# **Original Research Article**

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# **COVID-19** and the Indian healthcare scenario

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## **ABSTRACT**

**Background:** The Indian economy and health system has been shaken to the core by the sudden strike of the COVID-19 pandemic. The already fragile and underequipped public health system reeled under the pressure of escalating cases of infection and demand for hospitalization of critical and emergency cases of COVID. Although the private healthcare sector worked in sync with the public counterpart and provided adequate support for case management, the former is not expected to play the primary role when it comes to a public health crisis like COVID-19. The study attempts to explore the pattern of utilization of the existing health system by Indian households in the event of general illness, which is expected to throw some light on the mechanism for devising an optimal public-private mix for management of COVID or similar public health threats in future.

**Methods:** The study was exploratory and based on secondary data. It employs unit level data from NFHS-4 (2015-16) besides published reports and documents.

**Results:** Health insurance coverage is low among households belonging to the lowest wealth quintile. Inequalities in access to quality health care coupled with spiraling health costs due to COVID and falling incomes continue to push such vulnerable households into poverty and debt.

**Conclusions:** Public expenditure on health should be increased with a shift in focus from curative to preventive care.

Keywords: COVID-19, Public health crisis, Health system, Health care utilization

## INTRODUCTION

Health care systems and related policy decisions play a pivotal role in determining the pattern of delivery and utilization of health care services besides affecting health outcomes. The Bhore Committee Report dating back to 1946 was a landmark report for India, which served as the foundation for the health system as we see it today. It proposed a three-tier health-care system to cater to both preventive and curative care across India's urban and rural sectors putting health workers on government payrolls and minimize the requirement for private practitioners.

The underlying intention was to ensure universal access to primary care for the country's population cutting across all socioeconomic strata of the population. However, incapacity of the public health system to ensure quality care resulted in simultaneous mushrooming of the private sector in health care delivery. Only in 1983, India witnessed her first ever National Health Policy (NHP) which aimed to provide primary care to all by 2000. Developing a network of primary health care services and establishing referral systems along with a well-integrated network of speciality facilities were put forth as its priorities.<sup>2</sup> The NHP 2002 which was built upon the basic tenets of NHP 1983, focused on providing health services to the general public through decentralisation, boosting government spending on healthcare and selective use of the private sector.<sup>3</sup> 'Health' as a state subject is manifested through the responsibility of the Ministry of Health and Family Welfare under respective state governments in the areas of public health, sanitation, hospitals, etc. <sup>4</sup> The health

ministry at the union level also implements various country wide programs like the National AIDS Control Program, the National Tuberculosis Elimination Programme, etc., works towards prevention and control of important infectious diseases, promotion of indigenous and traditional systems of medicine and aiding states in related matters.

A mix of both private and public providers describes the existing health sector in India with the urban sector representing higher concentration of private providers delivering secondary and tertiary care services. Access of citizens to an affordable, equitable and accountable health care system is crucial in determining the health of a nation. Out of pocket expenditure (OOPE) as a percentage share of total spending on healthcare may be regarded as a proxy measure of the extent to which citizens of a country are faced with financial insecurity. In India, this share is as high as 65% given both low public spending on healthcare and low social contributions on health insurance.<sup>5</sup> Over time, the private sector has emerged as predominant in India's health care delivery. Despite well documented trends of private practitioners towards over-prescription both in terms of diagnostic tests and medication, they are the first point of contact for an overwhelming share of the Indian population, largely because the public alternative is perceived in most cases as only a destination for free treatment with questionable quality of patient care, long waiting time, rude behaviour of health personnel, etc.<sup>6</sup>

The advent of the COVID-19 pandemic threw the Indian economy into a number of challenges, health care delivery being one of the most prominent of them. As the pandemic caught the most developed of health systems across the world unawares, it was not unnatural that the foundations of the Indian healthcare system were also shaken. However, the episode witnessed substantial contribution of the private sector working in complementarity with the government in areas like testing, arranging for isolation beds for in-patient treatment and medical personnel and appliances to keep public COVID-19 facilities fully functional.7 At the same time, the pandemic has also exposed the shortcomings of the private sector especially when it comes to a public health challenge, reasserting the importance of strengthening the public healthcare system in India which is plagued by fundamental challenges for decades now in terms of physical infrastructural facilities, management and manpower.8

Unfortunately, public policies in India have had since long an almost unilateral focus on curative care delivery rather than preventive care although it has long been established and accepted that preventive interventions rather than curative ones go a long way in ensuring improved health of a population. Given this background, the objective of the present study is to explore the pattern of health facility utilization in general across Indian households, which is expected to provide some insights with respect to the management of COVID-19 related care delivery in India.

#### **METHODS**

The study was explorative in nature and employs unit level data from NFHS-4 (2015-16) which is a nationally representative sample to study the pattern of health facility utilization by Indian households in the event of general illness. NFHS-4 fieldwork for India was conducted from January 2015 to December 2016. A total of 6,01,509 households were surveyed. Multistage stratified random sampling method was employed for data collection. Besides, different sources of data, reports and documents at national and international levels pertaining to the outbreak and impact of the COVID-19 pandemic globally and in India were accessed to prescribe potential solutions against the backdrop of the indigenous nature of India's heterogeneous health system and its pattern of usage.

The study uses simple tools of descriptive statistics and calculations have been done on Microsoft excel and SPSS software. Ethical clearance was not required since the study is based on secondary data.

#### **RESULTS**

Analysis of unit level NFHS-4 data reveals that only 28.7% of Indian households have at least one usual member covered under some health insurance scheme. This share is highest among households with a Christian head (44.6%) followed by a Hindu head (29.8%) and lowest among households with a Buddhist/Neo-Buddhist and 'other' heads (18% each, approximately). There is very little difference in coverage between urban and rural residents. Also, coverage is low among households belonging to the lowest wealth quintile as suggested by Table 1. Close to 50% of those with insurance are covered by a state initiated health insurance scheme and more than 33% are covered by the Rashtriya Swasthya Bima Yojana (RSBY). Shares of households covered by the Employee State Insurance Scheme (ESIS) or the Central Government Health Scheme (CGHS) are as low as 5% each according to Table 2. Further, it is revealed that 50% and 41% of insured rural households come under some state health insurance scheme and the RSBY respectively. Both shares are much higher than their urban counterparts. Urban shares are higher in case of ESIS and CGHS as expected. OBC households account for the highest share of state health insurance schemes while ST households account for the highest share of RSBY. Middle income households account for almost 62% of state health insurance schemes. Surprisingly in this regard there is not much difference between the shares of the poorest and richest households. However, the highest share of poorest households is covered by RSBY which is a finding to note. Table 3 reveals the health facility preference of households by their residential status and economic class. 46.5 % of rural households generally use the public health sector when they fall sick against 42% of urban households. Within the public sector, government/municipal hospitals are most visited by urban households (28.5%) while for rural households the distribution is more even across

government hospitals (16%), Community Health Centres (CHC)/rural hospital/Block Primary Health Centres (PHC) (14%) and PHC/additional PHC (11%). As far as use of private facility is concerned, share of urban households (56.1%) is much higher than rural households (49%). It can be seen that the use of private healthcare services is more among urban households than their rural counterparts. The poorer and middle-income households turn out to be the highest users of public health service among all income classes (each approximately 51%) followed by the poorest and the rich (46% each). The lowest share (31.5%) in this category is of the richest income group whose share however is the highest in private health service utilization (67.3%). The rich (52.2%) and poorest (48.1%) households are the next highest users of private facilities followed by

poorer and middle-income households. 55% of households reported that they do not use a government health facility when a member of the household falls sick. In this category of households, reasons cited for not using public health services were lack of a facility nearby (45%), inconvenient facility timings (26%), frequent absenteeism of health personnel (15%), long waiting time (41%) and unsatisfactory quality of care (48%). With a frail public health system and excessive dependence on OOPE, India was clearly unprepared to deal with the accelerating case load of COVID-19. The incompetence was even more apparent with regards to glaring lack of proper infrastructure like ventilators to deal with critical and emergency cases of hospitalization due to COVID infection.

Table 1: Health insurance coverage by background characteristics in India.

Socio-economic background	Percentage of insured households (%)	N
Residence		
Urban	28.2	2,09,807
Rural	28.9	3,91,702
Religion of household head		
Hindu	29.8	4,89,726
Muslim	20.1	75,426
Christian	44.6	16,251
Sikh	20.9	9,858
Buddhist/Neo-Buddhist	17.8	5,762
Jain	22.7	1,261
Other	17.5	3,226
Social group of household head		
Scheduled caste	31.1	1,23,837
Scheduled tribe	30.8	55,438
Other backward classes	30.5	253,993
Others	23.6	1,63,677
Don't know	20.0	4,564
Wealth index		
Poorest	21.6	1,22,002
Poorer	28.4	1,18,447
Middle income	32.3	1,19,284
Rich	30.6	1,20,839
Richest	30.5	1,20,937
Total	28.7	6,01,509

Note: Source- NFHS-4 unit level data.

Table 2: Distribution of health insurance coverage by type of public health scheme among insured households in India.

Socio-economic background	Employee State Insurance scheme (ESIS)	Central Government Health scheme (CGHS)	State health insurance scheme	Rashtriya Swasthya Bima Yojana (RSBY)	N	
Residence				•		
Urban	10.6	8.0	45.8	19.5	59,183	
Rural	1.9	3.3	50.1	41.4	1,13,291	
Religion of household head						
Hindu	5.0	4.9	50.3	32.3	1,46,165	
Muslim	3.2	3.5	32.8	54.1	15,130	

Continued.

Socio-economic background	Employee State Insurance scheme (ESIS)	Central Government Health scheme (CGHS)	State health insurance scheme	Rashtriya Swasthya Bima Yojana (RSBY)	N
Christian	4.6	3.8	54.2	30.3	7,245
Sikh	9.2	15.7	57.5	8.8	2,058
Buddhist/Neo- Buddhist	5.2	13.7	18.4	26.7	1,027
Jain	7.7	8.1	18.9	11.3	286
Other	3.5	1.8	21.3	70.1	564
Social group of hous	sehold head				
Scheduled caste	3.6	4.0	52.7	36.3	38,486
Scheduled tribe	1.8	2.9	43.1	51.7	17,073
Other backward classes	4.7	4.3	58.5	27.0	77,417
Others	8.2	7.8	27.7	37.1	38,584
Don't know	2.6	4.9	38.6	42.8	914
Wealth index					
Poorest	0.7	1.9	34.3	63.5	26,310
Poorer	0.9	2.2	47.9	47.1	33,696
Middle income	2.1	2.8	61.6	30.2	38,555
Rich	5.7	4.7	58.5	24.9	36,996
Richest	13.6	11.9	36.2	13.5	36,917
Total	4.9	4.9	48.7	33.9	1,72,474

Note: Source- NFHS-4 unit level data.

Table 3: Percentage distribution of households by type of health facility visited in the occasion of illness.

Health facility type	Residence	Residence		Wealth index				
	Urban	Rural	Poorest	Poorer	Middle income	Rich	Richest	
Public	42.0	46.5	45.7	51.3	50.6	45.7	31.5	
Private	56.1	49.0	48.1	43.7	46.2	52.2	67.3	
Others (over-the-counter, self-medication, etc)	1.9	4.5	6.2	5.0	3.2	2.1	1.2	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Note: Source- NFHS-4 unit level data.

According to reports, COVID-19 affected almost 75% of areas of India with Maharashtra and Kerala recoding the highest number of cases. <sup>11</sup> Studies analysing the trend and forecasting phases of outbreak in the pandemic in India suggested that COVID-19 poses great risks for certain vulnerable sections of the population like the elderly and those with co-morbidities and other chronic health conditions.

Other more susceptible groups comprise those with very high exposure like the migrant population, daily workers, wage labourers and other informal sector workers who have also been hit hard economically due to phases of lockdown. <sup>12</sup> Inequalities in access to quality health care coupled with spiralling health costs due to COVID and falling incomes continue to push such vulnerable households into poverty and debt.

An advisory was issued by the Insurance Regulatory and Development Authority of India (IRDAI) to insurance companies to speed up the processing of claims made in relation to COVID-19 pandemic. COVID-19 positive BPL

cases were to be covered under the Ayushmann Bharat Health Insurance Scheme of the government of India.<sup>13</sup>

The following budget announced emergency response to the pandemic which constituted increasing the number of testing facilities and production of personal protective equipment (PPE), development of treatment facilities devoted to COVID care, centralized procurement of essential medical equipment and drugs for treatment and adequate training of frontline health workers like both medical and paramedical staff. It also mentioned measures to create long term resilience of the country to counter any such future pandemic outbreak.<sup>14</sup>

## **DISCUSSION**

Although India's public healthcare system was meant to be robust ensuring universal access to quality care, the pattern of insurance coverage and preference for health facility revealed by the analysis of data does not hint at the same. Health insurance coverage in India is dissatisfactory with an abysmally low 29% households reporting that they

had at least one regular member insured. The study reveals substantial dependence of even poor income classes on private healthcare in the event of general illness. Another interesting finding of the study is that among the 'poorest' households, a higher share avail private health services than public services, a utilization pattern similar to the 'rich' and 'richest' households. This clearly indicates the dilemma concerning access to quality healthcare and associated gap in affordability when the marginalised sections aim for quality care. This has been reiterated by earlier studies. High costs of financing such private healthcare services lead to progressive impoverishment of households, often also leading them into debt traps.

Despite the Government's commitment in the form of the National Health Mission, affordable and adequate healthcare is still far from realization. A general negative sentiment towards the public health sector is also revealed in the analysis, pertaining to lack of quality care delivery. The last decade has witnessed a significant fall in the use of public healthcare facilities which needs attention amidst rising debates on equity in health care access. <sup>17</sup> Challenges with respect to both infrastructure and manpower in India's public health sector posed a different level of barrier altogether in reaching out to all COVID infected patients when the first wave of the pandemic struck. With limited hospital beds, isolation wards and ventilator facilities, patients had to be refused admission in many cases. This was particularly a problem for the more densely populated and underserved states.

Although the private sector rose to the occasion and worked in close association with the public counterpart, even the former faced infrastructural bottlenecks, thereby re-emphasizing the indispensability of the government health system in tackling public health issues of such magnitude as COVID-19. With falling incomes due to the pandemic initiated phasic lockdowns and high expenses of private treatment, many households experienced severe financial hardships. It thus calls for more pro-active and all-encompassing role of the government to contain both the immediate and long-term effects of the pandemic.

A limitation of the above study lies in the dearth of data on the experience of COVID patients in India during the study period which could have provided more insights into the challenges faced by the current healthcare system in India in its attempt to contain the pandemic.

#### CONCLUSION

Public health concerns like COVID-19 which have struck a severe blow to the economy as well over a short period of time need a more prompt and pragmatic response from the government as the nation is faced with a 'life versus livelihood trade-off'. The pandemic should serve as an eye-opener to recognise the socio-economic vulnerabilities of millions of people in a country like India and the financial insecurities that they might be pushed into in the absence of a robust, resilient and accountable public

healthcare system. The government must increase its budgetary allocation towards social sectors like health as a matter of priority and not wait till another pandemic strikes. The country is in urgent requirement of more public hospitals and well-equipped and dedicated facilities to serve at grass-root levels. Also there is need for an immediate change in focus from curative care and disease management to preventive care or health management and towards raising the levels of patient education and awareness. The private sector can work in sync with the government given its wide range of acceptance in a diverse society like India. Introduction of a strong surveillance system can help track disease epidemiology and arrest disease spread and case fatality rates among the population. Taking lessons from the COVID-19 pandemic, the Indian healthcare system in general and government healthcare in particular should increase their preparedness for dealing with such public health hazards in times to come.

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