Who Uses Public Healthcare in India? Insights from NSS 75th Round

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Abstract: *Indian healthcare comprises of both public and private healthcare providers. This study explores the patterns of utilisation of government hospitals across Indian states and examines the underlying reasons for not utilising by drawing the data from 75th round of National Sample Survey (2017-18). Despite the availability of the free and subsidised services, the utilisation of government health facility is merely 30 percent of the population who seeks medical care, with higher usage in rural area. The concentration index reveals that public healthcare is utilised more by the poor and the inequality in utilisation is lower in the states with the strong public health system. The findings reveal that even though the utilisation of government health facility is higher for the poor, people across the income group, there is higher preference for non-government health facilities. Key reason cited for not utilising government health facilities include unsatisfactory low quality of services, long waiting time, issue of accessibility and preference for the trusted doctor/ hospital. While the social and economically backward groups are more likely to use government health facilities, the preference for the non-government healthcare remains strong across the population. These findings suggest to invest more on government healthcare; and highlights the need to improve the infrastructure and service delivery in public healthcare.*

Keywords: Concentration Index, Government hospital, National Sample Survey, Public health infrastructure, Public health expenditure, Utilisation.

INTRODUCTION

The healthcare in India is characterised by a mixed system of both public and private healthcare institutes, with the latter have growing dominance. Given the demographic dividend and epidemiological transition, the healthcare needs of the country are exceptionally higher compare to other nations globally. The government have commitments to prioritise investment in healthcare both in terms of funding and strategic planning. Constitutionally, the Indian state is committed to improving the state of public health of the population as per the Directive Principles of State (Section 47) and also is a state subject. However, India's public financing of health is only around 1 percent of GDP for decades and out-of-pocket expenditure is high with around 1.54 percent of GDP (GoI, 2017). The inadequate level of public expenditure and its unequal distribution have significantly contributed to the impoverishment of the underprivileged and the poor(Rao and Chaudhury, 2012)

Moreover, India's health scenario is also marked by wide interstate disparities in terms of health infrastructure, workforce, service delivery, and financing. To address the existing health challenges in infrastructure, the government of India has taken important policy initiatives in the last 20 years. While infrastructure development is essential for improving healthcare access, it does not automatically lead to higher utilisation of public health facilities. Utilisation of government hospitals and healthcare infrastructure is influenced by multiple factors, including service quality, accessibility, public perception, and regional disparities in healthcare delivery. Thus, it is considered as an important process indicator of health systems (Mukherjee and Levesque, 2010). Access to healthcare remains highly unequal across states and socio-economic groups. Vulnerable populations, including low-income households, Scheduled Castes (SCs), and Scheduled Tribes (STs), often face greater barriers to accessing public healthcare services despite being the primary beneficiaries of government health programs (Das et al., 2017). Despite it being a topical issue warranting scholarly discourse, on the demand side, there is dearth of literature which analysis the utilisation of government hospital at state level. Therefore, this article attempts to examine the inequities in utilisation of public healthcare infrastructure and the reason for not availing government health facility.

LITERATURE REVIEW

Public health infrastructure plays a major role in achieving health equity and improving health outcomes, especially in countries like India where vast disparities exist across regions, social groups, and economic strata. This literature review synthesises evidence from the available studies on the access to and utilisation of public healthcare infrastructure in India. The review explores literature on

health inequity, service utilisation trends, morbidity, health seeking behaviour, barriers to access, and public health interventions.

Empirical studies on healthcare demonstrated that the access and utilisation of public healthcare depends on several factors such as availability of healthcare, awareness of health among the people, health system responsiveness, cost of healthcare services, quality of healthcare facilities. As a developing country with vast diverse states and regions, India have made a number of health policies to address the issue of access to and utilisation of healthcare and thereby reducing the health inequity and improving health outcomes. This has been reflected in all policy documents on health starting from Bhore Committee in 1946 to the recent Prime Minister's Jan Arogya Yojana. Despite these interventions through policy documents, India still lags behind in terms of access to and utilisation of healthcare.

Mukherjee and Levesque (2010) with the data from NSSO, using concentration index (CI) and inequality adjusted utilisation rate, observed that if a state shows a higher inpatient care, then it is more of availability of healthcare facilities rather than higher morbidity. The better performing states like Kerala and Tamil Nadu have higher utilisation of healthcare, than the states like Bihar. As opposite of states like Uttar Pradesh and Bihar, the reported morbidity for Kerala is the highest in the country. But the higher utilisation of healthcare in Kerala does not depend on the morbidity but the availability and accessibility of healthcare facilities. They added further that the rich and affluent section of the society are enjoying the benefits of health care than the poor with better access to facilities and higher purchasing power. These inequities will be higher in the states where there is little healthcare provision. Baru et.al (2010) also observed the same and reflected that interstate variation with states like Kerala shows better health outcomes by giving high priority by investing in healthcare, while states such as Uttar Pradesh and Bihar lagging behind due to poor infrastructure development. They also detected that there are historical, socio-economic, and systemic inequities in health service availability and utilisation; the affordability of healthcare continues to be widened and disproportionately affecting the marginalised population, rural poor, and women. Prinja et.al (2012) supported this with the finding from 14 major Indian states, that the hospitalisation rates in public sector are utilised by the poor than the rich, who uses private care both in rural and urban areas, but there is wide regional and state specific variations. Public sector utilisation were significantly equitable in the states like Tamil Nadu, Karnataka, Kerala, Andhra Pradesh, Gujarat, Maharashtra, West Bengal, and Madhya Pradesh. Whereas, in Rajasthan, Punjab, Haryana, Uttar Pradesh, Bihar, Odisha, the situation is different. Kumar and Prakash (2018) findings based on maternal health services also is similar. The utilisation is higher for kerala and Tamil Nadu compared to the states like Bihar and Uttar Pradesh because of its strong public health system. Barik and Desai (2013) in their study showed that public facilities were more likely to be utilised by economically weaker sections, but only when there was no affordable private option nearby. They identified that income, education, and perceived quality as primary determinants of whether households accessed public or private healthcare.

Apart from the interstate variations, as Baru et.al (2010) pointed out, there is wide inequities among the various social groups in access to health services. Banerjee and Chowdhury (2014) found horizontal inequities in curative healthcare access even after adjusting for health need, implying that access is influenced by non-health factors such as income, education, and social identity. Barik and Thorat (2015) reflects that people belongs to the scheduled caste and scheduled tribes utilises public health services less frequently than the other social groups, because of both the consequence of discrimination and poor access. They also pointed the spatial and social dimension of inequality, reinforced by historical marginalisation as Baru et.al (2010).

Even though this specific area explored the extend of access to and utilisation of public health infrastructure, it still requires further exploration in terms of interstate variation in the utilisation and the reason behind not using government healthcare among various socio-economic groups in Indian states.

Objectives

1. To understand the variation in the utilisation of public health infrastructure among various socio-economic groups in Indian states and the reason for not availing public health facilities.

DATA AND METHODOLOGY

The present study mainly uses the secondary data. Public Health Expenditure (PHE) data are drawn from EPWRF India time series and Rural health statistics for health infrastructure. Utilisation of public health infrastructure data are collected from the unit level data of National Sample Survey (NSS) 75th round on key indicators of social consumption in India: Health (July 2017 to June 2018). This survey covers the entire country, uses multistage stratified samplings, and collected detailed information on morbidity, hospital care and expenditure. The recall period taken from the survey is last 15 days of the survey. We consider major states in India and uses the monthly per capita consumption expenditure (MPCE) as a proxy for income level or economic status. The population is divided into five quintiles based on MPCE, representing the lowest 20 percent to the highest 20 percentage. Each quintile is categorised as the poorest, poorer, middle, richer and richest group. Wemake use of concentration index (CI) to measure the extend and disparity in utilisation of public health infrastructure across the income groups at state level.

RESULTS AND DISCUSSION

Table 1 shows the government health expenditure as percent of GSDP and percapita GHE by the states as per 2017-18 data. Along with considerable variation across states in terms of GHE, it is evident from the table that middle- and high-income states spend more on per capita healthcare. Furthermore, this gap has been widened over time. For example, the spending was more than triple in high spending state, Himachal Pradesh (2016) than that in Bihar(338) and Uttar Pradesh (581) in 2014-15. By 2020-21, the difference has not changed but accentuated and per capita health expenditure in Bihar and Uttar Pradesh are even got worsen than Jharkhand. But notably, these states have higher GHE as percent of GSDP. It means that these states were given priority to the healthcare. Since their GSDP is lower, they were not able to spend more and thus their percapita healthcare seems low the years. Moreover, the poor investment in healthcare could deteriorate the state of public health services as the health system in these states were already unstable.

Table 1: Interstate variation in Government health expenditure, 2017-18

State	Govt Hospitals		Govt Hospital Beds	
	2014	2020	2014	2020
AP	278	6234	19848	86721
AS	1137	1239	13381	28039
BR	1436	2132	11552	29339
GJ	385	2245	27928	29402
HR	159	678	7664	12590
HP	160	822	8776	14782
KA	654	2842	53022	70474
KL	1278	1284	38400	38097
MP	451	465	28187	31106
MH	585	514	163865	33028
OD	1750	1806	16683	18519
PB	240	816	11804	21241
RJ	3145	2849	46669	46778
TN	788	2507	64243	99435
UP	831	4683	32460	66700
WB	1566	1594	78566	96012

Source: EPWRF-ITS

Availability of public health infrastructure in Indian states

The availability of physical infrastructure is a crucial parameter for establishing a robust healthcare system. However, there exists a substantial disparity in the availability of physical infrastructure among Sub-Centres (SCs), Primary Health Centres (PHCs), and Community Health Centres (CHCs) across different Indian states. Certain states exhibit a surplus of infrastructure, while others face varying degrees of shortfall.

This disparity underscores the uneven distribution of resources and infrastructure within the healthcare sector. Some regions benefit from an excess of physical facilities, potentially leading to more accessible and comprehensive healthcare services. Conversely, states experiencing a shortfall in infrastructure may encounter challenges in delivering adequate healthcare, affecting the quality and reach of medical services in those areas.

Table 2. Shortfall In Health Infrastructure as Per Mid-Year Population in India, 2022

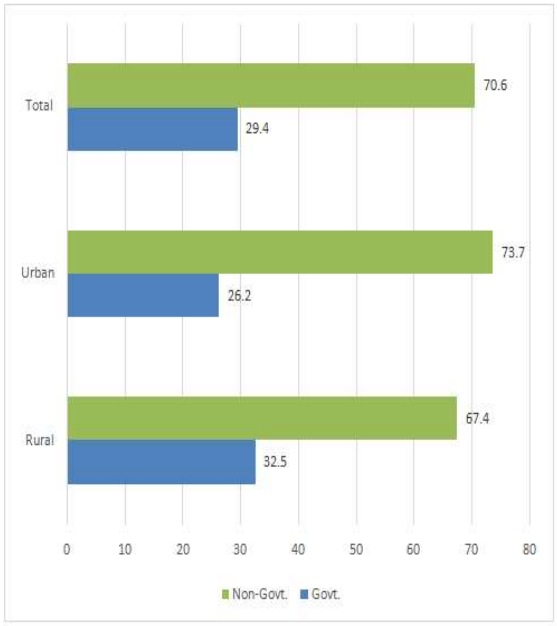
	SC	PHC	CHC
Surplus	AP, AR, GA, HP, KL, MZ, NL, SK, TN, TR, UK	HP	AR, GA, HP, KL, MZ, NL, OD, PB, TN
Shortage Below 20%	GJ, CH, TS, KA, RJ, PB	AP, ML, UK, AR, MZ, MN, NL, OD, TR, RJ, AS, CH, GJ, KA, TN, SK	GJ, ML, RJ, HR, CH, UK
Shortage of 20 - 40 %	OD, WB, HR, MH, AS, MP, JH	TS, MH, PB	TR, JH, AS, WB
Shortage above 40 %	UP. ML, BH	HR, KL, MP, MP, GA, UP, WB, BH, JH	MP, UP, MN, KA, SK, AP, MH, BH, TS

Source: Rural Health Statistics, 2021-22

Taking into account the availability of SCs, there is 25 percent shortfall as of 2022. It is evident from the Table 2 that around 16 states are experiencing a shortfall in the number of sub centres. Notably, Uttar Pradesh (UP), Meghalaya (ML) and Bihar (BH) stand out with a deficit of sub-centres above 40 percent. Whereas the states such as Odisha (OD), West Bengal (WB), Haryana (HR), Maharashtra, Assam (AS), Madhya Pradesh (MP), and Jharkhand (JH) shows a short fall of SCs ranging in between 20 to 40 percent. In terms of PHCs, there is a shortfall of 33 percent in the country as a whole. But the states like Jharkhand, Bihar, West Bengal and UP have shortfall above 50 percent. As far as the CHCs are considered, around 9 states have a shortfall above 40 percent and Arunachal Pradesh (AR), Goa (GA), Himachal Pradesh (HP), Kerala, Mizoram (MZ), Nagaland (NL), Odisha, Punjab (PB), Tamil Nadu (TN)are running surplus in terms of CHCs. Utilisation of available health infrastructure is another critical area to be discussed.

Utilisation Pattern of Government Hospitals

This section analysis the utilisation pattern of GHs using the unit level data of NSS 75th round. GHs includes all publicly owned health centres. Figure 1 shows that the 70 percent of the population is using non-government health facilities like private hospital/clinic, NGOs or any other level of care. Only around 29.4 percent people surveyed are using the government health care. This is not different in the regional wise data. But compared to urban area, rural population depends more on government health facilities. This may be because of the unavailability of the private health centres in rural area.



Source: Calculated from NSS 75th Round

Figure 1: Level of Care for treatment under medical advice by sector (%)

At state level too (Table 3), utilisation of GHs are lower except for Himachal Pradesh and Odisha. For states like Kerala and Tamil Nadu, the utilisation of GHs are higher for rural area. This may be because of the high health intervention in rural area. Utilisation of GHs are much lower for Bihar and Uttar Pradesh both in rural and urban areas as per Table 3. These states are also having a shortage of government health facilities as mentioned in the Table 2.

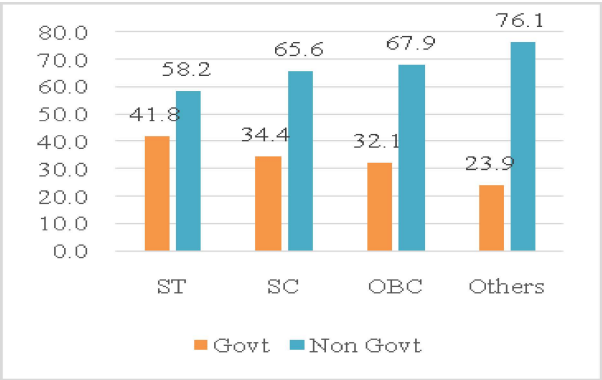
Table 3: State wise Level of Care for treatment under medical advice by sector (%)

States	Rural		Urban	
	Govt	Non Govt	Govt	Non Govt
AP	19.1	80.8	26.76	73.24
BR	17.8	82.2	22.49	77.51
GJ	32.6	67.4	17.05	82.95
HP	66.7	33.3	73.43	26.57
HR	25.3	74.7	9.59	90.41
KA	29.0	71.0	14.05	85.95
KL	51.8	48.2	41.71	58.29
MH	29.1	70.9	22.10	77.90
MP	33.8	66.2	26.33	73.67
OD	55.3	44.7	62.23	37.77
PB	13.2	86.8	16.94	83.06
RJ	42.8	57.2	32.32	67.68
TN	63.3	36.7	40.55	59.45
UP	14.2	85.8	14.02	85.98
WB	33.0	66.9	21.33	78.67

Source: Calculated from NSS 75th Round

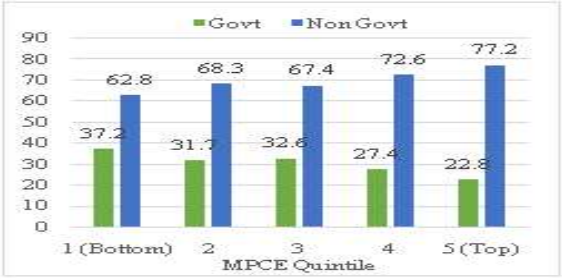
Variation in the utilisation of Government Hospitals across Socio-Economic Group

Utilisation of GHSs are also varied across the socio-economic groups. Figure 2 shows that the utilisation is highest for Scheduled Tribe (ST) than Other Backward Class (OBC) and General (others). But the preference for the non-government health facilities were higher for the general and OBC. Furthermore, GHs are preferred more by the poor than the rich. It is evident from the Figure 3 that the poorest (bottom quintile) prefers GHs. But between each quintile, we cannot see major differences in the utilisation of GHs. All the quintile classes prefer non-government health facility than government. Among which, the top quintile class prefers more for non-government.



Source: Calculated from NSS 75th Round

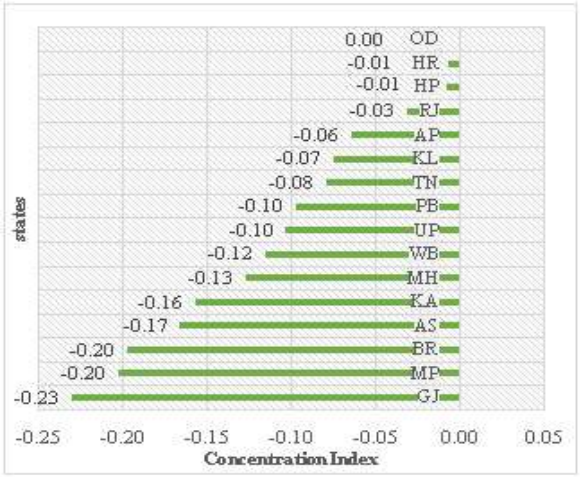
Figure 2: Social Group wise utilisation of government health services (%)



Source: Calculated from NSS 75th Round

Figure 3: Income wise utilisation of government health services

Figure 4 illustrates the concentration index for the utilisation of GHs across Indian states. The CI measures socio-economic inequality in the utilisation of health facilities. The CI usually ranges from -1 to 1. Here, for all the states except Odisha, the CI value is negative. It means that the utilisation of GHs are more by the poor. In Odisha, CI indicates that there is no socio-economic gradient and GHs are utilised across the income groups. The states like Kerala and Tamil Nadu having strong public health systems and outreach shows less inequality, possibly due to more universal access to health facility. No states show the utilisation by the rich population, GHs use is generally higher among the poorer population.



Source: Calculated using the data from NSS 75th round

Figure 4: Concentration Index: Utilisation of Government hospitals, Indian states

Since the service by the GHs offers free or in subsidized rate, attracts the lower income groups. Whereas the high-income group often faces quality concerns, waiting time, or trusted doctors. The Table 4 shows the reason for not availing government hospitals. In both rural and urban area, it is not because of non-availability of health infrastructure, but the quality of the hospitals or the doctors are not satisfactory. Moreover, in urban areas, people prefer to go to the hospitals based on their preference for the trusted doctor or hospital. Accessibility and long waiting time are also concerning both in rural and urban area. Thus, it is time to invest more on public health in order to improve the quality of the health infrastructure, and address the issue of accessibility.

Table 4: Reason for not availing government hospital services

Reason for not using Govt Hospitals	Rural	Urban
Required specific services not available	9.0	4.9
Available but quality not satisfactory/doctor	28.6	25.3
Quality satisfactory but facility too far	15.1	7.2
Quality satisfactory but involves long waiting	14.9	21.2
Financial constraint	0.7	0.3
Preference for a trusted doctor/hospital	25.8	36.2
Others	6.0	5.0

Source: Calculated from NSS 75th Round

CONCLUSION

The findings are well aligned with the results of the existing literatures. The paper concludes that people prefer to use non-government health facilities such as private clinic/ hospital and NGOs than the government healthcare. Only around 30 percent of the population are utilising GHs and are higher among the rural area than urban. Since, services are free or subsidised in the GHs, it attracts the socially and economically backward people to use the government healthcare than the affluent group. But there is no major differences highlighted between the rich and poor in utilising the level of care. All the income groups prefer non-government healthcare than government. Quality of the GHs, preference for the trusted doctor/hospital, accessibility issue and long waiting time are marked as the reason for not availing the GHs. At state level, the Concentration index also shows the same. Most of the states are having negative CI value – GHs are utilised more by the poor utilisation of GHs are less unequal in those states which have better public health system. This suggests that the government should prioritise investment in healthcare infrastructure by providing better facilities and adequate manpower, thereby building a resilient healthcare system.

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