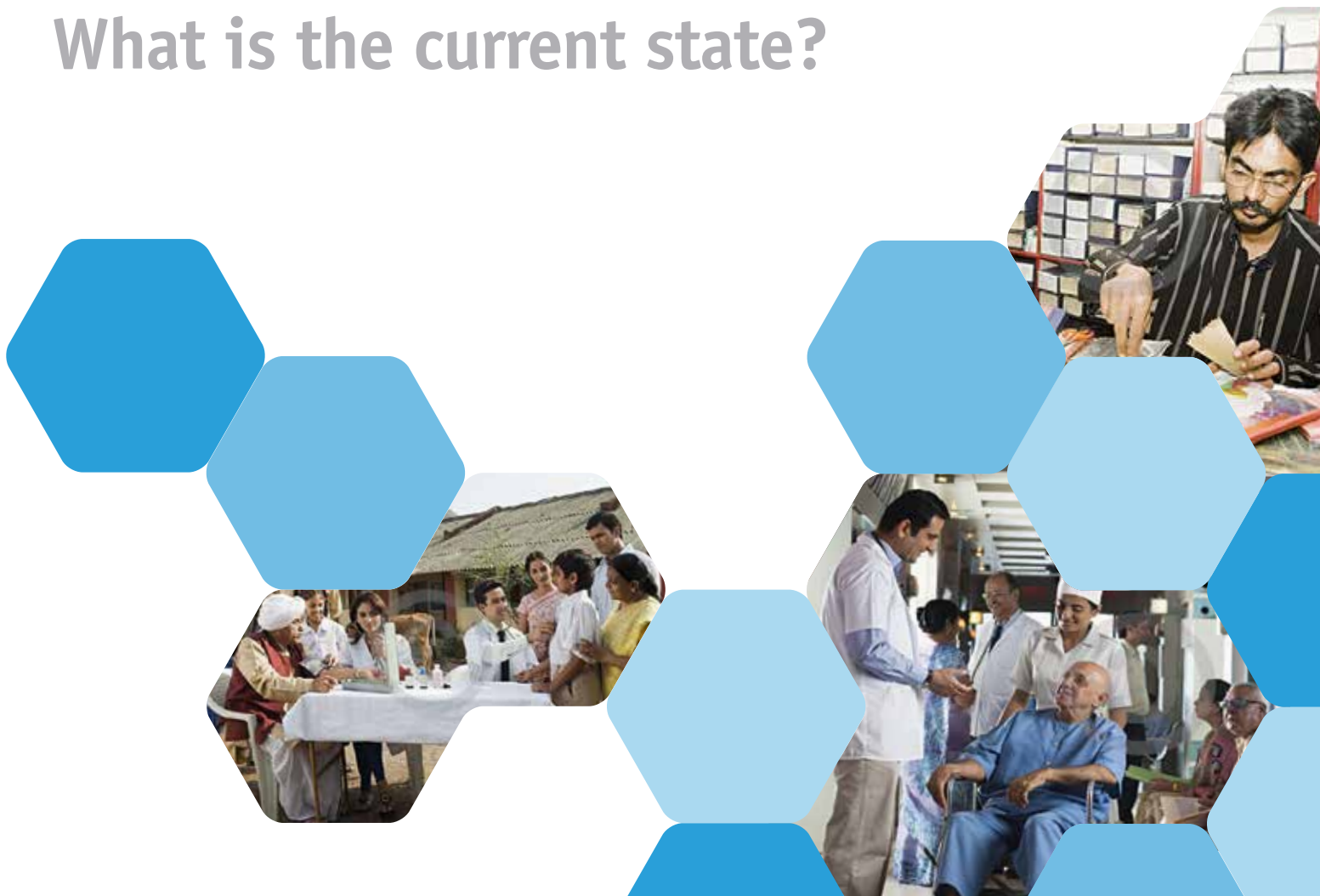


June 2013

# Understanding Healthcare Access in India

What is the current state?



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# Introduction

Expanding healthcare access is a critical priority for the Government of India and the private sector. Efforts to date have addressed numerous issues and much progress can be reported. Yet the gap between the aspiration - of providing quality healthcare on an equitable, accessible and affordable basis across all regions and communities of the country - and today's reality is all too apparent.

Our objective in this study was to gain a comprehensive view of achievements that have been made to date and the key challenge areas that remain. We also sought to prioritize areas requiring further attention and develop a roadmap for future actions.

This report summarizes the most comprehensive assessment of healthcare access since 2004 and brings fresh, objective evidence of the current status of key components. The quantitative study involved an extensive nationwide survey of households and was supplemented by qualitative interviews with doctors and experts.

We are confident this study provides a solid foundation for the necessary discussion and debate that is required to align efforts by all stakeholders to advance healthcare access for all Indians in the years ahead.

The funding of this study by the Organisation of Pharmaceutical Producers of India and the Pharmaceutical Research and Manufacturers of America is gratefully acknowledged. We would also like to thank the Indian Drug Manufacturers' Association (IDMA) for their support throughout the study. The contributions of Amit Backliwal, Mark Chang, Neeraj Vashisht, Amardeep Udeshi, Jasdeep Singh, Kushesh Gupta and Sarang Bhide in preparing this report are gratefully acknowledged. We would also like to express our sincere thanks to Ms. Amiee Adaszik, Mr. Ranga Iyer, Mr. Tapan Ray, Mr. Ranjit Shahani and Mr. Manish Doshi for their contributions to the study.

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# Executive Summary

## 4 BACKGROUND

The extent of change and improvement in India's healthcare system over the past decade is remarkable. The Government of India's initiatives, as well as private sector actions and public-private-partnership programs, have all contributed to this progress. Yet much more remains to be done. Understanding the current state of healthcare access is one important and foundational element for determining priorities, resource allocations and goals for the future. The most recent objective and comprehensive assessment of healthcare access in India was undertaken in 2004, making an updated status survey critical.

## 8 OBJECTIVES AND APPROACH

The objectives of this research study were to map the current healthcare status comprehensively, prioritize the challenges or gaps based on the relative impact on access, and provide a roadmap to guide future improvements. At the core of the research is an extensive nationwide survey covering 14,746 households that are representative of the country in terms of economic and healthcare parameters, and also provide regional representation. Interviews were also conducted with over 1,000 doctors and a panel of healthcare experts to provide qualitative input.

## 11 FRAMEWORK

Healthcare access, for the purposes of this study, must be defined in terms that are relevant for the population of India. To that extent, four dimensions have been considered: physical accessibility of required healthcare facilities for a patient; availability/capacity of the resources required for patient treatment; quality/functionality of the resources providing care; affordability of the complete treatment to the patient. Even if only one of these components is missing, a patient is unlikely to receive appropriate healthcare service.

## 13 SUMMARY FINDINGS

- The physical accessibility of public or private healthcare facilities is a challenge in rural areas. By contrast, in urban areas, accessibility is less of a challenge due to more facilities being available.
- An increasing proportion of the population is using private healthcare facilities for both inpatient and outpatient treatments. Long waiting times and absence of diagnostic facilities are among the main reasons private healthcare facilities are chosen over public centres for inpatient treatment. For outpatient treatment, the availability of doctors and quality of care are cited as reasons for selecting a private healthcare facility. However, patients would readily switch to public healthcare centres if these issues were addressed.
- The cost of treatment at a public healthcare facility is much more affordable than at a private centre. However, due to lack of physical reach, availability of quality treatment and other practices, patients are forced to use more expensive private facilities, thus exacerbating affordability challenges. The majority of out of pocket expenses are due to medicines, though they have not increased their share of the affordability burden.
- Overall, while there are pockets of improvements, significant healthcare access challenges continue to exist for the Indian population, especially in rural areas.

## 29 KEY LEVERS FOR IMPROVING ACCESS

From a patient cost of treatment perspective, modeling each of the levers for improvement can reveal their relative impact. The cumulative reduction in out of pocket expenditure possible is about 40% for outpatient treatments and 45% for inpatient treatments. The largest impact possible can come from improvements in the availability and quality of public healthcare services, as demonstrated in the model.

### 33 RECOMMENDATIONS

As the government seeks to expand its expenditure on healthcare, it must select a strategy that provides the greatest healthcare access benefit to the Indian population. Sustainable policy solutions to healthcare financing, infrastructure, and human resource challenges are critically needed. Recognizing that not everything can be changed at once and the timescale is long, a roadmap is essential to ensure gaps are prioritized, interconnections and dependencies recognized, resources directed to the right areas, targets defined, progress measured, and the community integrally involved along the way. Recent progress and commitments by the Government and private sector suggest the willingness exists to invest and operationalize the changes needed to broaden healthcare access across the entire Indian population.

## Background

An objective and comprehensive assessment of healthcare access in India was last undertaken in 2004, through a survey performed by the National Survey Sample Organization (NSSO). The survey reported on multiple parameters related to healthcare, including morbidity in broad age groups, immunization status, episodes of outpatient and inpatient treatment across geography and income segments, and expenditure on treatment. These measures collectively were taken to indicate the status of healthcare access.

Prior to the 2004 assessment and subsequently, the Government of India and the private sector have undertaken multiple programs to improve healthcare access. These programs have addressed numerous issues, in varying proportion, that are linked to healthcare access, including lack of infrastructure, high cost of treatment, and the quality and availability of treatment. Some of these programs have been enormously successful: for example, India is a polio-free country today.

Overall, significant progress has been made on some of the basic healthcare indicators. For example:

- Maternal mortality rate has decreased by ~50%, and was reported at 200 deaths per 100,000 live births in the year 2010 as compared to 390 a decade ago. A few states such as Tamil Nadu, Maharashtra, and Kerala have already achieved the Millennium Development Goal (MDG) of a maternal mortality ratio less than 109 maternal deaths per 100,000 live births, with multiple other states close to achieving this target.<sup>1</sup>
- Infant mortality rate has decreased by greater than 25% over the period 2000–2009, and was reported at 50 deaths per 1,000 live births. Correspondingly, the under-5 child mortality rate (U5MR) has decreased by similar percentage levels, and was reported at 64 deaths per 1,000 live births<sup>2</sup>. While U5MR for urban India has achieved the MDG target of 42, the rate for rural of 71 is significantly lagging the target level.
- Immunization coverage has increased significantly, for example diphtheria-tetanus-pertussis immunization among 1 year olds has increased from 60% to 70%, and the Hepatitis B coverage has increased from 68% in 2005 to 91% in 2010.<sup>2</sup>
- National programs have successfully improved detection and cure rates for tuberculosis and leprosy.

<sup>1</sup> WHO India, 2010  
<sup>2</sup> India Census, 2011

With a goal of achieving improved healthcare, the Government of India has steadily increased its share of spend on total healthcare – from 21% in 2004 to 31% in 2011,<sup>3</sup> and has spent significantly on both awareness and delivery of healthcare through its key national level programs including National Rural Health Mission (NRHM), National Urban Health Mission, Rashtriya Swasthya Bima Yojana (hospital insurance scheme), and Pradhan Mantri Swasthya Suraksha Yojana (PMSSY). These programs have been introduced to address a myriad of issues, such as the disproportionate investment in urban cities, general lack of healthcare resources and infrastructure in comparison to international standards, lack of quality treatment, and affordability.

Some of the key initiatives by the Government of India which have been announced or are underway and their focus areas are described in Table 1.

**Table 1: Key healthcare access areas and associated initiatives by Government of India**

Key areas	Initiatives underway/announced
<p><b>Rural/ Urban differences</b></p> <ul style="list-style-type: none"> <li>• Developing more equity in healthcare infrastructure between urban and rural areas</li> </ul>	<ul style="list-style-type: none"> <li>• Allocation of funds to build more healthcare centres and to convert more Primary Health Centres (PHCs) into 24x7 Community Health Centres (CHCs)</li> </ul>
<p><b>Healthcare resources and infrastructure</b></p> <ul style="list-style-type: none"> <li>• Meeting global per capita infrastructure standards</li> <li>• Addressing variations at the state level</li> </ul>	<ul style="list-style-type: none"> <li>• PMSSY to establish 6 new All India Institute of Medical Sciences-like medical institutes and to upgrade 13 existing institutes</li> <li>• Proposed 3½ year long medical course involving training in government healthcare centres and modules of clinical work</li> <li>• Bring AYUSH (Ayurvedic, Unani, Siddhi and Homoeopathy) doctors into mainstream medical practice through skill upgradation training programmes</li> </ul>
<p><b>Public healthcare facilities and quality treatment</b></p> <ul style="list-style-type: none"> <li>• Improving critical care facilities</li> <li>• Addressing service levels in public channel</li> <li>• Improving utilization of public infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate funding and high utilization rate of funds in NRHM</li> <li>• National Accreditation Board for Hospitals and Healthcare Providers (NABH) accreditation proposed for quality assurance for both government and private hospitals</li> <li>• Hospital Advisory Committee for all Primary Health Centres and First Referral Units to monitor quality of care</li> </ul>
<p><b>Affordability</b></p> <ul style="list-style-type: none"> <li>• High proportion of out of pocket expenses in India</li> <li>• Relatively expensive in-patient care</li> <li>• Finding more opportunities for private sector participation</li> <li>• Limited reach of benefits to the intended beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>• Announcement of Universal Health Coverage (UHC) by Central Government</li> <li>• Free generic medicine scheme in Rajasthan and Tamil Nadu</li> <li>• Rajasthan examining feasibility of introducing free diagnostic tests for all patients in public hospitals</li> <li>• Community-based insurance program for poor people and farmers (Kalainagar, Aarogyashri amongst others)</li> <li>• Policy for free treatment to 25% of poor in private and super-specialty hospitals in Punjab</li> </ul>

<sup>3</sup> www.databank.worldbank.org



Some of the national level programs have been executed with high levels of attention, excellent planning and monitoring, and appropriate resourcing. Exhibit 1 shows, as a case study, the initiatives that the Government undertook to achieve the goal of polio eradication, and which have led to a polio-free status for India.

**Exhibit 1: Key initiatives undertaken by Government for polio eradication**

**Factors leading to success**  
Case Study: Polio eradication

Awareness	Availability	Monitoring and tracking	Community Involvement
<ul style="list-style-type: none"> <li>• Media advertisements for polio campaign to generate awareness</li> <li>• SMS reminders sent to parents</li> <li>• Road shows conducted by various NGOs</li> <li>• Celebrities involvement in generating parents’ interest and spreading the message</li> </ul>	<ul style="list-style-type: none"> <li>• Polio vaccines are provided at every healthcare centre, both private and public</li> <li>• NGOs reaching out to remote places to provide polio doses</li> <li>• “Vaccination on Wheels” drive to reach out to masses in slums</li> </ul>	<ul style="list-style-type: none"> <li>• Strong monitoring mechanisms put in place to track any new case of polio</li> <li>• All the polio centres were closely monitored, so as to avoid absenteeism and availability of the doses</li> </ul>	<ul style="list-style-type: none"> <li>• People from all sections of society came together for the common cause e.g. NGOs, private players, corporate</li> <li>• Government teachers played a huge part in administering the vaccine</li> </ul>

Alongside the Government, the private sector has played a major role in improving the state of healthcare access. The number of private hospitals and private doctors has increased multiple-fold, and now number approximately 7,500+ and 300,000 respectively<sup>4</sup>. Similarly, the private sector has enabled increased availability of medicines by setting up pharmacies/chemists. Today, more than 105,000 chemists are providing medicines in the top 120 cities of the country.<sup>4</sup>

Also, the private sector has actively contributed through multiple Public-Private-Partnership (PPP) initiatives, and both Government and private organisations have leveraged each other’s strength. Some of the key PPP programs are highlighted in Table 2.

<sup>4</sup> IMS Hospital Census, 2012

**Table 2: Key PPP initiatives in healthcare**

SI No.	Project Name	State	Government Department	Private Sector Organizations	Cost INR Cr
1	104 Mobile Health Service HMRI	Andhra Pradesh	Director of Health	The Emergency Management and Research Institute (EMRI)	50
2	108 Rajiv Aarogyasri Community Health Insurance Scheme	Andhra Pradesh	Rajiv Aarogyasri Health Care Trust	Star Health	900
3	Emergency Response Services	Andhra Pradesh	Commissioner of Family Welfare	EMRI	99
4	Dindayal Chalit Aspatal Yojana	Madhya Pradesh	NRHM	Jain Videos, Jagaran Solutions	67
5	Indira Gandhi Government Medical College Complex	Maharashtra	Nagpur Improvement Trust	Indira Gandhi Medical College	275
6	Greenfield Super Specialty Hospital at Bathinda	Punjab	Department of Health and Family Welfare (DoH&FW)	Max Healthcare Institute Limited	99
7	Greenfield Super Specialty Hospital at Mohali	Punjab	DoH&FW	Hometrail Estate Private Limited	118
8	Punjab Institute of Medical Sciences	Punjab	Department of Medical Education and Research, GoP	PIMS Society, PIMS Medical & Education Charitable Society	225
9	Cardiac Care Unit at Coronation Hospital in Dehradun	Uttarakhand	Directorate General of Medical Health & Family Welfare	Fortis	15
10	Operation and Management of Mobile Hospital Units	Uttarakhand	Director General of Medical Health & Family Welfare	Dr Jain Videos and Rajbhara	23

Source: [www.pppinindia.com](http://www.pppinindia.com)

The above examples of Government and PPP initiatives clearly highlight that both the government and private sectors are making significant investments in improving healthcare. Whilst the focus areas of government and the private sector may not be currently overlapping, there is a fair intensity in collaboration between the two sectors. As both sectors plan their future areas of investment and growth - as individual companies or ministries and collaboratively - it is imperative for them to gain a fuller understanding of the current healthcare landscape and prioritized areas of intervention. Since the last assessment of healthcare access occurred almost a decade ago, the need for a current understanding of the access landscape is critical. Such an understanding would not only help review the state of access against a pre-established baseline, but also provide concrete measures against which to plan improvements.

## Objectives and Approach

This study has been undertaken for the larger benefit of all healthcare stakeholders: the Government; pharmaceutical, payer, and provider companies; civil society organizations; and non-governmental organizations. The study has the following objectives:

1. Map the current healthcare access status to gain a comprehensive view on successes and key areas of challenge
2. Prioritize challenges or gaps in terms of the relative impact on healthcare access
3. Provide a roadmap to guide future improvements in healthcare access.

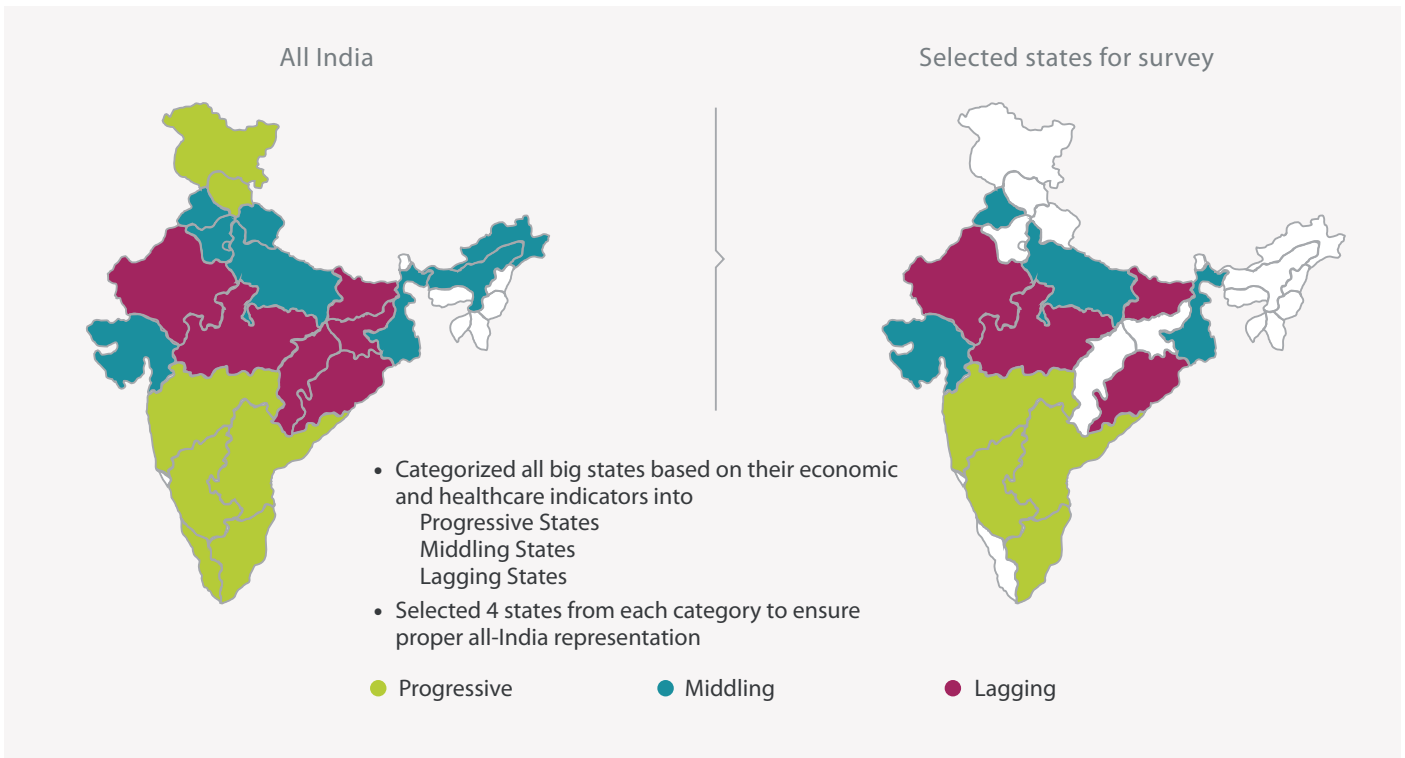
The study was designed by keeping the patient at the centre, but ensuring that the views of key stakeholders were incorporated into the research. The sampling strategy was built to achieve statistically reliable quantitative data, which is representative of geography and income segments prevalent in India. To bolster the analysis, the study team interviewed eminent experts from different backgrounds of healthcare and practicing doctors, in order to gain qualitative and rich insights. These interviews were conducted both prior to engaging with patients to develop key hypotheses, as well as after data collection in order to validate the findings of the study.

The quantitative study involved an extensive nationwide survey covering 14,746 households, and collected data on 30,332 episodes. The household sample was statistically chosen from 12 states, equally distributed across progressive, middling, and lagging states (See Exhibit 2).

For each state, one metro and 5-6 towns from 3 districts were selected. The breakdown in 12 states translated into 12 metros, and 64 towns (rural + urban) across 36 districts. The households covered were equally distributed across urban and rural areas.

The income distribution of the households across socio-economic classifications was segregated by urban and rural areas. For the urban area, which constituted 50% of the population, the split amongst socio-economic classification (SEC) segments was as follow: SEC A: 15%, SEC B: 25%, SEC C: 25%, SEC D: 20%, SEC E: 15%. For rural areas, the split was: R1: 20%, R2: 25%, R3: 30%, R4: 25% (see Exhibit 3).

## Exhibit 2: Selection of states used economic and healthcare parameters, while ensuring regional representation across India

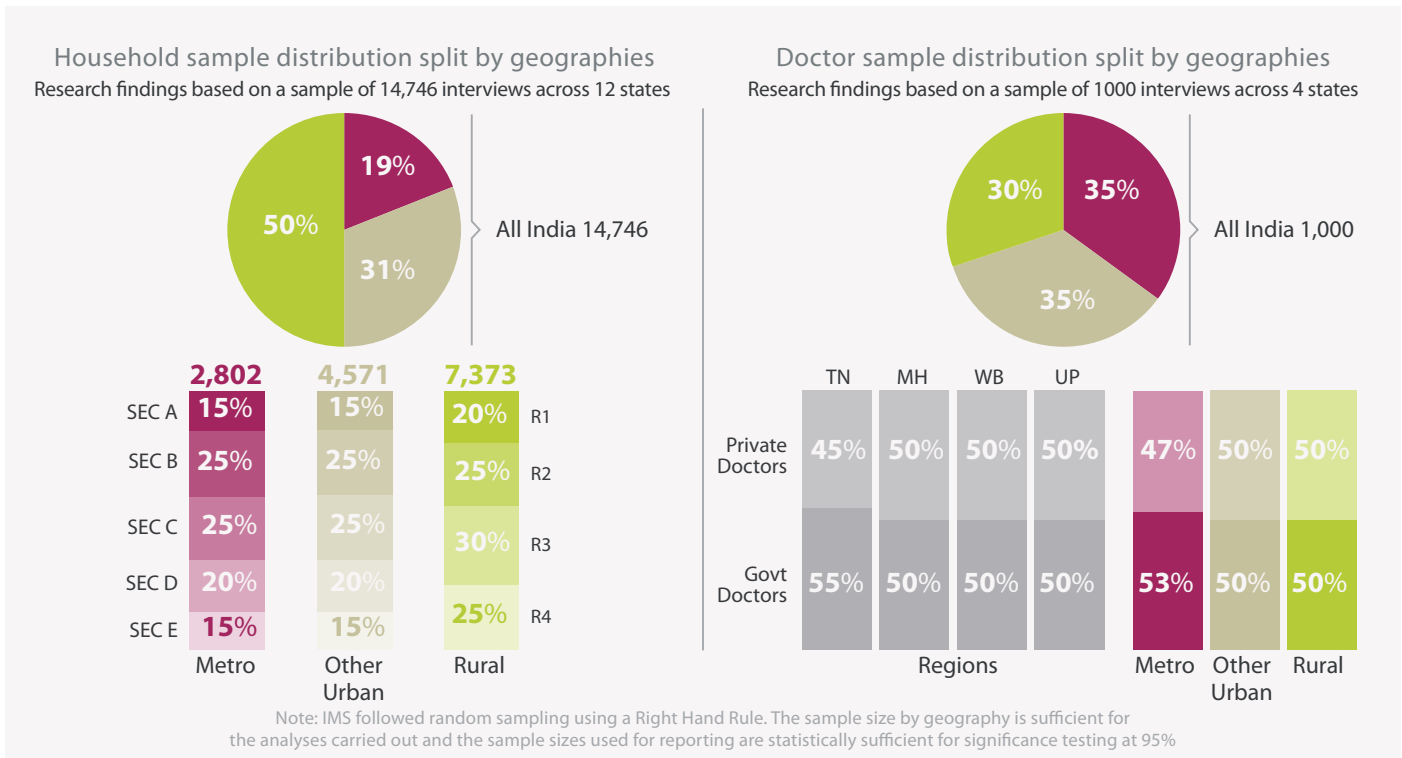


Further, for ease of representation, the income groups were categorized in two segments, i.e. poor and affording. The poor segment was defined as a household earning less than \$1 per day (World Health Organization norm), and all households earning above that were categorized in the affording segment.

The objective was to gain a detailed view across all of the SEC segments.

On the qualitative side, interviews were conducted with 1,011 doctors (see Exhibit 3) as well as with a panel of experts (see Exhibit 4) to support the key insights from the quantitative study. The experts were from varied backgrounds associated with healthcare, i.e. payer, provider (hospital), pharmaceutical, think tanks, central and state government, university, NGOs, consulting, etc., and the objective was to assimilate diverse perspectives on the state of healthcare access.

### Exhibit 3: Distribution of sample for the survey



### Exhibit 4: List of experts and project advisory group

Project Advisory Group	
<ul style="list-style-type: none"> <li>Gautam Chakraborty</li> <li>Amrish Kumar</li> <li>Dr. J P Mishra</li> <li>Anjali Nayyar</li> <li>Dr. A Venkatraman</li> <li>Elizabeth Kurian</li> <li>Rahul Verma</li> <li>Manish Singh</li> <li>Bejon Mishra</li> <li>Dr. A K Yeshudian</li> </ul>	<ul style="list-style-type: none"> <li>Public Health Economist, Population Foundation of India</li> <li>Public Health Policy Expert</li> <li>Head, SHRC, Chhattisgarh</li> <li>Head, India Operations, Global Health Strategies</li> <li>Associate Professor, Faculty for Management Studies, Delhi University</li> <li>CEO, Sightsavers India</li> <li>Head, Uday Foundation</li> <li>GMR Varalakshami Foundation, New Delhi (Earlier with Smile Foundation)</li> <li>Founder, The Partnership for Safe Medicines India; Founder, Consumer Online Foundation</li> <li>Professor Dean, Tata Institute of Social Sciences</li> </ul>
Other experts interviewed	
<ul style="list-style-type: none"> <li>Dr. V K Chopra</li> <li>Dr. Devendra B Gupta</li> <li>Dr. Yamini Aiyar</li> <li>Dr. Patricia Bidinger</li> <li>Dr. Prabuddha Ganguli</li> <li>Shreeraj Deshpande</li> <li>Dr. Purvish Parikh</li> <li>Dr. Duru Shah</li> <li>Anirban Roy</li> </ul>	<ul style="list-style-type: none"> <li>Cardiologist, Medanta Medicity</li> <li>Senior Consultant, NCAER</li> <li>Director, Centre for Policy Research</li> <li>Director, Inst. for Rural Health Studies</li> <li>Independent Healthcare Consultant</li> <li>Head Health Insurance, Future Generali Insurance</li> <li>Former CEO, Americares</li> <li>Leading Gynecologist (Mumbai), Head FOGSI</li> <li>Head, Arogya Parivar, Novartis</li> </ul>

# Framework for a Comprehensive View of Healthcare Access

Healthcare access has varying meaning in different countries, especially across developing and developed economies. In the developed economies, it is often equated to the access status of healthcare insurance, whereas in the developing economies, it is viewed primarily across two dimensions: the physical reach of a healthcare facility, and affordability to the patient.

Before undertaking the study, it was important to build a framework that would allow the study to view healthcare access comprehensively. The framework development gave due attention to the parameters currently or traditionally used to define healthcare access in the Indian context, however aided by other parameters that are key in ensuring quality treatment to a patient.

Also, the framework would allow the study to understand each component of healthcare access separately, understand their inter-dependencies, and ensure that the data collection was exhaustive.

For the purpose of this study, healthcare access has 4 key dimensions as shown in Exhibit 5.

## Physical Reach

This component defines physical accessibility of a requisite healthcare facility, i.e. availability of a healthcare facility having an outpatient department (OPD) for common ailments, and an inpatient department (IPD) for hospitalization. These facilities may either be public or private in nature. Physical reach is defined as the ability to enter a healthcare facility within 5 kilometres (5km) from the place of residence or work.

## Availability/Capacity

This component defines availability of the requisite healthcare resources to provide patient treatment, i.e. doctors, nurses, in-patient beds, diagnostics, consumables, etc. The availability is governed by minimum specifications defined by the Government of India for public healthcare facilities, and international organizations such as WHO.

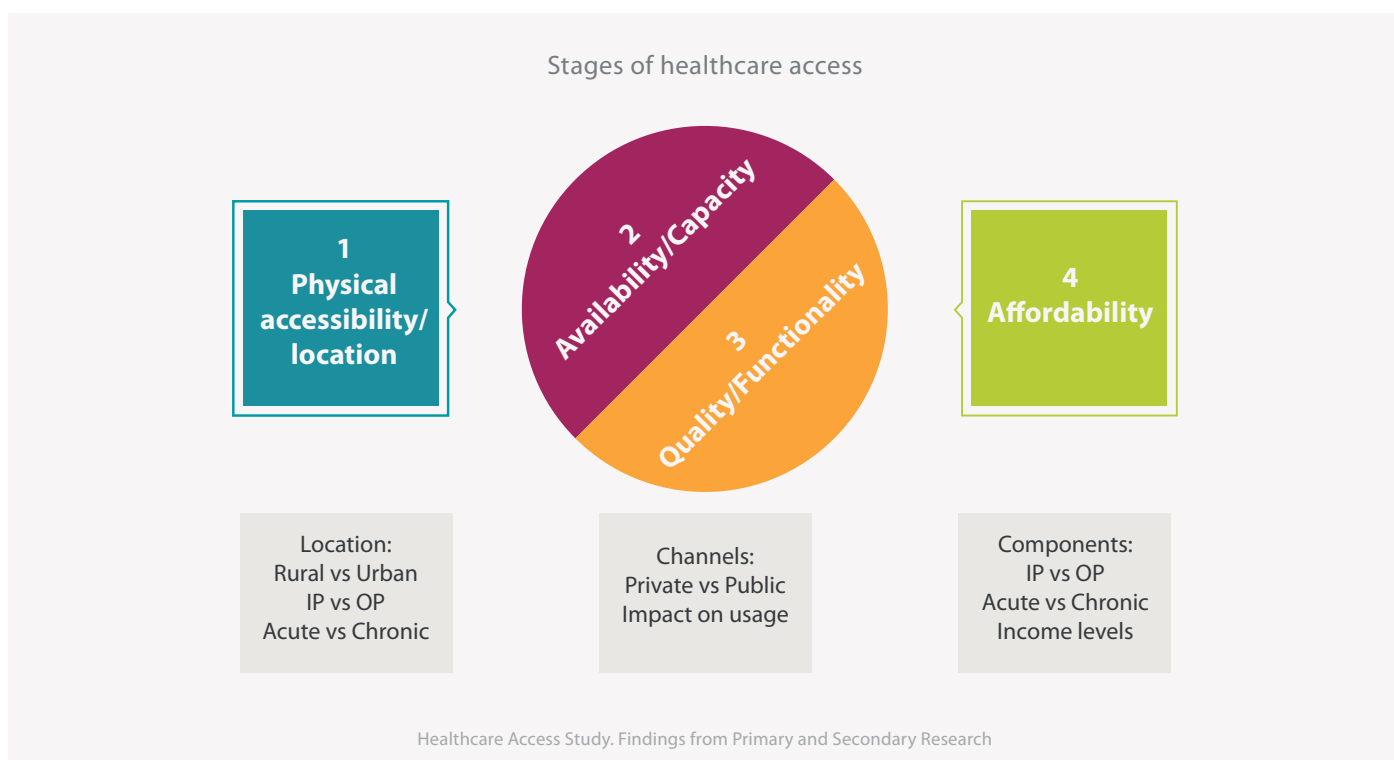
### Quality/Functionality

This component defines the quality of the healthcare resources available at the point of patient treatment.

### Affordability

This component defines the ability of a patient to afford complete treatment for the illness or disease.

### Exhibit 5: Dimensions of healthcare access



Collectively, this framework aims at covering all components of healthcare access for a patient. Even if only one of the components is missing, a patient is unlikely to receive healthcare in the most appropriate and efficient manner. It is therefore essential to consider all four dimensions in order to assess the state of healthcare access.

## Summary Findings From the Study

The study found key insights across each dimension of healthcare access, as follows:

- **Physical Reach:** Physical reach of any healthcare facility (private or public) is a challenge in rural areas. In urban areas, this is less of a challenge, as healthcare facilities are more in number, and the time required to reach these facilities is shorter due to available transportation.
- **Availability and Quality:** An increasing proportion of people are using private healthcare facilities rather than public facilities for both IPD and OPD treatment. However, the study also found that people will readily switch to public healthcare facilities if doctors and quality treatment options were available.
- **Affordability:** The cost of treatment at a public healthcare facility is much more affordable than at a private healthcare facility. However, for various reasons, people are using more expensive private healthcare facilities, thus exacerbating affordability challenges.
- **Overall,** while there are pockets of improvement, significant healthcare access challenges continue to exist for the Indian population. This is especially the case in rural areas. Gaps in public sector health infrastructure, resourcing and financing impact affordability of healthcare services and reduce access for large sections of the Indian population.

The following sections detail the key insights from the study:

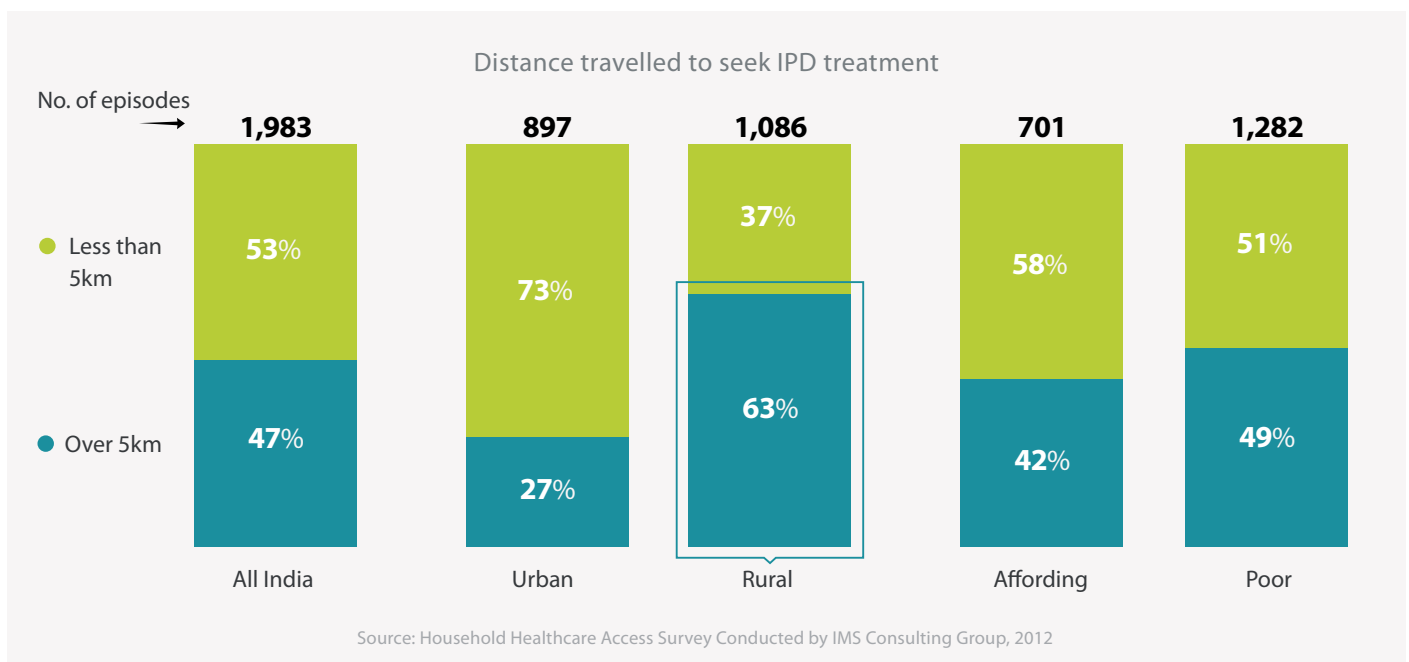
### 1. Physical reach of any healthcare facility (private or public) is a challenge in rural areas.

While the finding may seem general and overarching in nature, the study highlighted the magnitude of the problem. It was found that only 37% of people were able to access IPD facilities within a 5km distance, and only 68% were able to access the OPD in rural areas. This is strikingly different to urban areas where 73% and 92% of people have access to IPD and OPD respectively (Exhibits 6 and 7). Moreover, it is relatively easier in the urban areas to travel (either less than or greater than 5 km), which suggests that physical reach is not a barrier to access healthcare in the urban areas. Exhibits 6 and 7 also show that distance travelled is independent of income class of the population; both affording and poor segments are inconvenienced to a similar extent for accessing healthcare facilities.

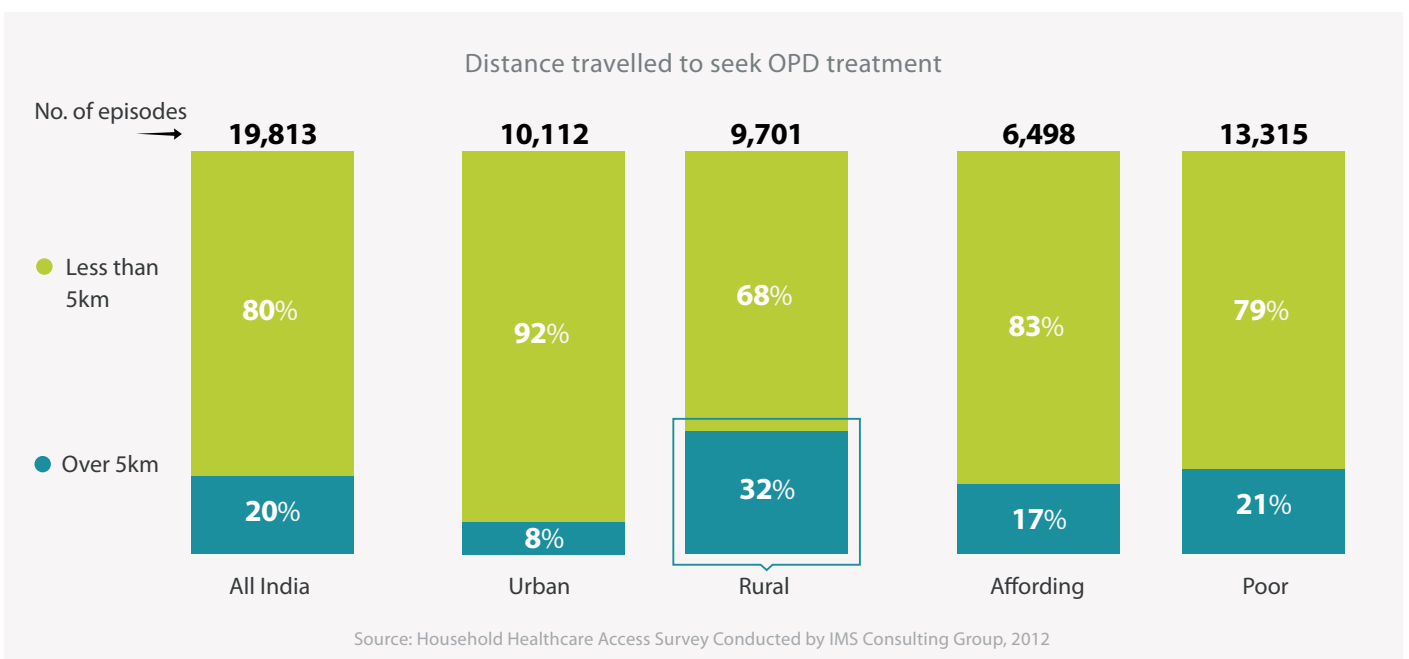


The implication of traveling large distances to access a healthcare facility in rural areas is that an individual potentially loses their day's worth of earning and may also select facilities that may not be the most cost effective for the treatment they seek. Additionally, lack of reach also often results in deferment of treatment at early stages in the disease progression, thereby further increasing the disease and cost burden over time.

**Exhibit 6: Distance travelled to physically access an IPD healthcare facility**

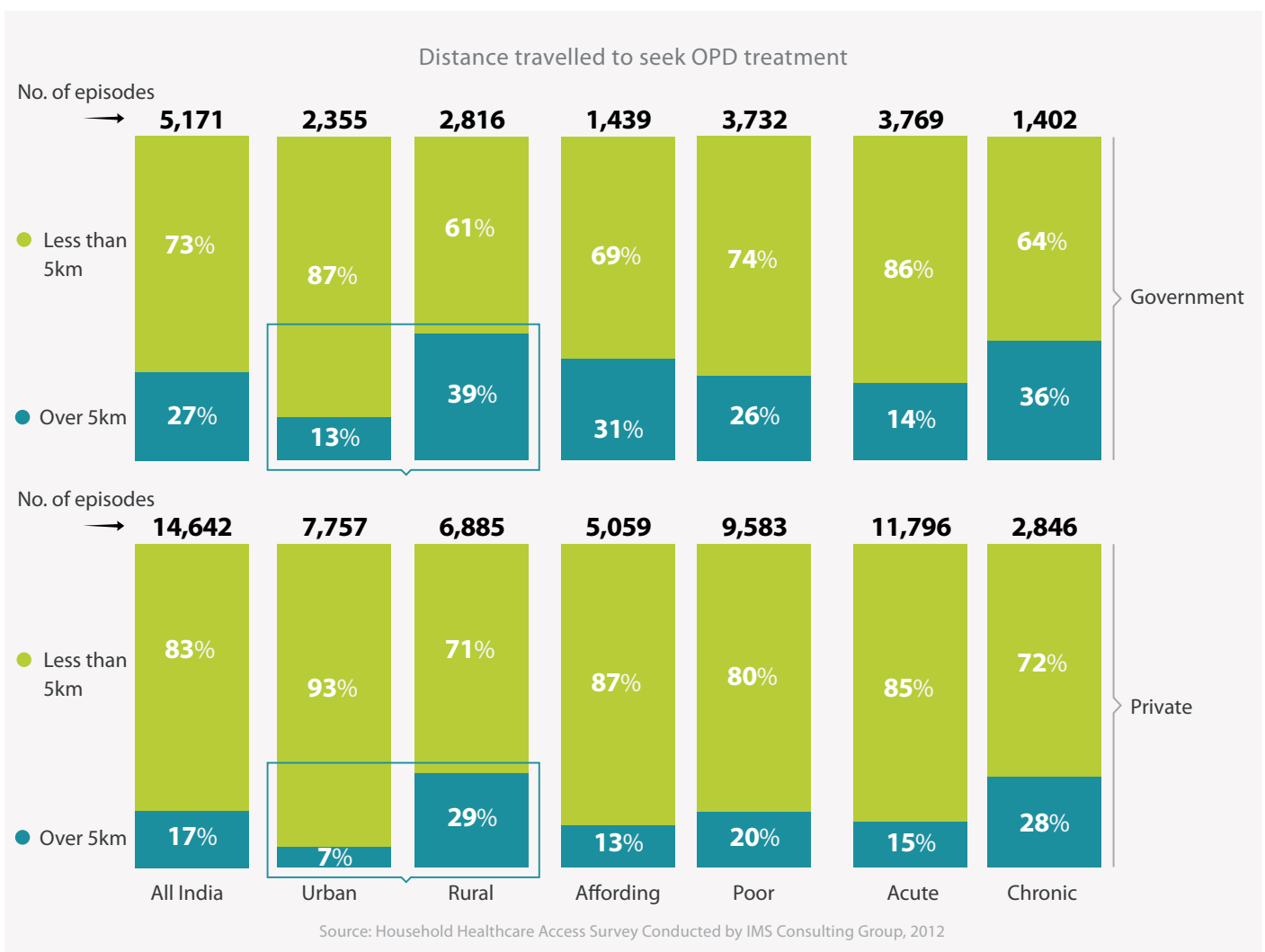


**Exhibit 7: Distance travelled to physically access an OPD healthcare facility**



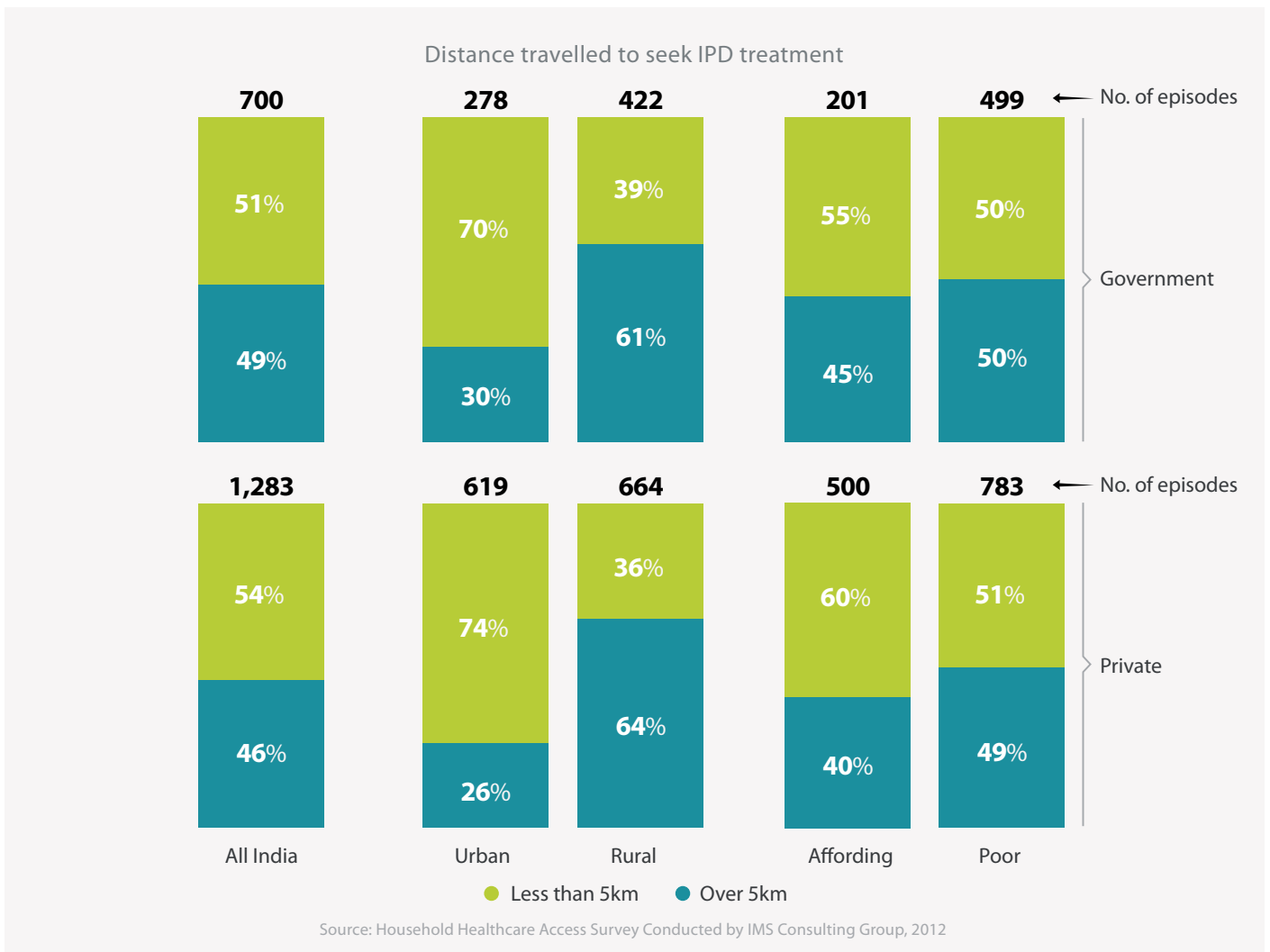
Further, the survey revealed a larger proportion (+10%) of people traveled less than 5 km to access private healthcare facilities for OPD services as compared to public facilities. Similar differences were observed across urban and rural segments, and also across acute and chronic segments. Those patients in the poor segment were also more likely to travel less than 5 km when accessing private facilities compared to those utilizing government services. (See Exhibit 8.)

**Exhibit 8: Comparison of private and public healthcare facilities on distance traveled by patients to physically access an OPD facility**



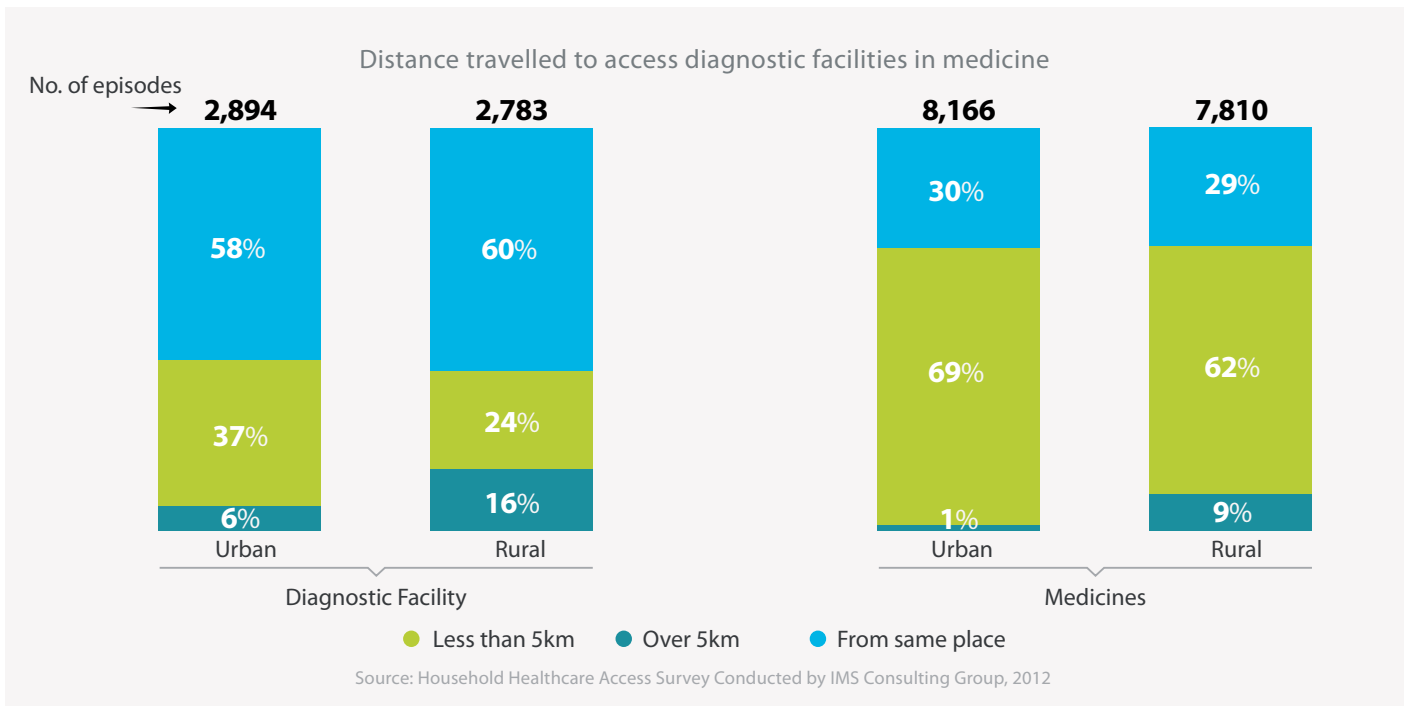
With respect to patients accessing IPD treatment, there was no significant difference (<5%) in the distance travelled to physically access a private or public healthcare facility (Exhibit 9).

**Exhibit 9: Comparison of private and public healthcare facilities on distance traveled by patients to physically access an IPD facility**



The survey also revealed that ~90% of people were able to access diagnostic facilities and medicines within 5km of point of treatment. Additionally, ~30% and 60% of people were able to access medicines and diagnostic facilities respectively at the point of treatment (Exhibit 10).

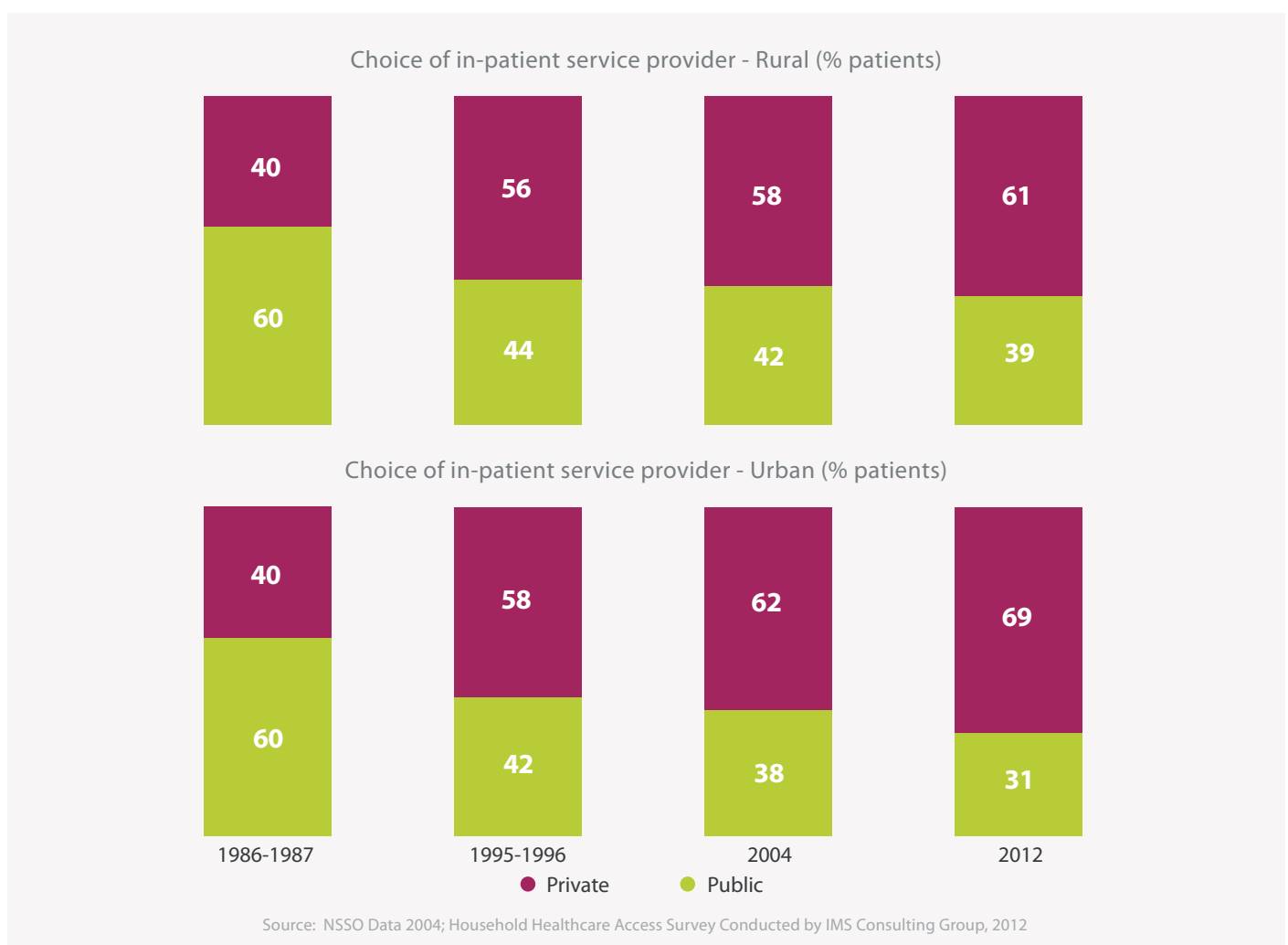
**Exhibit 10: Distance travelled to access diagnostic facilities and medicine**



## 2. Increasing proportion of people are using private healthcare facilities over public facilities for both IPD and OPD treatment.

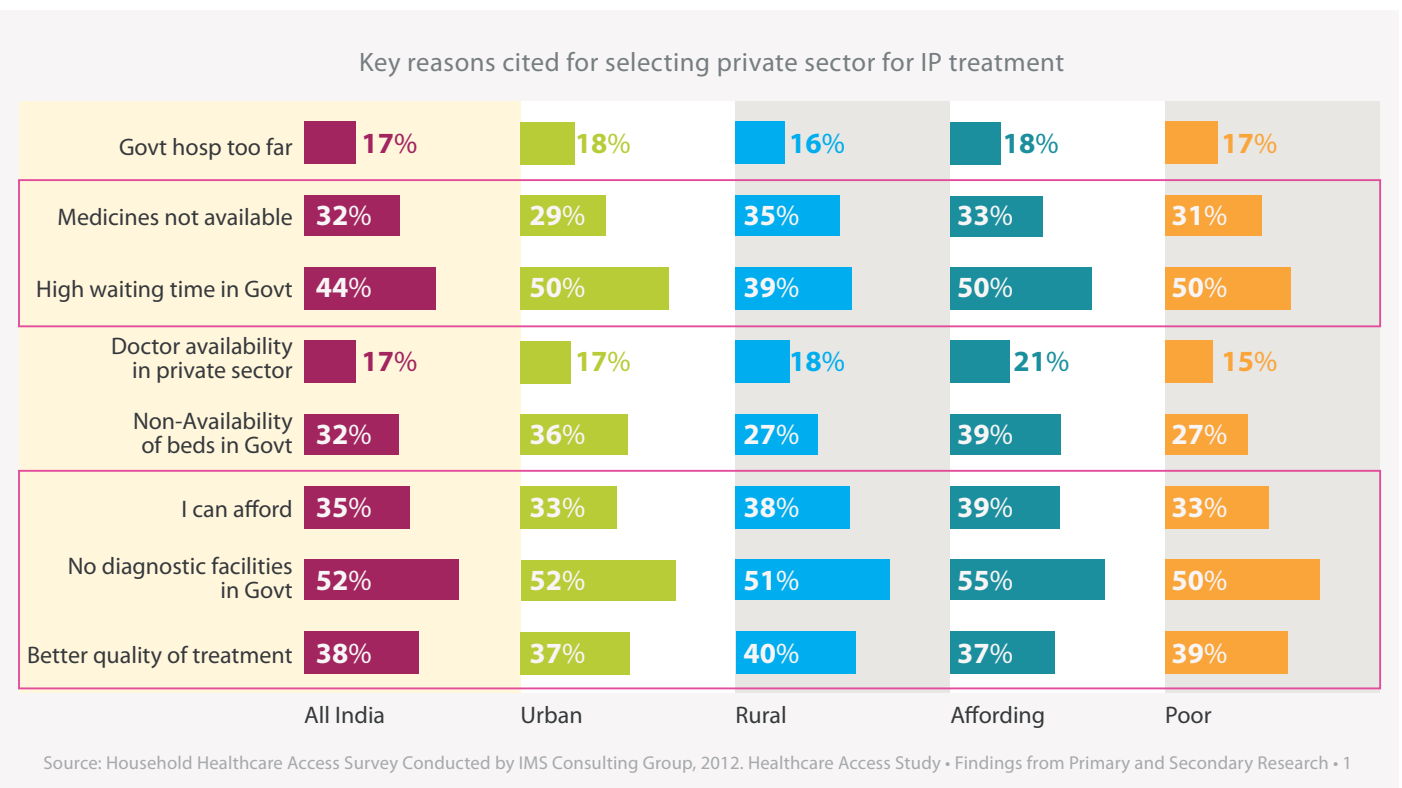
There has been a steady increase in the usage of private healthcare facilities over the last 25 years for both OPD and IPD treatment, across urban and rural areas as shown in Exhibit 11 for IPD treatment.

**Exhibit 11: Choice of Patient for an IP treatment over last 25 Years**



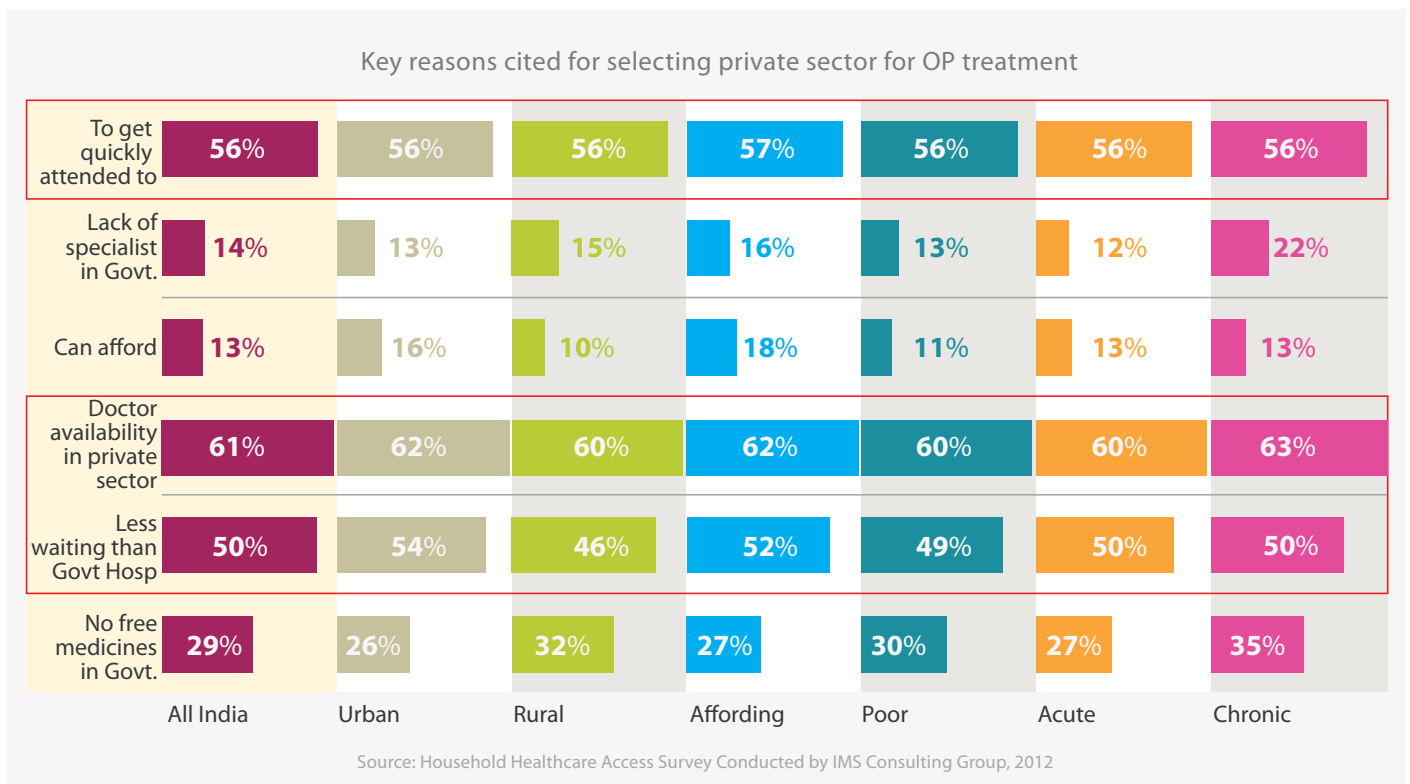
For the IPD treatment, high waiting time (44%) and absence of diagnostic facilities (52%) were the top two reasons for choosing private healthcare facilities. These two reasons reflect a lack of availability of resources in public healthcare facilities. Further, 38% of respondents provided “better quality of treatment” as the third key reason for choosing private facilities. All the reasons for choosing a private healthcare facility for an IPD treatment are highlighted in Exhibit 12.

**Exhibit 12: Key reasons for selecting private healthcare facilities for IPD**



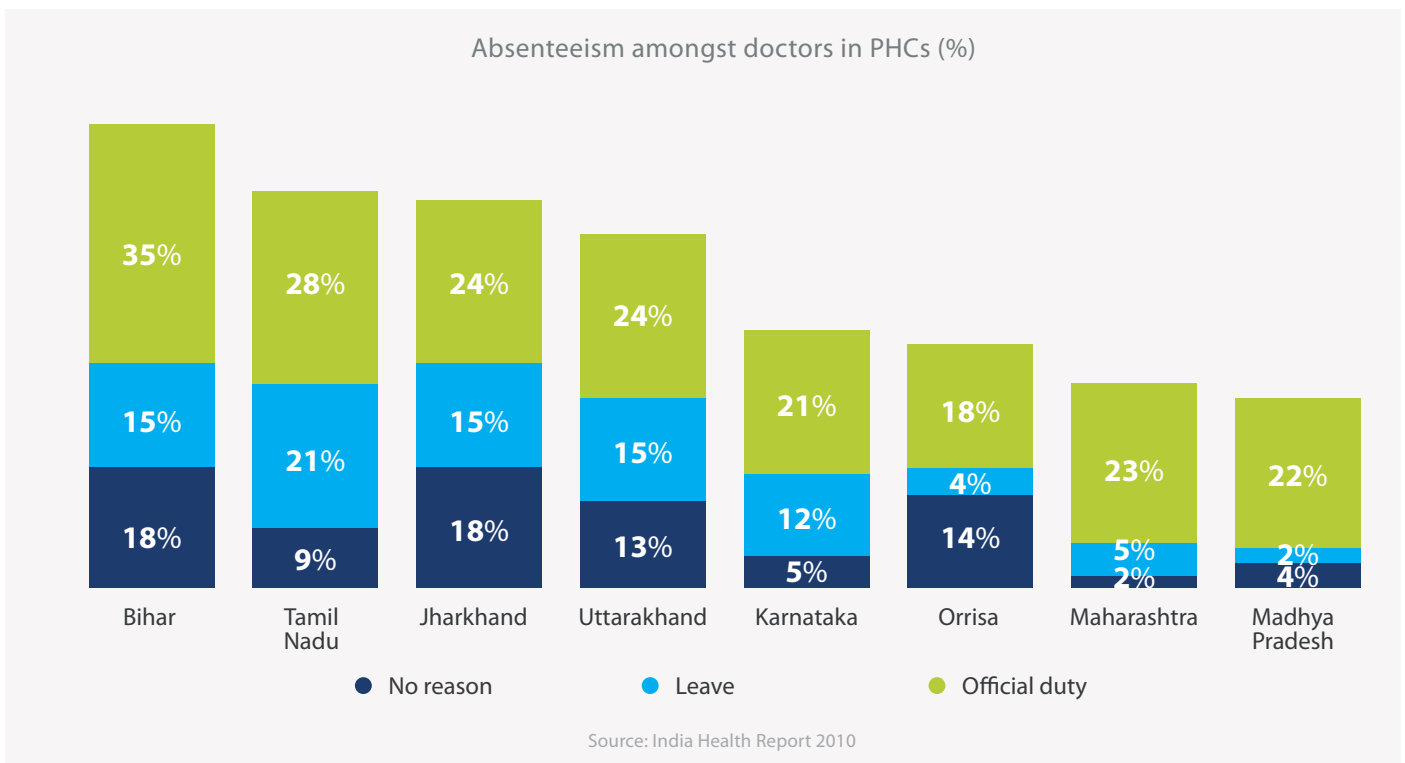
For the OPD treatment, 62% of respondents stated the availability of doctors as the top reason for selecting a private healthcare facility, while quality of treatment was the second top reason (56%) (See Exhibit 13). The numbers were similar across the urban and rural segment and across affording and poor segments of society.

**Exhibit 13: Key reasons for selecting private healthcare facilities for OPD**



One of the underlying reasons for the lack of availability of doctors at public healthcare facilities is the high rate of absenteeism, a problem which is highly prevalent in laggard states of India (See Exhibit 14).

**Exhibit 14: Absenteeism amongst doctors in primary health centre PHCs in key states of India**

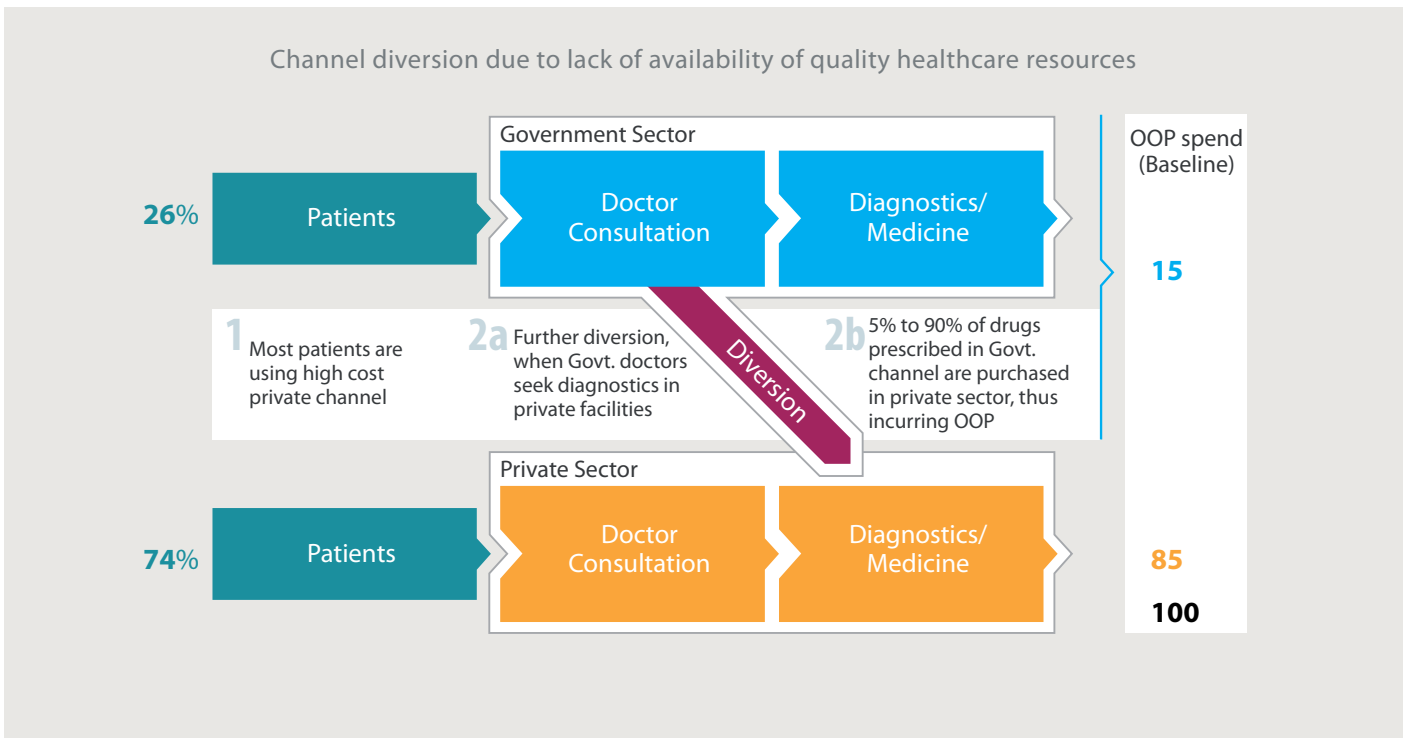




Similarly, non availability of doctors, non- functioning facilities and lack of adequate free essential medicines also cause patients to move from government facilities to private facilities.

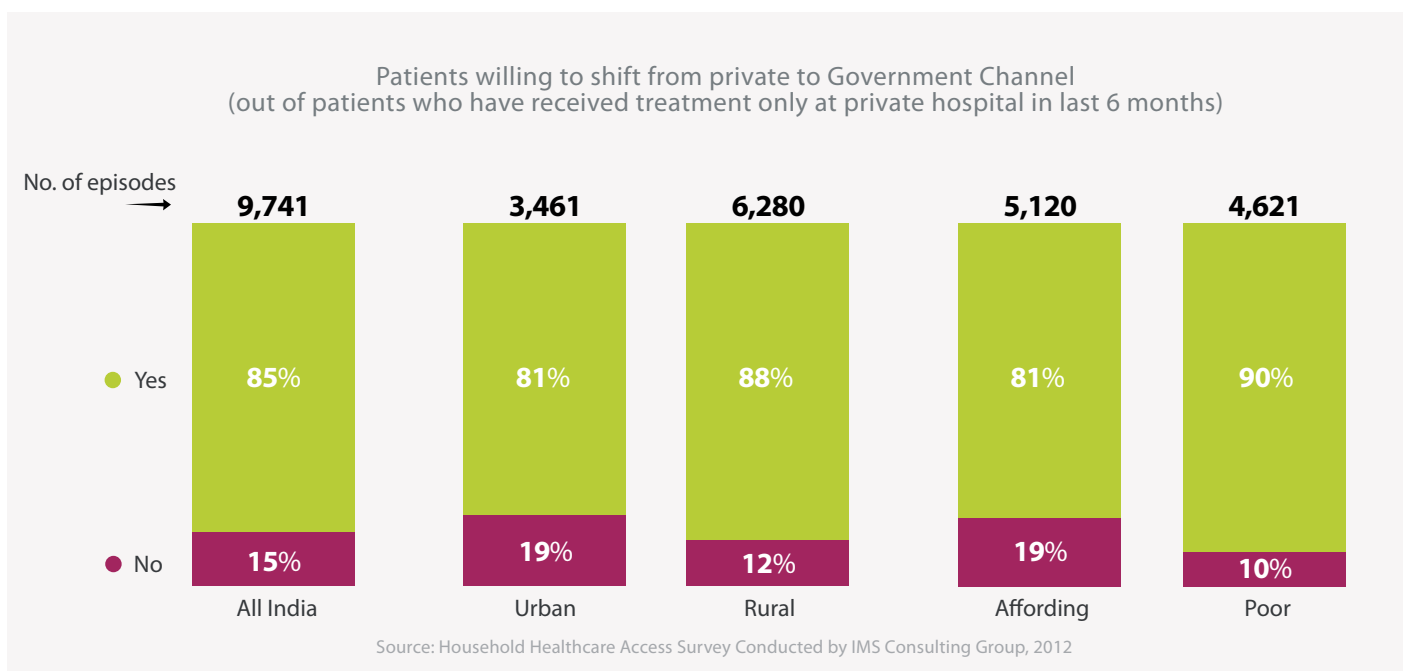
The analysis in Exhibit 15 highlights that availability and quality of healthcare resources are important levers in improving healthcare access. The impact of diversion to higher cost channels is that one in three people either delayed or were never admitted for an IPD treatment, even after they were advised of the same. This has enormous implications on disease burden.

**Exhibit 15: Diversion of patients to private channels from public healthcare facilities**



The study also indicated that people will readily switch to public healthcare facilities if the facilities are reachable and quality treatment options are available. On probing deeper on patient’s choice of a healthcare facility, 85% of people surveyed using private healthcare facility expressed a desire to move to a public healthcare facility, if the above issues are addressed. An even higher percentage – 90% - of poor patients indicated willingness to shift from private to public facilities. (See Exhibit 16).

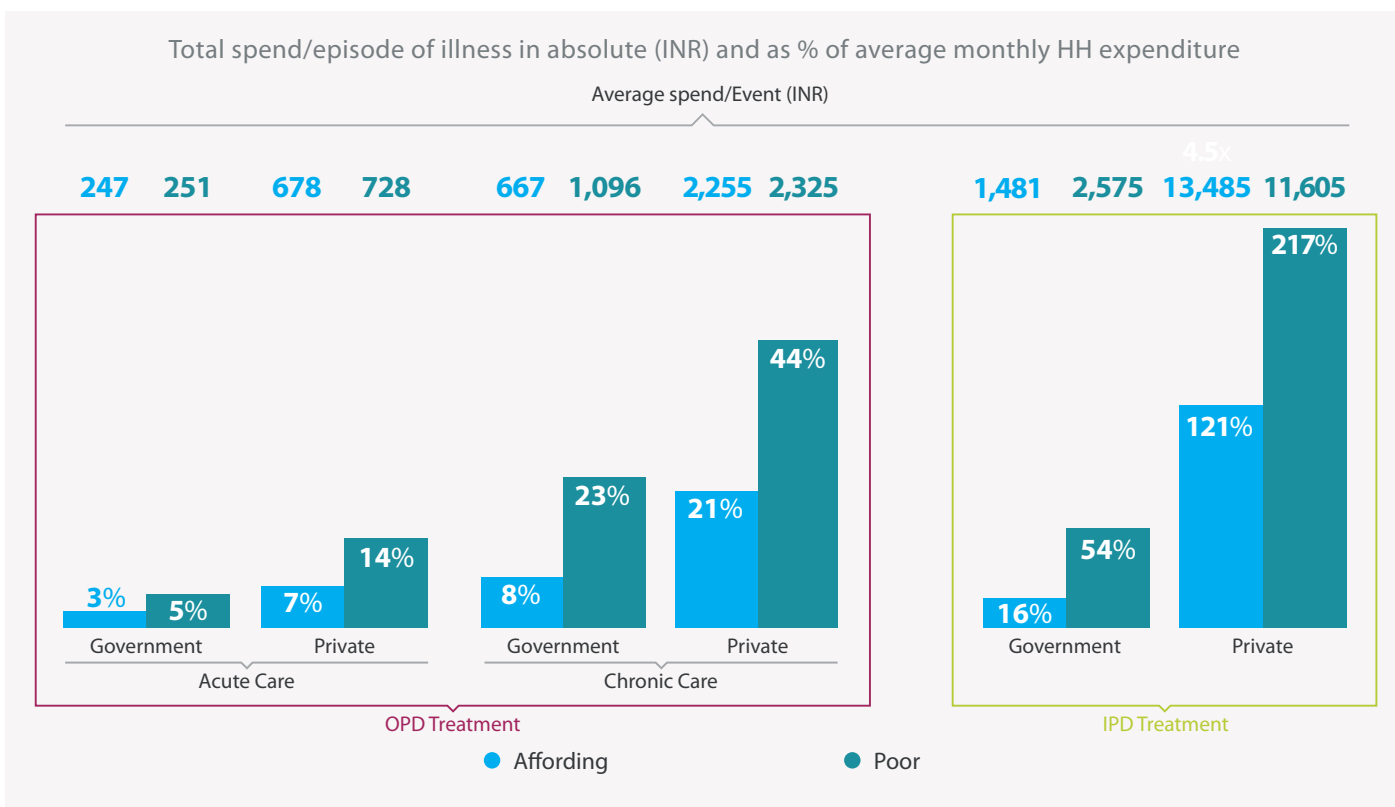
**Exhibit 16: Patients willing to shift to public healthcare facilities**



### 3. People are forced to use more expensive private healthcare facilities, thus exacerbating affordability challenges.

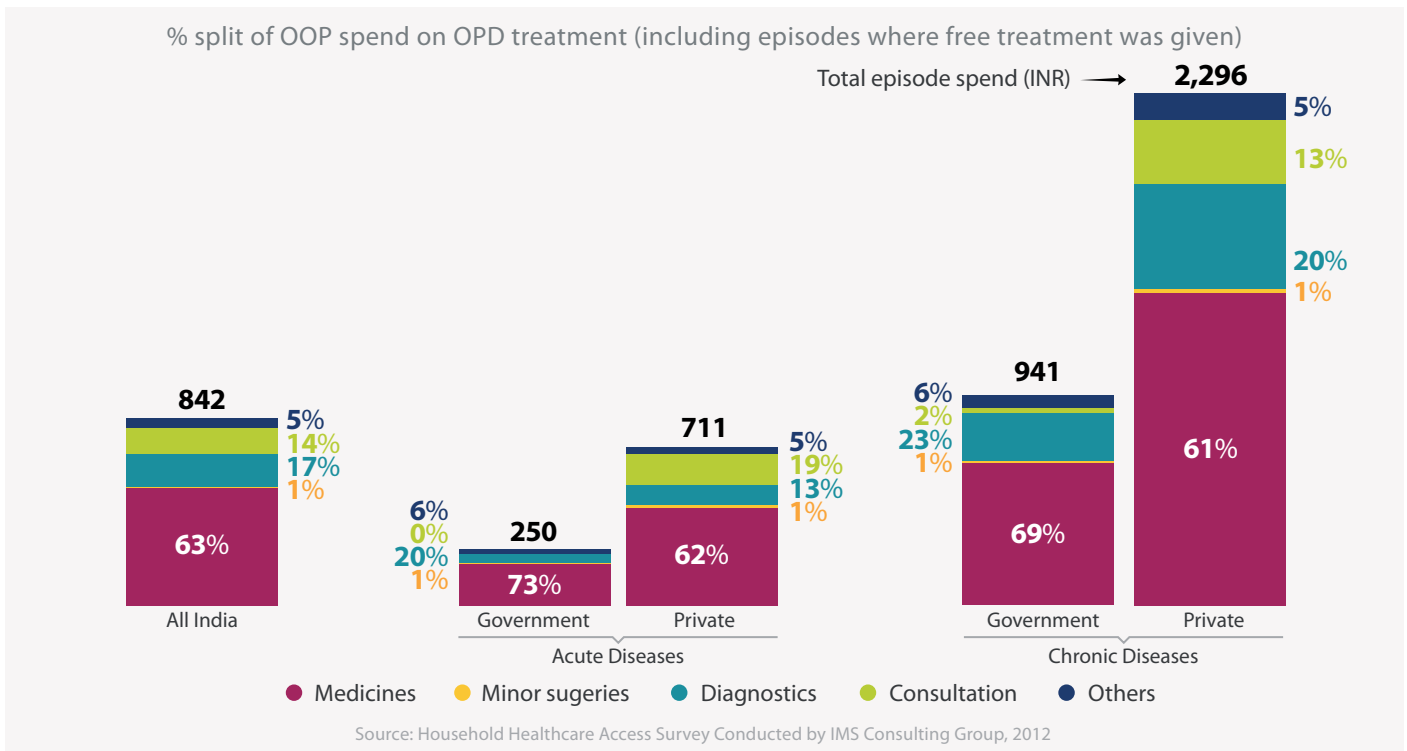
Cost of treatment at a public healthcare facility is 2 to 9 times more affordable than that available at a private healthcare facility, and is dependent on the nature of treatment (IPD, OPD–Chronic, OPD–Acute). The economic burden of a treatment is significant for both poor and affording class of people, e.g., each episode of illness resulting in an IPD treatment costs them greater than their monthly average household expenditure (Exhibit 17). However, due to lack of physical reach, availability of quality treatment, and other practices, people are forced to use more expensive private healthcare facilities, thus increasing the affordability threshold.

**Exhibit 17: Comparison of expenditures at Government and private healthcare facilities**

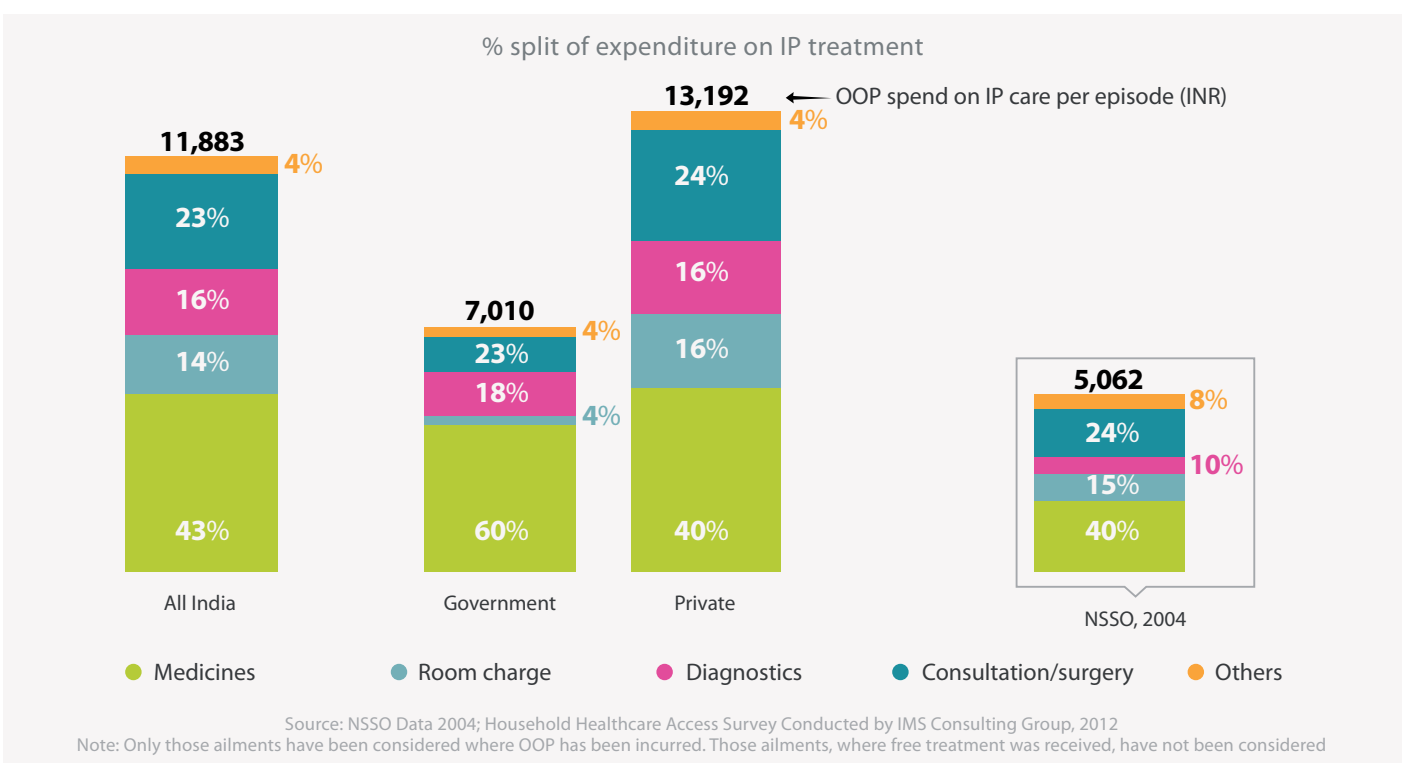


The study also observed that the majority of out of pocket (OOP) expenses are due to medicines: ~60-70% for OPD treatment, and 40-60% for IPD treatment (See Exhibit 18 and Exhibit 19).

**Exhibit 18: % Share of medicines in OOP for an OPD treatment**

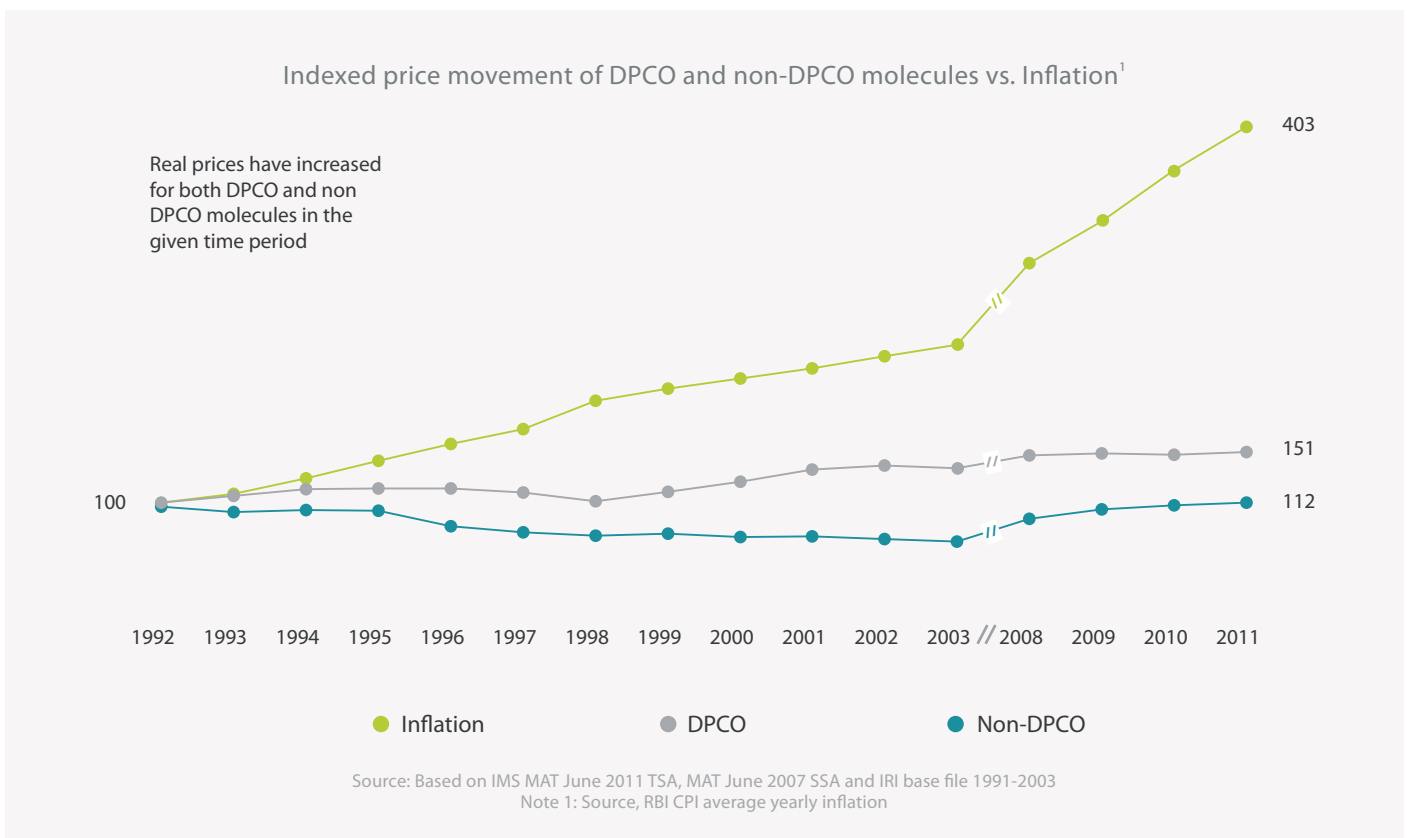


**Exhibit 19: % Share of medicines in OOP for an IPD treatment**



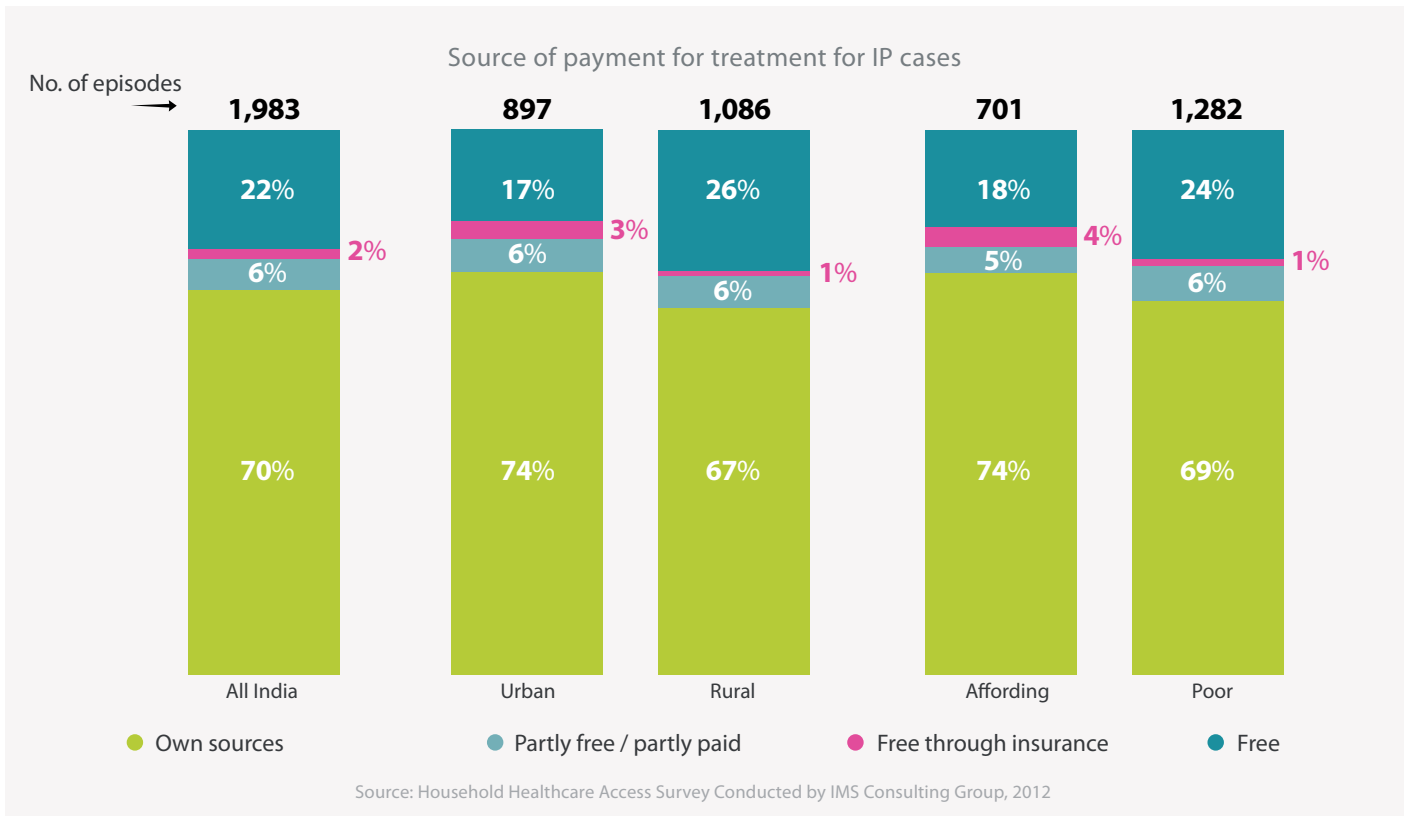
Also noteworthy is the finding that the share of expenditure of medicines for IPD treatment has not increased since the prior assessment in 2004, and has decreased for the OPD treatment. Further analysis reveals that the cost of drugs has increased by a 2-3% compound annual growth rate over the last decade, with price increases of non-Drug Price Control Order (DCPO) drugs being lesser than that of DPCO drugs (See Exhibit 20).

**Exhibit 20: Price increase of DPCO and non-DPCO drugs relative to inflation**

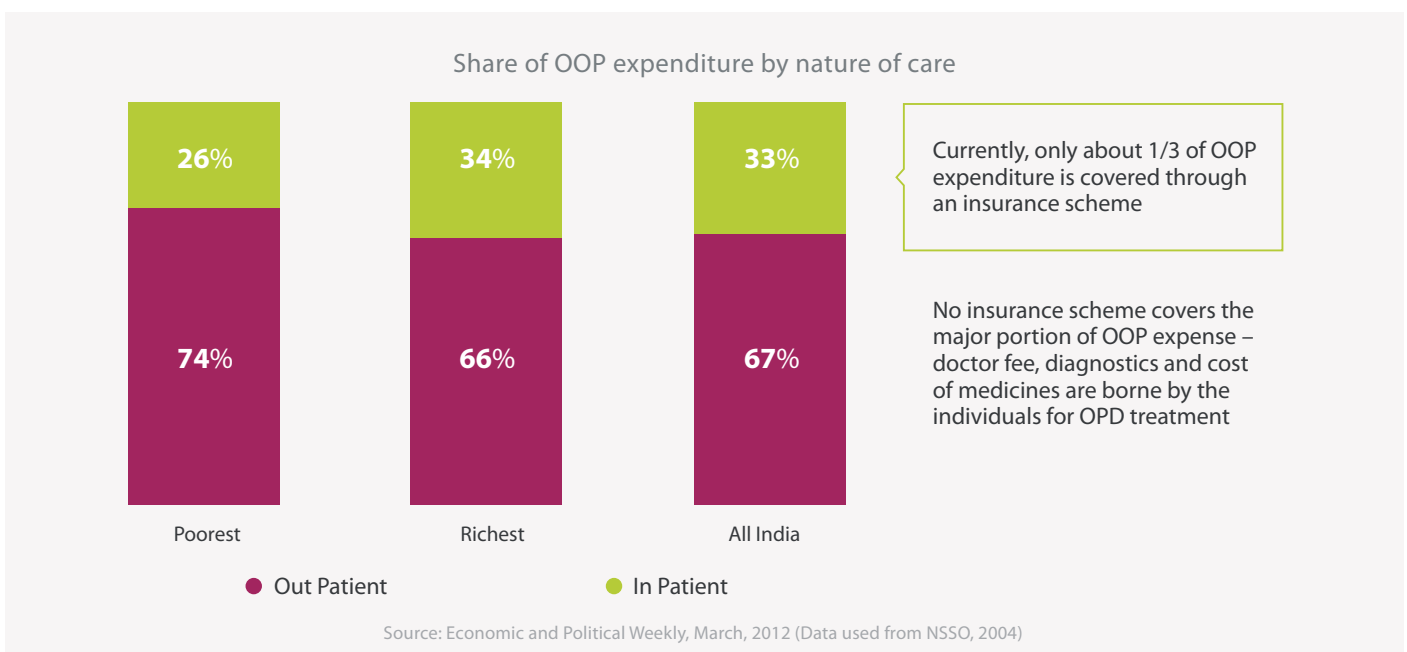


The above analysis shows that even though medicines are the largest component of OOP, they have not contributed to an increase in the affordability burden. However, due to low insurance penetration and current insurance plans not covering drug costs (See Exhibit 21 and Exhibit 22), the total cost of treatment still remains a significant burden for a majority of the population.

**Exhibit 21: Usage of healthcare insurance for IPD treatment**



**Exhibit 22: Usage of healthcare insurance for IPD and OPD treatment**



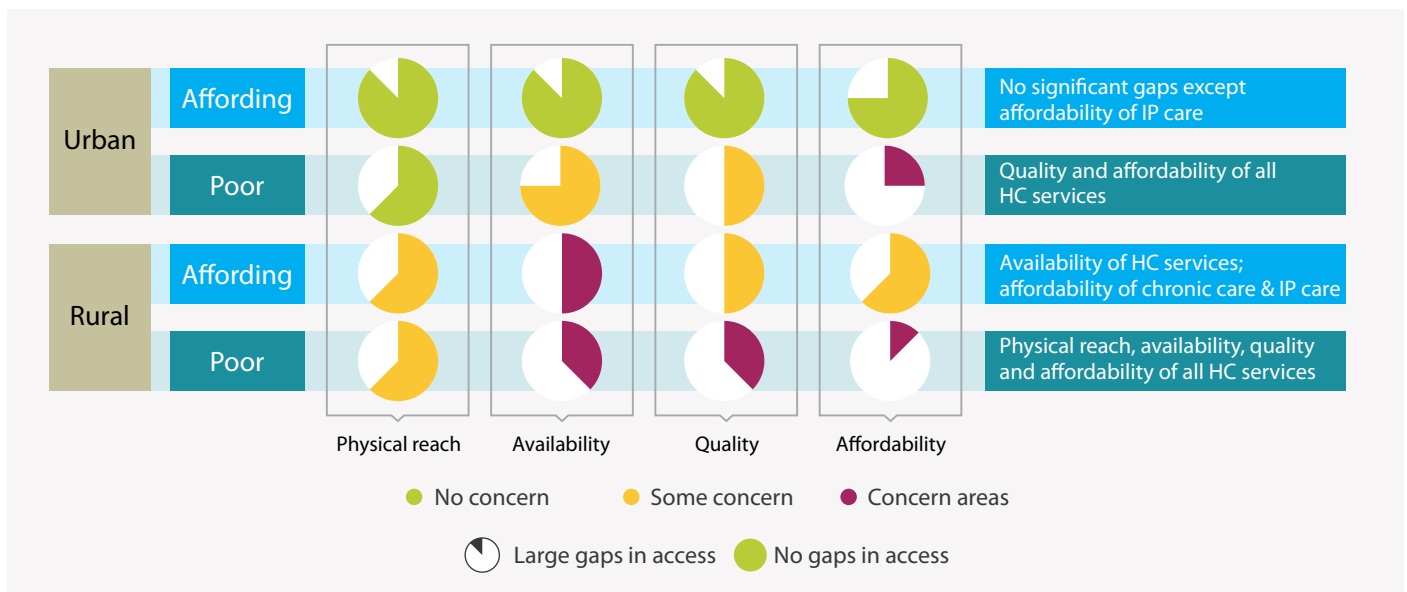
**4. Overall, while there are pockets of improvements, significant healthcare access challenges continue to exist for the Indian population, especially in rural areas.**

Gaps in public sector health infrastructure, resourcing and financing impact affordability of healthcare services and reduce access for large sections of the Indian population.

Because of the large diversity of the population, there is no one number for access that can be cited. The level of access differs based on the geography and income levels. The urban affording population find the healthcare system most “accessible” while the rural poor population are disadvantaged across most components of access.

Exhibit 23 provides a summarized view by each component of access across the geography and income segments for the Indian population.

**Exhibit 23: Summarized assessment of health access for Indian population**



For the urban affording population, it was found that there are no key gaps to be addressed barring affordability of IPD treatment, especially at a private healthcare facility.

For the rural affording population, the key gap area is the availability of quality treatment alongside affordability issues. The affordability issue is aggravated for this segment of population as they are the first to move to accessing a private healthcare facility (more expensive channel) upon receiving sub-optimal services in public healthcare facilities.

For the poor segment, both in urban and rural areas, every component of healthcare access is a challenge.

## Key Levers for Improving Access

As described in the preceding section, healthcare access is defined by several components. These components are not independent of each other. Lower physical reach of public facilities reduces access, and also increases costs by diverting patients to higher cost alternatives; lack of availability of good doctors and resources in public facilities impacts affordability of healthcare in a similar manner.

The levers of improvement in access can be broadly categorized into the following:

1. Improve physical reach of healthcare facilities, especially in rural interiors of the country
2. Improve availability and resourcing of public facilities: e.g., by addressing concerns on availability of physicians and essential medicines, quality of care and prompt access at public healthcare facilities
3. Make higher cost channels more affordable (or better financed): e.g. by price regulations, subsidization of treatment costs, increasing insurance penetration and including drug reimbursement as part of insurance coverage.

Beyond these levers, of course, there are other important initiatives the Government can continue to drive including improving wellness of the population, and continuing to invest in overall national growth. These, however, are not included within the scope of this study

In this section, the impact of utilizing these levers has been modeled in terms of the patient cost of treatment. To perform this modeling, the survey results were used, and additional assumptions were made. Physical reach was deliberately not modeled, as the grounds for assumptions can be challenged easily.

This analysis was performed for both the outpatient and inpatient care.



**Table 3: Levers/ Variables to reduce out of pocket expenditure**

Variables in Outpatient Care	Assumption
Average cost of diagnostics tests: Public versus private	~Universal availability of diagnostic facilities in public channels would result in 75% reduction in diagnostic bill of current public facility users.  (Typically Government charges 1/4th of what a private player would charge for a diagnostic test)
Average cost of essential medicine: Public versus private	Universal availability of essential medicine in Government channel would provide 90% of essential medicines needed by patients. Remaining 10% would be bought from the private channel
Patients who got diagnostic tests and essential medicine in private channel due to lack of availability in public channel, and who will return to the public channel when there is such availability	~15% of total patients (approximately 26% public consultations x 65% diversion as per survey results)
Patients who used private facilities and doctors due to lack of availability and quality in public channel, and who will seek public services when these issues have been addressed	~40% of total patients switch from private to public healthcare facilities. The underlying assumption is that half of the 80% patients would convert to private facilities, who said in the survey that they would consider switching

The impact of these variables is detailed in Exhibit 24 and 25.

In Exhibit 24, we see that the lever that has maximum impact on OOP spend is improvement in quality and availability of public healthcare facilities. Whereas diagnostic facilities and subsidized essential medicines can decrease the cost for a public healthcare facility, there is only a marginal benefit. Moreover, it is expected that once such availabilities are made to a patient, there will be a movement from private to public healthcare facility, however, that itself can be seen as better availability of quality services at a public facility.

Cumulatively, the expected change in OOP expenditure across all levers is roughly 40% for OPD treatment, and 45% for IPD treatment (See Exhibits 24 and 25).

Exhibit 24: Levers for reductions in OOP spends in outpatient care

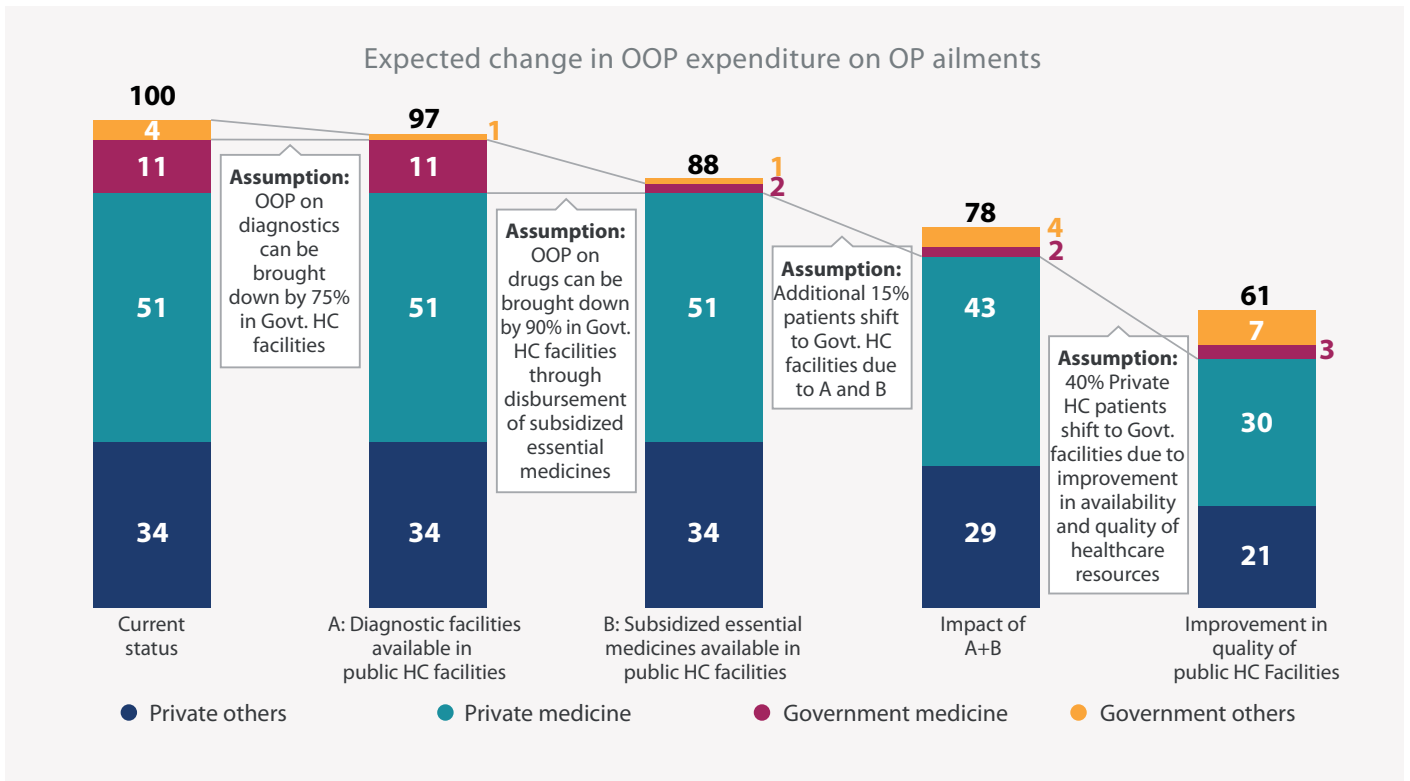
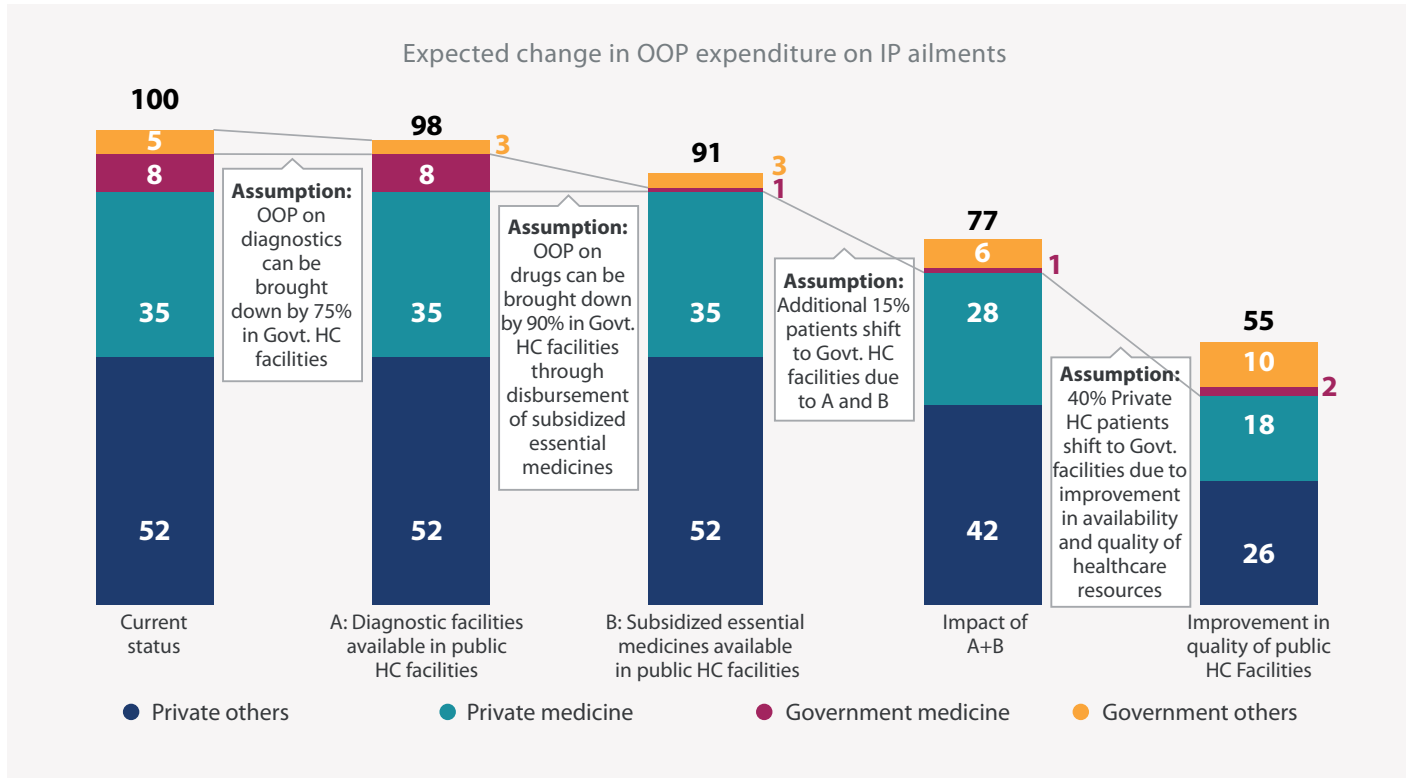


Exhibit 25: Levers for reduction in OOP spend in in-patient care



## Recommendations

**As the government seeks to expand healthcare spend, it must select a strategy that gives highest “healthcare access” benefit to the Indian population.**

The household survey and analysis have shown that some key issues in access to healthcare are interconnected. While some issues are directly linked to deficiencies in supply or quality, others are symptoms or consequences of gaps elsewhere in the healthcare system. We have shown that in many situations availability and affordability are two such interrelated access dimensions, especially when seen at the overall aggregate level.

We see many entities (government bodies, private enterprises, and NGOs) eager to participate and contribute resources to improve access to healthcare. Because the challenge is so huge, many of these activities are targeting specific needs areas first. They also tend to start small, or focused, in terms of geography or target population segment. Many of these initiatives have seen improvements, but more still needs to be done to achieve the scale necessary to improve India’s access to healthcare.

To truly improve access to healthcare, it is critical to advance sustainable policy solutions to healthcare financing, infrastructure, and human resources challenges, among others. Effective healthcare financing is of critical importance to achieving increased healthcare access. Without the required investment this will continue to represent a critical barrier to broader access for healthcare and limits the impact of synergistic Government initiatives. Still, fairly short-term policy initiatives could be expanded, accelerated, or adjusted to help mitigate immediate concerns related to availability and affordability, while allowing for consideration of longer-term, appropriate solutions to the broader healthcare access priorities.

Also, there are calls for a better roadmap to improve healthcare access for all. There is a need for a concerted approach that would prioritize the gaps, understand the interconnections and delivery chain requirements, direct resources to the appropriate areas, measure progress, and inform the community to rebalance resources when appropriate.

Returning to the need for a system-level coordinated approach, we recommend the following three umbrella priorities to be addressed for which specific initiatives will need to be created and implemented:

1. Improve availability
2. Raise performance levels
3. Expand and accelerate affordability

## 1. Improve availability of healthcare services

Addressing the availability issue should be a key priority to increase overall access. Availability is like the front door to the healthcare system. It will determine whether the patient enters the system or not, whether he/she will receive care, and from whom. Currently, the issue of availability is characterized by the lack of doctors, healthcare personnel, clinics, and hospitals, particularly in the rural areas. According to our assessment of the current situation, we know that availability of primary care services is a big issue in the public channel, as at least 75% of physicians in both urban and rural settings are in the private sector, and that availability of hospital beds is disproportionately skewed toward private hospitals in urban areas, with nearly 3 out of every 4 hospital beds located in private, urban hospitals. We know the lack of availability of primary care services in the public channel is driving patients to private care and contributing to higher out-of-pocket expenses. We will need to look at system availability and attack the bottlenecks and not simply increase availability of a specific node of the system without thinking of the patient flow and logistics through the system.

Although the need for more capacity is recognized and being worked upon, appropriately trained and adequately supported physicians and healthcare workers with relevant expertise is a medium to long-term investment. This suggests that in the shorter term we can address some availability issues by better matching certain needs with currently available capacity elsewhere. Adding skill sets to existing healthcare workers and expansion of existing facilities for healthcare functions are possibilities. There have been some notable successes like the National Rural Health Mission, which aims to improve basic health care delivery systems in rural areas by integrating organizational structures, and optimizing health manpower, and these initiatives should be bolstered. Additionally, there are private sector examples of bridging availability challenges by using telemedicine to connect physicians and healthcare workers to specialists or supervising physicians who can assist in consultations and delivery of clinical services. Still, we should seek additional ways to hasten the increase in capacity, such as more public-private partnerships which may address any bureaucratic hurdles or cumbersome business processes, insufficient resourcing, and inadequacies in any local supervision. There may be many options available and we will need to be creative and explore all of them, and find the best combination of approaches to increase availability in the short and long term. Ultimately, ensuring broad availability will not only improve overall access to healthcare, but also provide multiple options for seeking affordable treatment and diagnosis.

We need to set up measurable standards of performance, and use technology and information to put together appropriate metrics and monitoring systems. Investments will be needed to bring non-functioning facilities up to standards. To help healthcare workers to perform well, we need to provide appropriate training and proper incentives.

To drive effective enforcement, we will need to tighten our governance processes. For better management and accountability, we need to create efficient and transparent work and decision-making processes. We should replicate the best operational practices of successful healthcare centres to others. When appropriately structured, entering into a public-private partnership could bring in proven operating procedures to turnaround a subpar operation.

For the public channel, decentralization of healthcare delivery can lead to better governance and functioning. In India, we will need to strengthen local governance and involvement by the Panchayats, local communities, and NGOs to ensure delivery at public facilities is up to the desired quality and standards.

## **2. Raise performance of healthcare delivery organizations in terms of service quality**

As we improve availability of healthcare services, we will need to ensure quality in both the new and existing capacities. Our household survey indicates that aside from availability, perceived better quality of care is another reason why patients seek help in the private sector, driven by such factors as perceived superior training of physicians, shorter wait times, and facility quality.

Competitiveness and incentives in the private sector have created highly efficient and high performance organizations. This knowledge and experience should be leveraged and applied to the operations of public healthcare facilities. If quality of basic healthcare was perceived to be equal between private and public facilities, patients could be free to seek care at facilities that may be more affordable for them.

The Government of India should engage the private sector for such help to improve quality of care and healthcare services. There are various avenues available for undertaking Public Private Partnerships (PPPs)

## **3. Expand and accelerate affordability of healthcare**

After finding and receiving healthcare, someone will need to pay for it. Effective financing mechanisms play a pivotal role in healthcare affordability for patients. Payments can come from the government, from health insurance companies, or from the patients themselves. For the poor, affordability of healthcare is one of the most prominent issues in having good access. This segment will need the most help from the government to make sure that they are able to receive healthcare.

As discussed above, improving the availability of healthcare workers and facilities can increase usage of the public channel, thereby helping to lower out-of-pocket expenses and indirectly address the affordability issue. Additionally, in our analysis we showed the potential implications of providing free essential medicines in the public facilities. By ensuring basic access to essential medicines, out-of-pocket expenses can be reduced allowing for more income to address other needs, which may or may not be healthcare related, such as education or housing. The Government has already rolled out an ambitious and well-funded program to provide free essential medicine for all attending a government healthcare facility. The implementation of this program should be monitored and adjusted as necessary to ensure its success.

Government insurance schemes, such as Rashtriya Swasthya Bima Yojana (RSBY), that pay for treatment in private facilities, can play an important role as well. Although this is particularly critical for the poor, the financial burden of in-patient care affects the middle class as well.

Although private and public insurance programs are having successes in covering more people, there are still many people that are not aware or do not fully understand them. In this survey, for example, not more than 40% of the population was aware of RSBY. To more rapidly increase insurance penetration and to avoid fraud, the poor and the lesser privileged population should be clearly informed about such Government-run and public programs and their benefits.

These are initial efforts to accelerate affordability of healthcare. We need to increase insurance penetration across all segments of the population and insurance coverage for more healthcare services, including out-patient care and prescription medicines. More expansive efforts will be needed, such as increased investment in healthcare through sustainable financing, to have a real impact on healthcare affordability.

## Conclusion

In summary, all dimensions of healthcare access require attention and improvement, but especially in availability, this must be done in a way that both fixes the current system and advances the frontier forward towards the ideal state. We need to be conscious of the long time it will take to close the gaps and develop interim solutions that can satisfy the immediate needs and maximize the capability of existing healthcare resources. We need to be honest with how our society behaves and provide leadership, processes, and incentives to change our ways of working. To truly improve access to healthcare, it is critical to advance sustainable policy solutions to healthcare financing, infrastructure, and human resources challenges, among others. Without the required investment this will continue to represent a critical barrier to broader access for healthcare.



## Abbreviations

AYUSH	Ayurvedic, Unani, Siddhi and Homoeopathy	OOP	Out of Pocket Expense
CHC	Community Health Centre	OPD	Out-patient Department
GDP	Gross Domestic Product	OT	Operation Theatre
INR Cr	Indian Rupees, in Crore 10 <sup>7</sup>	PHC	Primary Health Centre
IPD	In-patient Department	PMSSY	Pradhan Mantri Swasthya Sewa Yojana
NGO	Non-Governmental Organization	PPP	Public-Private Partnership
NRHM	National Rural Health Mission	RSBY	Rashtrya Swasthya Bima Yojna
NUHM	National Urban Health Mission	UHC	Universal Health Coverage

# Authors



## **Murray Aitken**

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Murray Aitken is executive director, IMS Institute for Healthcare Informatics, which provides policy setters and decision makers in the global health sector with objective insights into healthcare dynamics. He assumed this role in January 2011.

Murray previously was senior vice president, Healthcare Insight, leading IMS's thought leadership initiatives worldwide. Before that, he served as senior vice president, Corporate Strategy from 2004 to 2007. Murray joined IMS in 2001 with responsibility for developing the company's consulting and services businesses. Prior to IMS, Murray had a 14-year career with McKinsey & Company, where he was a leader in the Pharmaceutical and Medical Products practice from 1997 to 2001.

Murray writes and speaks regularly on the challenges facing the healthcare industry. He is editor of HealthIQ, a publication focused on the value of information in advancing evidence-based healthcare, and also serves on the editorial advisory board of Pharmaceutical Executive.

Murray holds a Master of Commerce degree from the University of Auckland in New Zealand, and received an M.B.A. degree with distinction from Harvard University.



## **Amit Backliwal**

### **General Manager, IMS India**

Amit is the General Manager for IMS Health's India operations and is focused on broadening the scope of work undertaken across larger healthcare fields and leveraging the information, data, analytics and consulting capabilities within IMS Health. He has published and written many whitepapers on Market Access, Strategy and Commercial Effectiveness along with articles in various pharmaceutical journals

Amit was previously the General Manager for Thailand where he worked with various stakeholders including hospitals, government and pharmaceutical players in that market. Prior to that, he was the Principal, Portfolio & Product Strategy at IMS Consulting and Services for APAC region where he led engagements on Market Entry Strategy, Growth Strategy, Licensing Strategy and Launch Support Development.

Before joining IMS, Mr. Backliwal was the Country Manager for Battaerd Mansley in India and was responsible for launching and establishing the business franchise.

Mr. Backliwal holds a B.Pharm degree from the University of South Australia and an MBA from Adelaide University, Australia.

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Dr. Chang guides senior management at major pharmaceutical, biotechnology and medical devices and diagnostics companies.

Mark's career spans over 20 years in strategy consulting and encompasses corporate business portfolio strategy, product and franchise strategy and portfolio management across a wide range of industries. His experience includes leading the development of therapeutic area strategies for pharmaceutical companies and helping them expand multi-product franchises, even past key patent expirations. In addition, he has helped non-life sciences companies develop entry strategies into the healthcare sector or move down the value chain closer to pharmaceuticals. He has also played a key role in driving healthcare decisions and pricing strategies with authorities in Taiwan and China

Before joining IMS, Dr. Chang was Director of Financial Management for Pacific Telephone / Telesis where he evaluated financial impacts of product introductions, competition, regulations, corporate divestitures and diversifications.

Dr. Chang holds a Ph.D. in operations research from the University of California at Berkeley, and a M.A. in mathematics from Claremont Graduate University.

**Amardeep Udeshi****Associate Principal, IMS Consulting Group**

Amardeep is an Associate Principal with the IMS Consulting Group and is part of all strategic consulting projects and strategic primary market research. At IMS, he has a vast experience in driving Brand and Commercial Strategy as well as Commercial Effectiveness engagements. He has previously authored a Paper on "Changing Face of Commercial Models in India" and is currently working on a paper on the Providers Segment in India

Amardeep has been associated with the pharmaceutical industry for over a decade in various capacities. Before shifting to his current role in consulting, he spent 6 years in market research as a business head, handling market research projects in pharmaceuticals as well as other industries.

Amardeep has a Bachelors Degree in Pharmacy along with a Master's degree in Management from the Indian Institute of Management, Calcutta.

# About the IMS Institute

The IMS Institute for Healthcare Informatics leverages collaborative relationships in the public and private sectors to strengthen the vital role of information in advancing healthcare globally. Its mission is to provide key policy setters and decision makers in the global health sector with unique and transformational insights into healthcare dynamics derived from granular analysis of information.

Fulfilling an essential need within healthcare, the Institute delivers objective, relevant insights and research that accelerate understanding and innovation critical to sound decision making and improved patient care. With access to IMS's extensive global data assets and analytics, the Institute works in tandem with a broad set of healthcare stakeholders, including government agencies, academic institutions, the life sciences industry and payers, to drive a research agenda dedicated to addressing today's healthcare challenges.

By collaborating on research of common interest, it builds on a long-standing and extensive tradition of using IMS information and expertise to support the advancement of evidence-based healthcare around the world.

**Research Agenda**

The research agenda for the Institute centers on five areas considered vital to the advancement of healthcare globally:

The effective use of information by healthcare stakeholders globally to improve health outcomes, reduce costs and increase access to available treatments.

Optimizing the performance of medical care through better understanding of disease causes, treatment consequences and measures to improve quality and cost of healthcare delivered to patients.

Understanding the future global role for biopharmaceuticals, the dynamics that shape the market and implications for manufacturers, public and private payers, providers, patients, pharmacists and distributors.

Researching the role of innovation in health system products, processes and delivery systems, and the business and policy systems that drive innovation.

Informing and advancing the healthcare agendas in developing nations through information and analysis.

**Guiding Principles**

The Institute operates from a set of Guiding Principles:

The advancement of healthcare globally is a vital, continuous process.

Timely, high-quality and relevant information is critical to sound healthcare decision making.

Insights gained from information and analysis should be made widely available to healthcare stakeholders.

Effective use of information is often complex, requiring unique knowledge and expertise.

The ongoing innovation and reform in all aspects of healthcare require a dynamic approach to understanding the entire healthcare system.

Personal health information is confidential and patient privacy must be protected.

The private sector has a valuable role to play in collaborating with the public sector related to the use of healthcare data.

# IMS INSTITUTE

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