

Socioeconomic Inequality in Healthcare Utilization in India: Is Health Insurance a Way Out?

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Abstract

Both the rapidly changing demographics and the epidemiological profile pose major challenges to the health care system in India especially regarding the equitable provision of health care services. Over the past decade, the government has emphasized universal access to healthcare, however, access to healthcare is still inequitable. Studies so far have addressed health inequalities through health outcomes with limited emphasis in quantifying the contribution of the determinants and the role of insurance in tackling such inequalities. Using data from the National Sample Survey (2014-15), this study sought to measure the impact of socioeconomic factors on inequality in healthcare and whether financial protection had any bearing on those conditions. Inequalities were measured through the Concentration Index (CI) and the impact of socioeconomic factors was assessed by the decomposition method. The results suggest that utilisation of inpatient care was based on economic factors and favors the affluent. Impact of health insurance on healthcare utilization, as positive as that might be in principle, was not effective in tackling the economic inequalities. Assessing the performance of the health system by prioritizing the required adjustments, and doing so with an emphasis on ensuring the equity of financial protection measures is important for universal healthcare access.

Keywords

Health; inpatient; utilization; insurance; socioeconomic

Introduction

Ensuring equity in the access of healthcare services is a major policy concern, especially for developing countries in which inequitable distribution of healthcare impedes growth and productivity (WHO, 2001; Hosseinpoor, Bergen & Schlottheuber, 2015). The primary goal of health policies of any country, particularly developing countries, is to reduce the inequalities in healthcare utilization across the social classes. Discussions on how best to achieve equity in healthcare in India is an ongoing process as to achieve it involves a complex interaction of socioeconomic factors. Empirical evidence suggests that financial barriers are salient factors in restricting access to basic healthcare services for the poor despite this critical need for equal access to it (Roy & Howard, 2007). With changing demographic realities and the epidemiological profile of the country, demand for healthcare is increasing and health expenditures constitute a substantial share of household expenditure. Estimates show that out-of-pocket expenditure on healthcare constitutes 62.6% of total household expenditures (India, Ministry of Health and Family Welfare, 2018) pushing seven percent of Indian households below the poverty line (Kumar et al., 2015). In addition to higher costs, unequal access of healthcare can exacerbate lives of the unfortunate in other ways as well such as social exclusion, skewed allocation of infrastructure, and gender discrimination (Bajpai & Sarya,

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2012; Borooah, 2010; Balarajan, Selvaraj & Subramanian, 2011; Scaria, 2017; Baru, Acharya, Shiva Kumar & Nagaraj, 2010; Mukherjee, Haddad & Narayana, 2011; Dilip & Duggal, 2004; Bora & Saikia, 2015). Thus, the determinants that bring about inequality in healthcare utilization are manifold, and any assessment of the key factors that determine such inequalities is undoubtedly complex (Sen, 2002; Mechanic & Tanner, 2007; Prasad, Chakraborty, Yadav & Bhatia, 2013; Ghosh, 2015). This notwithstanding, it is of critical importance to determine these exact factors for appropriate policy intervention.

In an attempt to ensure equitable access to healthcare services, health policies, and programs, such as the National Rural Health Mission, the National Health Mission, Rashtriya Swasth Bima Yojna, and the National Health Protection Scheme were introduced. Definitely, the initiation of the National Rural Health Mission brought about an improvement in health infrastructure even if it failed to ameliorate other problems. Inequality in access to healthcare continued as the economically weaker sections were deprived of access to those services. For instance, conditional cash transfer schemes were implemented to promote institutional delivery that was especially designed to assist the poor. However, the economic differential in institutional delivery still persisted with less than 60% of the poor utilizing healthcare facilities for delivery which is in sharp contrast to 90% of the more affluent using these services (NFHS-4). To reduce the burden of OOOPE and move towards universal healthcare access, the public funded a financial protection scheme specifically, RSBY, was initiated. It was created and implemented under the umbrella of universal health coverage. The aim was to enable people, particularly, the poor, to access and utilize healthcare services as needed. Whether such policy initiatives have ever been effective in reducing healthcare inequalities has not been sufficiently addressed.

The present study differs from existing studies on healthcare inequalities, and this is principally on two grounds: social determinants of health inequality and the role of insurance in reducing the burden of out-of-pocket expenditures. Firstly, as evident from earlier studies, most of this research had been related to health outcome indicators or limited to the identification of factors of causation. In more recent studies there was a shift toward quantifying the factors contributing to inequality, albeit limited to maternal health or general health at the state level (Mukherjee & Levesque, 2010; Ghosh, 2014a). Quantification of the determinants of inequality in inpatient care utilization at the macro level would offer several insights to explain the dynamics behind variation in the utilization of health services among different socioeconomic groups. As to the second factor, the role of insurance in reducing the burden of out-of-pocket expenditure was highlighted in many studies (Selvaraj & Karan, 2012; Hooda, 2015; Madheswaran & Sahoo, 2014; Ghosh, 2014b; Ghosh & Gupta, 2017) and the findings were mixed. The impact of such interventions in reducing inequalities in healthcare utilization remains inconclusive and needs to be evaluated adequately (Mahapatro, Singh & Singh, 2018).

Thus, the purpose of the present paper is: 1) To understand the determinants of the inequalities in healthcare utilization and their impact on the lives of patients; and 2) To examine the role of health insurance programs in combating economic inequalities in healthcare utilization.

Methods

Data Source

The study used cross-sectional data from the years 2014-2015 that were collected from the National Sample Survey on Social Consumption. This data consisted of information pertaining to social, economic, and health issues in different quinquennial rounds. It used a multi-stage stratified random sampling method in order to collect evidence on socioeconomic and health differentials for women. This survey collected information on the health status of patients, and factually pertinent information on healthcare use and details of health expenditures from 65,932 sample households and 333,104 individuals seeking treatment for ailments during the last 15 days, all of whom were inpatients who required hospitalization during the past year. For the purpose of this study, individuals hospitalized in medical facilities during a 365-day time period in which they used inpatient services were used for the analysis and the sample was comprised of 49,819 ill individuals. Women hospitalized for childbirth however, were removed from the statistical analysis as childbirth delivery is rife in all socioeconomic strata and inclusion of the sample might skew the findings and its purpose of assessing inequality determinants. Thus, excluding such cases, the total sample for the analysis comprised 34,230 hospitalization cases.

Measurement variables

The dependent variable of the study was “inpatient care” measured through the ailed people who were hospitalized during the past 365 days. The use of inpatient care for measuring inequality was done for two reasons: the first being whether the indicator was less heterogeneous as compared to outpatient care (Mukherjee et al., 2011), and the second being whether the financial protection was provided only for utilization of medical services as an inpatient. The control variables included socioeconomic and demographic factors. Monthly per capita consumption expenditure was used as the key economic variable to measure the economic status of the household. The variable was constructed after adjusting for household size and dividing this into five equal economic quintiles to measure the economic inequalities. The other control variables included social group, place of residence, education, gender, and age. Besides the need variable available in the data set in which respondents stated whether or not they had a chronic illness, there was also an enabling factor in which respondents stated whether or not they were covered by health insurance. Both components were included in the analysis.

Statistical analysis

Over the past year descriptive statistics have been used effectively to measure the socioeconomic differentials in healthcare utilization. Also, a concentration index was constructed to measure inequality in receipt of inpatient care. Following the use of a concentration index, a decomposition analysis was carried out to find the relative contribution of each factor to total inequality.

The concentration index, as depicted in equation 1, was calculated as two times the covariance between the healthcare utilization and the fractional rank of the individual. The latter was determined by wealth status and the value ranges lying between -1 to +1. The closer this value

was to 1 the greater the inequality was amongst the group of the individuals. The formula for calculating CI was the following:

$$C = \frac{2}{\bar{Y}} \text{COV}_w(Y_i, R_i) \quad (1)$$

where Y_i represented health care utilization in both public or private sectors during the past 365 days, and \bar{Y} stood for the mean of actual healthcare utilization. And R_i denoted the fractional rank of the individual by wealth status (MPCE). COV_w was the covariance with sampling probability weights. This equation provided the concentration of inequality (C).

Additionally, to determine the contribution of each socioeconomic factor to the observed inequality, a decomposition measure proposed by Wagstaff, Doorslaer and Watanabe (2003) was used. The decomposition method had an advantage over regression or CI as it allowed an estimation of the relative contribution of socioeconomic factors to inequality in a health variable. This method has been widely used to measure socioeconomic inequality in healthcare utilization, especially maternal healthcare in the Indian context (Gupta, Kumar & Dorcas, 2016). As for a linear regression model linking the health variable of interest, Y , to a set of K health determinants, X_k was the regression equation. The equation was the following:

$$y_i = \alpha + \beta_k X_{ki} + \epsilon_i \quad (2)$$

ϵ -represented the residual or errors in terms of the model. Based on equation 2, the concentration index, C , can be written as:

$$C = \sum \frac{\beta_k \bar{X}_k}{\mu} C_{k+} + \frac{GC_\epsilon}{\mu} \quad (3)$$

In equation 3, β_k denoted the regression coefficient of the utilization variable on determinant K , and \bar{X}_k was the mean of the determinant, \bar{X} was the mean of Y as well as the concentration index for determinant K , and GC_ϵ denoted the generalised concentration index for the error term. The overall inequality in equation 3 was a measurement of healthcare utilization, and it had two components that were deterministic or explained, and residual or unexplained components that could not be explained by predictors.

Results

Table 1 illustrates socioeconomic differentials in receipt of inpatient care excluding women hospitalized during childbirth. Furthermore, the pattern of healthcare utilization by the type of provider is also illustrated in this table. The last column represents the overall hospitalization rate by socioeconomic characteristics of patients experiencing ailments.

Table 1: Socioeconomic differentials and the level of care in inpatient services

Socioeconomic characteristics	Hospitalization excluding the women hospitalized for child birth			Overall
	Public	Private	Total	
MPCE				
Poorest(Q1)	0.90	0.74	1.63	3.19
Poor(Q2)	1.15	1.23	2.38	4.11
Middle(Q3)	1.24	1.67	2.91	4.50
Rich(Q4)	1.20	2.35	3.54	4.95
Richest(Q5)	1.07	3.74	4.80	5.92
Age				
15-34	0.75	1.16	1.90	5.95
35-44	1.21	1.83	3.04	3.68
45-59	1.80	2.98	4.78	4.79
60+	3.04	5.34	8.38	8.38
Social Group				
Scheduled Tribe/Caste	1.35	1.27	2.62	4.24
Other Backward Class	0.95	1.97	2.91	4.39
Others	1.09	2.10	3.20	4.59
Education				
Illiterate	1.46	2.01	3.47	4.60
Primary	1.01	1.46	2.48	3.59
Secondary	1.02	1.88	2.90	4.91
Graduate & above	0.62	1.98	2.60	4.86
Sex				
Male	1.09	1.81	2.90	2.90
Female	1.11	1.81	2.91	6.00
Sector				
Rural	1.11	1.58	2.69	4.27
Urban	1.07	2.34	3.41	4.73
Chronic Illness				
No	0.92	0.23	1.16	3.92
Yes	28.39	9.00	37.39	13.94
Health Insurance				
No	1.01	1.67	2.68	4.22
Yes	1.60	2.57	4.17	5.41
Total	1.10	1.81	2.91	4.4
N	14,831	19,403	34,230	49,819

Source: Estimated from National Sample Survey, 2014-15.

Overall, healthcare utilization was better in higher socioeconomic groups and in urban areas, particularly for those covered by health insurance. This pattern was observed irrespective of the public or private healthcare facilities these individuals went to. The utilization of healthcare services was found to vary linearly with the economic class as higher economic classes utilized health services more frequently. More affluent sectors of society were found to utilize healthcare at 4.8% while lower economic classes, perhaps due to the remoteness of healthcare facilities and their ability to pay for treatment, used healthcare services only 1.63% of the time. This pattern was also observed with regard to overall healthcare utilization. About 4.5% of individuals who were experiencing ailments from Q5 class and, significantly lower,

3.19% of individuals experiencing ailments from Q1 class were hospitalized during the last year.

However, there also exists a difference in the pattern by which different social classes access public and private care. The utilization of healthcare in public facilities does not show any significant difference across economic class (0.9% for Q1 and 1.07% for Q5). A much more salient difference was found in private care (0.74% for Q1 and 3.74% for Q5). The age pattern of hospitalization was shown to be about 8.38% of older individuals, and of course much lower for Scheduled Caste (SC)/Scheduled Tribe (ST) at 2.62%. And for other age brackets it was at 3.2%. In terms of evaluating recipients of healthcare based upon educational profile, the pattern was reverse, with those who did not receive formal education at 3.67% and those who were high school graduates from high school or received higher education at 2.6%. Gender differentials in inpatient care shows almost the same proportion of men and women at 2.9% who had been hospitalized. However, the difference was observed for overall healthcare utilization in which female health care utilization was at 6% and males made up 2.9% of inpatients. Hospital time was higher amongst chronically ill patients than those who did not suffer from a chronic illness. Furthermore, individuals covered by a health protection scheme were hospitalized at 4.2% as opposed to those not covered by insurance at 2.7%, suggesting a reluctance to be hospitalized without proper insurance coverage. This pattern was observed amongst those hospitalized both in public and private facilities. Overall, the socioeconomic differences in inpatient care depict that utilization of healthcare was concentrated amongst those who were more affluent.

The Decomposition analysis presented in the Table 2 shows the relative contribution of socioeconomic factors to inequality in hospitalization care. The CI value is definitely higher than zero (0.21) for hospitalization indicating a higher health inequality favoring the more affluent. The association of socioeconomic factors with health service utilization is also presented in the table and is explained through marginal effects. The results of the multivariate analysis confirmed that healthcare service utilization is linearly associated with economic status. Clearly, an individual who is part of a higher socioeconomic class is able to gain access to and utilize health services more than less affluent classes. When compared to the poorest quintile, the likelihood to use healthcare service increases by 1.8% for the poor, 3.2% for those making a middle-class income, 4.2% for those of an affluent class, and 6.5% for the wealthiest members of society. This suggests that the healthcare service delivery system is not favorable to marginalized groups. As for the question of the impact of age on health care utilization, individuals who were much older were, of course, more likely to use healthcare services than younger individuals, and the increase of ailments amongst older people is at least one reason for it. 15.3% of all individuals using inpatient healthcare were shown to be older individuals. And yet of those older individuals those who had received no formal education had a 3.4% higher rate of using inpatient services than those who were more educated. The likelihood of the elderly to utilize healthcare tended to be slightly different for groups who had full medical coverage as opposed to those who lacked this coverage. Those having medical insurance used inpatient services 1.1% more than those lacking any coverage.

In analyzing the components of CI based on each socioeconomic factor to assess health inequality, household economic status was shown to be a salient determinant followed by chronic conditions, age, and education. So, inequality in inpatient care may be imputed to these factors. Economic status is the critical factor for utilization of health care and was found to contribute to more than 3/4 of this inequality (that being as much as 79.65%). Self-reported poor health with chronic illness was found to be the next important factor in explaining inequality in utilization of healthcare at 20.65%. Age of the individual was also found to play a significant role in contributing to inequality in healthcare use at 9.56%, and was higher

amongst the elderly. Lack of education can be imputed to inequality overall which includes healthcare inequality. Its impact on poor Indians can be measured as -11.64%. As the poor are impoverished largely due to lack of an education their worries are about daily survival, and so procurement of proper medical insurance is neither a priority nor a possibility for them. Those acquiring sufficient formal education used inpatient services more fully with a 2.67% usage. The impact of health insurance and social class on inequality in healthcare use is 2.4% respectively.

Table 2: Association and decomposition of socioeconomic factors on inequality in the utilization of healthcare

Socioeconomic Variables	dy/dx	Std. Error	Concentration Index	Contribution to CI	Percent Contribution	Total Contribution per variable
Economic lass(Q1)						
Q12	0.018***	0.002	-0.287	-0.012	-5.94	79.65
Q13	0.032***	0.002	0.097	0.007	3.42	
Q14	0.042***	0.002	0.476	0.048	23.56	
Q15	0.065***	0.002	0.824	0.119	58.61	
Age (0/14)						
15/34	0.018***	0.002	0.05	0.001	0.56	9.56
35/44	0.076***	0.003	0.032	0.001	0.57	
45/59	0.094***	0.003	0.095	0.008	3.8	
60+	0.153***	0.003	0.097	0.009	4.63	
Education (Graduate+)						
Illiterate	0.034***	0.002	-0.164	-0.022	-10.84	-11.64
Primary	0.024***	0.002	-0.087	-0.007	-3.48	
HS	0.018***	0.002	0.078	0.005	2.68	
Caste (Other)						
SCST	0.006***	0.001	0.078	0.005	2.68	2.46
OBC	0.001	0.001	-0.015	0	-0.21	
Illness (No)	0.153***	0.003	0.279	0.042	20.65	20.65
Place (rural)	0.003***	0.001	-0.15	-0.006	-2.96	-2.96
Gender (Male)	-0.006*	0.001	0.011	0	-0.17	-0.17
Health Insurance (No)	0.011***	0.001	0.174	0.005	2.44	2.44
CI			0.21			
R			0.01			

Source: Estimated from the National Sample Survey, 2014-15.

The results given above show that economic factors contribute significantly to inequality in the utilization of hospital care. The findings of the present study are consistent with other studies in which there is found to be a significant disparity between wealthy and poorer sectors of society in India.

Financial protection measures & inequalities in health care utilization

In recent years, the momentum of public concern over healthcare financing has brought about a popularity in the idea of universal health care as a means of covering the health care costs of the poor (Wagstaff, Lindelow, Jun, Ling & Juncheng, 2009; Giedion, Alfonso & Diaz, 2013). Such arrangements have in recent times been considered an appropriate measure by many countries to reduce inequalities (Gilson, Doherty, Loewenson & Francis, 2007). Studies have also shown that dependence on private care with its exponential rise of costs and with inadequate medical insurance pushes people into the trap of poverty (Balarajan et al., 2011) and discourages the use of healthcare services. To help offset the burden of healthcare expenditures and provide universal access of healthcare to all citizens, a public funded insurance scheme was launched in India. Studies have shown the effectiveness of these schemes in reducing the burden of out of pocket expenditures (Nandi, Schneider & Dixit, 2017; Karan, Yip & Mahal, 2017; Madheswaran & Sahoo, 2014; Ghosh, 2014b; Ghosh & Gupta, 2017). However, the evidence on the adequacy of these schemes in reducing inequalities in healthcare use has not been analyzed sufficiently (Mahapatro et al., 2018). Besides reducing financial burdens, the primary role of financial protection schemes is to address expenditure inequalities and pave the way toward the acceptance of universal healthcare.

This section discusses the equity implications of financial protection schemes by examining the hospitalization rates and the share of household budgets spent on healthcare expenditures for different economic groups. Data presented in table 3 shows the hospitalization rates in public and private healthcare facilities across economic class during the last 365 days and insurance status during this time.

Table 3: Economic backgrounds of insured and uninsured patients seeking public and private healthcare

Economic Class	Public facility		Private facility		Total	
	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured
Q1	1.52	0.82	0.68	0.74	2.20	1.56
Q2	1.96	1.05	1.63	1.18	3.59	2.23
Q3	1.65	1.17	2.35	1.56	4.00	2.73
Q4	1.59	1.11	2.70	2.27	4.29	3.38
Q5	1.42	0.95	4.42	3.51	5.84	4.45
Total	1.60	1.01	2.57	1.67	4.17	2.68
N	2,738	12,092	3,927	15,473	6,665	27,565

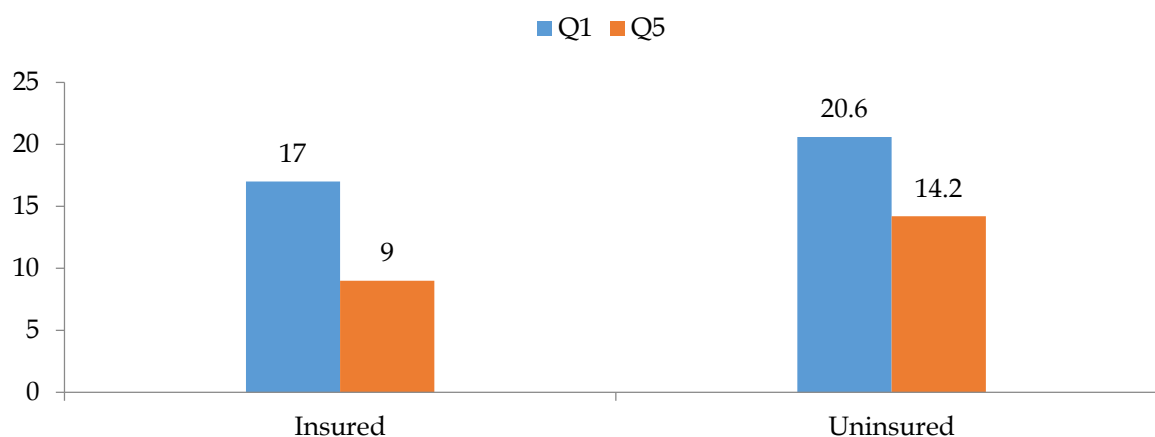
Source: Estimated from National Sample Survey, 2014-15.

Hospitalization rates, as seen in table 3, were higher for the insurance holders than they were for those who were not covered by any insurance schemes. Whereas amongst insurance holders, 4.17% were hospitalized during the past year, only 2.68% of those not having any insurance were hospitalized in the same period. This pattern was observed irrespective of economic class. For instance, while 2.2% of ill individuals from the lowest economic status (Q1) had insurance plans when they were hospitalized, only 1.56% of uninsured individuals chose to follow their doctors' advice by receiving inpatient treatment. Similar patterns were witnessed in both public and private facilities. Amongst insurance holders from the lower economic class (Q1), 2.2% were hospitalized, but for the higher economic class (Q3) it was shown to be significantly higher with 5.4% choosing to adhere to their doctor's advice and be hospitalized. This pattern was observed in the case of private health facilities as well in which

hospitalization rates were 0.68% and 4.4% for Q1 and Q5 classes respectively. In most cases, however, hospitalization in public facilities does not vary significantly across economic class.

Figure 1 represents the share of health expenditures of the total household in the lowest and highest economic statuses.

Figure 1: Mean of out of pocket expenditure as a percentage share of per capita expenditure



Source: Estimated from National Sample Survey, 2014-15.

An assessment of the mean of health expenditures based on insurance status in 2014-2015 showed that the burden of healthcare expenditures was highest for the lowest economic class irrespective of insurance coverage. Amongst insurance holders, the wealthiest tended to spend 9% of their total household budget on healthcare, which was almost two times higher for those who were poor and yet continued to pay for insurance coverage. In fact, it took around 17% of their respective household budgets. Similarly, amongst the wealthiest who did not have insurance, they spent around 14% of household expenditures on healthcare, but for the poor who did not have insurance those amounts consisted of 21% of their household budgets. The equity ratio that is the expenditure ratio of the lowest and highest quintiles, estimated in figure 1, reveals that amongst insurers the burden of healthcare expenditures was higher on the poorest insurance holder than even the poor who did not have insurance.

Discussion

The present study has shown the inequality that is inherent in inpatient healthcare in India. It has shown how it persists throughout the country, and that access to healthcare, and thus maintained health, is greatest among the rich. Of all the factors that have exacerbated that inequality, the economic factors have been proven to contribute to inequality in inpatient care. The finding is in accordance with other evidence that suggest that individuals with less income are less likely to obtain medical services despite having serious health issues (Van Doorslaer & Masseria, 2004; Mohammadbeigi, Hassanzadeh, Eshrati & Rezaianzadeh, 2013; Kringos, Boerma, Spaan & Pellny, 2011; Sozmen, Sahan, Tozun & Unal, 2014). Thus, financial hardship poses a major challenge for the poor in being able to afford the cost of healthcare as even small increases in healthcare expenditures often have disastrous impacts on them and hence, exacerbates inequalities. Economic differences, age, and health status are factors that

can be imputed as exacerbating inequality in hospitalization. Hospitalization rates were found to be higher for the elderly, and inequality in healthcare use was also evident with the elderly as the more affluent were more likely to be admitted to a hospital (Channon, Andrade, Noronha, Leone & Dilip, 2012) and poorer senior citizens were more likely to be dependent on family for healthcare costs. The role of caste in affecting inequality was also assessed. There have been many studies that have found discriminatory practices in which healthcare providers rejected patients from lower castes (Kulkarni & Baraik, 2003; Baru et al., 2010; George, 2015; Acharya, 2013; Mukherjee et al., 2011). Although it can be imputed as a factor in overall inequality, it was not a substantial impetus for it in the present study. Contrary to many studies, the findings of this paper do not find gender differentials in healthcare utilization, which suggests the effective implementation of various programs in promoting women's socioeconomic and healthcare status. Government intervention through policies and programs to promote female education and increase awareness of how best to use healthcare services may narrow the gender gap in healthcare utilization. This is also evident from the contribution of education and place of residence in overall inequality. To ensure equitable access to healthcare through universal healthcare coverage without financial risk, a national health insurance scheme was introduced. However, the positive effects of this healthcare initiative, although significant, only had a modest impact on increasing healthcare utilization as its contribution in easing inequality was nominal. Examining the nature of financial protection measures, studies have shown that the medical benefits under such schemes forces patients to experience double billing such as in meeting diagnostic and pharmaceutical costs on their own while at the same time, especially in private hospitals, these schemes charge the insurance company (Rent & Ghosh, 2015; Devadasan, Seshadri, Trivedi & Criel, 2013). The insurance holder also has to bear the burden of health expenditure and it is more onerous for the poor as it consists of nearly 15% of their monthly incomes. For the more affluent classes this is usually no more than 1% of their household incomes (Barik & Thorat, 2015). In a way, such risk pooling mechanisms do not allow equitable utilization of healthcare services and hence creates further barriers to utilize healthcare services.

In this context, studies have shown that health insurance provides financial security to the poor but it does not sufficiently ensure that the poor who are in the need of healthcare actually receives it (Ahuja & De, 2004; Escobar, Griffin & Shaw, 2010; Giedion et al., 2013). Thus, the high burdens of health expenditures and few benefits from medical insurance for the poor appear to contribute to a system that favors the wealthy. These realities challenge the efficacy of health insurance programs in addressing the equity aspects of healthcare utilization. In short, the healthcare reforms in many instances are not favorable to the poor in accessing health care services. The progress towards universal healthcare coverage calls for strengthening the functioning of the health system by removing structural bottlenecks that are the health system barriers (McIntyre, Ranson, Aulakh & Honda, 2013; Kutzin & Sparkes, 2016) so as to achieve a focus on equity in healthcare provisioning (Frenz & Vega, 2010; Kutzin, 2012; Ooms et al., 2014).

Limitations

This paper has certain limitations linked with data and analysis. The issue of endogeneity has not been investigated in the paper. The use of inpatient care may affect the socioeconomic status. However, the paper has investigated only the association of inpatient care with socioeconomic status. The causal relation of these variables is beyond the scope of the study. Secondly, data limitation restricted the analysis only to inpatient care and so the study could

not measure inequality by the type of care that was done in treatment (for preventive care, for emergencies, etc.). However, different subgroups required a different level of treatment. Furthermore, the data collected on healthcare utilization were self-reported information which might lead to information bias. Thirdly, the insurance variable is linked with the socioeconomic status to understand inequality in healthcare utilization. The benefits of insurance in terms of the type of treatment covered under insurance, however, were not included in the analysis. Finally, the study is based on one NSS survey. As such, it has not analyzed incremental, long-term changes of this inequality over time, nor has it examined the long-term changes in the context of any implementation of insurance schemes. The data for this study was collated from the 71st NSS survey which was done prior to the year 2015. Since healthcare reform strategies are evolving with new policies and programs that will perhaps have an impact on healthcare utilization in recent years they are outside the scope of the study.

Conclusions

The findings of the present study have special relevance given the government's aim to achieve universal healthcare access with financial protection. The study finds that despite assiduous efforts that were made towards the advancement of universal health coverage, utilization of healthcare services is still riddled by socioeconomic differences. Two key findings related to inequality in the utilization of inpatient care have emerged. Firstly, the status quo is a boon only to the more affluent members of society in India. Secondly, the publicly funded insurance scheme does not succeed in achieving equity in healthcare, and thus does not meet the mandate of the legal code. This is further complicated by the regressive nature of spending among insurance holders. Thus, despite the provision of financial protection and economic equity in healthcare, the scheme fails to meet this mandate. Thus, it can be inferred that achieving equity in healthcare has not been successfully addressed nor have the financial protection measures that were supposed to materialize from this state operated health care scheme. Promoting equity in healthcare remains a major challenge to the healthcare system of the country in order to finally move it toward universal healthcare access. Recently, the government has pursued a novel and thoughtful initiative called *Ayushman Bharat*, a centrally sponsored flagship scheme, in its effort to implement. It aims to provide financial protection up to rupees five lakh for secondary and tertiary care to ten crore vulnerable families. Whether the new insurance scheme is an adequate answer to the challenges of the public health system of the country warrants further investigation.

Catering to a growing and changing population with diversified characteristics, the public healthcare system must increase access and provide affordable care to everyone. The larger concern is how to build up a delivery mechanism for increasing healthcare access to the underprivileged. Moreover, the challenge is to strengthen the healthcare system by prioritizing the required adjustments to meet the growing healthcare needs and achieve equity in healthcare, which is a prerequisite for universal health coverage. Unless the inequalities that persist in healthcare are sufficiently addressed, it would be wrong to say that India has met its healthcare needs for the twenty first century.

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