HEALTH INSURANCE PROGRAM FOR THE POOR, OUT-OF-POCKET COST, CATASTROPHIC HEALTH EXPENDITURES AND ITS EFFECT ON IMPOVERISHMENT IN INDIA

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Abstract

Background

India is currently taking steps to provide Universal Health Coverage (UHC) as envisaged in its National Health Policy 2017. Financial protection is considered the backbone of UHC. In India, OOP expenses accounts for about 62.6% of total health expenditure - one of the highest in the world. Out of 1.324 billion people in India, around 12.4% of the population is below the poverty line. Lack of health insurance coverage and inadequate coverage are important reasons for high OOP health expenditures. High OOP health expenditures push many households into poverty. The objective of this research is to examine the effect of Public Health Insurance Programs for the Poor on hospitalizations and inpatient OOP health expenditures, and to investigate the effect of OOP health care payments on catastrophic health expenditures (CHE) and poverty.

Methods

Data from the recent national survey by the National Sample Survey Organization, Social Consumption in Health 2014 were used. A propensity score matching was used to match the people enrolled and not enrolled in health insurance programs. Binary logistic regression model, Tobit model, and a two-part model were used to study the effects of enrolment under Public Health Insurance Programs for the Poor on the incidence of hospitalizations, duration of hospitalization, and OOP payments for inpatient care respectively. Three different analytical approaches were used to investigate CHE: (i) incidence and intensity of CHE, (ii) socioeconomic inequality in CHE, and (iii) factors affecting CHE. Poverty headcounts and poverty gaps were estimated for with and without the OOP healthcare payments. A logistic regression model was used for predicting the effect of various factors on the incidence of poverty due to OOP health expenditures.

Results
People enrolled in poor health insurance programs have higher incidence of hospitalization, while insurance did not have any effect on the duration of hospitalization and inpatient OOP health expenditures. Chronic illness, household size, and age had significant effects on incidence of hospitalization. Duration of hospital stay, graduate level education, age groups of 19 to 60 years, using a private hospital, paying ward, and specific ailments had significant effect on inpatient OOP health expenditures. CHE incidence was 10.94% and the mean positive overshoot was 35.94%. Poorer households, households with children, elderly person, educated female member, and using a private healthcare facility show higher CHE incidence and the intensity was higher among households having chronic illness, and longer hospital stay. After making OOP payments, total poverty headcount and the normalized poverty gap increased by 2.61% and 3.56% respectively. The odds of impoverishment due to OOP health expenditures increased for medium and large households, increased length of hospital stay, utilization of private health facility, and with chronic illness.

**Conclusions**

Poor people health insurance programs must be expanded to cover outpatient and preventive services, and to cover the whole household irrespective of the number of members. Subsidizing healthcare for households with elderly members and children, increasing health insurance coverage threshold limits, and inclusion of people above the poverty line is necessary for lowering OOP expenses and lowering impoverishment effects of health expenditure. Strengthening public primary health infrastructure and establishing a regulatory organization to control unnecessary service provision by private sector will be important in lowering OOP expenses.

**Keywords:** financial protection, out-of-pocket health expenditure, catastrophic health expenditures, poverty