

# Health care services in India: A few questions on equity

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## ABSTRACT

**This paper analyzes equity in health care utilization and out-of-pocket expenditure on health care in India using two rounds (52th round 1995-1996 and 60th round 2004-2005) of National Sample Survey data and data from a household survey carried out in 2007. The findings indicate that the average hospitalization rate has increased and the corresponding value of the concentration index has decreased over the last ten years. However, the health care payment structure is seen to be regressive for inpatient care, and more so for outpatient care. The main reason is the very high out-of-pocket payment on medicine and diagnostic tests even in government hospitals. High out-of-pocket payment has resulted in 34 percent poor households losing all their past savings, 30 percent of households borrowing with interest and 2 percent of households selling their assets. These findings indicate the urgent need for putting in place risk pooling mechanisms.**

**Keywords:** Healthcare Payment; Equity; Vulnerability; India

## 1. INTRODUCTION

India's economy has experienced spectacular economic growth in recent years. The average economic growth (in real terms) over past 20 years is around 5 percent of GDP. The country has achieved a significant progress in numerous economic fronts: the economy has quickly recovered from global economic down turn, reduced poverty, increased demand due to rise in income, increased physical accessibility due to higher investment on infrastructure. However these achievements raise a question—what are the consequence of this advancement when we come to health? Recent experience shows that in terms of health indicators India's position is very close to the bottom in a ranking of all countries outside Africa

[1]. In terms of per capita income India is a better position than Nepal and Bangladesh but in case of mortality rate former two countries have better place compare to India. In view of the above background this study raises few pertinent questions: Can we have “inclusive growth” unless health care is brought social welfare?

Empirical studies show that though less affluent households in India have a higher burden of diseases, spend a higher proportion of their family income for health care than their richer counterparts [1-4], they receive lower share of public subsidies on health care [5-8]. Around 80 percent of the expenses for health care is covered by own out-of-pocket which is often posing an enormous burden on underprivileged households [9-11]. Sometimes the expenses on health care are so high that households are unable to recover them from current income flow, leading to depletion of assets and a permanent fall in income flow. This causes the household to slip deeper into poverty [12]. However, the option of financial protection mechanism to mitigate such burden is very limited [13-17]. As a result, protecting households from high health care expenditure continues to remain as a formidable challenge, particularly for countries with high levels of poverty. This clearly indicates two fundamental problems of the Indian health care system: 1) poor people are not adequately benefiting from the public health care services (implying that the government subsidy does not always reach the poorest of the poor); and 2) the poor people remains significantly unprotected against unanticipated shocks caused by the need to seek health care.

Recent government policies relating to health and population, implicitly acknowledges the need to address the question of health financing and its equities and vulnerabilities in a more systematic way. First, the government has increased health expenditure from 0.9 to 1.4 percent of GDP and set a target to increase 2.5 percent by 2017. Secondly, many state governments have developed comprehensive health sector strategies, with support from donor agencies, with the objective of improving health outcomes in the state, especially targeting the economically vulnerable sections. However, the most important question is: Will the higher allocation in public

health expenditure ensure better health for the poor and reduce the risk of high health care expenditure? This paper argues that whether the answer to this question will be in the affirmative is doubtful given the current inequities in the health care system in India. In this background, the present paper attempts to answer a few pertinent questions on equity in health care access and equity in out-of-pocket payment with special reference to West Bengal: Can we have “economic growth” unless health care is brought under social protection? Do the poor people really benefit from present structure of the health care system? Does public expenditure in health and health care produce equitable result in the health care market? Keeping the afore said research questions in mind the objective of the study is to assess the health care services in terms of equity.

## 2. EQUITY IN HEALTH CARE

Equity relates to the principles of social justice, fairness and absence of disparity. Despite consensus about the importance of equity in health care, there is an open debate on what health equity means and what the targets are that should be aimed at. Researchers have identified three principles of equity in health and health care—equal access to health care for those in equal need; equal utilization of health care for those in equal need; and equal (or, rather, equitable) health outcomes. Given that access to health care is hard to measure, researchers generally focus on equal utilization of health care services and equitable health outcomes as observable proxies. In addition, researchers have also examined equity in financing of health care.

A common strand in works on equity [18,19] is its focus on needs. For instance, some works define equity in health and health care in terms of needs of the target population (corresponding to vertical equity<sup>1</sup>); others focus on equality of access or utilization for people with equal need (corresponding to horizontal equity<sup>2</sup>); while equality of marginal “met” need is emphasized by others. This raises the question, how to measure “need”? Given the peculiarities of the medical care sector [20] a customary practice in empirical research has been to measure “need” in terms of self-reported morbidity. Thus the equity is assessed in terms of self-reported morbidity and consequent health seeking behavior. This approach implicitly assumes that the respondent is always able to perceive the onset of morbidity and seek treatment when required.

This approach, however, has one limitation. According to this approach need depends on self perception of the

patients (or his/her demand for health care services) - whether they actually seek treatment or not. Sen (2006), however, warns that social influences may reduce expectations and keep a person content in situations that appear unsatisfactory to others: “... the malleability of mental attitudes... may tend to hide and muffle the extent of deprivation in many cases,” [21]. In this context, Sen (1985, 1993) cites a study by Lall & Seal (1949) during the Great Bengali famine of the 1940s reporting that 48.5 percent of widowers felt themselves to possess poor health status, as compared with 2.5 percent of widows [22-24]. Sen (1993) also refers to the poorer self-reported health conditions reported in Kerala (having developed health and education) compared with states like Bihar and Uttar Pradesh with poor health infrastructure [23]. So, in the health care market, the perception of need or the demand for seeking treatment will depend on many factors like caste, religion, culture, economic status, gender, supply side environment of the health care etc. and it is systematically different from that for others goods or services. Moreover, the health care market is characterized by principal-agent relationship; the asymmetry in information between the patient (principal) and physician (agent) may allow the latter to prescribe unnecessary diagnostic tests and treatment [20].

However, there is a large volume of literature suggesting that self-reported health is an acceptable indicator of general health with good construct validity [25-28], and a powerful predictor of mortality risks [29], disability [30] and morbidity [31,32]. A medical study in Bangladesh has also found strong correspondence between self-reported health and actual physical measures of health [33].

## 3. DATA AND METHODOLOGY

This study primarily based on the unit level data from the two national-level surveys conducted by National Sample Survey Organization on *Morbidity, Health Care and the Condition of the Aged* (in January-June, 2004 and in 1995-1996). The survey gives the amount of health care expenditure that is financed from each of income, savings, borrowing, sale of assets and other sources. The source of finance is reported for payments made for both inpatient and outpatient care. We multiply the monthly per capita consumption expenditure by 12 to make it comparable with inpatient costs that are recorded for a one year reference period. The household is the unit of analysis. Expenditure on inpatient care includes all direct and indirect payments, including those for medicines.

The data covered 47,302 and 26,566 rural and urban households, respectively. Information was collected by using the structured survey schedule. It consists of detailed information regarding the household’s socioeconomic status, household’s expenditure including medical

<sup>1</sup>Vertical equity requires that those with a greater ability to pay should pay more than those with a more limited ability to pay.

<sup>2</sup>Horizontal equity implies that those with similar abilities or income levels should pay the same amount for health care.

care, sources of treatment, any family member(s) suffering during the last 15 days, hospitalization care during the last one year and nature of the health problem, average treatment cost at each level and household's coping mechanism. All the information was collected on last the episode of illnesses (reported morbidity). Household health care expenditure is defined as the out of pocket expenditure on drugs and medicines, consultation fees, hospital bed charges, transport charges and daily living cost, including food and lodging for the escorts of the ailing household member.

In addition, we have used primary data collected from three districts of West Bengal during January-April 2007<sup>3</sup>. These three districts are Malda, North 24 Parganas and Bankura. The households are selected on the basis of a systematic, two-stage sampling procedure. We selected 748 urban and 2403 rural households by two stage cluster sampling method. At the first stage, from each of the selected district, 35 primary sampling unit (PSU) covering both rural and urban areas were selected through PPS (probability proportion to size) method. In the second stage, we have selected 30 households from each PSU through systematic random sampling procedure. We used a structured questionnaire for primary data collection. The questionnaire consists of detailed information regarding household's socio-economic contour, details household's expenditure including medical care, sources of treatment, any family member(s) suffering during last one month and finally nature of health problem (minor illness, chronic illness, birth delivery and hospitalization), sources of hospitalized treatment, sources of treatment before hospitalization, average treatment cost at each level, household's coping mechanism and lastly how much they are satisfied. The survey was carried out for 3150 households covering 15,206 individuals. The survey collected health care expenditure data for various categories of treatment like hospitalized care, outpatient care, birth delivery and chronic illness. The reference period however was considered differently for each of the case, *i.e.*, recall period of a year was set both for hospitalization care and childbirth, three months was set for outpatient care and a period of one-month was considered for chronic illness. Chronic illness is defined as a condition that is long-lasting (eg, more than 3 weeks and in many cases lifelong), which needs to be managed on a long-term basis. All the information was collected on last episode of illnesses (reported morbidity). Household health care expenditure is defined as the out-of-pocket expen-

ditures on drug and medicines, consultation fees, hospital bed charges, transport charges to the treatment site and daily leaving cost, including food and lodging for the escorts of the ailing household member.

From each of the selected districts, 50 primary sampling units (PSU), covering either a village (in rural areas) or a urban ward (in urban areas) was selected by the probability proportions to size (PPS) sampling approach. Total numbers of sample in each district comprise 1050 households and 30 households are selected from each PSU. A 10 percent over-sampling (*i.e.*, additional 2 households in each PSU) considered to take care of non-responses. The Primary data was collected from the household through structure questionnaire. It consists of detailed information regarding household's socio-economic contour, average annual expenditure on health care, sources of treatment, type of health care facilities available in this village or near-by villages, any family member(s) suffering during last one month and finally nature of health problem (minor illness, chronic illness, birth delivery and hospitalization), where they sought treatment, where they usually sought treatment before hospitalization, average treatment cost at each level. CSpro software package was used for data entry. The data set was recoded and transferred into the STATA data file. The analysis was done by STATA version 10.

## Analytical Methods

To estimate the income related inequity in health care service delivery and out of pocket payment for treatment, we have followed the technique of concentration index (CI) and concentration curve (CC). The concentration index [34-37] and related concentration curve provide a means of quantifying the degree of income-related inequality in a specific health variable. For example, it could be used to quantify the degree to which the hospitalization rates are better targeted towards the poor income groups, or the degree to which child mortality is more unequally distributed to the disadvantage of poor children in one country than another, or the extent to which inequalities in adult health are more pronounced in some countries than in others. Now, we briefly explain the methods and application of the concentration index and the concentration curve as follows:

Concentration index (CI) is a standard tool universally used by the economists to measure the degree of inequality in various health system indicators such as health outcome, health care utilization, and health care financing [38]. Its value ranges from -1 to +1. A negative value of CI implies that the relevant health variable is concentrated among the poor or disadvantaged people while the opposite is true for its positive values. For example, if the health indicator were Infant Mortality Rate (IMR), a negative CI would imply that mortality rate is higher

<sup>3</sup>The survey was conducted by Indian Institute of Health Management Research (IIHMR), India under a research programme consortium entitled—"Future Health System: Innovation for Equity" led by John Hopkins University, USA and other six global institute. Financial support for this research was provided by the Department for International Development (DFID), UK. Author was the research coordinator of this survey.

among the poorer infants; if it is immunization and CI is positive, richer children are proportionately more immunized than their poorer counterparts are. When there is no inequality, CI will be equal to zero. Typically, a zero CI implies a state of horizontal equity which is defined as equal treatment for equal needs. For an empirical estimation, the values of the concentration index can be calculated the following three stapes:

Step 1. First, the population were ranked according to their monthly per capita consumption expenditure (MPCE); second, the ranked population were grouped in five ascending quintiles (population in quintile 1 is the poorest and the same in quintile 5 is the richest); and third, number of hospitalized cases for each quintile was computed by multiplying number of hospitalized persons in each quintile in a year with how many times they were hospitalized.

Step 2. First, the cumulative percentage of sample population (from quintile 1 through 5) was calculated, which is denoted as  $P_t$  ( $t = 1, \dots, 5$ ). Second, the cumulative percentage of estimated cases (from  $t$  quintile 1 through 5) was calculated that is denoted as  $L_t$  ( $t = 1, \dots, 5$ ).

Step 3. Finally, the concentration index (CI) is computed by applying the following formula:

$$CI = (P_{1L2} - P_{2L1}) + (P_{2L3} - P_{3L2}) \\ + \dots + (P_t - 1L_t - P_tL_t - 1),$$

where  $P$  is the cumulative percentage of sample population and  $L$  is the cumulative percentage of the health variable (say hospitalization cases) and suffix 1, 2, 3 and so on are the respective quintiles.

To estimate the inequity in health care payments and to assess whether they are progressive or regressive, we have followed the method of Kakwani progressivity index [36]. The progressivity can be assessed graphically through comparison of the concentration curve of health payments with the Lorenz curve of the ability to pay (ATP) (Same as capacity to pay for health care) variable. Both curves are plotted against the cumulative proportion of the sample households ranked by ATP on the x-axis and the corresponding value of cumulative proportion of health payments on Y-axis. Under proportionality, the curves will coincide with each other. Under progressivity, health care payment concentration curve lies outside Lorenz curve of ATP and vice versa for regressively.

Graphs are useful for detecting departures from proportionality and identifying their location in the distribution of payments. But visual inspection of progressivity across sources of finance, time or countries becomes difficult when there are a number of comparisons to be made. In such cases, summary indices of progressivity are useful. Of these, the most widely used is the Kakwani index [37]. The Kakwani index is defined as twice the

area between a payments' concentration curve and the Lorenz curve and is calculated as,  $\Pi_k = C - G$ , where  $C$  is the health payments' concentration index and  $G$  is the Gini coefficient of the ATP variable. The value of  $\Pi_k$  ranges from  $-2$  to  $1$ . A negative number indicates regressivity. A positive number indicates progressivity. In the case of proportionality, the concentration lies on top of the Lorenz curve and the index is zero.

#### 4. EMPIRICAL RESULTS

The equity in access in health care is a central goal of many health care systems and now it has been a central focus to the policy maker. Equity in health care access refers to equal distribution of services according to their needs. The study defines access as the use of health care facilities by the individuals with a need for care; need is measured as self-reported morbidity. Alternatively the need of health care is expressed as health seeking behaviour or the perception on illness. Here equity in access among the socio-economic groups has been explored in each of two service areas: inpatient hospitalization care and out patient care (minor illness). **Table 1** demonstrates the average hospitalization rate of various socioeconomic groups in rural and urban areas. The result clearly shows that the average hospitalization rate is higher to the well-off groups than the poor counterpart. In rural areas, the average hospitalization rate is 5.01 percent for highest income groups where as in poorest quintile groups it is 3.59 percent. Urban area followed the same results. The corresponding concentration index is positive. But the people's suffering from Diarrhea, TB, Anemia are disproportionately distributed among the poor. The concentration index of suffering diarrhea, TB and Anemia are  $-0.14$ ,  $-0.15$  and  $-0.05$  respectively [39]. This indicates that the poor people's demand (need) for health care higher than well-off groups but their reported hospitalized rate is comparatively less. These results reflect that there persists the vertical inequity in health care access. The study also estimates a trend result to link between the current economic growth and the equity in hospitalization care among the socioeconomic groups. It revealed that the average hospitalization rate increases and the corresponding value of the concentration index decreases over the last ten years. This indicates that the present growth policy followed by the government of India and West Bengal may have a positive impact on health care utilization particularly for the inpatient hospitalization care. In West Bengal, the value of the concentration index is 0.30 in 1995-1996 where as in 2007 the index is reduced to 0.04, which indicated that although there persists vertical equity but it reduced consistently during the last 10 years. The study also shows that the situation of West Bengal relatively better than the all

**Table 1.** Inequality in hospitalization rate in West Bengal and India.

<b>Rural</b>					
	India		West Bengal		
	NSSO 52nd Round (1995-1996)	NSSO 60th Round (2004)	NSSO 52nd Round (1995-1996)	NSSO 60th Round (2004)	IHMHR (2007)
Poorest	0.50	1.49	0.40	2.03	3.59
Next 20%	0.90	1.99	0.90	2.30	4.80
Next 20%	1.50	2.41	1.40	2.25	3.65
Next 20%	2.10	3.18	1.50	2.81	3.78
Richest	3.70	4.80	2.70	3.22	5.01
All	1.40	2.60	1.20	2.48	4.13
CI	0.37	0.23	0.30	0.08	0.04
<b>Urban</b>					
	NSSO 52nd Round (1995-1996)	NSSO 60th Round (2004)	NSSO 52nd Round (1995-1996)	NSSO 60th Round (2004)	IHMHR (2007)
Poorest	1.30	2.67	1.60	3.55	4.68
Next 20%	1.70	3.49	1.70	3.66	4.48
Next 20%	2.00	3.68	2.20	4.32	4.04
Next 20%	2.70	3.85	2.50	3.67	5.39
Richest	3.80	4.26	3.90	4.71	4.57
All	2.10	3.48	2.30	3.74	4.62
CI	0.22	0.08	0.18	0.05	0.012

Source: Author's Calculation, Household Survey Data, 2007.

India average. The reasons for better situation in West Bengal are people have more trust towards the public facilities and consequently they largely depend on it.

The problem of accessibility is more severe in case of out-patient care due unavailability or inaccessibility of the public facilities. In rural areas, public health care or the qualified private clinic is out of reach. Unqualified rural medical practitioners (RMP) are the only option to do so.

Result also shows that a rural resident has to travel less than a Kilometer (0.68 KM) to visit a RMP; the distance becomes double (1.48 KM) if it is a public health center and about ten times more (6 KM) if it is a clinic of a private qualified doctor. Physical accessibility, however, explains the demand side only partially. A public facility, even if it is closely located to a village, may be bypassed due to non-availability of a regular doctor. All medicines prescribed by a PHC doctor may not be available within the facility. Consequently, the patients have to remain prepared to pay upfront for the medicines they would purchase from private pharmacies. Moreover, the prescribed medicines, which are purchased from pharmacies, may not always be of the cheapest brand.

#### 4.1. Equity in Utilization of Public Facilities

Public health care system is a crucial element of the social welfare particularly in the developing countries

and it may be the only option to protect the poor. But a pertinent question is who utilized these facilities? This study shows that in West Bengal people are largely depending on public health care facilities as compare to India. It has been seen that there are higher utilization of government health facilities by the poor people than the richer counter counterpart. The concentration index for the utilization of government facilities is negative (**Table 2**). This means that to some extent equity is maintaining for the utilization government health care facilities.

However, of the utilization of government health care facilities in west Bengal is lower as compare to India. This means that in West Bengal the health care services is less equitable then all India average. Thus, the basic aim of the subsidized health care policy to protect the poor people has not been honored due to higher utilization of public health facilities by the high-income groups. This can be interpreted that the public subsidy has drop to the well-off groups through their higher utilization of government hospital. Thus it can be concluded that the present health care systems in west Bengal has been fails to protect the poor adequately.

#### 4.2. Inequity in Out-of-Pocket Payments

This section the study assessing the public expenditure along with the private out of pocket expenditure of health care and also study how much the system is pro-poor.

**Table 2.** Public and private shares of hospitalization in India and West Bengal, by MPCE.

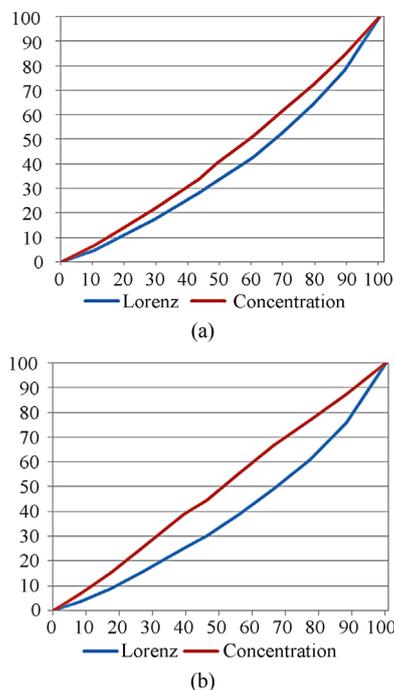
Rural	India		West Bengal	
	Public	Private	Public	Private
Richest	29.68	70.32	71.1	28.9
Next 20%	39.33	60.67	78.3	21.7
Next 20%	44.85	54.15	87.2	12.8
Next 20%	50.3	49.7	82.8	17.2
Poorest	55.8	44.2	89.2	10.8
CI	-0.12		-0.04	
<b>Urban</b>				
Richest	21.3	78.7	73.9	26.1
Next 20%	27.17	72.83	84.4	15.6
Next 20%	38.02	61.98	85.2	14.8
Next 20%	43.25	56.75	84.8	15.2
Poorest	55.77	44.23	87.2	12.8
CI	-0.17		-0.03	

Source: Author's Calculation, Household Survey Data, 2007.

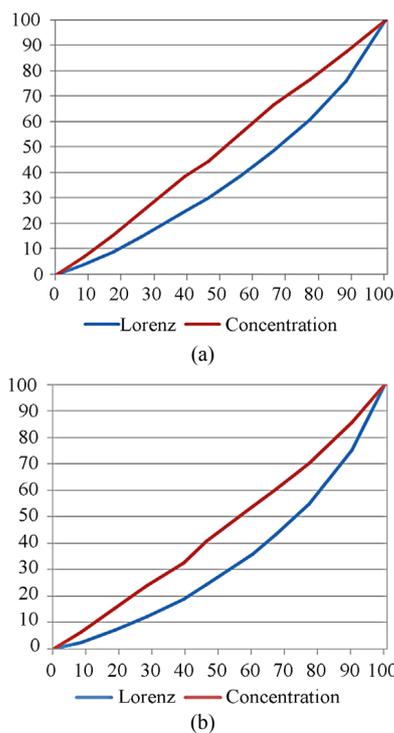
Since last one decade, government spending on health as a percentage of GDP is quiet stagnant, while the country's current economic (GDP growth rate) growth is spectacular. Consequently, health care personnel such as physician and nurses, bed per population is markedly lower as compared to many other developing countries in the one hand and people are facing high out of pocket expenditure on the other hand.

To estimate the inequity in health care payment whether it is progressive or regressive the study followed the methods of health payments concentration curves and Kakwani progressivity index. To assess progressivity or regressivity of the health care payment, we plot the cumulative percentage of the sample households, ranked by their ability to pay, on the X-axis and on the Y-axis cumulative percentage of health care payment for concentration curve and ability to pay for Lorenz curve. In **Figures 1(a)** and **(b)** the curve is estimated to assess health care payment for hospitalization care. Here the concentration curves lie inside the Lorenz curve and Kakwani index is  $-0.14$  for rural and  $-0.19$  for urban. This result strongly interpreted that the health care payment is regressive.

The payment is more regressive (**Figures 2(a)** and **(b)**) for out patient care. Kakwani index for rural and urban areas are  $-0.24$  and  $-0.23$  respectively. The main reasons for regressive structure of the health care payment are very high degree of out of pocket payment on medicine and diagnostic test even in government hospital (71 percent of the total health care expenditure spent on drug ion and medicine). The average cost of treatment for a single visit is Rs. 878 (\$21.95). Out of this only Rs. 220 (25%) provides by the government and rest of 75%



**Figure 1.** (a) OOPE in Hospitalization is Regressive (Rural), Kakwani Index =  $-0.14$ ; (b) OOPE in Hospitalization is Regressive (Urban), Kakwani Index =  $-0.19$ . Source: Author's Calculation, NSSO, 2005.



**Figure 2.** (a) OOPE in Outpatient Care is Regressive (Rural), Kakwani Index =  $-0.24$ ; (b) OOPE in Outpatient Care is Regressive (Urban), Kakwani Index =  $-0.23$ . Source: Author's Calculation, NSSO, 2005.

treatment cost is covered by the out-of-pocket. As a mitigating strategy to cope up with the financial shocks, households sacrifice their daily food consumption, land, living house, children's education, medical treatment of the other members and end up selling their assets etc. Thus this paper strongly concludes that the health care payment structure as followed by the government of India is not pro-poor.

### Catastrophic Health Care Payments

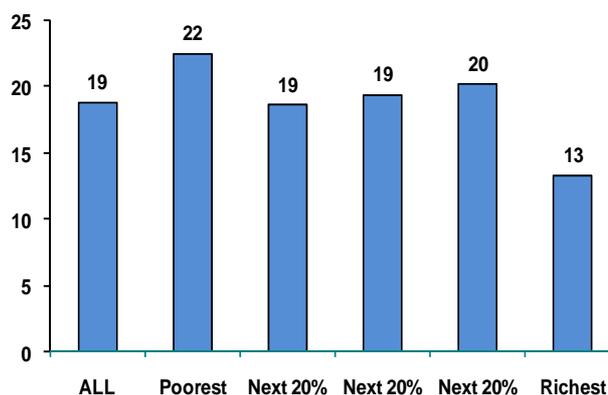
The problem of regressive structure of health care payment is more severe particularly when households encounter major health problem. In case of hospitalization care the households are facing series hardship due to high catastrophic payment<sup>4</sup> for medical care. **Figure 3** shows that 20 percent of the higher, middle-income groups facing catastrophic payment due to unanticipated health shocked. In West Bengal, about 19 percent households facing catastrophic payment for hospitalized treatment. To mitigate such expenditure 34 percent poor households has lost all of their past savings, 30 percent households has borrowed with/without interest, and 2 percent of the households sale their assets.

### 4.3. Support Mechanisms

To protect the poor, the government of India has been started a dozen of programmes (such as Rural Health Mission, Janani Suraksha Yojana, Rogi Kalyan Samiti, Referral Transport facility etc.) for the enhancement of health and health care services.

However the question is, how much this programmes have been shore-up to the poor to protect them from catastrophic health care payment. This study addresses the various support mechanisms to protect the poor for such impoverishment impact due to calamitous payment. There is very few direct support mechanism to overcome this unanticipated health care payment. Recently some private medi-claimed policies (such as health insurance) ran to compensate this payment. But these policies largely concentrated to the urban richer section of the society. The existing government support mechanism as shown in **Table 3**. It is apparent that except ration card (some sort of subsidy), coverage of other support mechanism is not reportable. Coverage of social health insurance in urban areas is only 9.3 percent where as in rural areas it is only 1.4 percent. This evidence indicates that the spectacular economic growth had failed to provide proper security when people faced any kind of health problem.

<sup>4</sup>Murray *et al.*, defined catastrophic spending as household that actually spend more than 50% of their effective income after paying for subsistence needs.



**Figure 3.** Households facing catastrophic health care payment. Source: Author's Calculation, Household Survey Data, 2007.

**Table 3.** Social Securities of the Households.

Percentage of HH who have the benefits of	Rural	Urban	Total
Provident fund	11.7	21.4	13.9
Life insurance	28.5	40.2	31.3
Old-age pension	1.4	0.4	1.2
Crop insurance	0.5	0.0	0.04
Support from Panchayat	21.7	0.9	16.8
Other support from govt.	1.7	0.8	1.5
Ration card	91.8	91.4	91.7
Social health insurance	1.4	9.3	3.2
Other health insurance	1.5	4.4	2.2

Source: Author's Calculation Household Survey Data, 2007.

## 5. CONCLUSION

The paper indicates a very dismal situation. Access to public health care that is a basic non-pecuniary individual attribute is severely impaired in this inclusive growth era. The study demonstrated that the inclusive growth not only fails to protect the poorest of the poor but also creates indigence and inequality. The out-of-pocket expenditure and the gaps between health care needs and the utilization of public health care facilities indicated that the public subsidy do not necessary ensure the vertical equity. It leads to disproportionate economic burden to the poorer section of the society. As a mitigating strategy to cope up with the financial shocks, distorted health-seeking behavior, households sacrifice their children's education, medical treatment of the other members and end up selling their assets; consequently about one fifth of the households falls below the poverty line on account of catastrophic payments. The study argues that there are essential needs to strengthen the oversight role at the district level for implementing pro-poor policies and empower consumers (through civil societies) to reduce asymmetric information in the drugs market. Social health insurance as a part of overall social protection where

non-salary subsidies are diverted to insurance fund may be the option to do this.

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