



ELSEVIER

Contents lists available at ScienceDirect

Health Policy

journal homepage: www.elsevier.com/locate/healthpol

Has the National Health Insurance improved the inequality in the use of tertiary-care hospitals in Korea?



Sujin Kim^{a,b,c}, Soonman Kwon^{a,b,*}

^a National Evidence-based Healthcare Collaborating Agency (NECA), 28-7 Wonnam-dong, Jongno-gu, Seoul 110-450, South Korea

^b School of Public Health, Seoul National University, Kwanak-ro, Kwanak-gu, Seoul 151-742, South Korea

^c Takemi Program, Harvard School of Public Health, 665 Huntington Ave., Boston, MA 02115, United States

ARTICLE INFO

Article history:

Received 17 December 2013

Received in revised form 6 October 2014

Accepted 9 October 2014

Keywords:

Health care utilization

Cancer

Equity

National health insurance

Tertiary care hospital

South Korea

ABSTRACT

Background: To improve financial protection against catastrophic illness, the Korean government expanded the benefit coverage of the National Health Insurance (NHI) for cancer patients in 2005. This paper examined whether the policy has reduced income-inequality in the use of tertiary care hospitals.

Methods: We evaluated the effect of the policy on income-inequalities in outpatient visits and inpatient admissions to tertiary care hospitals, based on triple difference estimators. Using nationwide claims data of the NHI from 2002 to 2010, we compared cancer patients as a treatment group with liver disease and cardio-cerebrovascular disease as control groups and the lower-income with the highest-income group.

Results: Before the introduction of the policy, lower-income cancer patients utilized less inpatient and outpatient services in tertiary care hospitals than high-income patients did. After the benefit coverage was expanded, while the incidence and total number of inpatient admissions to tertiary care hospitals increased among cancer patients compared with liver diseases, lower-income cancer patients experienced a greater increase than those of higher-income did compared with both diseases. The use of outpatient services increased more in cancer patients than those of both diseases; however, the gap between the highest- and the lowest-income rarely decreased, except the incidence of visits when compared to liver disease.

Conclusion: Our findings indicated that the expanded NHI benefits coverage partially improved income-related inequalities in inpatient admissions to tertiary-care hospital, but not in outpatient visits.

© 2014 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Many countries make an effort to meet the health-care needs of their population and introduce or reform health coverage to guarantee access to necessary services

[1]. According to previous studies, universal coverage has reduced disparities in health-care access and utilization by removing the financial barrier to care, leading to the redistribution of services favorable to people with the most need, namely lower-income people [2–7].

On the other hand, a universal insurance scheme does not guarantee health-care equity. In other words, socioeconomic disparities in the amount and type of care utilized often remain, even in advanced countries that have achieved near universal coverage [8–11]. In

* Corresponding author at: School of Public Health, Seoul National University, 1 Kwanak-ro, Kwanak-gu, Seoul 151-742, South Korea.
Tel.: +82 2 880 2721/2701; fax: +82 2 762 2888.

E-mail address: kwons@snu.ac.kr (S. Kwon).

particular, socioeconomic gradients in advanced services such as specialist care are known to be still remarkable. For example, high-income people see specialists more frequently and utilize more surgical day care services than the low-income do, whereas general practitioner visits and medical admissions do not differ across income groups or have pro-poor trend [11,12]. A study that examined disparities in the treatment of ischemic heart disease also found that people with high socioeconomic status received more high-technology health care [9].

Accordingly, several studies suggest that inequalities in “health status” might still persist in advanced countries where financial barriers to health care are mostly removed, because of the difference in quality of care utilized [7,9]. They suggested that, even though the poor utilized more services and saw the physician more frequently than the wealthy did, advanced services were under-used by lower socioeconomic groups and used in ways that widen the socioeconomic gradient in health status. However, studies evaluating the impacts of the policy to expand health insurance coverage have rarely examined whether the extent to which the policy improved health-care equity was different across service types or the types of medical facilities [2,5,13].

Although the national health insurance (NHI) system of South Korea covers the entire population, the proportion of out-of-pocket payment in total health expenditure is still about 35 percent. South Korea expanded the benefit coverage of the NHI in 2005 to ease the financial burden of patients with catastrophic illnesses. Government reduced the cost sharing from 20–50% to 10% for inpatients with cardio-cerebrovascular receiving certain procedures (open heart or brain surgery) and for both outpatient and inpatient care of cancer patients, in addition to the expansion of coverage for expensive treatment and drugs for cancer patients.

The policy change provides a good opportunity to examine the effects of expanded health coverage on inequity in the use of advanced specialized services. In Korea, tertiary care hospitals have huge outpatient care clinics, which provide specialized medical care often with advanced medical technology. Fees of tertiary care hospitals are set higher than those of other types of providers. In addition, higher cost sharing for outpatient care is applied for tertiary care hospitals, which is as much as 60%, while patients pay 30% of the cost at the point of service in the case of physician offices. As a result, the poor may face a financial barrier in the utilization of services provided by tertiary care hospitals. Furthermore, patients’ direct access to tertiary care hospital is not controlled strictly, compared to other advanced countries. Patients can visit tertiary care hospitals without referral from primary or secondary providers if they pay an additional fee. In addition, as most tertiary hospitals provide examination services including cancer screening, the rich is more likely to use these services than the poor, and to get treated in these hospitals if any symptom or disease is found.

We examined the impact of the expanded benefit coverage for cancer patients in 2005 on income-inequalities in the use of inpatient and outpatient services in tertiary care hospitals, which provide specialized care in South

Korea. First, we compared the change in cancer patients to those of two control groups, those of liver disease who are not entitled to benefit coverage extension and those of cardio-cerebrovascular disease for whom cost sharing was reduced but in a more limited way. We also applied a triple difference estimator (TD) to estimate the effect, comparing cancer patients as a treatment group with those of liver disease and those of cardio-cerebrovascular disease as control groups and the lower-income groups with the highest-income group.

2. Methods

2.1. Data

We used data from 2002 to 2004 (i.e. pre-policy) and from 2006 to 2010 (i.e. post-policy), from the Korean NHI database, which includes electronic insurance claims data for all citizens. It also contains patients’ demographic information, including gender and health insurance contribution as well as indicators of health care utilization such as type of services, type of medical institutions, diagnostic code (ICD-10), frequency of consultation, and medical expense.

We collected patient records with the diagnostic code of cancer identified by the corresponding ICD-10 codes C00–C97 (malignant neoplasm). We defined the control group as patients of liver disease, who were not entitled to the extended benefit coverage though it was a serious illness, and those of cardio-cerebrovascular disease, who were entitled to the extended benefit coverage but the benefit was applied only to inpatients receiving certain procedures. For the control group, we collected patient records with the diagnostic code of liver disease and cardio-cerebrovascular disease identified by the corresponding ICD-10 codes, K70–K77 and I01, I05–I09, I20–I26, I28, I30–I51, and I60–I67, respectively.

We included patients, whose claims records showed at least one hospitalization or more than two outpatient visits with the same disease code, and excluded those who were treated for mixed diseases (two or more than two diseases among the three diseases) in the same year. We only included patients aged 20–64 because the level of cost-sharing for other age groups changed during the study period, and older people have different severities of illness and different treatment patterns from younger people.

2.2. Variables

The dependent variables of interest were the annual number, including those with zero consumption, and incidence of visits and admissions to tertiary care hospitals. Tertiary care hospitals, which are usually affiliated with medical schools, are general hospitals that maintain a high standard of quality of care, perform research, and act as teaching facilities. They provide specialized services to patients, who are often referred from lower-level facilities.

We used an income quintile variable as the main measure of socio-economic status, which was constructed based on the NHI contribution. The contribution data is a useful proxy for the capacity to pay as it is determined

Download English Version:

<https://daneshyari.com/en/article/6239585>

Download Persian Version:

<https://daneshyari.com/article/6239585>

[Daneshyari.com](https://daneshyari.com)