



MASTER OF PUBLIC HEALTH

A cooperative Program of

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH
&
INDIAN INSTITUTE OF HEALTH MANAGEMENT RESEARCH

Capstone Project
at
IIHMR UNIVERSITY, Jaipur

By
Vatsna Singh Rathore

IIHMR/JHSPH MPH

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**An analysis of Out of Pocket Spending Based on
NSSO 68th Round**

**By
Vatsna Singh Rathore**

**Under the guidance of
Dr. Monika Choudhary**

**Master of Public Health
Year 2013-15**

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr Vatsna student of Master of Public Health Program offered by Institute of Health Management Research, Jaipur in cooperation with Johns Hopkins Bloomberg School of Public Health, Baltimore has undergone capstone training at IIHMR Jaipur on the topic 'An analysis of Out of pocket expenditures in India in health sector based on NSSO 68th round' from 17th May 2014 to 06th July 2014

The Candidate has successfully carried out the study designated to her during capstone training and his/her approach to the study has been sincere, scientific and analytical.

The Capstone is in fulfillment of the course requirements.

I wish her all success in all his/her future endeavors.

✓ Dean, Academics and Student Affairs

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CERTIFICATE BY SCHOLAR

This is to certify that the Capstone Project titled **An analysis of Out of pocket expenditures in India in health sector based on NSSO 68th round** and submitted by Dr Vatsna Enrollment No 10 under the supervision of Dr Monika Choudhary for award of **Master of Public Health** carried out during the period from 17th may 2014 to 06th July 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.


Signature

ABSTRACT

Out-of-pocket (OOP) spending in health care sector has a lot of significance towards poverty in developing countries specially India which is one of the most populated country of the world. This paper aims towards examining the households that are pushed in the poverty line due to these expenses. It also assess the various components of health care expenditures and differential impact of OOP ,between developed and less developed regions in India

Based on Consumer Expenditure Survey (CES) data collected in the National Sample Survey (NSS), conducted in 2011-2012, expenditure on various health services and drugs was calculated. The number of individuals that fall below the country-specific poverty line was determined. The results show that catastrophic expenditure is about 18.09% of total household expenditure. This expenditure is more concentrated in the rural areas as compared to the urban households. Expenditure of drugs constitutes 79% of the total OOP expenditure. OOP s calculated through the new poverty line has resulted in has millionsof people falling below the poverty line in 2011-2012 through OOP payments, resulting in an increase in overall poverty to 18.09% as against a rise of 3.2% shown in earlier studies . The paper suggests for better methods to capture expenditure on various components in household surveys and better policies from the side of government for targeted populations

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ABBREVIATIONS

NSSO- National Sample Survey Organization

CES- Consumer Expenditure Survey

GDP- Gross Domestic Product

OOP- Out of Pocket

BPL- Below poverty line

MPCE- Monthly per capita expenditure

ICHA- International Classification for Health Accounts

NRHM- National Rural Health Mission

PROJECT REPORT

An analysis of Out of pocket expenditures in India in health sector based on NSSO 68th round

1. Introduction

Out of pocket expenditure (OOP) is a direct expenditure by households to avail health products and services. The main intent of spending is restoration of health of family and relatives present in a household. This might often lead to financial burden for the individual or a household. When people in a household have to pay fees for healthcare, the amount can be huge in relation to the income which can in-turn mean a financial burden / catastrophe for the household. This means individuals in a household have to cut spending on basic needs such as food, clothing, children's education and travel. Many households in India are pushed into poverty due of OOP spending and will be illustrated in the following paper.

The impact of OOP causes a catastrophe for people living poverty and many choose to neglect or ignore the medical conditions as they cannot afford direct costs for consultations, medicines, and laboratory tests or indirect costs such as special diet and transportation services. The potential effect of health systems on the well being of households has been well documented in countries as diverse as USA, India, Australia and Indonesia and has affected the design of health systems and insurance mechanisms.

Health systems are / must be designed so that they can deliver health services to people in general and make a difference to their health. However, accessing these services can often contribute the household to be pushed into poverty and this is specially true of poor households as they have to spend large amounts of their income to avail these services. The protection of people from financial catastrophe is an acceptable objective of health policy.

Catastrophic health expenditure is not always synonymous with high health care costs. For example a large bill for surgery will not become a financial burden for a household if the service is provided free, at a subsidized price or if it covered by medical insurance. On the other hand, even small illnesses can become a financial burden for poor households with little income.

2. Literature Review

Low income countries of south east Asia have high levels of out of pocket spending on medical care, and India is positioned in the top most list of these countries. Analysis of the NSSO data of the year 1995 -1996 showed that if out of pocket payments are deducted from monthly expenditure the poverty line of India could be reduced upto 2.2% (Peters et al 2002). In other words expenses incurred on medical care made 2.2% of the Indian population pushed into the below poverty line status. It was also mentioned in the above stated study that hospitalization have debilitating effects on the marginalized population. Hospitalization or prolonged illness can often lead to liquidation of assets or indebtedness. Hospitalized people borrow money or sell assets to cover expenses, resulting into the fact that after treatment, hospitalized Indians fall below the poverty line because of hospital expenses. According to another similar study (van Doorslaer et al. 2006) showed that in the year 1999-2000 almost 37 million were caught in web of poverty because of the catastrophic payments. These are the people that are very much dependent on the public services so as to cut down the costs they have to make payments towards medical care.

Until 2012 the BPL standard was defined by the Tendulkar Committee and is estimated national average of Rs 816 for rural areas and Rs 1000 for urban MPCE (monthly per capita expenditure). These poverty lines would vary from state to state because of inter-state price differentials. These margins were considered very low and Rangarajan Committee was formed in 2013 to review the methodology of Tendulkar Committee. The Rangarajan Committee finally gave its verdict and defined the poverty line for 2014 was decided to be Rs 1017 national average (Economic Times). Since the data from the NSS 68th round (2011-12) of Household Consumer Expenditure Survey is now available, and based on the Rangarajan Committee recommendations for the poverty line as

declared by the Planning Commission of India, this paper analyzes the out of pocket expenses in India for the 68th round of NSSO on Consumer Expenditure Survey.

The inequities in the health system are further aggravated by the fact that public spending on health has remained stagnant at around one percent of GDP (0.9%) compared to the global average of 5.5%. Yet even the public subsidy on health does not automatically benefit the poor.

The expenditure made on health care approximated from all sources in India is around Rs.1,337,763,206 (National Health Accounts 2004-05) which constitutes about 4.25% of Gross Domestic Product. Out of this total expenditures the private sector holds the maximum share Rs 1044135932 which is 78.05% and the share of public sector is Rs 263,132,133 which totals to 19.67 % of the total share(National Health Accounts 2004-05). This huge difference as seen from the above data shows that it is the private sector that is controlling health system of India, and in the presence of an unregulated private sector there is huge out of pocket spending in India . The other 2.28% comes from external flows. Table 1 shows a distribution of funds coming from the various sources.(Source- National Health Accounts 2004-05)

Source of Funds	Expenditure (in Rs. 000)	% Distribution
A-Public Funds		
Central Government	90,667,581	6.78
State Government	160,171,666	11.97
Local Bodies ¹	12,292,886	0.92
Total-A	263,132,133	19.67
B-Private Funds		
Households ²	951,538,903	71.13
Social Insurance Funds ³	15,073,973	1.13
Firms ⁴	76,643,295	5.73
NGOs	879,761	0.07
Total-B	1,044,135,932	78.05
C-External Flows		
Central Government	20,884,614	1.56
State Government	3,272,854	0.24
NGOs	6,337,673	0.47
Total-C	30,495,141	2.28
Grand Total	1,337,763,206	100.00

TABLE 1

The data from the table clearly predicts that its the households that owe a maximum share in

provided to the health system (71.13 %) even for greater than what is contributed by the Government of India (19.67%).

According to two studies conducted in United States the households that had people with disabilities or those which had limited access to health care services, poor or unemployed people have greater probability of getting affected by catastrophic payments in comparison with other general households.(Wyszewianski L.1986)

Half of the bankruptcies in U.S occur to cover the costs on medical expenditures and about three fourth of the population take insurance cover only after the onset of disease. Most of the income is spent on insurance premiums (Himmelstein et.al 2005)

According to a study conducted by PrayasRajasthan(2004) there is three fold increase in out of pocket expenditure in out patients and two fold increase in hospitalized patients. Tamil Nadu which supposedly has better public health system and free medicine scheme since 1995 has recorded highest increase in out of pocket spending amongst out patients. Maximum expenditures on medical care is found to be in Tamil Nadu .

Estimates show that OOP expenditure is about 5% of total household expenditure(ranging from about 2% in Assam to almost 7% in Kerala) with a higher proportion being recorded in rural areas and affluent states. Purchase of drugs constitutes 70% of the total OOP expenditure. Around 32.5 million people delved below the poverty line in 1999–2000 through OOP payments. This implies that the overall poverty increases to 3.2% after OOP expenditures (Health Policy Planning 2009)

3. Objectives

To estimate the magnitude and analyze the distribution of out of pocket expenditures on the different components for health services in India.

To understand the components that trigger out of pocket expenditures for healthcare in India.

Comparing the results found in the NSSO survey of 2011-2012 with the results of previous survey done in 1999-2000

The paper is based on the reference period of one year 2011-2012, in which the data is collected.

Using similar methodology used by Garg et.al the results found in this paper are compared with those found in the previous paper which has been used for reference -Reducing out-of-pocket expenditures to reduce poverty: a disaggregated analysis at rural-urban and state level in India.

4. Methodology

The paper is based on similar methodology as has been used previously in the paper done by Charu c Garg on -Reducing out-of-pocket expenditures to reduce poverty a disaggregated analysis at rural-urban and state level in India to see for the households that are getting pushed in the poverty line after the 68th round of NSSO has published the data and the new poverty lines indicated by the Rangrajan Committee in the year 2014.

The paper is based on households' consumption expenditure data collected in India by the National Sample Survey Organisation (NSSO) for the year 2011–2012. This is the latest available large CES with a sample of more than 5000000 households. The paper is based on household expenditure rather than individual expenditure, as Monthly Per Capita Expenditure data is collected for households not individuals. In the CES, the NSSO collects data on household spending on several items, like expenses on health services and commodities for institutional and non institutional care. The recall period in the surveys is „last one year“ for expenditure on institutional care and „last 30 days“ for expenditure on non-institutional care. The expenditures on institutional and non-institutional care are recorded separately under the following:

- (a) purchase of drugs and medicines;
- (b) expenditure incurred on laboratory testing, X-ray, ECG etc.;
- (c) professional fees for medical consultation and nursing services ;
- (d) expenditure on hospital services availed for treatment;
- (e) spending on family planning methods ;and
- (f) health expenditures not considered above.

The available data at the unit level are added for all these items to obtain total expenditures for institutional and non institutional care. The spending on medicines are subtracted from each of the institutional and non-institutional totals to provide total expenditures on hospitalized and non hospitalized patients, respectively. Adding together the drugs and medicines expenditures under the institutional and non institutional categories provides the total expenditure on drugs and medicines.

The poverty impact of OOP payments is defined as the difference between the average level of poverty before health care payments and that after payments (Wagstaff and Doorslaer 2003). It is measured by comparing both the prevalence (headcount ratio) and the intensity of poverty before and after OOP health payments. The pre-OOP (or pre-payment) poverty headcount is calculated by comparing households' consumption expenditure gross of payments for health care with a poverty line as defined by the Planning Commission of India (2014). The pre-payment headcount of poverty (or pre H_p , which has also been the basis for calculating the poverty headcount by the Planning Commission) can be measured as:

$$\text{pre}H_p = 1/n \sum 1(x_i \leq PL)$$

where, x_i is per capita consumption expenditure (in Rupees),

PL is the poverty line (in Rupees) and n is the number of individuals.

Similarly, the post-OOP payment „poverty headcount“ is computed by netting out health care payments (measured by actual OOP payments for all households) from households consumption expenditure and then comparing with the poverty line, i.e.

$$\text{post}H_p = 1/n \sum 1((x_i - OOP) \leq PL)$$

Similarly, intensity of poverty, also known as poverty deepening, is measured by calculating the average „poverty gap“ as defined by:

$$\text{pre } G = 1/n \sum P_i(PL - x_i)$$

and

$$\text{post } G = 1/n \sum P_i(PL - (x_i - OOP))$$

where $P_i = 1$ if $x_i \leq PL$ and is zero otherwise.

OOP being positive, equation (2) results in a higher headcount ratio and greater number of individuals below the poverty line (PL) compared with that for equation (1). The additional number of individuals moving below the poverty line because of OOP expenditures is provided by:

$$H_p = \text{post } H_p - \text{pre } H_p$$

Similarly, the „average poverty gap“, or poverty deepening in terms of the average amount by which people go below the poverty line because of OOP expenditures, is measured by:

$$G = \text{post } G - \text{pre } G$$

Since the NSSO bases its data on sample surveys, we calculate all our estimates by applying the inbuilt weighting system of the NSSO. However, even after applying the inbuilt weights, the total population estimated by the NSSO is usually an underestimate for a particular year. For example, for the year 1999–2000, the NSSO report estimates approximately 7% less population when compared with the interpolated Census data for the same year. The poverty headcounts both pre- and post-OOP payments in this paper have been calculated by adjusting with the interpolated Census population data for 2010-2011.

5. The Findings

5.1. National level OOP expenditure estimates

The Rangrajan committee estimates the per head monthly expenditures for the rural and urban sector to be Rs 972 & Rs1407 (per capita monthly expenditure) respectively. As per these guidelines there are about 260.5 million people in rural and about 102.5 million in urban which totals to 363 million of the Indian population living below poverty line. Analysis of the data of the household survey conducted in India by the NSSO report of 68th round published in the year 2011-2012 we found out the following results-

5.1.1. Poverty Estimates

India ranks third in the World Health Organization's latest list of "countries with highest out of pocket (OOP) expenditure on health" in the south-east Asia region.(Times of India,May 17 2012)

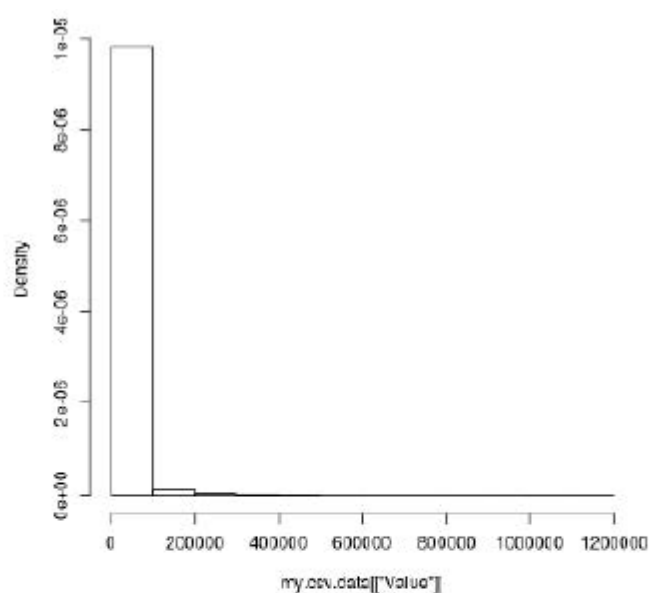
COUNTRY	Out of Pocket Expenditure
Myanmar	82%
Bangladesh	65%
Pakistan	41%
China	38%

TABLE 2

The latest NSSO data released in 2013 for the 68th round of Consumer Expenditure Survey based on data collected in 2011-2012 of 66000 households shows a total average of 18.09%..households getting pushed below the poverty line due to medical expenses. More specifically a total of 20.90% households are getting pushed into poverty due to expenditure on institutional care and 15.29% due to non institutional care (Table 3) care as against the previous published report of 3.2% households

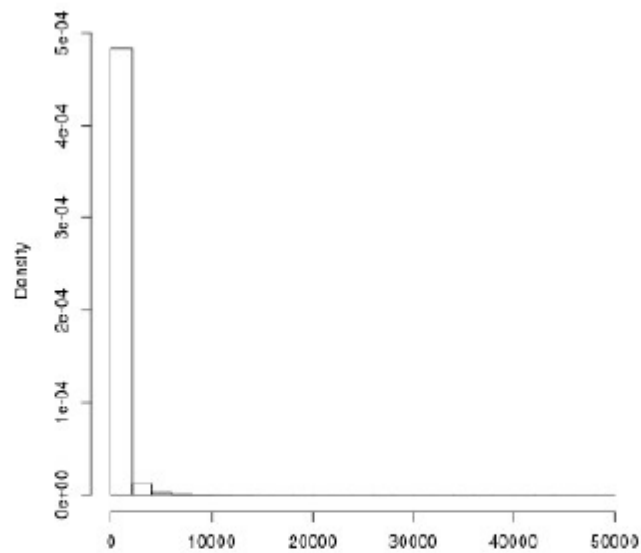
published by the World Bank(Health Policy Planning 2009) which had brought people below the poverty line status.

Type of Service	Already in Poverty	New pushed into poverty
Institutional	15.02%	20.90%
Non-Institutional	17.66%	15.29%
Combined(Inst+noninst)	10.08%	46.20%



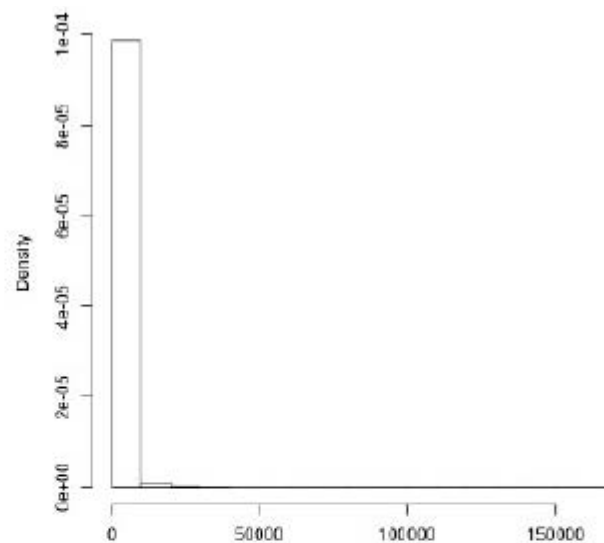
Variable Name	Mean	Variance	Sd	Minimum	Maximum	Median	Inter Quartile Range	Quartiles
Value	14194.07	1247817214	35324.464		1175000	5000	11452.5	0%: 4 25%: 1847.5 50%: 5000 75%: 13300 100%: 1175000

Statistical Representation of Institutional Medical Expenses



Variable Name	Mean	Variance	Sd	Minimum	Maximum	Median	Inter Quartile Range	Quartiles
Value	452.8305	871054.7	933.3031	1	50000	200	400	0%: 1 25%: 100 50%: 200 75%: 500 100%: 50000

Statistical Representation of Non institutional Expenditure



Variable Name	Mean	Variance	Sd	Minimum	Maximum	Median	Inter Quartile Range	Quartiles
MPCE	2262.464	5269219	2295.478	136.81	166158.8	1685.59	1468.5	0%: 136.81 25%: 1154.73 50%: 1685.59 75%: 2623.23 100%: 166158.76

Statistical Representation of Monthly Per Capita Expenditure

The Indian subcontinent as of the census population data of 2011 having a total population of 1,210,569,573 million people have already 363 million(Times of India ,7 July 2014) heads already plunged into BPL and the catastrophic medical expenditure is further adding millions of extra head counts further into poverty. Thus if we compare the out of pocket spending from the previous years to the recently available we find that out of pocket spending has increased significantly over the last decade

Year	OOPE
2009(Health Policy and Planning))	3.2%
2014	18.09%

TABLE 4

5.1.2. Expenditure on Various Medical Components

Expenditure on institutional care is the biggest threat to the people of India accounting to an average of Rs 1180 per month per household . In the institutional care if we see the detailed distribution amongst the various components, drugs is the single largest component of OOP payments across all consumption components accounting to Rs 504.91 per month which makes 42% of of total expenditure on institutional care. Whereas the expenditures on other components are as follows(Figure 1)

(a) purchase of drugs and medicines- Rs 504.91

(b) expenditure incurred on clinical tests such as pathological tests, ECG, X-ray etc.- Rs 212.91

(c) professional fees of doctors, nurses etc.- Rs 238.75

(d) payments made to hospitals and nursing homes for medical treatment- Rs 461.83

(e) „other health expenditures“ not recorded above- Rs 314.25

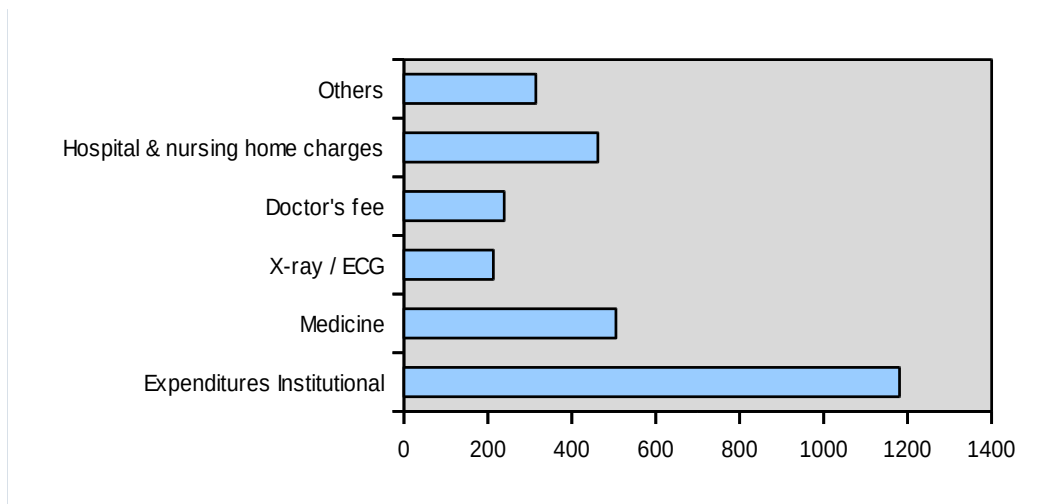


Figure 1

Considering the expenses on non-institutional care the drugs occupy second place in the expenditure list whereas on the top place it is expenditure incurred on clinical tests such as pathological tests, ECG, X-ray etc. The expenditures on non-institutional care are outlined below(Figure 2)

- (a) purchase of drugs and medicines- Rs 362.19
- (b) expenditure incurred on clinical tests such as pathological tests, ECG, X-ray etc.- Rs 409.86
- (c) professional fees of doctors, nurses etc.- Rs 124.30
- (d) family planning methods.- Rs 48.34
- (e) „other health expenditures“ not recorded above- Rs 198.26

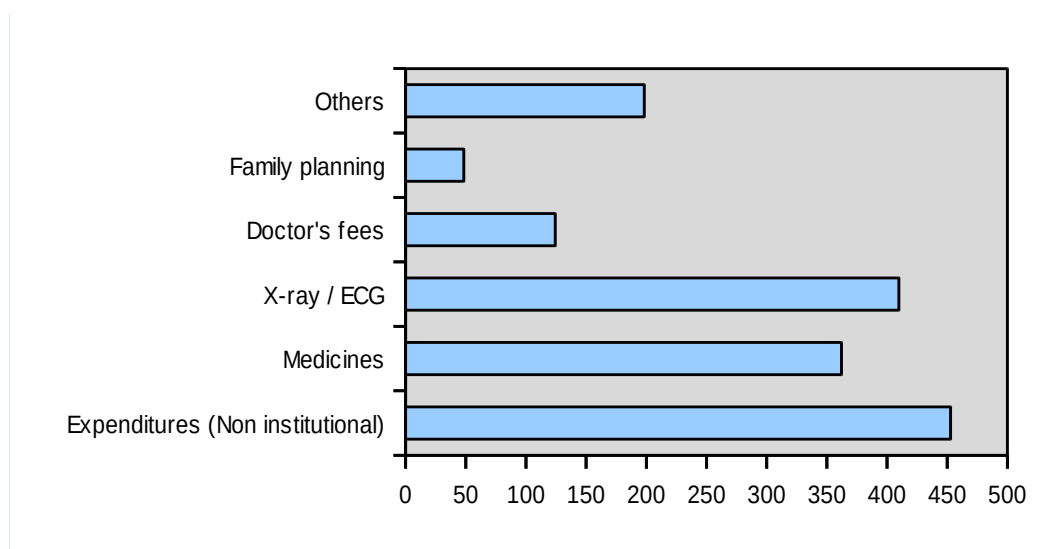


Figure 2

Comparing these results to the studies done on out of pocket expenditures previously (Health Policy and Planning 2009) the amount spent on drugs in non-institutional care has been maximum in all the components of about 70% of the total non institutional expenses and now it's the expenditure on x-rays that is leading to maximum burden in out of pocket spending, whereas in case of institutional care drugs still remain the maximum cost incurring component.

The average monthly per capita expenditure on drugs in India is Rs. 362.19. This amounts to an estimated 438456193644.87 in total annual expenditure on drugs by households in India for the year 2011-2012. India now is one of the largest producer and exporter of allopathic drugs around the world. India exports drugs worth an amount of 14.6 billion across the world, specially the generic drugs, but is not able to curb its own catastrophic expenditure on drugs.

5.1.3. A Comparison of Indian States for Out of Pocket Spending

STATES	NOMINAL GDP For 2011-2012	Medical Expenses for 2011-2012	Households pushed in poverty	Sample Size
ANDRA PRADESH	662592	125.5	689	4573
ARUNANCHAL PRADESH	10619	60.42	52	375
ASSAM	125820	28.3	295	2496

BIHAR	247318	49.42	517	3150
CHATESSGARH	132872	45.31	252	1326
GOA	36025	112.27	15	281
Gujarat	594563	97.31	243	2022
HARYANA	301959	89.41	232	1947
HIMACHAL	64957	101.4	186	1360
JAMMU & KASHMIR	65759	67.82	282	2457
JHARKHAND	143891	32.84	261	1851
KARNATAKA	458894	85.71	360	2338
KERALA	307906	244.77	399	2446
MP	311670	59.42	595	2910
MAHARASTRA	1199548	115.04	732	4929
MANIPUR	10504	30.85	104	889
MEGHALAYA	16412	16.07	44	587
MIZORAM	7198	21.81	30	1112
NAGALAND	13203	15.94	5	478
ODISHA	114583	62.79	464	2561
PUNJAB	256430	155.53	359	2461
RAJASTHAN	403422	87.15	521	2633
SIKKIM	8616	15.56	20	233
TAMILNADU	665312	104.03	548	3868
TRIPURA	20982	45.59	144	932
UTTAR PRADESH	679007	91.84	1423	6629
WEST BENGAL	538209	85.07	752	4385

It has been found in general that the states having high Gross domestic product show greater out of pocket expenditure in comparison to the states having low GDPs. Kerala, having the maximum literacy rate in India has continuously shown high out of pocket spending over the years. There is a positive relation between a state's GDP and medical expenses, as seen in the case of Punjab, Maharashtra, Andhra Pradesh and Goa. There is an anomaly in case of Rajasthan, in this case (Garg's et al 2009) the expenditure was less as its GDP was also less. The current study done in this paper with respect to Rajasthan shows that the GDP of the state has improved but still OOP spending has not increased with the same rate (there is not a direct relation as seen with richer states mentioned above).

The state of Jharkhand on the other hand has relatively high GDP but has low medical expenses. All the states have shown an increasing trend in the expenses over the period of years, owing to the increased burden of disease compared to the last decade.

6. Discussion

In India, OOP health expenditure is relatively high as a share of total household resources in general and total health expenditure in particular, compared not only with developed countries but also with other low-income countries. The poverty estimates based on 2011-2012 CES data show that around 18.09% of the total population in India plunged into poverty because of OOP expenditure, compared with 3.2% estimated by Garg et al. (Health Policy and Planning 2009) based on the the National Sample Survey Organization for 1999-2000..

While the official poverty line, used as a yardstick to measure poverty headcount, has been widely observed as a narrow interpretation of poverty, we use this mainly to show the comparative level of poverty headcount before and after OOP payments. Previously in India Tendulkar formula was used to estimate the poverty lines, but after a lot of debate its now the Rangrajan committee that gave the new poverty line which has lead to further pushing the households in India into poverty line.

The results for state-level differentials computed in this paper are very similar to those found in other studies (Mahal et al. 2001; Peters et al. 2002, 2003; NCMH 2005; Government of India 2005).

OOP expenditure in Kerala is high because of higher expenditure on institutional care and on lifestyle diseases such as heart conditions. Poorer states such as Nagaland, Mizoram, Meghalaya have a relatively low share of OOP expenditure because they are in the „early“ to „mid“ transition stage, when people spend less on health care services on account of low incomes, limited access to health care, lack of awareness (poor literacy rates) and poor infrastructure (in terms of number of facilities, availability of medicines and number of health workers). This coupled with low public spending makes the situation particularly severe. The lower share of OOP expenditure in Karnataka, Gujarat and Tamil Nadu needs a special mention. These are middle income states in the „mid“ to „late“ transition stages. One reason for their low OOP expenditure could be explained by the fact that these states have better sources of financing sources of financing the health department, like higher government expenditures and better risk-pooling systems through insurance, or high

expenditure by non-governmental agencies. It has been shown in Gujarat that community-based health insurance schemes helped to protect poor households against uncertain risks.

The central run scheme of NRHM under which free drug delivery is mandated is expected to bring down expenditures on drugs in the next few years, that however could not be evaluated in this paper since the NSSO data was collected in the year 2011-2012, this was the time when all Free drug delivery was not launched in all parts of the country. ..

If we analyze the poverty differentials between the states the North eastern states of India like Nagaland, Meghalaya, Mizoram are far below the country average of medical expenses hence also with low GDPs. The Government needs to plan some special schemes to generate income in these states.

An average household in India suffers with huge economic problems owing to the expenses incurred from health care sector. The need of the hour for the Government of India is to improve on its already running projects such as the NRHM and frame policies for the targeted populations. The Government may increase its expenditure on medical services by increasing the share in its GDP and proper utilization of the allocated funds. Another way to bring a decline in out of pocket spending could be done by introducing an insurance system thereby safeguarding its countrymen from economic crisis.

7. Conclusions and recommendations

Financing in health care sector of the developing and low income countries is still highly dependent on out-of-pocket (OOP) payments, along with the absence of pre payment mechanisms like insurance. The lacking of insurance system leads to untreated illness that not only reduces welfare directly, but it also leads to the increased risk of impoverishment due to high treatment costs. It is now widely accepted that health care expenditures can drive individuals and households into poverty. OOP expenditures have an astonishing effect on elevating the poverty ratios in the country. Over a million people fall below the poverty line in a single year of reference. Catastrophic payments, not just push a large number of people below the poverty line, but also severely affect the

living standards of many households already surviving below the poverty line. The poverty impact of health payments severely affects the poorer states, especially in the rural areas.

The analyses of the data reveals that generally in India on a national average, poor states have low shares in out of pocket spending of consumption expenditure because of the following stated reasons

- 1) low incomes
- 2) limited access to health care,
- 3) lack of awareness
- 4) poor infrastructure
- 5) Low literacy rates

. Conversely, middle and higher income states generally have high OOP expenditure, mainly on account of better health care seeking behaviour and provider choice as shown by larger expenditures on institutional care. Sometimes, governmental and/or non-governmental interventions may reverse the situation. More often, very poor government facilities and greater dependence on private facilities in nearby towns leads to a high OOP payment share, as is probably the case for Uttar Pradesh. There is a need not only to improve the availability of services in rural areas and in poor states, but also for a policy to rationalize high drug expenditure in these areas. Our research also suggests improving survey designs for estimating OOP expenditure, and expenditure on its components, for poverty estimations.

Targeted policies in just five poor states to reduce OOP expenditure could help to prevent most of the poverty headcount from OOP payments. This would be an important contribution to achieving the first Millennium Development Goal (of halving the population below the poverty line) to which India is a signatory.

We conclude that there is a need for: improved survey designs for impoverishment work; rationalized drug policies (including free supplies); pro-poor health financing policy focusing on financial protection not only for those close to the poverty line, but also those who are already

below it in both rural and urban areas; and innovative financing mechanisms on the collection, pooling and purchasing side to reduce the intensity of poverty. One of the ways this could be done is for policymakers to target specific areas and specific populations in certain states where the poverty impact of OOP payments is greatest.

Further research needs to be undertaken to identify characteristics of households that are moving below the poverty line and to analyze the impact of OOP payments on poverty as a dynamic process, that is, whether households move out of poverty by seeking medical care and who constitutes the new poor.

8. References

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