Michigan's College of Medicine) only partially affect future physician supply in our state. However, enrollment limitations can be implemented more easily than other options to stem physician supply available to state government. Other options, such as quotas or restrictions on licensing of physicians, a certificate-of-need program encompassing medical practice, or immigration restrictions set by the state, would limit supply more quickly and

effectively. Each of these alternatives, however, is politically volatile; would require a massive public education effort to mobilize legislative interest, let alone support; would take years to legislate given the political dynamics; and would be subject to years of litigation over freedom of movement, restraint of trade, and similar antitrust issues.

In the short run, given the length of the medical education process, slashing medical school enrollments would achieve no reductions in physician supply until at the earliest June 1991. However, enrollment limits could be imposed with considerably less effort than other options available. A relatively small number of governmental decisionmakers, namely the members of the House and Senate Appropriations committees and the Governor of the state, could initiate such a change and do so in only one budget cycle. Should pressure to limit physician supply come from state regulatory agencies and the Economic Alliance, for example, it could be achieved with the least bloodletting and political brawling through the budgetary oversight exercised by the Appropriations committees over the state's medical schools. Opposition to this option should not be underestimated; medically underserved regions, the medical schools, and the parents of would-be applicants are important forces that could influence the political process.

Policy options that have been unofficially considered and could be presented to the executive and legislative branches to limit physician supply include closing medical schools, merging the osteopathic and allopathic schools at Michigan State University, and reducing enrollment at all medical schools. Privately, some health planners believe that to bring about a physician-to-population ratio of 1:500 by the end of the century the total incoming class enrollment in Michigan must immediately decline from 695 students to 475. Such a reduction, if imposed on a single university, could close the University of Michigan Medical School, close both colleges at Michigan State University, or leave Wayne State with only about 40 first-year students. As an alternative, the Legislature could apportion the sacrifice among the schools or seek a less Draconian solution that would not dismantle these medical education programs.

The Legislature last December rejected the State Health Plan's call for capping at 630 the entering classes of Michigan's medical schools beginning this year. The Legislature, instead, called for a limit of 695 first-year enrollees beginning in fall of 1985, the same number as in the 1983-84 first-year class. It is important to assure sufficient enrollment to protect the critical mass of any medical school -- the minimum number of students necessary to attract qualified faculty and maintain high-quality research and instructional facilities. Reductions of size need to be considered within the context of economies of scale, otherwise there will be a significant loss of quality and effectiveness without a corresponding benefit of cost containment.

LONG-TERM FACTORS

Future Physician Supply in Michigan

The Michigan Department of Management and Budget projects a population for Michigan in 1990 of about 9,400,00.[13] In 1980, the population totaled 9,262,000, so the decade-long increase will be minimal. The Office of Health and Medical Affairs projects the number of active physicians in 1990 will be

22,850.[14] Based on these projections, the ratio of active physicians to population in Michigan in 1990 will be 1:411 compared to 1:466 in 1984 and certainly a far greater ratio of physicians to population than viewed as desirable.

Effects of Competition on Physician Supply

Correlations between excess physician supply and increased health care expenditures assume that the health care marketplace will continue to be highly regulated and immune to price competition. Health economists and other policy analysts who urge constraining physician supply may well be coming up with an anachronistic solution. Consider what could happen if prospective payments, diagnosis-related group reimbursement, the repeal of certificate-of-need laws, competitive bidding for health services, and business-sponsored preferred provider organizations create a fiercely competitive health care marketplace, with prices driven by supply/demand forces. If physician supply is then artificially restricted, health care consumers could be forced to queue up for physician services. The solution proposed for the future (curtailing physician supply) may well be inappropriate, enabling physicians to charge unreasonably high prices due to lack of competition. In such a competitive environment, limits on physician supply would be counterproductive and produce an effect--namely, higher prices--directly opposite the one intended. In fact, the changes already observed in the medical marketplace are based on the developments of a competitive environment.

Governmental policy too often focuses narrowly on short-term factors and neglects long-term societal issues. In the 1950s and 1960s, responding to increases in services and shortages of providers, government, both state and federal, encouraged the overproduction of physicians and hospitals. Those expansionist policies contributed greatly to the excess supply and high costs of health care services today. Responding to the current oversupply, governmental decision makers need not make the same error they made with physicists, engineers, and teachers in previous years. In a competitive marketplace where supply and demand dictate price and availability, the inadequate production of physicians would not restrain costs, but increase them. Governmental policymakers should be most cautious in responding to currently perceived economic problems and not overreact to a health care delivery and reimbursement system undergoing rapid change.

Implications of an Aging Population

In preparing for the future, government should be concerned not only with economic factors, but sociological factors impacting on the quality of life. The dialogue has not yet begun about rationing access, the curtailment of the use of technologies, and the milieus of where care is delivered. These questions are vexing and there are no answers at this time.

While, by almost any calculation, Michigan has and will continue to have a surplus of physicians, the aging of the population will make tremendous future demands upon the health care system. Those over age 65 consume a disproportionate share of health care services and dollars. The Department of Management and Budget projects the percentage of Michigan's population aged 65 and older will increase from 9.8 percent to 11.1 percent by 2010, with the

greatest proportionate rise in the oldest age groups (75 and over).[15] Hospital and physician services will be required in ever-increasing numbers and intensity to treat the chronic illnesses and more extensive health problems of the aged. As the population ages and requires more intensive use of health care services, the "desirable" physician-to-population ratio will change with it, a factor important in planning for the clinical world of the year 2000 and beyond.

Changing Physician Work Styles

Another significant factor suggesting a need to increase physician-to-population ratios is professional life style changes. This factor has already affected younger physicians as it has other post-Vietnam professionals. Quality of life issues, such as the importance of leisure time and early retirement goals, are motivating younger physicians to limit their working hours and retire at earlier ages. Reductions in the work hours and work lives of physicians in the next twenty to thirty years will accelerate the trendline already apparent. Hence we are likely to require more doctors to maintain current levels of service.

Geographical and Specialty Maldistribution in Michigan

The sheer size of the physician pool is perhaps less important than how it is distributed geographically. Regardless of the oversupply of physicians, many areas of Michigan, such as the Upper Peninsula, are medically underserved. In 1980, for example, southeast Michigan had one physician for every 489 residents, while the Upper Peninsula had one physician for 1,019 residents.[16]

Not only are physicians maldistributed geographically, they are maldistributed by specialty. The Graduate Medical Education National Advisory Committee recommended redistribution:

> In view of the aggregate surplus of physicians projected for 1990, medical school graduates should be strongly encouraged to enter those specialties where a shortage of physicians is expected (psychiatry, emergency medicine, and preventive medicine) or to enter training and practice in general pediatrics, general internal medicine, and family practice.[17]

The Michigan State Health Plan underscores the view that there is an imbalance in the mix of primary and nonprimary care providers:

> At the beginning of 1980, only 49 percent of Michigan's active, permanently licensed physicians practiced in the areas which comprise primary care. This figure represents a continuation of a decline in the percentage of primary care physicians that began many years ago with the advent of specialization and subspecialization of medicine.[18]

The State Health Plan recommended a mix of 60 percent primary care physicians (family/general medicine, pediatrics, internal medicine, and obstetrics/gynecology) and 40 percent nonprimary care physicians.[19]

In addition to a growing need for primary care physicians, continued concern

about health care costs likely will increase demand for nonphysician providers such as physician assistants and nurse anesthetists, nurse practitioners, and midwives. The medical education community should consider the future role of less specialized and skilled providers in assessing medical school enrollments and curricula. Concerns about cost will likely cause greater emphasis on health promotion and prevention, such as continued education of the public about the links between behavior (smoking, stress, weight, and exercise) and health. Wellness strategies, such as prenatal care, hypertension testing, and stress management, should increasingly become a part of medical education curricula and be deployed in practice to change the nature of disease etiology.

Medical Research

When examining only the issue of physician supply, one can easily overlook the benefits of university-based medical research. It would be shortsighted to end or drastically reduce our medical school enrollments for the purpose of curbing long-range health costs if the research carried out in those schools would lead to major preventive and treatment breakthroughs that could save billions of dollars.

At the turn of the century, infectious disease accounted for six of the ten leading causes of death. Immunizations, antibiotics, and enhanced sanitation have eliminated all infectious diseases from the top ten killers. Few in the medical community believe that cancer and most cardiovascular diseases are beyond prevention or successful treatment in the twenty-first century. The continuing value and need for medical research should be weighed in decisions regarding the future of Michigan's medical education programs.

CONCLUSIONS AND RECOMMENDATIONS

Michigan today has a physician surplus that, under current market conditions, increases health care expenditures. The enrollments at Michigan's four medical colleges contribute to that oversupply. Today's enrollments assure a continuing oversupply into the next decade, particularly in light of only marginal increases in the state's population. Also, the State bears most of the cost of its medical schools, and legislators and state budget officials see enrollment reductions as a way to reduce expenditures.

But there are risks inherent in wholesale cutbacks in state medical school enrollments. The health care industry may take on the competitive characteristics of other industries in the free market. If government's goal is cost containment, reductions in provider supply would countermand competitive pressures, driving up rather than reducing costs. Also, the population is aging and will more intensively use health care services. The new generation of physicians is less likely to be "round-the-clock and work-till-you-drop" doctors, and a possible drop in services per physician should be factored into any projections of physician need in the year 2000.

On balance, the most rational policy appears to be for state government to phase down, in a limited way, medical school enrollments. Such a course would respond to the legitimate short-term concern that present and projected physician oversupply contributes to greater health care expenditures. However, a phase-down rather than a more radical cut would permit government

to reverse field should the health care marketplace reward consumers when an oversupply of providers occurs. A phase-down would also enable government to maintain the flexibility to meet, without dislocation or dysfunction, the increased health care needs of a steadily aging population.

The 1985 entering classes at medical schools will be practicing well into the first quarter of the next century and will face in that span of time fundamental changes in practice styles, health care delivery, reimbursement methods, disease prevention, and modalities of treatment. To accommodate these factors, Michigan's medical schools can focus their priorities and attention on the opportunities listed below:

- Redistributing physicians geographically into the underserved areas of Michigan.
- Redistributing the mix of primary versus nonprimary specialties
- Emphasizing wellness and prevention strategies, with greater benefit and much lower cost than current treatment strategies
- Attending to the needs of the elderly, who will comprise an ever-increasing proportion of our population
- Emphasizing research on disease containment, prevention, and treatment -- which in the end not only improve the quality of life, but also reduce overall societal expenditures
- Encouraging physicians and the health care delivery system to expand opportunities for physician assistants and other ancillary extenders of our most sophisticated and highly skilled health personnel.

A slow and orderly phase-down in enrollments will assure not only the continued excellence of Michigan's medical education programs, but also the continued good health, access to quality care, and constrained health care costs of Michigan's residents.

NOTES

[1] Issues in Health Policy, no. 4: Future Increases in the Physician Supply Will Do Little to Improve Access to Health Services (Lansing: Office of Health and Medical Affairs, Michigan Department of Management and Budget, November 1983), pp. 12-13.

[2] Testimony of the Office of Health and Medical Affairs before the Ad Hoc Committee on Health Care Cost Containment, Michigan Legislature, June 23, 1983.

[3] Ibid.

[4] Michigan State Health Plan 1983-1987, vol. 3: Health Personnel (Lansing: Michigan Statewide Health Coordinating Council, September 1983), p.29.

[5] Report of the Graduate Medical Education National Advisory Committee to the Secretary (Washington, D.C.: U.S. Department of Health and Human Services, September 1980).

[6] Michigan's Need for Physicians during the 1980s (East Lansing, Mich.: Public Sector Consultants, Inc., April 14, 1981), Table 7. (The estimates of place of medical education are based on new licenses issued in 1978-80.)

[7]Phone conversation with secretaries to the Board of Medicine and Board of Osteopathic Medicine and Surgery, January 22, 1985.

[8]Phone conversation with Lawrence Rosen, Michigan Department of Management and Budget, January 22, 1985.

[9]Uwe E. Reinhardt, Physician Productivity and the Demand for Health Manpower (Philadelphia, Pa.: Ballinger, 1975), p.8.

[10]Testimony of the Office of Health and Medical Affairs.

[11]Michigan's Need for Physicians, (The estimates of place of medical education are based on new licenses issued in 1978-80.)

[12]Ibid., p.4.

[13]Population Projections for Michigan to the Year 2010, (Lansing: Department of Management and Budget, March 1985), p.1.

[14]Phone conversation with Jay Rosen, Office of Health and Medical Affairs, Michigan Department of Management and Budget, January 24, 1985.

[15]Population Projections for Michigan to the Year 2010, (Lansing: Department of Management and Budget, March 1985), p.6.

[16]Michigan's Need for Physicians.

[17]Report of the Graduate Medical Education National Advisory Committee, p.24.

[18]Michigan State Health Plan, p.18.

[19]Ibid., p.15.