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Gatekeeper incentives and demand inducement: An empirical analysis of care managers in the Japanese long-term care insurance program

Shinya Sugawara[a,b,*], Jiro Nakamura[b]

[a] University of Tokyo, 7-3-1 Hongo, Bunkyo, Tokyo 113-0033, Japan
[b] Nihon University, 12-5, Gobancho, Chiyoda, Tokyo 102-8251, Japan

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ABSTRACT

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This study analyzes the incentives and supplier-induced demand of care managers, who are intermediaries between consumers and service providers in the Japanese social insurance program for long-term care. Care managers can be considered as pure gatekeepers, in that their function is limited to referral people to specialists and they themselves do not provide care. Care managers are rewarded by capitation, which is considered as a cost-effective payment mechanism for insurers. However, many care managers actually work for firms that also operate as service providers. Service providers are rewarded by a fee-for-service payment and can have a motivation to induce excess consumer demand. The violation of the neutrality of care managers might result in a financial burden on social insurance. In this study, we empirically test whether there is a positive correlation between care manager density and care costs, which might imply the existence of supplier-induced demand. Our results show a positive correlation, particularly in the case of care managers who work for firms that jointly operate in service provision sectors. Based on these results, we conduct a quantitative analysis, and show that the demand induced by care managers might produce a considerable financial burden on social insurance.*J. Japanese Int. Economies* **40** (2016) 1–16. University of Tokyo, 7-3-1 Hongo, Bunkyo, Tokyo 113-0033, Japan; Nihon University, 12-5, Gobancho, Chiyoda, Tokyo 102-8251, Japan.

1. Introduction

In response to the overwhelming concern about the country's aging population, the Japanese government established the radical Long-Term Care Insurance (LTCI) program in 2000. This mandatory program with universal coverage instantaneously created new markets for various formal elderly care services, such as home care, day care services, and short-stay care. To guide consumers in this new and complicated market, the LTCI introduced intermediaries, called care managers, between consumers and the service providers. This study investigates whether care managers promote efficiency within the social insurance program.

* Corresponding author.
E-mail addresses: sugawara_shinya@ci.i.u-tokyo.ac.jp, sugawara@e.u-tokyo.ac.jp (S. Sugawara), nakamura.jiro@nihon-u.ac.jp (J. Nakamura).

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Care managers can be considered as gatekeepers who refer consumers to formal care providers. In the healthcare sector, gatekeepers are commonly seen as primary care physicians. Examples include managed care in the United States and general practitioners in the UK National Health Service. For long-term care, several developed countries have gatekeepers in mechanisms of case management to guide the elderly who return home after hospitalization, as reviewed by OECD (2005) and Johri et al. (2003). However, gatekeepers are not a part of social insurance programs for long-term care in the Netherlands, Germany,[1] or the recent program in Korea.

Our study offers a unique perspective on the provision of formal elderly care using gatekeepers through the radical social insurance experience of Japan, who face the fastest aging population globally. Considering the nature of required treatments, gatekeepers can be a suitable tool in elderly care. Unlike medical care, in which one hospital or one doctor is responsible for comprehensive care, long-term care requires various services. Thus, gatekeepers can promote efficiency in matching the care needs of the elderly with service providers, as opposed to the elderly contacting and visiting specific service providers directly. In addition to supply-side variety, consumer heterogeneity complicates the provision of elderly care. In long-term care, appropriate treatments are more patient-specific than in the case of medical care. Therefore, in addition to health status, other consumer characteristics need to be considered when constructing a suitable combination of services. For example, the presence of a coresident family caregiver can decrease the demand for home care. In this case, a day care service might be preferred to offer respite for the caregiver.

Additionally, the difficulty of collecting information on the quality of providers means the costs to consumers of finding suitable providers might be larger in elderly care than they are in medical care. In many cases, new consumers do not have sufficient time to choose preferable providers, especially when the demand for long-term care emerges after a sudden illness such as a heart attack or accidental injury. Furthermore, it is not always helpful to gather information on a specific service sector, because what constitutes a suitable service frequently changes in response to the unstable health status of the elderly.

The gatekeeper mechanism also has an advantage specific to the Japanese LTCI. The LTCI is relatively new and, thus, there is limited available information on it. Furthermore, the LTCI program is amended every three years. The program is complicated and unstable rules have widened the knowledge gap between consumers and care providers, making it more costly to collect information on the LTCI than in the case of ordinary doctor–patient relationships.

In spite of the desirable aspects outlined above, the asymmetric information problem common to the healthcare sector creates several difficulties when designing a care management mechanism. As knowledge on health status is available only to a doctor, healthcare sector often suffers from the expert agency problem. Furthermore, in health economics, there is a double agency problem, which arises between patients and doctors and also between doctors and insurers, as described by Blomqvist (1991). For example, a doctor who is the perfect agent for a patient exaggerates the care he or she provides to socially wasteful levels. On the other hand, if a doctor is a perfect agent for the insurer, treatment levels must be lower than the social optimum.

These expert agency and double agency problems are also present in the LTCI. For the expert agency problem, care managers are experts in diagnosing someone's health status and in the complicated LTCI mechanism. Thus, the care management mechanism is more susceptible to the information problem. In the case of the double agency problem, the situation is the same as that of medical gatekeepers in countries with public health insurance, because the LTCI is the national program.

Such agency problems might be addressed by designing an incentive mechanism that ensures the socially desirable behavior of agents. There are three major payment mechanisms, namely a salary, capitation, and a fee-for-service. While researchers have examined how to combine these three mechanisms to handle the agency problem, as summarized by McGuire (2000), each of them is capable of causing the agency problem. In particular, the fee-for-service payment is known to cause supplier-induced demand, which has been actively studied in health economics. This problem creates a financial burden for social insurance. Demand inducement by suppliers can occur in the market under information asymmetry when suppliers, typically physicians, only have access to information about the quality of services. When suppliers face an event, such as accelerated competition, to shift the supply curve upward, they control consumer demand to maintain their income at the level it was prior to the supply-side shock.

In terms of the incentive mechanism, the care management mechanism in the LTCI is operated in a peculiar way. While providers of care services are rewarded by a fee-for-service payment, care managers are paid by capitation. Specifically, care managers receive a fixed reward for each care plan, regardless of the content of the plan. The capitation payment is considered cost-effective for insurers, because it does not produce an incentive for care managers to exaggerate demand. However, under the current LTCI, the total reward of care managers, even at best, does not seem sufficient to specialize in care management. Thus, many care managers work for firms who also operate within the service provision sector. These care managers are likely to refer consumers to their associated providers. If the choice of a care manager directly corresponds to the choice of providers, this mechanism is equivalent to a direct service supplied by specialists. In this case, these care managers might be rewarded by fee-for-service payments, as a part of service providers.

[1] In 2008, the German program introduced a sector that is translated as *Information center* (Rothgang, (2010)). According to Campbell et al. (2010), this sector plays a role similar to that of care managers and was "partly based on Japan's experience."