

Advances in Economic Theories of Medical Licensure

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Overview: The author suggests the changing nature of the market for physician services may create a new interest in the debate over the value of medical licensure. She believes licensure has served a purpose in encouraging ethical professional behavior but that the need for government intervention is declining as the monitoring of physicians shifts to hospitals, insurers, and employers.

INTRODUCTION

The support for medical licensure expressed by health professionals has not been mirrored by economists. The concern of economists has been that restrictions on entry benefit physicians at the public's expense. Recent theoretical work, however, has provided some basis for reassessing the value of medical licensure to society.

THE PUBLIC INTEREST APPROACH

The most cited work by economists on medical licensure is by Kenneth Arrow, Milton Friedman and Reuben Kessel.¹ Arrow's work provides the traditional public interest rationale for government intervention in the market for physician services. Writing in 1963, Arrow noted that patients have less information than physicians as to the "consequences and possibilities of treatment." (p. 951) In his view, rigid entry requirements to the medical profession are "designed to reduce the uncertainty in the mind of the consumer as to the quality of product insofar as this is possible." (p. 966)

In addition to the information rationale, Leffler (1978) mentions two other justifications for minimum quality standards. He notes that individuals who consume services from less skilled physicians hurt not only themselves, but others through the spread of disease. In the vernacular of economists, this is an "externality" problem. Leffler also notes that minimum standards may be desirable if some individuals underestimate the risks associated with consuming low quality services. He terms this justification for medical licensure "society knows best."

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CRITICISMS OF THE PUBLIC INTEREST APPROACH

Writing about the same time as Arrow, Milton Friedman (1962) took a very

different approach. He suggested that medical licensure does not benefit consumers but, instead, serves the interests of physicians by restricting supply. When supply is restricted, physicians benefit from higher prices and consumers are worse off. In a 1970 article, Reuben Kessel explained how control over medical school accreditation by the American Medical Association, teamed with state laws requiring physicians to be trained in accredited schools, effectively gave the AMA control over the physician supply.

An important point that Friedman and others have made is that simple certification of practitioners would deal with the information problem Arrow described, and that certification would be better than licensure for consumers.² Under certification, according to Friedman, "the government agency may certify that an individual has certain skills but may not prevent, in any way, the practice of any occupation using these skills by people who do not have such a certificate." (p. 145) The preference for certification over licensure is based on the assumption that consumers are competent to make choices for themselves. If, with all the relevant information available to them, consumers choose to purchase services from uncertified individuals, then, this argument goes, restricting such exchanges would make consumers worse off.

The case against licensure has grown over time. The (intellectual) followers of Friedman and Kessel, who view the state medical boards as influenced by special interests and having no inherent ability or advantage in selecting physicians, have done much to discredit the existing regulatory approach.³

To make the point that licensure offers little protection to consumers, critics of licensure emphasize that licensure does not limit physicians to areas of practice in which they have demonstrated competence. Critics add that minimum quality standards cannot protect consumers from fraudulent behavior, nor can a licensing examination assure quality years later as medical technology changes.

The relevance of some medical licensure entry restrictions has been questioned. Basic science requirements have been labeled "an anachronistic stumbling block to medical licensure" (Derbyshire, 1969, p. 118, see also Kessel, 1970). Citizenship requirements, imposed for many years prior to their being declared unconstitutional, seem clearly exclusionary.

To emphasize the lack of protection for consumers, critics have pointed to the narrowness of disciplinary actions by state medical boards. Citing the need to show gross malpractice or gross incompetence as a basis for discipline, critics have labeled the medical disciplinary process ineffective (see, for example, Goodman, 1980). Because the majority of disciplinary actions are for drug-related offenses, critics complain that issues of physician competence are ignored by state disciplinary boards.

Given the irrelevance of some entry restrictions, the difficulty in assuring continued physician competence and deterring fraud over time through minimum quality standards, and perceptions of weak enforcement by state medical boards, many observers conclude that licensure does little or nothing to protect consumers.

A second, very different approach to discrediting licensure questions whether the lack of consumer information in the market for physician services is sufficient to justify government intervention. Havighurst (1982), for example, notes that

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"Consumers are also ignorant about many other things that they buy," adding that "it is easy to overstate the problem as it arises in health care." (p. 78) In assessing physician quality, he writes that individuals will use "past experience in repeated dealings with that physician and others, a physician's general reputation, the advice and direct experience of others, and a variety of professional credentials that may serve to distinguish the more competent and reliable. . ." Friedman argues that "licensure is not now the main or even a major source of assurance of at least minimum quality. . . people do not now choose physicians by picking names at random from a list of licensed physicians." (p. 158)

Those that reject the need to provide information to consumers, or conclude that licensure provides little assurance of quality to consumers, conclude that state licensure arrangements exist to benefit physicians at consumers' expense.

NEWER THEORIES IN SUPPORT OF LICENSURE: SHAPIRO, LELAND

Since licensure has persisted over time and exists in many societies, there is something disturbing about dismissing it as an arrangement that benefits physicians, without benefits to consumers. The argument that licensure cannot provide valuable information directly to consumers has forced some economists to come up with creative suggestions as to how licensure might actually work to assure quality.

In a 1986 article, Carl Shapiro argues that the need for costly monitoring of physician actions by consumers is reduced when employing physicians who have fulfilled minimum training requirements. The underlying premise for this conclusion is that it is relatively easy for highly trained physicians to produce high quality services; that there is a connection between training levels and the quality that results. Shapiro suggests that standardization of training requirements for physicians (such as that which accompanies licensure in the United States) is desirable because it allows physicians to reveal their training level to consumers relatively cheaply. On the merits of certification over licensure, however, Shapiro agrees with most economists: "If sellers' training levels are observable, perhaps due to certification, no consumer is better off due to licensing." (p. 854)

Leland (1980, 1979) suggests a different theory for why medical licensure is of value to society. He notes that, if consumer information costs are significant, high quality physicians cannot be recognized and, as a result, their superior skills go uncompensated. This discourages their entry, reducing the average quality of physician services offered. By limiting entry through licensing, either randomly or by setting minimum quality standards, average physician income can be increased, thus providing an incentive for more talented individuals to seek medical training. The increase in average quality that results benefits consumers.

Leland is careful to say that his work does not show that there are positive benefits to minimum quality standards or random-entry restrictions, but instead that there *may* be positive benefits. He looks at the case of professional self-regulation (as is the case with medical licensing), and concludes that standards will be set too high, "perhaps resulting in lower welfare than when

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By limiting entry through licensing, said Leland, physician income can be raised, providing an incentive for more talented individuals

Leland's work does not support licensure over certification

no standards are imposed." (p. 282) In addition, he notes that the costs of implementing minimum standards must be considered, as they may outweigh any benefits.

Leland's work provides an interesting justification for government intervention, suggesting how positive benefits may result from medical licensure. It does not, however, support licensure over certification. He notes that certification provides information similar to that provided by minimum-quality standards (licensure) and that, under certification, "Buyers have a wider range of choice. . . because they can buy low-quality goods or services if they wish." (p. 283) He concludes that, because certification would lead to higher welfare, it is the preferred alternative.

The models presented by Shapiro and Leland suggest that there may be benefits to society from medical licensure. But they both come to the same conclusion with respect to certification—that it is preferred—as it offers consumers more options from which to choose.

INCENTIVES FOR PERFORMANCE

My own work (Svorny 1987, 1992) is unusual in that it not only provides support for licensure, but also for licensure over certification. I argue that the value of medical licensure is in adding to existing penalties or establishing penalties where none exist for inappropriate behavior by physicians.

By increasing profitability in the market for physician services (a result of barriers to entry and required investments in education and training), licensure arrangements increase the loss associated with physician malpractice. Malfeasant physicians lose both the present value of the profits physicians earn (Kessel described the entry restrictions which raise earnings) and the return on their investment in training. A very important point is that this financial loss or penalty may occur as a result of license revocation, but does not require it. Even if a malfeasant physician's license is not revoked, the physician will bear costs as patients, referring physicians, and hospitals seek services elsewhere, reducing the physicians' earnings over time. Because of licensure, the loss of earnings is greater than it would be otherwise. Specifically, because entry restrictions reduce competition and increase physician earnings, physicians have more to lose than they would in a world with unlimited entry. In this way, licensure adds to existing civil and criminal penalties for illegal acts (fines, jail, etc) and strengthens incentives to deter physician malfeasance.

This view of licensure can be used to justify the often-criticized, narrow focus of state medical board disciplinary actions on drug-related problems. One could take the position that it makes sense for state medical boards to stay away from making *difficult decisions* about physician competence. This allows individuals familiar with the situation to be the judge. Marginal incompetence, which may be very difficult to prove, will be penalized as clients seek services elsewhere (fewer referrals, loss of hospital privileges, expulsion from group practice, etc). On the other hand, state revocation of a medical license is of value in penalizing physicians in cases of drug abuse (and where incompetence is straightforward).

As with Leland's work, this view of licensure does not *guarantee* net gains to consumers, it just suggests that there *maybe* net gains. Whether or not licensure is desirable depends on whether the incentives for quality care generated by

Svorny argues for the value of medical licensure based on the higher earnings it permits physicians and, therefore, the greater losses it imposes on them for inappropriate behavior

It may make sense for state boards to stay away from making difficult decisions about physician competence

licensure provide benefits to consumers which outweigh the losses associated with limiting the supply of physicians from which consumers may choose. With this view of licensure, certification is not a perfect substitute. A switch to certification would not only reduce physician earnings (due to the increase in competition in the sale of physician services), but it also would provide medical avenues for physicians whose licenses have been revoked. Both reduce the penalty associated with malfeasance.

EMPIRICAL EVIDENCE

There is little evidence to support or refute a public interest model of licensure. One attempt to support a public interest model of licensure is in Leffler (1978). Leffler used data from the 1960s (just prior to the initial adoption of the standardized Federation Licensing Examination). Making the assumption that, where state examinations are harder, a larger percentage of physicians will take the national examination, he uses the percent taking the national examination as a measure of state medical board licensing quality standards. Using this measure, he finds some empirical support for the consumer-demand hypothesis for licensure.

In contrast, in Svorny (1987), empirical results are presented that suggest restrictions on physician supply have been more severe than would maximize consumer well-being. Looking across states, it appears that physician interests dominate the regulatory process. This result, however, cannot rule out the value of licensure in assuring consumers of physician quality, as it still may be better than other methods, all of which have their own attendant problems (see Svorny, 1992).

CONCLUSION

The changing nature of the market for physician services may create new interest in the debate over the value of medical licensure to consumers. Price controls on physician fees (based on a relative value scale and some other overall control of expenditures) may preclude the use of supply restrictions to raise physician earnings. If physician earnings fall, the penalties that are imposed upon malfeasant physicians necessarily decline.⁴

It is my belief that medical licensure has been of value to society because it creates large penalties for malpractice, encouraging individual physicians to follow professional ethics. But it seems that the need for government intervention has declined as increasing numbers of physicians are involved in group practice and/or subject to serious peer review. Most important, recent shifts in court assignment of liability for physician malpractice toward hospitals, insurers, and employers (who choose health plans for their workers), have created incentives for these groups to closely monitor physician performance and to take steps to reduce patient exposure to less competent and incompetent physicians (see Svorny, 1992). This means that individuals for whom monitoring costs are relatively low (hospitals, other doctors) now have an incentive to observe physician behavior and intervene when necessary. This protects consumers and, in my opinion, reduces the value of state expenditures on medical licensing arrangements.

Certification would reduce the penalty associated with malfeasance

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Notes

1. Friedman and Arrow have won the Nobel Prize in Economics.
2. See also Moore, 1961.
3. See, for example, Young (1987), Goodman (1980), Benham (1991), and Rayack (1982).
4. Of course, the most troublesome aspect of price controls is not what they will do to physician earnings (and penalties for malfeasance), but what they will do to incentives for smart, talented individuals to enter medical school.

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