



## Analysis of public healthcare services utilization in India: Study of NSSO rounds

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### Abstract

In India prevalence of morbidity has been increasing by sharply over last decade or so. The rise in morbidity level coupled with increase in chronic diseases expected to raise the demand for healthcare services. The pattern of utilization of healthcare services whether inpatient healthcare or outpatient healthcare services play crucial role in overall health outcome of the country. This paper makes an attempt to highlight the major changes in healthcare services utilization in public healthcare services among inpatient and outpatient healthcare seeker over last one decade. The paper also explores regional variation of utilization of healthcare services in India. For this purpose NSSO data from 60<sup>th</sup> (Jan-June 2004) and 71<sup>st</sup> round data (Jan-June 2014) analyze to map the differences in utilization of healthcare services over a period of time. The findings show that there is still persistent of private sector over public sector in delivering healthcare services in the country. But, recent evidence shows that there is slightly increase in public healthcare service utilization during this period. Both rural and urban trends for public outpatient healthcare service utilization are encouraging. But, there is decline in utilization of public inpatient healthcare services in urban area. In order to improve the condition of the healthcare services in India, public healthcare services play crucial role. However, dominance in utilization of private sector over public sector is a matter of concern for policy makers.

**Key Words:** Healthcare, Inpatient healthcare services, Multidimensional, Outpatient healthcare services

### Introduction

A total of 40 years have passed since India and other developing nations signed the Alma-Ata declaration (1978) which called for actions by the countries to achieve health for all. In India, health has been viewed as a basic need since Independence and the keenness to address the healthcare services

requirements of the poor and susceptible was reiterated in the post Alma-Ata National Health Policies of India in 1983 and 2002. The relationship between health of the people in a nation and its economic growth is well-known. To make improvement in the health of the deprived and poor is a main concern for any health care system because good



health increases productivity which in turn increases economic growth and reduces poverty subsequently. In accordance with India's commitment to equity, huge public investment has been made over the years to create an extensive public health care system, though fell short of that indispensable to deliver health care to all, right from the first five year plan period. Moreover, the public spending on healthcare services had been on the lower side for a large period of time due to tight fiscal state of affairs faced by most of the state governments in India during the nineties. The poor resources for the public healthcare facilities have severely hindered their ability to meet the growing healthcare demand and deteriorating the quality of public healthcare services forced people to seek healthcare services from other sources. It is imperative to discuss that there has been a tremendous growth in the health care infrastructure across the country both in rural and urban areas in the last two decades. The obvious outcome of this is the increase in health standards of the people, changes in their awareness, way of life and treatment seeking behavior. Especially, much of this growth has taken place in the private healthcare sector. Nearly two-thirds of the medical man power is involved in the private sector. The healthcare services demand has been increasing day to day which subsequently lead to increased in cost of private healthcare services over the last two decades in India (Dilip, 2002). This has significantly affected the ability of the poor and casual workers to purchase a number of private health care services, limited their health care options and forced them to the less attractive but cheaper public sector (Vaidyanathan, 2001).

Utilization of healthcare services is multidimensional in nature. First, the recognition of health problem can be perceived as the need for care. The occurrence of morbidity has increased substantially during the period 2004 to 2014. The rise in morbidity level coupled with increase in chronic conditions and disabilities is therefore expected to augment the demand for healthcare services. However, apart from the recognition of health problem, access to healthcare services also depends on its social affirmation and endorsement of healthcare seeking behavior among masses (Sen, 2000). Furthermore, factors such as availability and affordability of care, healthcare consciousness of the population, responsiveness of healthcare system, price of healthcare services and perceived quality of care determine the utilization of available healthcare services. Despite substantial investments in developing and maintaining an extensive network of public healthcare facilities, the utilization of healthcare services is still far from satisfactory (Peters et al., 2002). Another dimension of the problem is related to the pattern of utilization of healthcare services. It has been found that majority of Indian's prefer to seek outpatient and inpatient care from private healthcare facilities, a trend which has been increasing over time (Mahal et al., 2001).

In the light of the above discussion, this study attempts to understand how individuals choose between alternative sources of outpatient healthcare service providers as well as inpatient healthcare service providers. This paper examines the pattern of utilization of inpatient and outpatient healthcare services in India. Furthermore, attempts will also be made



to carry out an analysis of equity in healthcare services use for both public and private source of care. The main objective of this paper to analyses the trends in inpatient and outpatient healthcare services utilization which is provided by public healthcare facilities in India.

### Methodology and Data Sources

This paper employs individual-level data from the NSSO on healthcare utilization conducted in all the states of India in 2004 and 2014. These surveys record the utilization of healthcare for both inpatient and outpatient care, with hospitalization episodes in 365 days reference period recorded in detail. Individual-level data were collected for a nationally representative sample of 385055 in NSS 2004 and 335499 in NSS 2014. Although there was variation in sample size, the sample design was uniform across the two surveys. This permits the construction of comparable variables which could be used to make statistical inferences about change in parameter estimates. Since both 60<sup>th</sup> round (2004) and 71<sup>st</sup> round (2014) of NSS surveys are based on similar survey design, concepts, definitions and reference period, the estimates from these surveys are comparable, nationally and state-wise. A simple tabular and graphical analysis is used to capture the changes in utilization pattern for inpatient and outpatient healthcare services.

### Results and Interpretations

In India, private healthcare sector has very clear dominance over public healthcare sector in utilization of non-institutional healthcare services. In 2004,

utilization of non institutional healthcare services from private sector was 78% in rural and 81% in urban area. While over period of time, there has been change in healthcare seeking behavior in favors of public healthcare which increase from 22 % to 28 % and 19 % to 21 % in rural and urban respectively. This is due to increasing focus on public healthcare sector by govt. through various initiatives such as launch of National rural health mission, Health protection schemes etc.

Table 1 and figure reveals inter-state variation in the utilization of outpatient healthcare services from government sources over last decade. The trends show that there are a few states such as Andhra Pradesh, Haryana, Karnataka, Kerala decrease in utilization of healthcare services in the rural area. Whereas, Assam, Chhattisgarh, Jharkhand, Odisha shows higher growth rate in utilization of public healthcare services. These result quite interesting because state such as Odisha, Jharkhand poor in terms of GDP growth which leads to poor spending on healthcare in these states but in the last decade there is change in the attitude of healthcare seeking behavior. On the other side, there is also increase in urban healthcare utilization among different states and overall growth. But, this increase in utilization is small as compare to rural area. It also indicates increase in utilization of private healthcare services in urban area as compare to rural area. This shows that there is increase in private healthcare service provider in urban India.

**Inpatient Utilization Behavior:** There is remarkable increase in inpatient utilization of public healthcare service from 23 percentages to 35 percentages



and 31 to 44 percentages in urban area over last one decade. However, rural area still face lower hospitalized rate than urban area, it may be due to various reason such non availability of healthcare facility in rural area, longer waiting time at the facility, lower quality of healthcare facility etc

It is also remarkable that for both the sectors among the youngest age group (0-14) and the aged person (60+) rate of hospitalization is higher in male than female. For the other age group it is the just opposite (NSSO, 2014).

Table 1: Ailment Receiving Non-Hospitalized (outpatient) Treatment from Govt. Sources

(In Percent)

States	Treatment from Govt. Sources			
	Rural		Urban	
	2004 (60 <sup>th</sup> Round)	2014 (71 <sup>st</sup> Round)	2004 (60 <sup>th</sup> Round)	2014 (71 <sup>st</sup> Round)
Rajasthan	44	44	53	29
Odisha	51	76	54	54
Karnataka	34	26	16	14
Haryana	12	11	20	8
Andhra Pradesh	21	16	20	12
Tamil Nadu	29	42	22	29
Punjab	16	17	18	23
Jharkhand	13	32	24	15
Assam	27	84	24	44
West Bengal	19	23	20	15
Bihar	5	14	11	12
Kerala	37	36	22	31
Uttar Pradesh	10	15	13	16
Chhattisgarh	15	31	20	16
Madhya Pradesh	23	29	23	24
Gujarat	21	24	18	15
Maharashtra	16	20	11	15
Telangana	-	19	-	9
<b>all-India</b>	22	28	19	21

Source: NSSO 60<sup>th</sup> and 71<sup>st</sup> rounds



Figure (a): Percentage of Outpatient healthcare seeker across the states in India

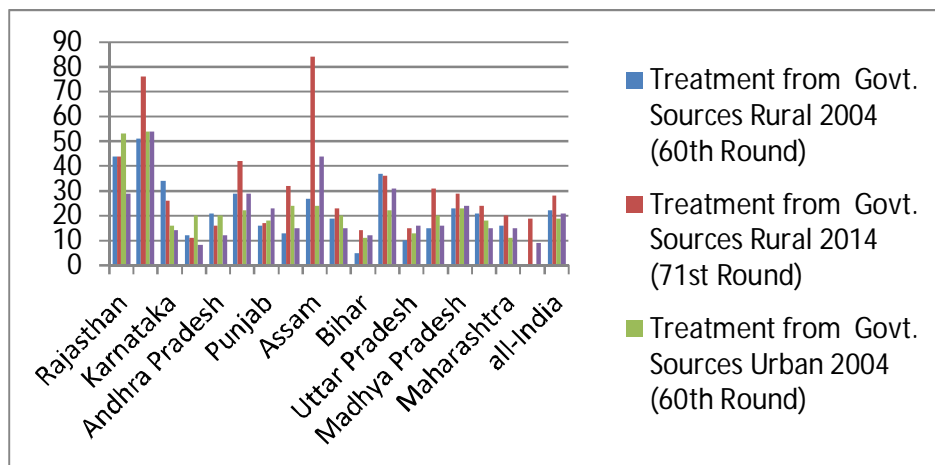


Table 2: Number per 1000 Person Hospitalized (Inpatient)

(In percent)

Gender	NSSO Rounds	
	60 <sup>th</sup> (Jan-June 2004)	71 <sup>st</sup> (Jan- June2014)
	Rural	
Male	23	34
Female	22	36
All	23	35
	Urban	
Male	31	41
Female	31	46
All	31	44

Source: NSSO 60<sup>th</sup> and 71<sup>st</sup> rounds

Above table depicts the overall utilization of hospitalized inpatients services in the country over two previous NSSO rounds. The comparison of two survey rounds shows there is increase in number of hospitalized cases during last one decade. But there is still very low utilization of

public healthcare institution due to various reasons. Rampant increase in private healthcare provider can be possible reason for that. This is not at all good for country such as ours where a section of people still live in poverty.



Figure (b): Percentage of person seek Inpatient healthcare services in Urban

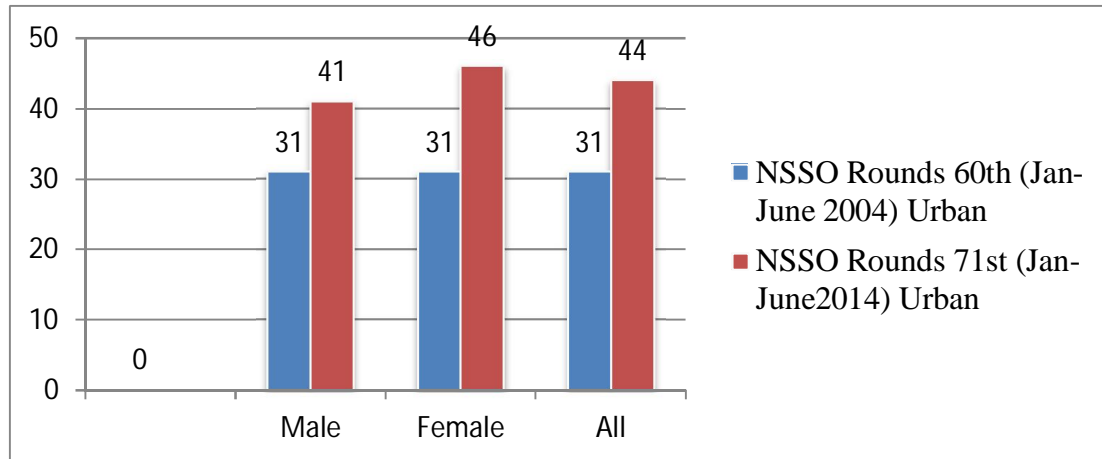
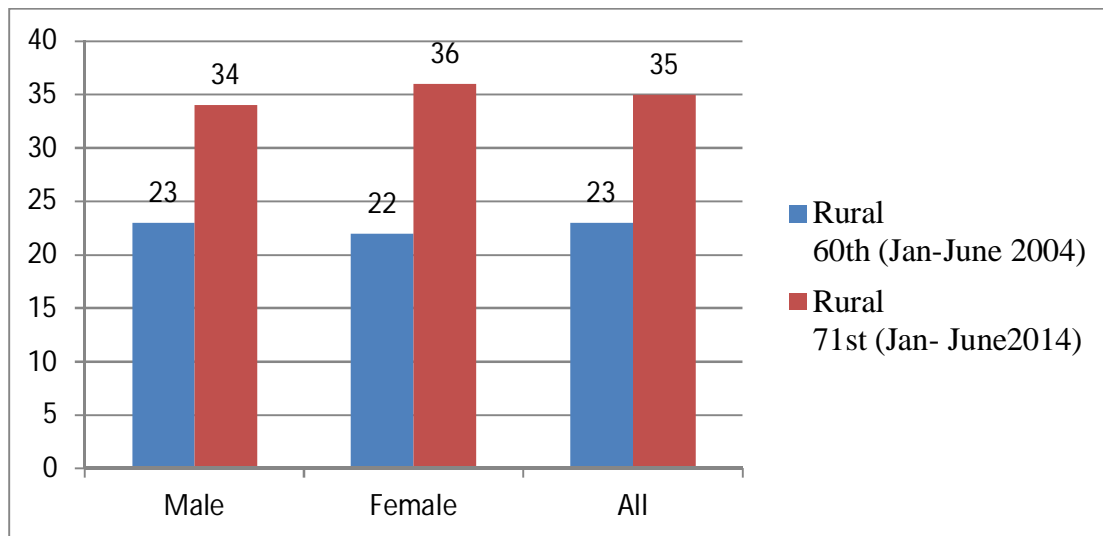


Figure (c)

Percentage of person seek Inpatient healthcare services in Urban



It can be seen from above table and bar graph that there has been increasing the percentage of hospitalized cases in the last one decade. The growth is observed in the all category such as male, female, rural, urban etc. Both male and female shows positive sign in the institutional utilization of healthcare services in India. Overall comparison shows that utilization

of institutional healthcare services in rural area advances with more pace than urban area, while urban females are using institutional healthcare services more than rural counterparts. This trend is due to increase in health insurance penetration, improvement in healthcare infrastructure, increase in number of



hospital in the country and increase in the level of awareness among masses.

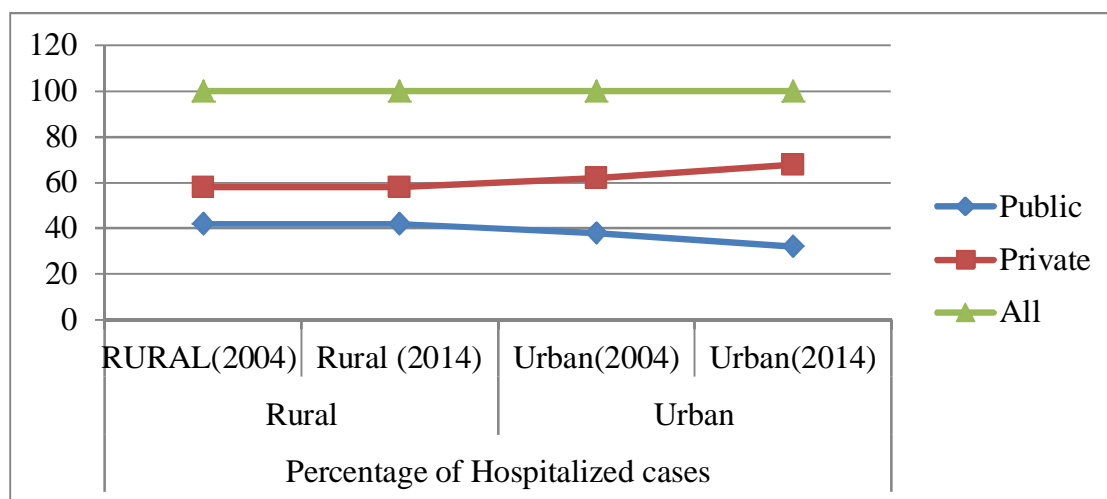
Table 3: Percentage Distribution of Hospitalized cases by type of Provider (In Percent)

Type of Hospital	Percentage of Hospitalized cases			
	Rural		Urban	
	2004	2014	2004	2014
Public	42	42	38	32
Private	58	58	62	68
All	100	100	100	100

Source: NSSO 60<sup>th</sup> and 71<sup>st</sup> rounds

Figure (d)

**Percentage of cases cure by Public and Private healthcare provider**



Above tables and figure shows the percentage distribution of hospitalized cases by Govt. and Private Sources. It can be seen that there is not much increase in hospitalized cases in both public and private healthcare in the rural area. But, in urban there is increase in hospitalized cases in favors of private healthcare provider which is already overtaken 68% of overall market in the urban and 58% in rural area. This trend has serious implication from healthcare policy point of view. This not only brings inequity but

also put barrier on access to healthcare services in our country.

**Conclusion**

With the changing prevalence of morbidity pattern and increase in awareness among people about their health status there is rapidly increasing demand for both institutional and non institutional healthcare services day by day. In our country we spend just a meager part of our GDP on healthcare services. Most of spending on healthcare



services comes from own out of pocket expenditure of individual person. In this scenario, firstly there is need to amplify Govt. spending on healthcare services throughout country. This is not only in terms of improving healthcare infrastructure but also improving quality of healthcare services. Recent data on institutional utilization of healthcare services shows that there is dire need to expand public healthcare services. Private healthcare sector has established dominance over public healthcare sector. This trend needs to be reverse to improve overall health outcome of the nation. Secondly there is need to increase supply of more medicine at primary healthcare centre, Community healthcare centre and District hospital. Lack of medicine available at public healthcare institution cites on the key reason for low utilization of public healthcare services and almost 50 percentage of out of pocket expenditure in India. Thirdly there is need to expand public healthcare infrastructure and human resources in public healthcare sector. Fourthly there is need to expand more healthcare services through PHCs, CHCs and Sub Centre. It helps rural population meet out its demand at grass root level.

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