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Utilization of long-term care services under the public long-term care insurance program in Korea: Implications of a subsidy policy

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ABSTRACT

Objectives: South Korea introduced public long-term care insurance (LTCI) in 2008. This study examined the patterns of and factors associated with public long-term care (LTC) utilization among older LTCI beneficiaries in Korea, with special attention to the policy for subsidizing the co-payments of lower income populations.
Methods: Using a 5% national representative sample of 280,290 older people aged 65 or older obtained from the 2010 national LTCI claims database, we examined socio-demographic and health factors associated with service utilization decisions, service type chosen, and the intensity of service use.
Results: About 5.48% of older adults in 2010 utilized the LTC provided under the Korean public LTCI, among which about 26.1% received a subsidy. Compared to their counterparts, the subsidized users were more likely to be low-income, female, and living alone. They were more likely to choose institutionalized care and spend to their monthly benefit limit while paying a lower co-payment. The factors associated with pattern and intensity of LTC utilization were not the same between subsidized and non-subsidized users.
Conclusion: The findings imply the subsidy policy promotes equity of access to public LTC services. Further evaluation is necessary on the impact of the policy on the effectiveness of LTC utilization by socially marginalized populations.

1. Introduction

South Korea is one of the countries with the most rapidly aging population. People aged 65 or older comprised about 11.3% of Korea's population in 2011 and will increase to up to one third of the population by 2050, implying that Korea will become the country with the second oldest population among the Organization for Economic Co-operation and Development (OECD) countries, following by Japan [1]. This rapidly aging population is mainly due to a decreasing fertility rate as well as increased longevity. Along with population changes, several social changes have occurred over the last three decades as Korea has experienced both dramatic economic growth and recession, including an increase in female participation in the labor market, the number of living-alone elderly rising to more than 30%, and the an increased public demand for more governmental responsibility in caring for the elderly [2,3]. Responding to these drastic population and social changes, the Korean government introduced public long-term care insurance (LTCI) in July 2008 [4].

As a form of social insurance, the Korean LTCI provides mainly in-kind benefits for activities of daily and

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social life at home or in LTC institutions [4,5]. In principle, all Korean citizens are enrollees in the LTCI and pay a monthly premium of about 6.55% of the monthly premium for the national health insurance, which is set based on the income level of the enrollees. While all citizens pay the premium, the benefits of the LTCI are limited to people aged 65 or older and those below 65 with debilitating conditions, along with an eligibility test through the national care need-assessment system: the care needs of all applicants for LTCI benefits are evaluated using a 52-item screening tool and a scoring system based on a computer algorithm, counting required care time and intensity. The care needs are categorized into three groups, from Level I (the highest) to Level III (the lowest). The applicants whose care needs are beyond a certain threshold become LTC beneficiaries. Eligibility for LTCI is re-evaluated approximately once a year, in principle.

The LTCI is operated by the Korean National Health Insurance Corporation (NHIC), and financed by government subsidies, monthly premiums from enrollees, and co-payments by the actual users of LTC under the LTCI [4,5]. The limit of the monthly benefits for LTC users is pre-determined by the type of benefits chosen (institutional care [IC] vs. home care [HC]) and the care needs level (I for those with the highest needs through III for the lowest). The co-payment level is 20% (for IC) or 15% (for HC) of the monthly total payment, but the co-payment level is reduced below half for low-income people who are enrolled in the National Basic Livelihood Protection program or the Medical-Aid program, in order to promote their access to LTC.

The Korean LTC system has steadily strengthened since the LTCI was introduced. The number of eligible beneficiaries has consistently increased since the introduction of the LTCI, from about 214,480 people in 2008 to about 341,788 people (approximately 5.8% of people over age 65) at the end of 2012 [6]. About 88.0% of the eligible beneficiaries of the LTCI actually used long-term care services. There were 15,056 long-term care organizations in 2012: about 71.3% (n = 10,730) were home care agencies and the remaining were long-term care facilities. The number of home care agencies increased by 138.1% since 2008, and the number of long-term care facilities rose by 252.0%, from 1717 in 2008 to 4326 in 2012. In a user survey in 2011, about 86.9% reported overall satisfaction with the services under LTCI [7]. Several issues, however, should be addressed for further improvement of the Korean LTCI, including expansion of coverage, promotion of home and community-based care, strengthening of the long-term care workforce, and the decrease of geographically unequal provision of long-term care organizations. Several studies have been conducted on the factors associated with LTC utilization in Korea; however, most of these were before the LTCI introduction, on the intention to use LTC, and a few were done with a sample from a demonstration LTCI program [8–11]. Few studies have been conducted with actual LTCI beneficiaries since the LTCI was introduced. The purpose of this study was to examine the characteristics of the beneficiaries of LTCI in Korea, the factors associated with the decision for LTC utilization, and the type of LTC (IC vs. HC) selected by the users. In addition, we investigated the impact on LTC utilization of the policy to subsidize co-payments for low-income populations, comparing the factors and patterns of utilization of the subsidized group with those of the non-subsidized group.

2. Materials and methods

2.1. Dataset and sample

This is a population-based secondary analysis using national LTCI claims and the LTC needs assessment database of 2010 linked with the health insurance database. As the national health insurance has all Korean citizens as its beneficiaries, the health insurance database is a single dataset that includes all citizens' socio-demographic, health, and healthcare utilization information. Because the target sample of this study was Korean people aged 65 and older, we conducted a 5% systematic random sampling of older beneficiaries (n = 280,290) using the health insurance database, and obtained their data for age, sex, income, location of residence, and number of chronic conditions. For LTC users among the random sample in 2010 under the public LTCI, we retrieved data on LTC utilization (type of service, monthly average amount of insurance payment, etc.) and care needs (levels and comorbid conditions) from the LTCI claims database and the LTC needs assessment database, respectively, and merged them with the LTC users' health insurance data. About 0.6% of the sample had missing data in key variables for the analysis, so the final analytic sample includes 278,472 older Korean people, 5.6% (n = 15,611) of whom were LTC users in 2010.

2.2. Measures

Three kinds of LTC utilization patterns were observed as outcome variables: (1) whether or not an older person used any type of LTC (yes or no); (2) among the users, what type of LTC service was chosen (institutional care [IC] vs. home care [HC]), and (3) the extent to which LTC service was used. This last one, intensity of LTC service utilization, was measured by the average monthly payment by the NHIC and also the proportion of utilization to monthly payment (benefit) limit.

Based on a literature review, we selected potential factors that affect LTC utilization. The literature supports the idea that several socio-demographic characteristics – age, sex, and living arrangement – are associated with LTC utilization as predisposing factors; being old, being female, and living alone are likely to increase the utilization of LTC overall and also institutional care compared to home care [10,12–14]. As enabling factors affecting access to LTC, we observed income level, subsidy status, and the location of the patients. The results of existing studies are mixed on the relationship between income level and LTC utilization. Some have reported higher LTC utilization by lower income people with higher care needs [13,15,16], but others have found an inverse association between income level and access to LTC due to the limited affordability of the care [17], for which further examination is necessary. In this study, individual-level income data was not available, so a