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FORMS OF STATE INTERVENTION IN THE HEALTH SECTOR

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ABSTRACT. Any economic activity is rarely free from state intervention. State interventions mainly cover the following aspects: supply, distribution, and regulation of goods or services. State interventions in the health sector cover the same aspects. The state regulates the medical market to prevent market defects. It affects the distribution of resources by developing special rules and instructions. Antimonopoly legislation is such a mechanism of regulation. The paper discusses various mechanisms of state intervention in the health sector, including taxes and subsidies, public health care, transfer programs, and regulation. Their goal is to influence the distribution of resources and revenues in the health sector. Much of the government intervention in the health sector is aimed at reducing costs in the industry. These regulations restrict entry into the medical market, limit the industry's inappropriate expansion, and control prices. Some regulations also try to improve the quality of treatment. Licensing of medical personnel is the best example of quality control and improvement.

KEYWORDS: STATE INTERVENTION, REGULATION, PUBLIC HEALTH, TAXES, SUBSIDIES

INTRODUCTION

The state provides a significant portion of health care services through state hospitals (or other state health care providers) and programs. The provision of health services and social insurance programs are important means of redistributing income from high-income groups to low-income ones or from the healthy to the elderly. The regulatory role of the state is carried out through various government agencies that affect almost all sectors of the economy and individual employees. The state can use various mechanisms to influence the distribution of resources and income. The main instruments in the health sector are taxes and subsidies, public health provision, transfer programs, and regulation.

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TAXES AND SUBSIDIES

When positive externalities arise as a result of the consumption of goods, the competitive market is inefficient. For example, the use of vaccines against infectious diseases causes beneficial external effects for society.

If the good or service has significant external benefits, a subsidy can be used to increase the efficiency of market outcomes. At this point, it doesn't matter whether the producers are subsidized or the consumers. In either case, a consumer or producer subsidy lowers the market price and increases consumption.

In the US, the government provides tax subsidies (benefits) when employers purchase private insurance for their employees, which promotes greater coverage of the insured population.[1]

When a product generates external costs, a tax can be imposed to reduce the consumption of that product. For example, the consumption of goods such as tobacco and alcohol causes harmful (negative) externalities, the marginal external cost must be added to the marginal private cost to determine effective solutions.[2] To reduce the consumption of such goods, it is recommended to increase the price.

The tax or subsidy problem is related to determining the appropriate rate. Changing tax or subsidy rates is not a simple political process, and the market cannot always indicate the appropriate rate.

PUBLIC PROVISION

Public supply of a product is another approach to market failure. Public provision of health care is a complex process that requires answering three main economic questions (what? how? and for whom?). The question "what" is related to the types of health services, their quantity, and quality. The question "how?" It is related to how the state provides health services, whether the state can provide the services itself or contract with the private sector to solve the problem. The question "Who?" Regarding the financing and distribution of the service: will the program be of universal use, or will it be targeted only at certain groups? The financing mechanism has a significant impact on the resources raised in health care and the likely distribution – from rich to poor and from young to old.[3]

Public provision is particularly useful for pure public goods. When there are significant externalities, and it is difficult or inefficient to exclude certain potential customers, public provision may be the best answer. Even if private firms can profitably produce a product demanded by consumers, the use of prices for such products is undesirable. For example, private research firms can profitably conduct certain public health research by disseminating the results only to organizations that pay for access to it. However, this approach is ineffective because very few people will gain access to the research. The value of research is not diminished if it is shared more widely.

State provision does not necessarily mean state production. For example, medical research has many characteristics of public goods. Medical research is carried out by both government employees and independent scientists, private researchers employed by government-funded research foundations. Another example of state provision is medical assistance for the poor, which aims to improve the health of low-income citizens. Both state and private hospitals and clinics, which are financed by state programs, provide medical services to them.

TRANSFER PROGRAMS

Cash transfer programs are usually intended to achieve social equity by redistributing income

1 Weinmeyer, R. M., McHugh, M., Coates, E., Bassett, S., & O'Dwyer, L. C. (2022). Employer-led strategies to improve the value of health spending: A systematic review. *Journal of Occupational and Environmental Medicine, 64*(3), 218-225. <https://doi.org/10.1097/JOM.0000000000002395>.

2 Griffith, R., O'Connell, M., & Smith, K. (2022). Price floors and externality correction. *The Economic Journal, 132*(646), 2273–2289. <https://doi.org/10.1093/ej/ueac011>.

3 Tandon, A., Reddy, K. S. (2021). Redistribution and the health financing transition. *Journal of Global Health, 11*, 16002. <https://doi.org/10.7189/jogh.11.16001>.

in such a way that recipients are free to choose how to spend their income.[4] Social protection for the elderly, the poor, and the disabled is an example of this. Cash transfers for the poor include temporary assistance to needy families.

In-kind transfers are also a redistribution of income, the main purpose of which is to increase the consumption of specific goods or services by the recipient. Important types of transfers include food assistance programs and housing.

REGULATION

The state regulates the medical market to prevent market defects. It affects the distribution of resources by developing special rules and instructions. Antimonopoly legislation is such a mechanism of regulation.

Regulation of the healthcare market by the state may take many forms: licensing laws, restrictions on entering the medical market, and regulation of the price, quality, and volume of medical services.

In special cases, the state can completely prohibit the production of any goods or any activity. For example, the production and consumption of drugs (narcotics) in an illegal way.[5] In general, the state regulates the form of goods and determines the terms of production and consumption of goods.

LICENSING

Licensing is seen as protecting citizens from fraudulent or unsafe healthcare providers. Licensing has a "good side" (improving quality) and a "bad side" (limiting market entry and competition). Licensing usually refers to the labor resources needed to provide health care and the medical organizations themselves that provide health care services.

Licensing covers healthcare professionals. In the regular market, farmers are not licensed, although the food they produce is crucial to human life. People who manufacture cars are not licensed either. However, airline pilots and taxi drivers are required to be licensed.

Licensing is considered a safety and quality improvement regulation mechanism and includes the following conditions:

- • The quality of individual resources (e.g., doctors and nurses) varies significantly;
- • Low-quality resources lead to poor results;
- • Enterprises that produce goods or services cannot or do not want to measure the quality of their labor resources (firms are liable for damages caused by their employees);
- • The customer does not have complete information about the quality of goods or services;
- • Because medical care is tailored to the patient, it is difficult to exchange it. However, the use of defective goods or services may endanger the consumer.

In the medical market, it is difficult for consumers to assess the quality of the service provided because the results of the treatment performed with each patient are different.[6] Sometimes, people's health can improve even with minimal or unsatisfactory medical care. However, not infrequently, people's health can deteriorate or become fatal even with the best medical care. Different professional qualifications of different doctors should also be taken into account.

The user tries to find out if the doctor is "good", but the conclusion is problematic. Does a "good" health result guarantee that the doctor is "good"? (No, the doctor may just be lucky.) Does a "bad" health outcome guarantee that the doctor is "bad"? (No; maybe it was a fluke of nature, despite the best service.). Sometimes, the user tries to extract information from a very limited number of events or may have no information at all. From a statistical point of view, the problem is that when

4 Della Guardia, A., Lake, M., Schnitzer, P. (2022). Selective inclusion in cash transfer programs: Unintended consequences for social cohesion. *World Development, 157*, 105922 <https://doi.org/10.1016/j.worlddev.2022.105922>.

5 Paley, D. (2017). State power and the enforcement of prohibition in Mexico. *Mexican Law Review, 10*(1), 3-20.

6 Sixma, H. J., Kerssens, J. J., Campen, C. V., & Peters, L. (1998). Quality of care from the patients' perspective: From theoretical concept to a new measuring instrument. *Health Expectations, 1*(2), 82-95. <https://doi.org/10.1046/j.1369-6513.1998.00004.x>.

one is trying to judge whether a doctor is "good" or "bad," random information can override existing opinion. This explains why some doctors who lose their licenses can compile a list of patients who attest to their good professional qualities, even in the process of revoking their licenses.

Through licensing, we can obtain two types of quality information. First of all, we get information about the level of education of the licensed person. For example, it can also test the surgeon's knowledge of the indications and proper procedures for surgery. On the other hand, licensing authorities can collect information about poor treatment outcomes of individual doctors. By doing so, licensing authorities have a much greater ability to evaluate medical personnel, allowing for a much faster identification of a physician's competency than any patient or physician.

VOLUNTARY QUALITY CERTIFICATION

Medical service quality certification is also carried out by private organizations. These organizations perform two functions. Firstly, they have certain training programs in their specialties, and secondly, they conduct special examinations to obtain a quality certificate. Typically, before being eligible to take the exam, a physician must complete a certified training program, namely a residency in an appropriate medical specialty (e.g., surgery, cardiology, family medicine) conducted at university hospitals. Some of these narrow specialty programs require additional specialized training beyond residency. For example, you can become licensed as a pediatrician after a three-year residency, but a narrow specialty in neonatology requires an additional three years of training.

Voluntary quality certification has certain advantages over mandatory licensing. First, the voluntary "Council" is more in line with the principles of competition, as it lacks state coercion. Second, councils have created different levels of quality indicators that provide the market with more quality information than a single quality license can provide.[7]

Voluntary certification, like mandatory licensing, has its problems. The first question that arises is related to the quality of the certifier. That is, it may be difficult for individual patients to understand the essence and meaning of certification.

The second question that arises is the ability of the certification body to restrict entry into the specialty. An organization that achieves a very strong position in the market in terms of quality certification can acquire the ability to restrict market entry. Also, some medical specialty boards may limit the number of approved residencies statewide, which may limit the number of practitioners in a given specialty.

In addition to the quality certification of doctors, dentists, nurses, and other medical personnel, it is important to certify medical organizations that cover a wide range of their activities. As a result of the certification of medical organizations, specific reports are developed, where specific notes are mentioned.

Another important issue arises when considering quality certification in healthcare markets. How does certification affect consumers' incentives to seek out providers that provide services at a relatively low cost? In many markets, low price means low quality, which is often true. When quality is inherently difficult to measure, sellers may misrepresent "high quality" to inflate prices. Evaluation of the quality of the activity of the medical service provider promotes competition in the medical field.[8] In the medical market, which is essentially monopolistic competition, customer search is important.[9] However, when consumers cannot judge quality, searching for a lower-cost provider is a challenge. Thus, quality assessment through licensing and certification can promote competition.

7 Shaw, C. D., Groene, O., Botje, D., Sunol, R., Kutryba, B., Klazinga, N., Bruneau, C., Hammer, A., Wang, A., Arah, O. A., Wagner, C., DUQuE Project Consortium. (2014). The effect of certification and accreditation on quality management in four clinical services in 73 European hospitals. *International Journal for Quality in Health Care, 26*(Suppl 1), 100-107. <https://doi.org/10.1093/intqhc/mzu023>.

8 Rivers, P. A., Glover, S. H. (2008). Health care competition, strategic mission, and patient satisfaction: Research model and propositions. *Journal of Health Organization and Management, 22*(6), 627-641. <https://doi.org/10.1108/14777260810916597>

9 Mwachofi, A., & Al-Assaf, A. F. (2011). Health care market deviations from the ideal market. *Sultan Qaboos University Medical Journal, 11*(3), 328-337.

Consumers use quality information to select providers. There are three types of quality data in the healthcare market: provider competency certification (licensing), compliance with desired protocols (e.g., adherence to the vaccination schedule, percentage of patients vaccinated against influenza), and actual outcome information (e.g., patient mortality following complicated surgery).

Regulation mainly involves licensing. The latter two are usually provided to the public by some organization or agency, and the user is then free to react to such information.

It is convenient for patients to use such indicators of quality assessment, which evaluate the results of treatment. For example, patients are known to choose cardiac surgeons with low mortality rates. Unfortunately, as with any type of information, mortality rates are difficult to collect and analyze. The greatest difficulty is associated with comorbidities treated by different providers. Physicians and reputable hospitals (e.g., academic medical centers) may attract—by direct patient selection or referral from their primary care physician—patients with high rates of comorbidity. It is expected that such patients may develop a higher mortality rate as a result of surgery than in less complicated patients. As a result, in the field of surgery, along with the general indicators of mortality, other indicators that take into account the patient's risk are used.[10, 11]

Many countries operate national "rating agencies" that provide quality scores for hospitals and nursing homes.[12] Nursing homes can be evaluated by indicators such as fractures, frequency of bedsores, etc.

Hospital quality measurement tools are much more complex due to patient heterogeneity and varying rates of comorbidities. The following indicators are used to measure outcomes: 1. Direct outcome indicators, which include mortality rates and hospital readmission rates within 30 days; 2. Measurable indicators of the process, for example, taking the necessary medicines at the appropriate time; (3) patient satisfaction survey; (4) frequency of use of imaging, aimed at limiting the overuse of imaging studies.

Quality assessment of nursing homes primarily involves measuring immediate outcomes (e.g., bedridden rates, rates of malnutrition or dehydration, rates of falls and fractures, etc.).

CERTIFICATE OF NEED

U.S. healthcare markets have been subject to a completely different type of regulation for decades – namely, restrictions on the construction of new facilities to prevent hospital overuse. These regulations restrict the construction of new hospital beds (or the purchase of expensive hospital equipment) without prior approval from the state. The makers of such laws try to determine how many hospital beds (and perhaps how many magnetic resonance imaging (MRI) units, etc.) are needed in a given geographic area. Only after that, they will issue a construction permit for a new facility. Because of this basic logic, these rules are called Certificate of Need.

In the US, until 1974, the Certificate of Need had an advisory purpose. In 1974, the National Health Planning and Resource Development Act was passed. In 1986, President Ronald Reagan repealed the 1974 law that required states to use certificates of need. Since then, about a quarter of states have completely repealed their certificate of need laws, although about three-quarters still retain them in some form. States that continue to use a certificate of need focus more on outpatient facilities than hospitals.

The Certificate of Need rules attempt to assess the need for medical facilities and control entry into the medical market to eliminate excess capital investment and thereby make the industry work more efficiently. The area of greatest focus

10 Vaid, S., Bell, T., Grim, R., Ahuja, V. (2012). Predicting risk of death in general surgery patients on the basis of preoperative variables using American College of Surgeons National Surgical Quality Improvement Program data. *Perm Journal, 16*(4), 10-17. <https://doi.org/10.7812/TPP/12-019>

11 Chand, M., Armstrong, T., Britton, G., Nash, G. F. (2007). How and why do we measure surgical risk? *Journal of the Royal Society of Medicine, 100*(11), 508-512. <https://doi.org/10.1177/014107680710001113>.

12 Tai, T. W. C., Mattie, A., Miller, S. M., Yawson, R. M. (2023). An examination of Leapfrog safety measures and Magnet designation. *Journal of Healthcare Risk Management, 42*(3-4), 21-29. <https://doi.org/10.1002/jhrm.21533>.

of the Certificate of Need laws is nursing homes, in which all states have a significant financial interest in the states' share of the costs of the Medicaid program.[13]

The purpose of regulating the certificate of need is to prevent "excessive entry" into the medical market and to reduce production costs. However, the analysis of the effect of the certificate of need is not so simple. If the certificate of need rules limit the capital investment of a hospital that wants to provide more services than the number of resources allows, the hospital has the option to use the same capital investment for other resources (e.g., intensive nursing services to treat more patients).

Consequently, the ultimate effect of the Certificate of Need Act is mixed. In an environment of monopolistic competition, entry restrictions have the potential to reduce the average cost of production in an industry. However, defects in the manufacturing process increase production costs. Studies have shown that the certificate of need limits the increase of beds.

13 Rahman, M., Galarraga, O., Zinn, J. S., Grabowski, D. C., Mor, V. (2016). The impact of certificate-of-need laws on nursing home and home health care expenditures. *Medical Care Research and Review, 73*(1), 85-105. <https://doi.org/10.1177/1077558715597161>.

CONCLUSION

Much of the government intervention in the health sector is aimed at reducing costs in the industry. These regulations restrict entry into the medical market and limit the inappropriate expansion of the industry, as well as control prices. Some regulations also try to improve the quality of treatment. Licensing of medical personnel is the best example of quality control and improvement. Considering the above, it is necessary to expand the research on the economic analysis of regulation in the health sector.

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