Nonphysician providers of medical care are in high demand in the United States. But licensure laws and federal regulations limit their scope of practice and restrict access to their services. The result has almost inevitably been less choice and higher prices for consumers.

Safety and consumer protection issues are often cited as reasons for restricting nonphysician services. But the restrictions appear not to be based on empirical findings. Studies have repeatedly shown that qualified nonphysician providers--such as midwives, nurses, and chiropractors--can perform many health and medical services traditionally performed by physicians--with comparable health outcomes, lower costs, and high patient satisfaction.

Licensure laws appear to be designed to limit the supply of health care providers and restrict competition to physicians from nonphysician practitioners. The primary result is an increase in physician fees and income that drives up health care costs.

At a time government is trying to cut health spending and improve access to health care, it is imperative to examine critically the extent to which government policies are responsible for rising health costs and the unavailability of health services. Eliminating the roadblocks to competition among health care providers could improve access to health services, lower health costs, and reduce government spending.
During the 1994 health care reform debate, much attention was given to the demand side of the market.\[1\] That attention led to the development of ideas such as medical savings accounts to make health care consumers more cost conscious.\[2\]

However, true reform requires that the supply side of the health care market be addressed as well. Currently, a wide variety of licensing laws and other regulatory restrictions limits the scope of practice of nonphysician professionals and restricts access to their services. Moreover, at the same time that it is restricting the practices of nontraditional health care professionals, government is providing subsidies for the education and training of physicians who fit the medical orthodoxy. The result has been the creation of a de facto medical monopoly, leading to less choice and higher prices for consumers.

Therefore, true health care reform must involve ending the government-imposed medical monopoly and providing consumers with a full array of health care choices.

The Demand for Alternative Therapies

Every year millions of Americans seek providers who offer health care therapies that are neither widely taught in medical schools nor generally available in U.S. hospitals. Researchers from Harvard Medical School studied the health care practices of U.S. adults and estimated that 22 million Americans sought providers of unconventional care in 1990. The study, reported in the New England Journal of Medicine, estimates that in 1990 Americans made more visits to providers who offered unconventional therapies than to all primary care physicians--425 million compared to 388 million visits.\[3\]

Researchers estimate that 34 percent of Americans used at least 1 of 16 unconventional therapies, such as chiropractic, herbal, and megavitamin therapies, in 1990.\[4\] Back problems were the most commonly reported "bothersome or serious" health problem for which consumers sought nontraditional services.\[5\]

There is a great willingness to pay out-of-pocket for providers who offer unconventional health services. The Harvard researchers found that total projected expenditures on providers of unconventional care amounted to $11.7 billion in 1990. Nearly 70 percent--$8.2 billion--of that amount was paid by the consumer, rather than insurers or government. By contrast, only 17 percent of the bill for total physician services was paid out-of-pocket in 1990.\[6\]

According to U.S. Census data, receipts for nonphysician providers grew by 83 percent--from $10.3 billion to $18.9 billion--between 1987 and 1992,\[8\] while physician receipts increased by 56 percent, from $90 billion to $141 billion. Census data show that employment by nonphysician establishments grew by 50 percent, while jobs in hospitals and physician offices increased less than 20 percent between 1987 and 1992.

Medical schools are responding to the consumer demand for unconventional health services. To date, 34 out of the 126 medical schools nationwide have started or are developing courses that focus on "alternative medical practices."\[9\]

It should be noted, however, that medical schools rely heavily on federal subsidies, while training for nonphysician providers is predominantly funded with private money. For example, all of the 17 chiropractic schools in the

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Supply of Selected Health Care Providers, United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Provider</td>
<td>Number</td>
</tr>
<tr>
<td>Acupuncturists (nonphysician)</td>
<td>6,500</td>
</tr>
<tr>
<td>Chiropractors</td>
<td>45,000</td>
</tr>
<tr>
<td>Doctors of osteopathy</td>
<td>32,000</td>
</tr>
<tr>
<td>Homeopathists</td>
<td>3,000</td>
</tr>
<tr>
<td>Massage therapists</td>
<td>9,000</td>
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</tbody>
</table>
Midwives

<table>
<thead>
<tr>
<th>Midwives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified nurse</td>
<td>4,000</td>
</tr>
<tr>
<td>Lay</td>
<td>6,000</td>
</tr>
<tr>
<td>Total</td>
<td>10,000</td>
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</tbody>
</table>

Medical doctors

<table>
<thead>
<tr>
<th>Medical doctors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care</td>
<td>195,300</td>
</tr>
<tr>
<td>Nonprimary care</td>
<td>391,700</td>
</tr>
<tr>
<td>Total</td>
<td>587,000</td>
</tr>
</tbody>
</table>

Naturopathic doctors

| Naturopathic doctors | 1,000 |

Nurse practitioners

| Nurse practitioners | 21,000 |


(a) The estimated 3,000 health care practitioners who are licensed to use homeopathy include acupuncturists, chiropractors, dentists, naturopaths, nurse practitioners, osteopaths, physicians, physician assistants, and veterinarians. Office of Alternative Medicine, National Institute of Health, p. 82.

United States are privately funded; none are state owned.[10] By contrast, 76 of the 126 medical schools are state owned.[11]

At a time when government is looking for ways to reduce health spending, it should examine closely the supply side of health care reform. Some experts have raised concerns about an oversupply of highly trained specialists who rely heavily on government funding for training, while at the same time licensure laws and federal reimbursement regulations restrict nonphysician providers from entering the health care marketplace. An overview of the current supply of selected health care providers is presented in Table 1.

Any serious reform of the U.S. health care system must address the medical monopoly. Barriers to entry into the health care marketplace are partially responsible for high health costs and lack of access to primary and preventive health care.

**Individual Choice and Freedom to Contract**

Professional licensure laws and other regulatory restrictions impose significant barriers to Americans' freedom of choice in health care. Clark Havighurst, the William Neal Reynolds Professor of Law at Duke University, has pointed out, "Professional licensure laws have long made the provision of most personal health services the exclusive province of physicians. Obviously, such regulation limits consumers' options by forcing them to use highly trained, expensive personnel when other types might serve quite well."[12]

Yet the freedom to contract--the right of individuals to decide with whom and for what services they will dispose of their earnings--is one of the fundamental rights of man. As Chief Justice John Marshall said in Ogden v. Saunders, "Individuals do not derive from government their right to contract, but bring that right with them into society . . . every man retains [the right] to . . . dispose of [his] property according to his own judgment." Indeed, legal philosophers and ethicists, such as Roger Pilon, Richard Epstein, and Stephen Mecado, convincingly argue that the
rights of property and contract are fundamental rights upon which all others are based.\[13\]

Accordingly, individuals should have the legal right to decide with whom they will contract for the provision and coordination of their health care services: doctors, midwives, nurse practitioners, chiropractors, spiritual healers, or other health care providers. Any restriction denies Americans the right to make decisions about their own bodies.

**The Rise of Medical Licensure**

Although protection of the public is often cited as the reason for medical licensing and limiting access to unconventional therapies, history indicates that professional interest was more of an overriding concern in the early enactment of those laws. The latter theory reflects economist Paul Feldstein's perspective that health associations act like firms: they try to maximize the interests of their existing membership.\[14\]

Medical licensure was first introduced in England in 1442 when London barbers were granted charters to perform certain procedures. The charters authorized "barbers" to treat wounds, let blood, and draw teeth.\[15\]

In the United States, the earliest health professional licensure law was enacted by Virginia in 1639. That law dealt with the collection of physician fees, vaccination, the quarantine of certain diseases, and the construction and management of isolation hospitals. Other early colonial acts denied nonphysician practitioners any standing in civil courts to collect fees. In 1760 New York City became the first American jurisdiction to prohibit practice by unlicensed physicians. Subsequently, many other cities and states introduced licensing requirements.\[16\]

During the early part of the 19th century, the United States experienced an era known as "free trade in medicine." A historical vignette in the Journal of the American Medical Association explains that during the mid-1800s, botanics and homeopathy were in great demand.\[17\] Those alternative health practices were a powerful counterforce to regular medicine. Most state licensure laws that granted special privileges to physicians were repealed because of the widespread consumer demand for botanicals. During the period, the United States was one of the healthiest nations, with the world's lowest infant mortality rate.\[18\]

However, the self-interest of physicians soon began to assert itself. The repeal of licensure laws "triggered a movement that led directly to the formation of the American Medical Association."\[19\] The AMA was determined to protect physicians from competition by nonphysician health care providers. Consequently, licensure laws arose again, beginning about 1870. By 1895 nearly every state had created some type of administrative board to examine and license physicians.\[20\]

Another study of the early development of medical licensing laws in the United States reports that the goals of the AMA in supporting licensing appear to have been to (1) restrict entry into the profession and thereby secure a more stable financial climate for physicians, (2) destroy for-profit medical schools and replace them with nonprofit institutions, and (3) eliminate other medical sects such as homeopaths and chiropractors.\[21\]

History reveals that the AMA was influential in linking physician licensure with strict educational standards that (1) restricted entry into the health care marketplace and (2) increased the cost of medical education.\[22\]

Paul Starr, in his Pulitzer prize-winning The Social Transformation of American Medicine, examined the consolidation of medical authority between 1850 and 1930. Starr notes that before 1870, requirements for physician training were minimal and that many medical schools were for-profit.\[23\]

Medical education began to be reformed around the late 19th century. Starr describes the competitive climate of the period: "Despite the new licensing laws, the ports of entry into medicine were still wide open, and the unwelcome passed through in great numbers. . . . From the viewpoint of established physicians, the commercial schools were undesirable on at least two counts: for the added competition they were creating and for the low image of the physician that their graduates fostered. Medicine would never be a respected profession--so its most vocal spokesman declared--until it sloughed off its coarse and common elements."\[24\]

In 1904 the AMA established a Council on Medical Education with a mandate to elevate the standards of medical
Two years later the council inspected the 160 medical schools throughout the United States and approved of only 82 schools: 46 were found imperfect, and 32 were declared "beyond salvage." But organized medicine's professional code of ethics "forbade physicians from taking up cudgels against each other in public," and the report was never published.[25]

Instead, the AMA commissioned an outside consultant to investigate and report on the status of medical education in the United States. Abraham Flexner of the Carnegie Foundation for the Advancement of Teaching was commissioned to do a study of medical education. Flexner, an educator with a bachelor's degree from Johns Hopkins, visited each of the 160 U.S. medical schools and released his recommendations in 1910.

Flexner decided that the great majority of medical schools should be closed and the remainder should be modeled after Johns Hopkins.[26] The AMA used the Flexner report in its campaign to abolish medical schools outside its control. With physician licensure already in place, it was relatively easy for the AMA-dominated state examination boards to consider only graduates of medical schools approved by the AMA or the Association of American Colleges, whose lists were identical. In many states the requirement was statutory.[27]

One result was a significant decline in the number of proprietary schools, which had been very prominent until the early 1900s. Although the number of medical colleges had decreased from 160 to 131 between 1900 and 1910, the release of the Flexner report facilitated the closure of an additional 46 medical schools between 1910 and 1920.[28]

By 1930 only 76 medical schools remained in the United States. In 1932 the chairman of the Commission on Medical Education--Harvard University president A. Lawrence Lowell-- reported that "the definition of standards and the efforts of leaders in the medical profession were very influential in eliminating the proprietary and commercial medical schools."[29] Lowell also concluded in the 1932 report on medical education that "the budgets of many schools have increased from 200 to 1,000 percent during the last 15 years."[30]

Women and African-Americans were disproportionately affected by Flexner's recommendations. In 1905 and 1910 women medical students numbered 1,073 and 907, respectively. Five years after the Flexner report was released, the number of women medical students had been cut nearly in half--from 907 to 592.[31] Starr notes, "As places in medical school became more scarce, schools that previously had liberal policies toward women increasingly excluded them."[32]

There were seven predominantly black medical schools in existence before the Flexner report, but only two remained after its release.[33] As a result, the number of doctors serving African-American communities declined. For example, blacks in Mississippi had 1 doctor for every 14,634 persons[34] compared to 1 doctor for every 2,563 persons nationwide in 1930.[35]

Many small towns and rural communities were affected by the new educational standards and associated licensure laws. AMA president William Pusey concluded that "as you increase the cost of the license to practice medicine you increase the price at which medical service must be sold and you correspondingly decrease the number of people who can afford to buy this medical service."[36]

The Flexner report also had a significant impact on nonphysician health care providers. Within 10 years after the Flexner report, approximately 130 laws were passed regulating at least 14 health-related occupations.[37] Some nontraditional specialties were virtually wiped out. Take homeopathy, for example. By the end of the 19th century, an estimated 15 percent of physicians practiced homeopathy, the use of natural remedies to stimulate the body's natural healing responses. There were 22 homeopathic medical schools and over 100 homeopathic hospitals in the United States.[38] Early supporters of homeopathy included Thomas Edison, John D. Rockefeller, and Mark Twain.[39] Four years after the Flexner report, the president of the Institute of

<table>
<thead>
<tr>
<th>Medical School</th>
<th>Number</th>
<th>Percentage of</th>
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<td></td>
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Table 2
Graduates of Selected Medical Schools and Nationwide Total Examined by State Boards in 1931
<table>
<thead>
<tr>
<th></th>
<th>Examined</th>
<th>Failures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albany Medical College</td>
<td>8</td>
<td>14.3</td>
</tr>
<tr>
<td>Boston University School of Medicine</td>
<td>55</td>
<td>10.9</td>
</tr>
<tr>
<td>Georgetown University School of Medicine</td>
<td>139</td>
<td>17.3</td>
</tr>
<tr>
<td>Hahnemann Medical College and Hospital of Philadelphia</td>
<td>89</td>
<td>3.4</td>
</tr>
<tr>
<td>Howard University College of Medicine</td>
<td>63</td>
<td>11.1</td>
</tr>
<tr>
<td>New York Homeopathic Medical College and Flower Hospital</td>
<td>88</td>
<td>11.4</td>
</tr>
<tr>
<td>Syracuse University College of Medicine</td>
<td>46</td>
<td>8.7</td>
</tr>
<tr>
<td>Total examined nationwide and percentage of failures</td>
<td>5,576</td>
<td>6.3</td>
</tr>
</tbody>
</table>


Homeopathy, Dr. DeWitt Wilcox, shared his perception of organized medicine:

The American Medical Association is fast degenerating into a political machine bent on throttling everything which stands in its way for obtaining medical supremacy. It has made an unholy alliance with the Army and Navy Medical Departments, and together they propose to own and control every medical college in this country, all the State, municipal and university hospitals, and get within their grasp all the examining and licensing boards in the United States.[40]

By the late 1930s the practice of homeopathy had largely disappeared from the United States. The new rating system for medical schools was influential in eliminating homeopathic colleges nationwide.[41]

It is commonly thought that homeopathy disappeared because of its poor quality of education. But history shows that physicians graduating from two of the last homeopathic colleges--Hahnemann Medical College and New York Homeopathic College--passed examinations at a rate comparable to physicians from schools that were maintained (see Table 2).

**Medical Licensing Today**

Today states use three mechanisms for regulating health professionals: (1) licensure, the most restrictive form of regulation, makes it illegal to practice a profession without meeting state-imposed standards; (2) certification, granting title protection to persons meeting predetermined standards (those without the title may perform services, but may not use the title); and (3) registration, the least restrictive form of regulation, requiring individuals to file their names, addresses, and qualifications with a government agency before practicing.[42]

Professional health care associations have been influential in setting the standards for licensure laws in the United States. Feldstein has identified ways in which health care associations limit competition: the first approach, Feldstein notes, is simply to have substitute providers declared illegal.[43] If substitute providers are prohibited, or if they are severely limited in the tasks they are legally permitted to perform, then there will be a shift in demand away from their services. That approach has been used with lay midwives. In addition, states impose professional "scope-of-practice"
regulations that prevent nurse practitioners from functioning independently as primary care providers.[44]

Another approach to limiting health care competition—used when licensure and scope-of-practice restrictions fail—is to restrict or limit substitute providers' services from payment by government health programs. That approach has been used by organized medicine, for example, to limit access to chiropractic treatment. Medicare regulations prohibit reimbursement to chiropractors for services they are licensed to perform in all 50 states. The federal reimbursement regulations appear not to be based on empirical evidence: the federal government's Agency for Health Care Policy and Research recently released national guidelines that recommend spinal manipulation as a safe and cost-effective treatment for acute back problems.[45]

The following examples show how the medical monopoly has used the power of government to restrict the practice of a variety of nonphysician health care providers.

**Midwifery**

At least 36 states restrict or outright prohibit the practice of lay midwifery.[46] Consequently, only 5 percent of all births are attended by midwives in this country,[47] compared with 75 percent of all births in European countries.[48] Americans' low usage of midwifery does not correlate with high-quality birth outcomes: the United States has the second highest cesarean rate in the world[49] and the fifth highest infant mortality rate among Western industrialized nations.[50]

There are an estimated 10,000 midwives in this country who fall into two categories: the certified nurse-midwife and the lay midwife (or "direct-entry" midwife). Certified nurse-midwives are registered nurses with two years of advanced training who most often work under the supervision of a physician and practice in clinic or hospital settings. Certified nurse-midwives represent approximately 4,000 of the 10,000 midwives nationwide.

By contrast, lay midwives enter the profession directly from independent midwifery schools or through apprenticeship. They are trained to meet individual state requirements for licensure, registration, or certification. But unlike certified nurse midwives, most lay midwives practice independently in consultation with physicians, not under direct physician supervision. About half the 6,000 lay midwives are associated with religious groups,[51] and a majority of home births in the United States are attended by lay midwives.[52]

Safety is most commonly cited as the reason for prohibiting or restricting lay midwifery in 36 states. Those licensure laws and regulatory restrictions, however, do not appear to be based on empirical findings of childbirth outcomes.[53] For example, the National Birth Center study on nearly 12,000 nonhospital births found a neonatal mortality rate for midwife-assisted births comparable to that of hospital births.[54] Another study examined 1,700 home births attended by lay midwives in rural Tennessee. Researchers found at-home midwife-assisted births to be as safe as physician-attended hospital deliveries.[55]

Many people attribute midwives' record of success to the fact that they do not assist with high-risk deliveries. To address that issue, researchers excluded physicians' high-risk cases from their study of lay midwives in rural Tennessee. The American Journal of Public Health reports that even with comparable low-risk deliveries, lay midwife-assisted home births were as safe as physician-assisted hospital births. Moreover, physician-attended hospitals births were 10 times more likely to require intervention (forceps, vacuum extractor, or cesarean section) than midwife-assisted home births.[56]

Those findings are supported by international studies. In the Netherlands—where more than 32 percent of births are attended by lay midwives at home—research shows that the perinatal mortality rate was lowest in cities that had the highest proportion of home births.[57] A study on Dutch births by the British journal Midwifery concluded that perinatal mortality was "much lower under the noninterventionist care of midwives than under the interventionist management of obstetricians."

Midwives are considerably less expensive than traditional obstetric care providers. According to the Health Insurance Association of America, the average physician-attended birth costs $4,200; Midwives Alliance of North America reports that the average cost of a midwife-assisted birth is $1,200.[59] Americans could save $2.4 billion annually if
only 20 percent of American women increased their access to midwives.[60]

Most important, though, is that women report significant personal and psychological benefits from midwife-assisted births. Since the early 1970s, a home birth renaissance has been sparked by feminist politics, the women's health and holistic health movements, back-to-nature ideology, and health consumerism.[61] A study of the home birth movement in the United States concludes, "Members have chosen their alternative form of care not through faulty understanding of medical principles and practices, but as a result of active and reasoned disagreement with them. The home birth movement is one of a number of lay health belief systems currently flourishing among middle class populations."[62]

As a result of midwives' success, a wide range of health organizations, including the American Public Health Association, National Commission to Prevent Infant Mortality, and World Health Organization, advocates the expanded use of midwives. The strongest advocacy has come from the women's health movement with support from the Boston Women's Health Book Collective, National Black Women's Health Project, National Women's Health Network, and Women's Institute for Childbearing Policy. The benefits of a low-intervention approach to childbirth are also supported by the General Accounting Office and the Office of Technology Assessment.[63]

Despite midwives' record of safety and mothers' reports of psychological and personal benefits, the medical community continues to enforce licensure laws that restrict women's birthing options.[64] A past president of the American College of Obstetrics and Gynecology (ACOG) denounced home birth as a form of "maternal trauma" and "child abuse" during the late 1970s.[65] A decade later, ACOG released statements that "discouraged the use of birth centers until better data were available."[66]

Midwives are continually placed under considerable legal and biomedical scrutiny. An award-winning women's health writer, Diana Korte, recently examined the number of midwives on trial across the country. According to Korte, at least 145 midwives in 36 states have had legal altercations with the medical authorities. One case involved the arrest of a rural Missouri midwife.

At 2:00 a.m. on a January morning in 1991, seven law enforcement officers in bulletproof vests ransacked the birth center of a rural Missouri midwife, removed all of her computer disks, and destroyed files and other materials. Although the Missouri Nursing Board had previously authorized the birth center, the county prosecutor charged the midwife with eight felonies and several misdemeanors for practicing medicine without a license.[67]

Parents rarely make complaints about midwives: most legal altercations stem from the medical community.[68] Archie Brodsky, a senior research associate at the Harvard Medical School's Program in Psychiatry and the Law, noted that 71 percent of obstetrician-gynecologists had been named in one or more liability claims as of 1987. By comparison, only 10 percent of midwives had experienced legal claims at that time; lay midwives are even more rarely sued.[69]

The medical community often refuses to provide back-up support to women who choose to deliver at home, despite midwives' record of safety and low malpractice claims. A recent pilot study of childbirth choices found that 20 percent of mothers delivering in the hospital setting would have preferred a nonhospital delivery, but no medical backup support was readily available.[70] Another study at the Medical College of Pennsylvania found that women met forceful resistance from physicians when they disclosed their plans for home delivery. Accordingly, the study notes, A number of women found it ironic, and even unconscionable, that physicians who criticized home birth as unsafe also refused to provide the prenatal care which all would agree would increase the safety of pregnancy and birth under any circumstances. Some concluded on these grounds that these physicians' motivation must have more to do with self-interest (in terms of power, authority, and money) than with interest in the health and safety of their patients and their babies.[71]

It should be noted, however, that fear of malpractice may have played a large part in the physicians' decisions to refuse back-up support. Further, as Figure 1 illustrates, medical attitudes about midwifery and home births vary greatly among physicians and geographical areas. States that grant legal status to lay midwives in the form of licensure, certification, or registration include Alaska, Arkansas, Arizona, Colorado, Florida, Louisiana, New Hampshire, New Mexico, Montana, Oregon, South Carolina, Texas, Washington, and Wyoming.[72]
Nurse Practitioners

Figure 1
Legal Status of Direct-Entry Midwifery in the United States, April 1995
[Map omitted.]

Particularly in underserved areas and long-term care facilities, registered nurses with advanced training--nurse practitioners--are able to provide most basic health services provided by physicians, and at lower costs. The American Nurses Association estimates that of the 2.1 million registered nurses nationwide, approximately 400,000 deliver primary care.[73] Many of them are practicing in managed-care organizations under the supervision of physicians. Some 21,000 nurses have received advanced training at graduate schools of nursing and are licensed nurse practitioners.

Research shows that between 75 and 80 percent of adult primary care, and up to 90 percent of pediatric primary care, services could be safely provided by nurse practitioners.[74] A study by the Office of Technology Assessment found that the outcomes of nurse practitioner care were equivalent to those of services provided by physicians, and that nurse practitioners were actually more adept in communication and preventive care. The Office of Technology Assessment study also indicates that increasing access to nurse practitioner services could be especially advantageous for the home-bound elderly.[75]

Another study examined the outcomes of a nurse-managed clinic that was opened to provide primary care services to more than 2,000 low-income children and their families in an underserved Texas community. Research shows that after the clinic was opened in 1991, emergency room visits by pediatric Medicaid recipients decreased by 27 percent at the largest emergency room in the county. In addition, the pregnancy-induced hypertension rate was reduced from 7 to 3.3 percent over a three-year period, preventing costly hospitalizations.[76]

The economic loss from inefficient use of primary care nurse practitioners is estimated to be between $6.4 billion and $8.75 billion.[77] A meta-analysis conducted by the American Nurses Association in 1993 showed that nurse practitioner care resulted in fewer hospitalizations, higher scores on patient satisfaction, and lower cost per visit--$12.36 compared to $20.11 for physicians.[78] In addition to projected savings on direct health services, the taxpayer burden for training nurse practitioners is approximately one-fifth the cost of training physicians.[79]

Despite empirical evidence that nurse practitioners can safely provide primary care, many states impose scope-of-practice regulations that prevent nurses from practicing independently as primary care providers. Nurse practitioners derive their authority from various state nurse practice acts.[80] However, some states give their medical boards regulatory control over boards of nursing. That gives one profession full veto power over the rules and regulations of its competitors.

Moreover, scope-of-practice regulations often dictate that nurses must work in coordination with physicians. For example, 48 states grant nurse practitioners prescriptive authority but mandate that nurses must have a written practice agreement or work in collaboration with a physician.

As of January 1995, only 10 states granted nurse practitioners the legal right to prescribe drugs independent of a physician.[81] Moreover, even some of those states limited the independent nurse practitioner's prescription authority by law to 72 hours.[82] What that means for competition is that consumers--for example, elderly Medicare recipients who live in rural areas--would have to visit independent nurse practitioners every three days to renew prescriptions. Barbara Safriet, associate dean of Yale Law School, argues, Medical practice acts remain overly broad and indeterminate, with concomitant and unnecessary restrictions in the licensure and practice acts of nonphysician providers. If we are to achieve our goal of offering high-quality care, at an affordable cost, to everyone who needs it, we must ensure that all health care providers are able to practice within the full scope of their professional competencies.[83]

States' scope-of-practice regulations shield the full market demand for nurse practitioner services because nurses are not legally free to compete in the health care market. A 1993 Gallup poll found that 86 percent of consumers would be
willing to use nurse practitioners for basic health care services. Only 12 percent stated that they would be unwilling to see a nurse practitioner.[84]

This analysis does not in any manner call for increased government regulations that would force Medicaid or Medicare recipients to substitute nurse practitioner care for physician services. Instead, it argues that Americans should not be restricted from choosing low-cost alternative practitioners and forced to subsidize an oversupply of highly specialized physicians. Let nurse practitioners legally compete in the health care market and allow consumers to choose among qualified health providers on the basis of quality and cost.

**Chiropractic**

The chiropractic profession has faced significant challenges by organized medicine for over 100 years. For example, between 1963 and 1974 the AMA operated a Committee on Quackery with an intent to "expose the charlatanism of chiropractic." The AMA urged members to lend "their full support to the continuing vigorous attack on medical quackery and to the education program on the cult of chiropractic."[85]

Although the AMA certainly had every right to criticize medical practices with which it disagreed, the organization soon resorted to lobbying the government for restrictions on chiropractic practice. Today, chiropractors are subject to numerous restrictions on their scope of practice.[86]

In addition, the AMA recommended that Congress exclude payment for chiropractic services from federally supported health programs.[87] As a result, Medicare recipients are restricted from using the full range of chiropractic services. Medicare policy limits patient access to chiropractors this way: Medicare reimburses chiropractors for performing "spinal manipulation" but requires that a diagnostic spinal x-ray be taken before chiropractic treatment. The catch is that Medicare does not reimburse chiropractors for performing x-rays, even though they have the training and are licensed to perform x-rays in all 50 states.[88] That policy gives the medical profession control over managing back problems among elderly Americans.

Ironically, the federal government's Agency for Health Care Policy and Research (AHCPR) recently released national pain guidelines that recommend spinal manipulation for the common complaint of acute low back pain.[89] It is estimated that 80 percent of all adults suffer from back pain at some time in their lives,[90] and an estimated 91 percent of older adults (ages 65 to 74) report back problems.[91] The AHCPR estimates that Americans could save over $1 billion annually by using noninterventionist approaches for managing back pain, even if only 20 percent of practitioners followed the agency's recommendations.[92]

International research supports the U.S. findings that chiropractic is a safe and cost-effective method for managing back pain. A study published by the British Medical Journal reports that chiropractic treatment was more effective than outpatient hospital management of low back pain. British researchers estimate that if the 72,000 patients who show no contraindications to manipulation but are referred to hospitals for back care each year were instead referred to chiropractors, the British health system could reduce days of sickness absence by 290,000 and could save 2.9 million pounds in social security payments over a two-year period.[93]

Consumers are quite satisfied with chiropractic treatment. The Western Journal of Medicine reports that patients of chiropractors were three times more likely than patients of family physicians to report that they were very satisfied with their treatment for low back pain--by a score of 66 to 22 percent.[94] A 1991 Gallup poll found that 90 percent of patients regard their chiropractic care as effective and that approximately 80 percent consider the treatment costs reasonable.[95]

In 1976 four chiropractors filed an antitrust lawsuit against the AMA, 5 of its officers, and 10 other medical organizations including the American Hospital Association, charging them with criminal conspiracy to destroy chiropractic. Plaintiffs alleged a conspiracy that included (1) preventing medical doctors and doctors of osteopathy from associating professionally with chiropractors, (2) defining it as unethical for MDs to accept referrals from chiropractors, and (3) prohibiting chiropractors from using hospital diagnostic laboratory and radiological facilities, among other things.
In 1987 the AMA was found guilty of illegal conspiracy: the AMA's anti-quackery activity was in violation of U.S. antitrust laws,[96] yet restrictions on chiropractic scope of practice and reimbursement remain in place.

**Vitamins and Herbs**

For years mainstream medicine has suggested that individuals who use unconventional therapies--such as vitamin therapies and herbal products--are not acting according to scientific rationale and therefore need to be protected by the government.[97] The president of the National Council Against Health Fraud (NCAHF), William Jarvis, has suggested that regulators are failing to protect the public against quackery. Jarvis explains that "the real issues in the war against quackery are the principles, including scientific rationale, encoded into consumer protection laws, primarily by the U.S. Food, Drug, and Cosmetic Act. More such laws are badly needed."[98]

Jarvis suggests that promoters of a free-enterprise society are paving the way for organized quackery. He notes that "in recent years, a free-market ideology, advanced by Friedman in his book Free to Choose, has gained an influential following" and that "the only way to enjoy both the benefits of a free-enterprise health marketplace and avoid the abuses of quackery is to balance the situation with sound consumer protection laws, enforcement, and education."[99] More recently, a member of NCAHF and president of the Consumer Health Information Research Institute has received a special citation from the FDA for combating health fraud.[100]

One way the FDA combats health fraud is to pull herbal products from the shelf if manufacturers make specific health claims about their usefulness without first obtaining FDA approval. Some providers have even been subject to criminal prosecution. But getting herbal remedies through the drug approval process is unrealistic. Botanicals are not patentable (although they can be patented for use); and the cost of their approval as drugs would be difficult to recover. The total cost of taking a new drug to the market in the United States is close to $400 million, and it takes nearly 15 years to complete the procedure.[101]

Meanwhile, Americans are expressing an increased interest in nutritional and herbal therapies. And according to the World Health Organization, about 4 billion people--80 percent of the world population--use herbal remedies for some aspect of their health care. Yet in the United States the FDA often considers herbal remedies to be worthless or potentially dangerous.[102]

Health care regulators defend their position as necessary to protect consumers. But contrary to conventional expectation, users of unconventional therapies are well educated and have higher-than-average incomes.[103] Even in countries with socialized health systems that provide access to conventional medical care for all citizens, users of unconventional therapies and practitioners are usually from higher social classes.[104] A study of complementary medicine in the United Kingdom suggests that patients from higher social classes presumably have the opportunity to research and explore the possibilities of complementary medicine and to pay for it.[105]

**Protecting Consumers or Limiting Competition?**

There is little actual evidence that medical licensing improves quality or protects the public.[106] Medical econo-mist Gary Gaumer, reviewing all the available literature on medical licensing, concluded,

Research evidence does not inspire confidence that wide-ranging systems for regulating health professionals have served the public interest. Though researchers have not been able to observe the consequences of a totally unregulated environment, observation of incremental variations in regulatory practice generally supports the view that tighter controls do not lead to improvements in the quality of service.[107]

Even the Federal Trade Commission has concluded that "occupational licensing frequently increases prices and imposes substantial costs on consumers. At the same time, many occupational licensing restrictions do not appear to realize the goal of increasing the quality of professionals' services."[108]

Licensing laws may actually put the public more at risk by lulling consumers into a false sense of security. Terree Wasley points out in What Has Government Done to Our Health Care? that most state licensing laws permit all licensed physicians to perform all types of medical services, even those for which they are not specifically
trained. For example, in Massachusetts physicians are licensed to perform acupuncture even though they may not have received special training. That situation disturbs nonphysician acupuncturists who receive more hours of acupuncture training than do most licensed physicians.

Feldstein points out that licensure laws focus at the point of entry into the medical profession, not on continuous monitoring. Once medical professionals are licensed, there are no requirements for proving that they are fully trained to perform the most up-to-date procedures. Some states do not require continuing education, so there is no guarantee that a physician is current with the most recent techniques and information. Feldstein points out that state licensing boards are responsible for monitoring physicians' behavior and for penalizing physicians whose performance is inadequate or whose conduct is unethical. Unfortunately, this approach for assuring physician quality and competence is completely inadequate. Monitoring the care provided by physicians through the use of claims and medical records data would more directly determine the quality and competence of a physician.

In his 1987 Cato Institute book, The Rule of Experts: Occupational Licensing in America, S. David Young, a professor of accounting and finance at Tulane University, reviewed the literature on a wide variety of occupational licensing restrictions, including medical licensing, and found that "licensing has, at best, a neutral effect on quality and may even cause harm to consumers." While the public safety benefits of medical licensure are clearly questionable, nearly all economists recognize that professional licensure laws act as a barrier to entry that decreases competition and increases price. As Victor Fuchs wrote in 1974, "Most economists believe that part of physician's high incomes represents a monopoly return to physicians from restrictions on entry to the profession and other barriers to competition."

One of the earliest studies of the impact of licensure on physician income was done in 1945 by Nobel Prize-winning economist Milton Friedman and Simon Kuznets. Friedman and Kuznets found that the difference in income between professional and nonprofessional health care workers was larger than could be explained by the extra skill and training of the professionals. A large portion of the variation, they concluded, was due to licensing restrictions. In addition, they concluded that the difference in mean income of physicians and dentists was caused by greater difficulty of entry into medicine than into dentistry.

Friedman and Kuznets's conclusions have been confirmed by numerous other studies. For example, William White examined the effect of licensure on the income of clinical laboratory personnel and found that in cities with stringent licensing restrictions income was 16 percent higher than in cities with less stringent restrictions, with no variation in the quality of testing.

Lawrence Shepard examined the fees of dentists in states that recognized out-of-state licenses and those that did not. He found that in states that did not recognize out-of-state licenses, dental fees were 12 to 15 percent higher. A study of Canadian health care indicated that occupational licensing, combined with mobility restrictions and advertising restrictions, increased health care costs by as much as 27 percent. Gaumer found that both fees and provider incomes were higher in states with more restrictive licensure requirements.

Interesting confirmation that physician licensure is related more to a desire to increase physician incomes than to concern over public health and safety can be found in a 1984 study by medical economist Chris Paul, who found that the year that a state enacted physician licensing was related to the number of AMA members in the state. Paul concluded that decisions by states to require licensing of physicians were more likely a result of special interests than of the public interest.

As the Friedmans note, "The justification [for licensure] is always the same: to protect the consumer. However, the reason is demonstrated by observing who lobbies at the state legislatures for imposition or strengthening of licensure. The lobbyists are invariably representatives of the occupation in question rather than its customers."

**Subsidies and the Medical Monopoly**

In addition to using government to restrict competition, the medical monopoly also turns to government for subsidies.
For example, most physician training is subsidized by the federal government.

In 1927 student fees accounted for 34 percent of medical school revenues.[124] Today less than 5 percent of medical school revenues comes from tuition and fees. Instead, medical schools rely heavily on federal and state support.[125] In 1992 total medical school revenues amounted to $23 billion.[126] State and local governments provided $2.7 billion.[127] The federal government paid at least $10.3 billion to medical schools and hospitals for medical education and training (Table 3). Additional revenues were obtained from charges for services, endowments, and private grants.

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<td><strong>Taxpayer Support for Physician Education and Training, 1991-92</strong></td>
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<td>Medicare</td>
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<td>Federal research, training, and teaching</td>
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<td>Federal research, training, and teaching</td>
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Medicare payments to hospitals represent the largest source of federal funding for medical education and training.[128] Medicare pays for physician education and training in two ways: First, hospitals receive direct payments from Medicare based on the number of full-time-equivalent residents employed at each hospital. Second, Medicare increases a hospital's diagnostic-related group payments according to an "indirect" medical education factor, based on the ratio of residents to hospital beds.[129]

The average Medicare payment to hospitals was more than $70,000 per resident for both direct and indirect education subsidies in 1992. An estimated 69,900 full-time-equivalent interns, residents, and fellows were eligible for Medicare reimbursement in 1991.[130]

Medicare paid hospitals $1.6 billion for direct medical education expenses and dispensed $3.6 billion for indirect medical education adjustments in 1992.[131] Of the total $5.2 billion that Medicare paid to hospitals for training, approximately $0.3 billion was appropriated for training nurses and allied health professionals.[132]

Medical schools and teaching hospitals receive additional federal funding from the National Institutes of Health, the Department of Veterans Affairs, the Department of Defense, and the Health Resources and Services Administration (Title VII) program. Federal funding for research, training, and teaching amounted to at least $5.1 billion in 1992.[133] That money was awarded to medical schools and affiliated hospitals in the form of grants and contracts. Supporting biomedical research in medical schools is one way the federal government supports medical education without appearing to do so directly.[134]

As Feldstein has pointed out, "There is no reason why medical students should be subsidized to a greater extent than students in other graduate or professional schools."[135] That point has also been suggested by Uwe Reinhardt, a professor of political economy at Princeton University, who recently noted,

In the context of academic medicine, this inquiry should begin with the question of why the education of physicians is now so heavily supported with public funds, when similar support has never been extended to other important professions, for example, students in law schools or graduate programs in business. . . . In truth, the case for the traditional heavy public subsidies to medical education and training has simply been taken for granted . . . it never has been adequately justified.[136]
A less direct form of subsidy is the ability of the health care establishment to direct government payments from the Medicare and Medicaid programs to "approved" providers and hospitals. As already discussed, chiropractors and other nontraditional providers have generally been excluded from Medicare reimbursement. Furthermore, in order to be eligible to participate in Medicare, a hospital must be accredited by the Joint Commission on Accreditation of Health Care Organizations (or the American Osteopathic Association in the case of osteopathic hospitals). The JCAHO, which the Wall Street Journal describes as "one of the most powerful and secretive groups in all of health care,"[137] is a private organization with a board dominated by members representing the AMA and the American Hospital Association.

As several medical economists studying the issue have warned, in as much as Medicare is a major source of hospital revenues, "the influence of the JCAHO can be used to limit hospital competition and to protect physicians [against competition] from other groups of providers by denying them access to hospitals or influence within hospitals."[138] Thus the medical monopoly is able to use federal funds to reward its members and restrain its competitors.

**Conclusion**

What should government do if it is serious about cutting health spending and improving access to affordable health care? The first step should be to eliminate the anti-competitive barriers that restrict access to low-cost providers, namely licensure laws and federal reimbursement regulations. Americans should not be forced to substitute providers against their will; rather, they should be free to choose among all types of health care providers.

Instead of imposing strict licensure laws that focus on entry into the market but do not guarantee quality control, states should hold professionals equally accountable for the quality of their outcomes. That will reduce the need for strict licensure laws and other regulations that are purported to protect the public at large.

The time is right for eliminating barriers to nonphysician health care providers. Many Americans are seeking low-cost nontraditional providers and even choose to pay out-of-pocket for their services. Breaking the anti-competitive barriers of licensure laws and federal reimbursement regulations will provide meaningful health reform, increase consumer choice, and reduce health care costs.

**Notes**

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(4) Eisenberg et al. examined therapies not widely taught in U.S. medical schools no generally available in U.S. hospitals. Therapies included acupuncture, biofeedback, chiropractic, commercial weight-loss programs, energy healing, exercise, folk remedies, homeopathy, hypnosis, imagery, lifestyle diets (e.g., macrobiotics), massage, megavitamin therapy, prayer, relaxation techniques, self-help groups, and spiritual healing.


Office of Management and Budget, Standard Industrial Classification Manual (Washington: National Technical Information Center, 1987). Nonphysician providers include acupuncturists, audiologists, chiropractors, Christian Science practitioners, dental hygienists, dieticians, hypnotists, inhalation therapists, midwives, naturopaths, nurses (not practicing in hospitals, clinics, or offices of medical doctors, nursing homes, HMOs, or home health care), nutritionists, occupational therapists, optometrists, paramedics, physical therapists, physicians' assistants, podiatrists, psychiatric social workers, psychologists, psychotherapists, speech clinicians, and speech pathologists.


See, for example, James Dorn and Henry Manne, eds., Economic Liberties and the Judiciary (Fairfax, Va.: George Mason University Press, 1987).


Ibid.


King, p. 1222.

Lowell, p. 156.


Ibid., pp. 116-17.

Ibid., p. 118.

Flexner called for the adoption of five principles that reflect the model of education developed at Johns Hopkins University School of Medicine in 1893. Those include (1) a minimum of two years of undergraduate college; (2) a four- year curriculum, with two years in the basic medical sciences followed by two years of supervised clinical work
in both inpatient and outpatient hospital services; (3) regular laboratory teaching exercises; (4) a high level of quality instruction be maintained through the use of full-time faculty; and (5) that medical schools be university based.


[28] Lowell, appendix, Table 104.

[29] Ibid., p. 11.


[31] Ibid., appendix, Table 116.


[33] Ibid.

[34] Ibid.

[35] Estimate of 1 doctor per 2,563 persons nationwide based on U.S. Census data, total U.S. population = 122,775,046 in 1930; and the total number of physicians in 1932 = 47,914. Lowell, appendix, Tables 62, 63.


Final Data from the Centers for Disease Control and Prevention/National Center for Health Statistics 43 (October 1994): 17-18.


[56] Ibid.

[57] Hafner-Eaton, p. 818.


[60] Estimate based on 20 percent of 4,065,000 births in 1992 and savings of $3,000 from midwife-assisted services. Ventura et al.


[62] Ibid., pp. 152, 171.


[68] Ibid., p. 55.

[69] Brodsky, p. 32.

[70] Hafner-Eaton, p. 814


[94] Cherkin, p. 351.


[99] Ibid., p. 1575.


[105] Fulder and Munro, p. 542.


The Commonwealth of Massachusetts's Acupuncture Statute (M.G.L. c, 112 ss. 148-62) states that "nothing contained herein shall prevent licensed physicians from practicing acupuncture."


Wasley, p. 42.

Feldstein, Health Policy Issues, pp. 189-90.


Gaumer, p. 397.


Friedman and Friedman, p. 240. Emphasis in original.

Medical school revenues totaled $11,983,863 in 1932. Sources of income were as follows: student fees, $4,057,304; endowment income, $2,784,527; state and city, $2,574,973; and other, $2,567,059. Lowell et al., Table 104 and p. 283.


Mullan et al., p. 142.

[129] Ibid.

[130] Mullan et al., p. 143.

[131] Ibid.

[132] Ibid., pp. 142-43.

[133] Ganem, p. 724, Table 1.

[134] Kovner, p. 73.


Friedman and Friedman. Free to Choose, pp. 229–30. 8. Mancur Olson. 1982. The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities New Haven, Conn.: Yale University Press. P. 66. Sue A. Blevins. However, monopolies are protected from competition by barriers to entry and this will generate high levels of supernormal profits. If some of these profits are invested in new technology, costs are reduced via process innovation. This makes the monopolist’s supply curve to the right of the industry supply curve.

The traditional view of monopoly stresses the costs to society associated with higher prices. Because of the lack of competition, the monopolist can charge a higher price (P1) than in a more competitive market (at P). Schumpeter’s analysis can be argued to be a defence of monopoly, at least in terms of the whether they need to be regulated. If Schumpeter is accurate, then even natural monopolies may be subject to competition and innovation from new entrants. Remedies.