

India Healthcare:

Inspiring possibilities, challenging journey



Prepared for Confederation of Indian Industry (CII)

December 2012

This report is furnished to the recipient for information purposes only. Each recipient should conduct their own investigation and analysis of any such information contained in this report. No recipient is entitled to rely on the work of McKinsey & Company, Inc. contained in this report for any purpose. McKinsey & Company, Inc. makes no representations or warranties regarding the accuracy or completeness of such information and expressly disclaims any and all liabilities based on such information or on omissions therefrom. The recipient must not reproduce, disclose or distribute the information contained herein without the express prior written consent of McKinsey & Company, Inc.

Healthcare Systems and Services

India Healthcare:

Inspiring possibilities,
challenging journey

Prepared for Confederation of Indian Industry (CII)

Ayushi Gudwani
Palash Mitra
Ankur Puri
Mandar Vaidya

December 2012

Foreword

In 2002, McKinsey & Company authored a joint report with CII that became the beacon for many in the hospital industry and a cornerstone for decision making. While the report was a landmark in of itself, it was narrowly focused on the provider industry and was limited by availability of reliable data and nascency of several parts of the healthcare value chain. Since then, healthcare has moved in rapid strides in India. The government has made several landmark moves including the NRHM, the RSBY, and the Clinical Establishments Act. The private sector has grown across the value chain. Hospital chains have emerged as standalone corporate entities, as have diagnostics providers. Health insurance, devices and equipment manufacturers have come into their own. Pharmaceuticals players too have continued to grow. Collaboration between the government and private sector has emerged stronger, with some successes.

At the same time, we continue to face challenges as a system. The nation's health outcomes continue to lag. Collaboration between government and private sector continues to struggle to find scale. The private sector is struggling to keep margins at reasonable levels for their shareholders.

Given this inflection point, we felt the time was right for another landmark report. This time, a report much wider in scope, and much better informed with data and opinions from across all parts of the healthcare value chain.

We thank McKinsey & Company for taking up this challenge and doing a commendable job in authoring this report. We hope it will have a meaningful impact in moving India's health system forward, and convert possibilities into reality.

Dr Naresh Trehan
Chairman,
CII National Committee on Healthcare

Preface

India has embarked upon a journey of healthcare system transformation. The government introduced important structural reforms in the last decade and has re-emphasised its vision of creating access to a minimum set of healthcare services for all. The private sector experienced unprecedented growth during this period.

Growth in the next decade will be closely linked to the nature and extent of reform. India's health challenges, though unique and complex, also offer remarkable opportunity. Thus, the next decade holds inspiring possibilities, while likely being a challenging journey.

McKinsey & Company conducted a research effort in 2002 and published a report entitled Healthcare in India: The Road Ahead, written jointly with Confederation of Indian Industry (CII). The challenges identified in 2002 are still relevant, although the sector has made significant progress since then. Today, some extent of government reform combined with private sector enterprise, put us in a better position to meet our health goals.

A decade since the publication of the earlier report, we have now undertaken a similar effort for the CII. This time with a broader aspiration. We have extended the scope beyond just healthcare delivery infrastructure, and discussed the matter of the country's health system. We attempt to learn not just from India's experience, but also from the health reform journey of peer nations. We delve into the role and imperatives of the government in this journey. Within the private sector, we study different verticals, including providers, insurers, pharmaceuticals and medical devices and equipment manufacturers.

We fully expect Indian healthcare to evolve substantially over the next decade, and the country to make great progress towards achieving its long-term healthcare vision. Our goal in this effort has been to provide industry leaders and policy makers with an integrated and realistic view of the opportunities and challenges. This work is independent and has not been commissioned or sponsored in any way by any business, government or other institution.

Palash Mitra
Director,
McKinsey & Company

Mandar Vaidya
Partner,
McKinsey & Company

Acknowledgements

Ankur Puri, an Engagement Manager based in our New Delhi office, managed the overall research effort. Ayushi Gudwani, an Engagement Manager based in our New Delhi office, provided valuable guidance and worked closely with the team in writing this report.

The core team comprised Surabhi Bhandari, Puja Jain and Prakash Deep Maheshwari, consultants based in our New Delhi office, and Shubham Rao, analyst from our Knowledge Centre in Gurgaon.

This report would not have been possible without the thought partnership and expertise of industry veterans who constituted our steering committee. To them, we extend our sincere thanks. In particular, we would like to acknowledge the leadership and guidance of Dr Naresh Trehan, Chairman of the CII National Committee on Healthcare.

We have been fortunate to have benefited from the guidance of several leading thinkers, stakeholders and decision makers in the Indian healthcare system. Their valuable inputs have shaped our thinking. In particular, we would like to acknowledge the inputs and counsel of Amit Bhandari, Maulik Chokshi, Keshav Desiraju, Sanjay Dutta, Shakuntala D. Gamlin, M. B. Jain, Maliekkal Jeelson, Anup Karan, Anand Lal, Sanjay Mohanti, Somil Nagpal, Ajay Pitre, Krishna D. Rao, Sarit Rout, K. Srinath Reddy, Anil Swarup and Alok Agrawal.

We would like to acknowledge the contributions of our colleagues from the India office, Chirag Adata, Ramnath Balasubramanian, Kaustubh Chakraborty and Sathya Prathipati in guiding us in their areas of expertise.

Our colleagues Claudia Süssmuth Dyckerhoff, Minyoung Kim, Alexander Ng and Ali Ustun shared their perspectives on the health systems of other countries. Paula Afonso, Luiza Semeghini, Radhika Sriram, Pornnipa Srivipapattana, Nitin Mukesh Chaturvedi and Ravi Yadav from the McKinsey Knowledge Centre provided valuable research support to the effort.

We would like to thank Nipun Gosain, Vineet Kumar and J. Sathya Kumar, for their assistance in visual graphics; Jeanne Subramaniam for her editorial efforts; and Fatema Nulwala and Kulsum Merchant for their support in external relations.

Steering Committee

Dr Naresh Trehan

Chairman & Managing Director,
Medanta – The Medicity

Dr Prathap C Reddy

Chairman,
Apollo Hospitals Group

Dr Ajay Bakshi

CEO,
Max Healthcare

Dr Devi Prasad Shetty

Chairman,
Narayana Hrudayalaya

Bhargav Dasgupta

MD & CEO,
ICICI Lombard General

Shivinder Mohan Singh

Executive Vice-Chairman,
Fortis Healthcare (India) Ltd.

Sushobhan Dasguta

Managing Director,
Johnson & Johnson Medical India

Daljit Singh

President,
Fortis Healthcare (India) Ltd.

Sudarshan Jain

MD,
Abbott Healthcare Solutions

Dr Shubnum Singh

Dean,
Max Healthcare Institute Ltd.

Aijaz Tobacowalla

MD,
Pfizer India

Executive Summary

At the turn of this century, health outcomes in India and the quality of the underlying health system significantly lagged those of peer nations. From such a weak starting position, the progress made in the last decade has been mixed. The government¹ has recognised the need for reform and introduced several in the Eleventh and Twelfth Five-Year Plan². The private sector has played an important role in improving access and quality during this timeframe.

Yet today, India finds itself lagging behind peers on healthcare outcomes. The situation is further complicated by inequity in healthcare access across states and demographic segments within the population. It is abundantly clear that a 'status quo' approach will be inadequate to tackle this challenging situation. India's reform journey will need to gain momentum and drive implementation at scale.

Spend on healthcare by the government will need to increase. Infrastructure gaps will need to be closed. Workforce utilisation and scarcity will need to be addressed. And in order to achieve all this, the government and private sector will need to collaborate closely, beginning with an inclusive and transparent dialogue to envision India's longer term health system.

The government has now articulated in its Twelfth Five-Year Plan its long-term vision to achieve 'universal health coverage'. To achieve this vision, the government will need to lead the journey over the next four decades to transform the country's healthcare situation. It will need to define its role and choose from either a 'primary payor' or a 'primary provider' role, and undertake several imperatives. At the same time, changing demographics, psychographics and epidemiology will present the private sector with opportunities. To capture these, the private sector will need to build specific capabilities, develop new business models and actively collaborate with the government.

This report attempts to provide a possible vision for the country's healthcare, and the contours of a possible roadmap. While acknowledging the reality that this journey will take place over decades, we have adopted the year 2022 as the timeframe for this exercise. We believe that such a timeframe is quite appropriate to drive the envisioning and implementation of developmental activities for a matter as substantial, serious and complex as that of healthcare in India.

We begin with an assessment of the progress made in the last decade and the learnings for the path ahead. We then study the health reforms journeys undertaken by other countries, and discuss their relevance in the development of India's healthcare vision and roadmap. Subsequently, we develop a deeper understanding of the challenge of inequity in healthcare access, outline a possible vision for the year 2022, and establish the inadequacy of a 'status quo' approach. Then we discuss the governments' 'stewardship' role and the choices it will need to make at the outset. Finally, we outline the opportunities and imperatives for the private sector.

1 Throughout the report, "government" refers to the Centre and State governments. "Centre" or "State" will be specified where necessary.

2 Draft of the Twelfth Five-Year Plan has been released by the Planning Commission.

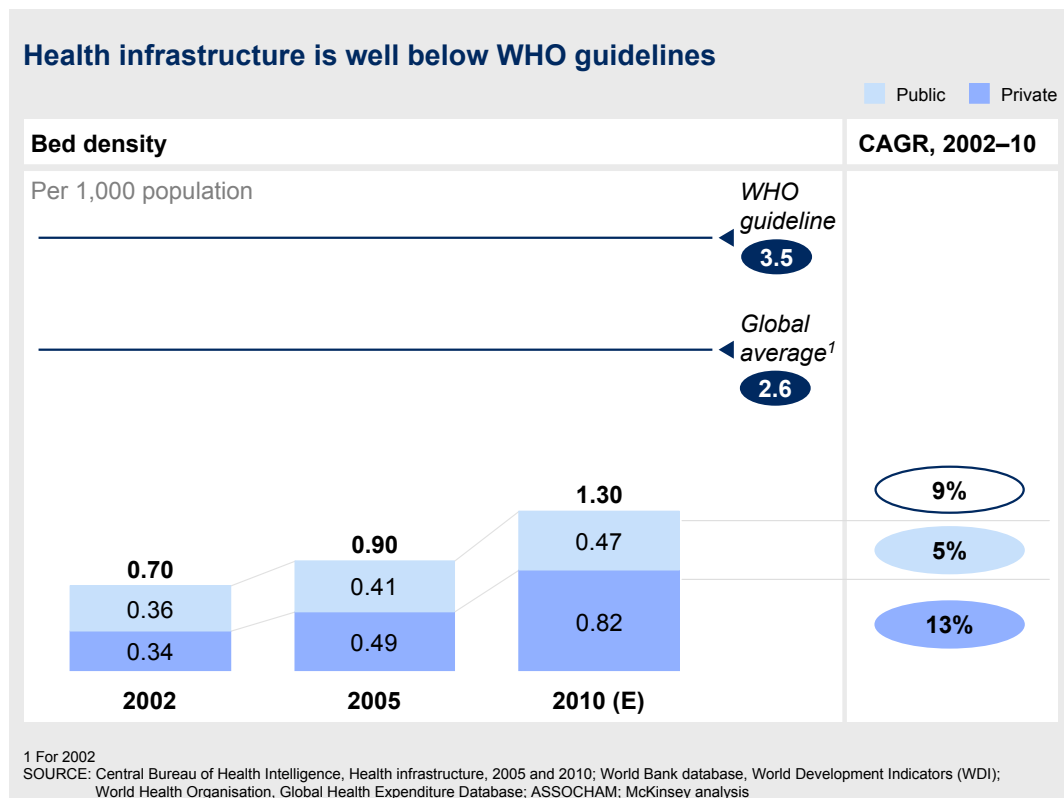
FROM 2002 TILL 2012: A DECADE OF LESSONS LEARNT BUT OPPORTUNITIES LOST

Poor outcomes and insufficient resourcing at the turn of the century

At the turn of the century³, India's Infant Mortality Rate (IMR)⁴ and Maternal Mortality Ratio (MMR)⁵ lagged behind the average for the low and middle income countries (LMIC)⁶, as did its life expectancy. Moreover, health outcomes varied dramatically across states.

The Indian healthcare sector faced shortages of workforce and infrastructure. India had 1.7 trained allopathic doctors and nurses per 1,000 population in the year 2000 compared to the WHO recommended guideline of 2.5 per 1,000 population⁷. Bed density in the country was 0.67 per 1,000 population in the year 2002, well below the global average of 2.6 and WHO benchmark of 3.5 [Exhibit 1].

Exhibit 1



3 We have considered 2002 as the starting point for our analysis because we believe that 2002–12 is the relevant timeframe for our analysis. The Draft Twelfth Five-Year Plan of the Planning Commission of India states that reform will require 2–3 Plan periods.

4 Infant Mortality Rate (IMR) is the number of deaths of children less than one year of age, per 1,000 live births.

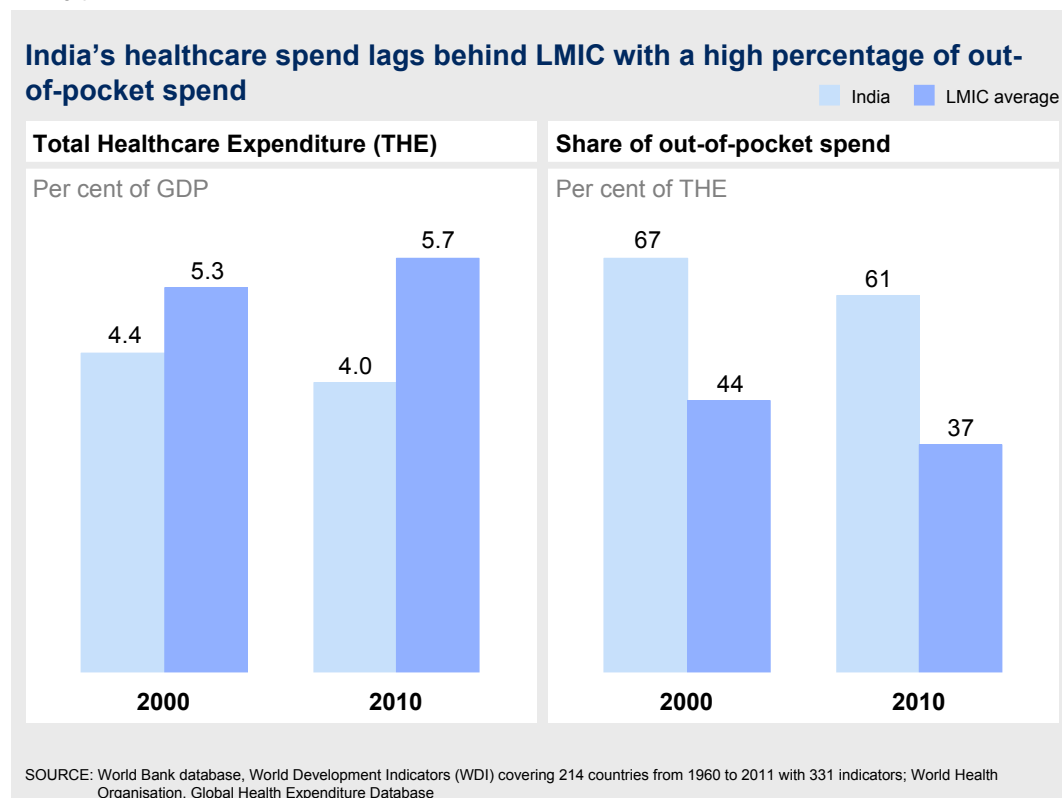
5 Maternal Mortality Ratio (MMR) is the number of women who die during pregnancy and childbirth, per 100,000 live births.

6 Low and middle-income countries (LMIC). This is part of the income based classification of countries by the World Bank. Income is accepted as an important determinant of health outcomes. India falls within the LMIC category. Therefore, LMIC average was chosen as the reference.

7 WHO has provided a guideline on minimum density of healthcare practitioners required for better health outcomes.

Total healthcare expenditure was 4.3 per cent of GDP in 2000, below the LMIC average of 5.3 per cent⁸. More importantly, of this, out-of-pocket spend was 67 per cent, much higher than the LMIC average of 44 per cent [Exhibit 2]. Health insurance covered only 5 per cent of Indians in 2004.

Exhibit 2



Some successes in the past decade: the fruits of reform and private enterprise

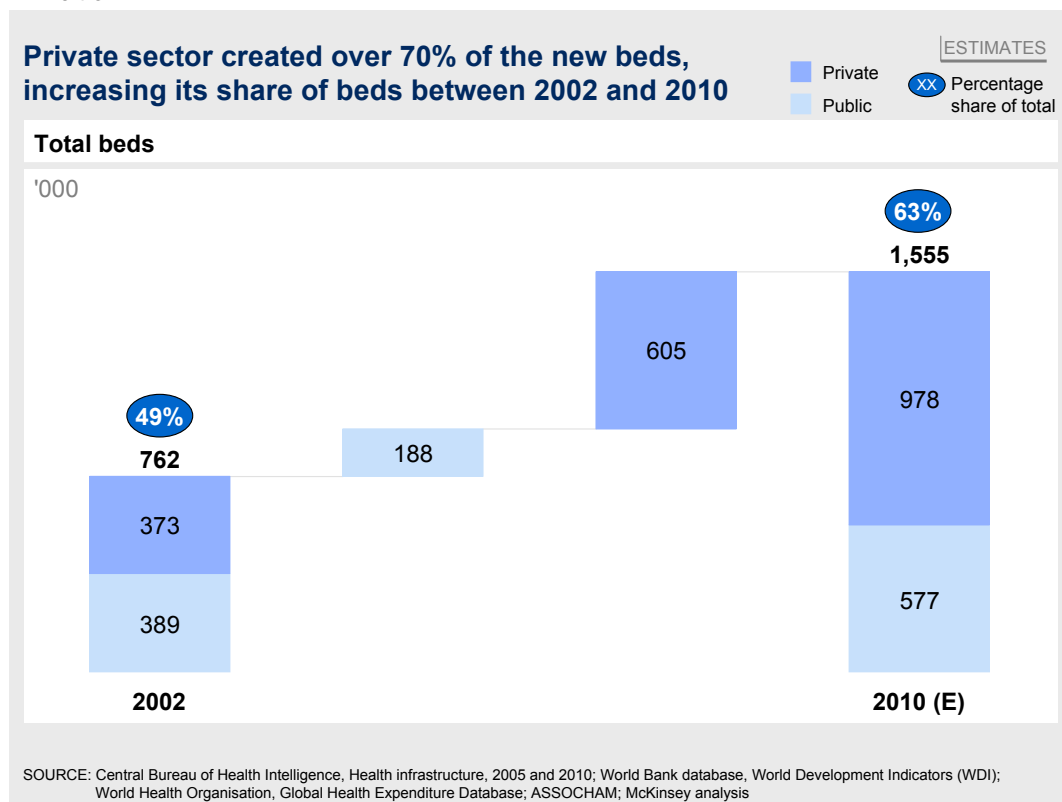
In the last decade, India's health system developed well in a few areas. Public sector efforts gained momentum with the adoption of the Millennium Development Goals (MDGs), as the government set targets to reduce the MMR by three quarters between 1990 and 2015; to halt the spread of HIV/AIDS, malaria and other major diseases; and to reverse their spread by 2015.

The Eleventh Five-Year Plan brought about long-awaited healthcare reforms. These led to greater intensity and some changes in the direction of public sector initiatives⁹. Within the private sector, healthcare facilities grew rapidly and insurance coverage increased [Exhibit 3]. The past decade also witnessed several pilots of public-private partnerships, particularly in hospitals and diagnostic services.

8 Draft of the Twelfth Five-Year Plan defines core and broader health spend; the latter also includes expenditure on sanitation, Integrated Child Development Services (ICDS) and mid-day meals. Throughout this report, Total Health Expenditure (THE) refers to the core health spend, as per the draft Twelfth Five-Year Plan.

9 Throughout the report, "Government" refers to the Centre and the State. "Centre" or "State" will be specified where required.

Exhibit 3



Major challenges persist

Despite the progress made in the last decade, major challenges persist:

- Health indicators continue to lag.** Outcome indicators, such as IMR and life expectancy, continue to fall behind LMIC averages. It is likely that India will fall short of the 2015 targets for IMR and MMR set in the Millennium Development Goals. The non-communicable disease burden has grown to 53 per cent of the total disease burden by 2008, according to the WHO.
- Healthcare spend is not growing at the same pace as GDP.** As per WHO National Health Accounts, India's healthcare spending as a percentage of GDP has reduced from 4.4 per cent in 2000 to 4.0 per cent in 2010. This implies that, in nominal terms, India's healthcare expenditure has grown at a slower rate than the country's GDP [Exhibit 4].
- Out-of-pocket spending continues to be high.** This is despite the fact that the public spend has increased, and implying that thus public spending has struggled to keep pace with the rise in healthcare demand.
- Infrastructure gaps remain substantial, and are exacerbated by underutilisation of existing resources.** Total bed density had increased to 1.3 per 1,000 by 2010, but remains significantly lower than the WHO guideline of 3.5 beds per 1,000. Underutilisation of existing resources further compounds the problem of meagre infrastructure. Private sector hospitals routinely face utilisation issues. Utilisation of public sector facilities remains low¹⁰.
- Health workforce remains inadequate and underutilised.** The total number of allopathic doctors and nurses in the country lags the WHO benchmark of 2.5 doctors per 1,000 population, at 2.2 per 1,000 people. Despite the scarcity of medical personnel, the

¹⁰ Based on Rural Health Statistics, NRHM.

problem of underutilisation exists. With a high proportion of nurses inactive, and registered medical practitioners, AYUSH doctors and rural medical practitioners not actively involved in the formal sector, the density of practising workforce falls to 1.9 per 1,000 [Exhibit 5].

Exhibit 4

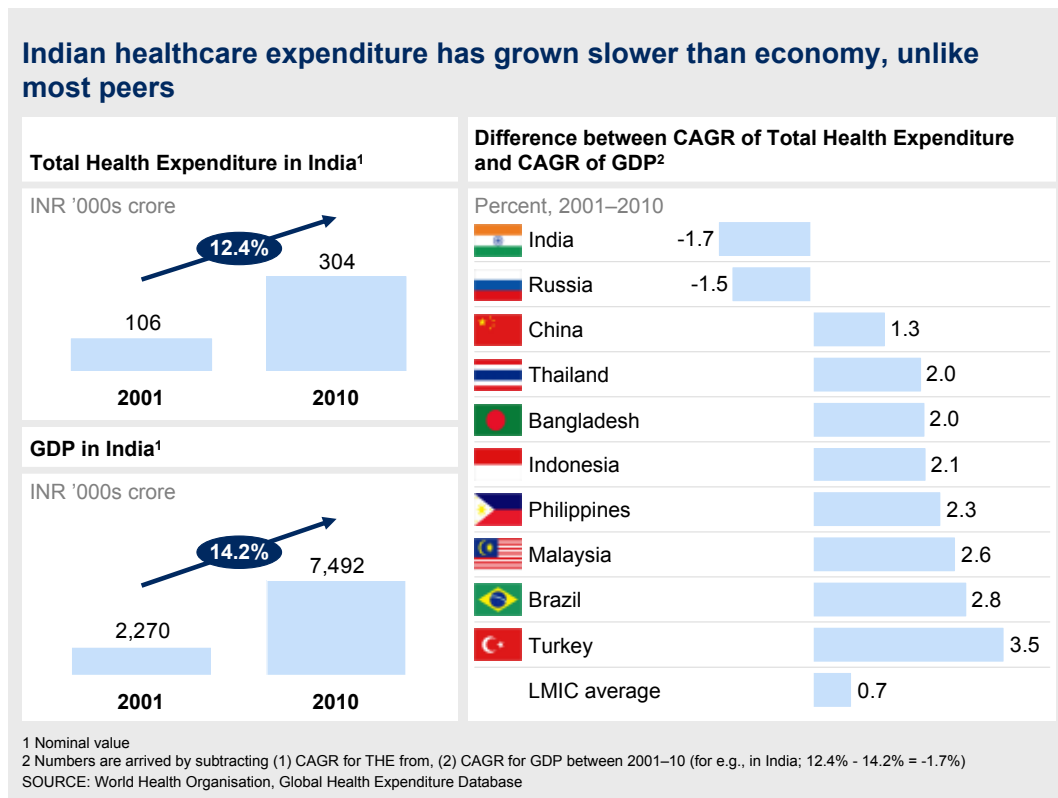
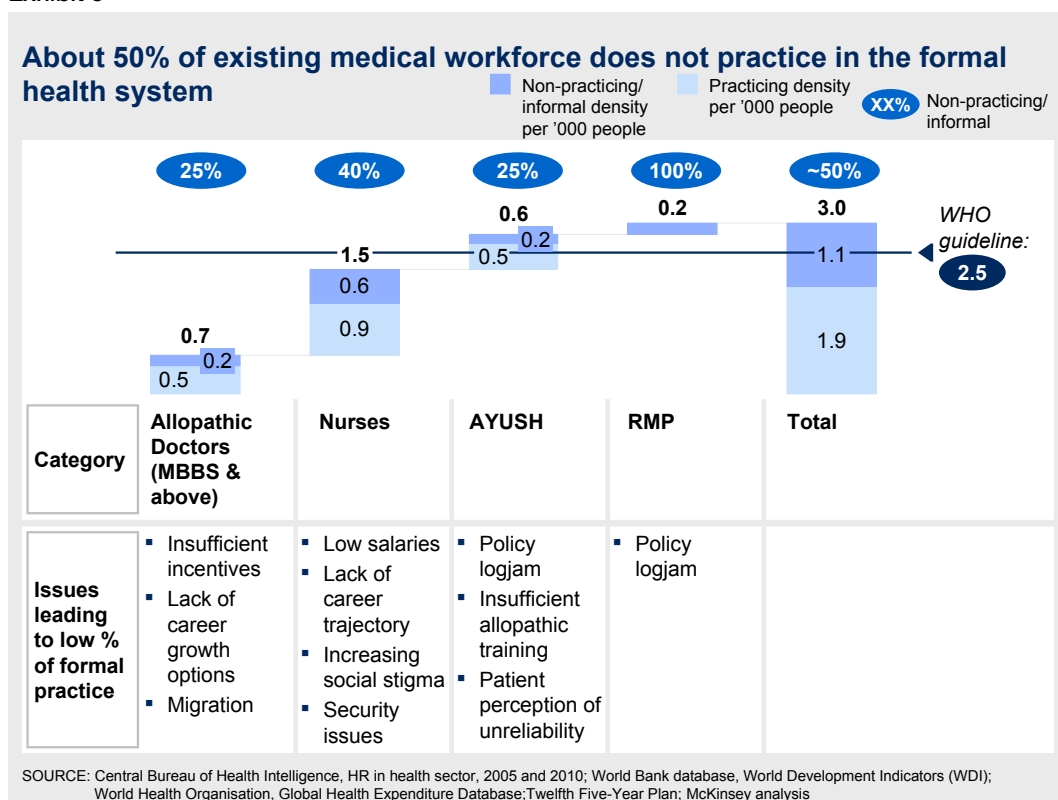


Exhibit 5



- **While regulatory systems have been partially defined, a holistic regulatory framework is required.** A well-functioning and effective system is required to manage the large and diverse set of service providers in India. New legislations (e.g., the Clinical Establishments Registration Act) have been passed but implementation has lagged.
- **Public-private collaboration has not yet achieved scale.** Several pilots of public-private partnerships have been successful. However, none of them has been scaled up to meet India's health challenges. While government sponsored social insurance programs have grown rapidly, nearly 75% of the population remains uncovered.

Five learnings for the future

The unresolved challenges of India's healthcare sector during the past decade hold at least five lessons for its future development. First, an all-encompassing vision of future demand for health services should guide this vision and roadmap for Indian health system. Second, prevention and early stage management should be a core focus area. This is particularly relevant given the rising burden of NCDs. Such investments can significantly mitigate disease and cost burden. Third, a constructive and transparent dialogue will be needed between the public and private sectors at this early stage of the journey. Fourth, the focus needs to be on efficiency, especially through better utilisation. Finally, large-scale implementation needs strengthening.

Direction provided by the draft of the Twelfth Five-Year Plan

To envision India's future health system and provide fresh impetus to its health reform journey, the Planning Commission has released a draft of India's Twelfth Five-Year Plan. This draft defines the government's health strategy based on the vision of 'Universal Health Coverage', as defined by a High Level Expert Group that was constituted by the Planning Commission. It envisions "assured access to a defined essential range of medicines and treatment at an affordable price, which should be entirely free for a large percentage of the population." This vision is expected to be rolled out in the next 10 to 15 years.

This Five-Year Plan, based on a vision of universal access, appears to mark an important point of transition in India's national health strategy. This draft and the HLEG's recommendations serve as the reference point for our report, and we have used these as the basis for our perspectives and observations.

LESSONS FROM THE HEALTHCARE REFORM JOURNEYS OF PEER NATIONS

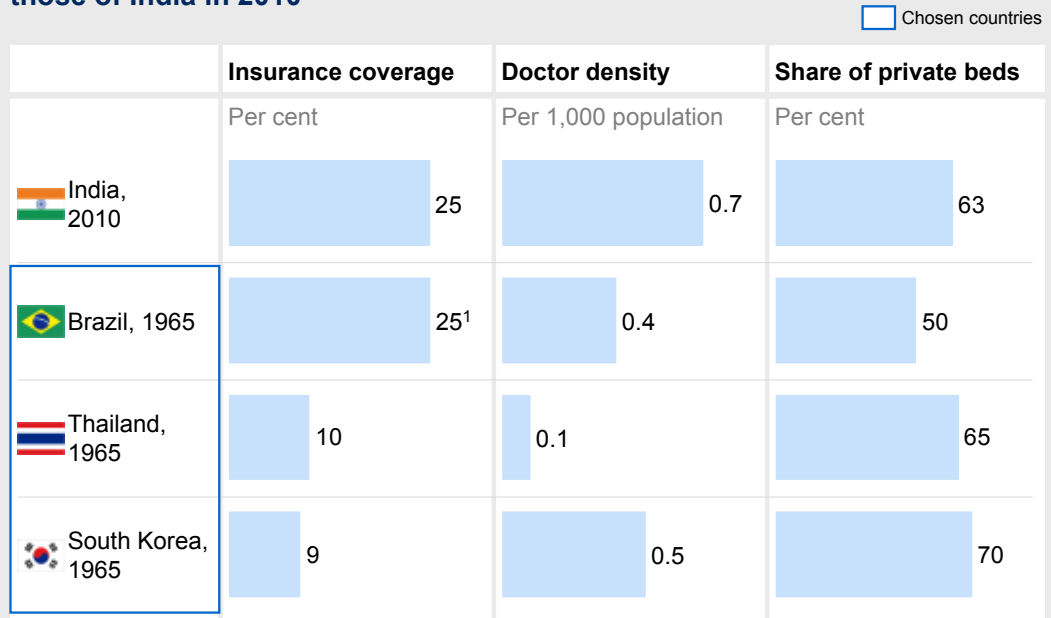
In considering how to transform India's health system, there is much to learn from similar journeys by other countries. In their attempts to reform healthcare, countries tend to undergo the transformation in two phases: first, when the political leadership makes a strong commitment to providing access to all citizens; second, when having achieved access to a level greater than 80 per cent, governments attempt to strike a balance between the cost-effectiveness and quality of healthcare. India can learn from the transformation journeys of several countries.

Our approach: study the journeys, not the static picture

We chose to understand the healthcare reform journeys, often spanning several decades, and not rely on a static picture at a point in time. We selected 15 countries for the initial phase of study, and narrowed down during the latter phase of the exercise, to Brazil, Thailand and South Korea for an in-depth assessment of their health journeys, given their similarities to India at their starting point in the 1960's [Exhibit 6].

Exhibit 6

In the 1960s, the chosen countries had health statistics similar or worse to those of India in 2010



1 Based on interviews, data is directionally correct however, may not be precise
SOURCE: World Bank database, World Development Indicators (WDI) covering 214 countries from 1960 to 2011 with 331 indicators; McKinsey analysis

Brazil: government driving financial coverage while leveraging private sector for provision

The health reform journey for Brazil has taken four decades and is continuing. The government initially chose to play a dual ‘payor’ and ‘provider’ role, and only after a decade of reforms, chose to retain its ‘payor’ role and leverage the private sector for provision.

Brazil’s health reforms have led to a significant improvement in access. Insurance coverage has reached nearly 100 per cent. Doctor density had risen to above 1.7 per 1,000 by 2008, from less than 0.4 in the 1960s. Public expenditure as a share of GDP almost doubled, from 2.8 per cent in 1995 to 4.2 per cent in 2010. Health outcomes in Brazil have improved dramatically during the reform journey of the last four decades. The infant mortality rate (IMR) in 2010 was at 15 per 1,000 live births in 2010, compared to the world average of 38. The maternal mortality ratio (MMR) in 2010 was at 56 per 100, compared to the world average of 210 per 100,000 live births in 2010.

The Brazilian healthcare system is not without its share of challenges. Infrastructure for SUS (social insurance scheme) patients in private hospitals needs to be revamped. The federal system of government with varying levels of performance of local governments has created disparities in health outcomes¹¹.

Thailand: government driving the social insurance model

At the outset of its health reform journey, in the 1960s, Thailand had an IMR of 81 per 1,000 live births and a doctor density of only 0.1 per 1,000 people. Insurance covered about 10 per cent of the population. Overall spending on healthcare was less than 4 per cent of GDP.

¹¹ Life expectancy ranged from 63 years in Alagoas to 71 years in Santa Catarina in 2003.

Over the last four decades, the government has created financial access through a successful social insurance model, leading to a low out-of-pocket spend and a significant reduction in catastrophic expenses.

Thailand's health challenges now lie in the low quality of its public health system despite strong measures to fund and monitor the quality of the '30 Baht Scheme'. To lessen the government's financial burden, policymakers are now looking to reduce benefits packages or increase co-payments.

Thailand's health reforms have been successful. Health outcomes are significantly better than world averages. The IMR in 2010 was at about 11 per 1,000 live births, compared to the world average of 38. The MMR in 2010 was at about 48 per 100,000 compared to the world average of 210 per 100,000 live births in 2010.

South Korea: government the single payor, while encouraging private investments and regulation of provision

At the beginning of its health reform journey, in the 1970s, South Korea's health outcomes were already favourable in comparison to other nations and world averages. However, the system was characterised by low and inequitable access, and the absence of a regulatory framework. In the 1970s, doctor density was at less than 0.5 per 1,000 and insurance coverage at just 9 per cent. Out-of-pocket spending was high, leading to high inequity across income groups. Similar to today's India, the absence of a regulatory framework coincided with a rapidly growing private sector.

The government decided to focus on the 'payor' role, integrated its bargaining power by consolidating all payors into a single entity, encouraged and incentivised the private sector to invest in provision, and drove down provision costs through a rigorous regulatory environment!

South Korea's current problems in healthcare appear to be a high out-of-pocket spend and inefficiency. Despite 98 per cent coverage, out-of-pocket expenditure remains at a high 30 per cent. Driven by the low and regulated fees of general practitioners, more than 70 per cent of physicians are specialists. This bias, coupled with a high rate of physician consultations (i.e., 12 per year per capita, compared to 7 for OECD countries), indicates overuse and inefficiency within the health system.

Notwithstanding these challenges, South Korea's health reforms have been successful and have led to health outcomes among the best in the world. The IMR in 2010 was at about 5 per 1,000 live births, compared to the world average of 38. The MMR in 2010 was at about 16 per 100,000 compared to the world average of 210 per 100,000 live births in 2010.

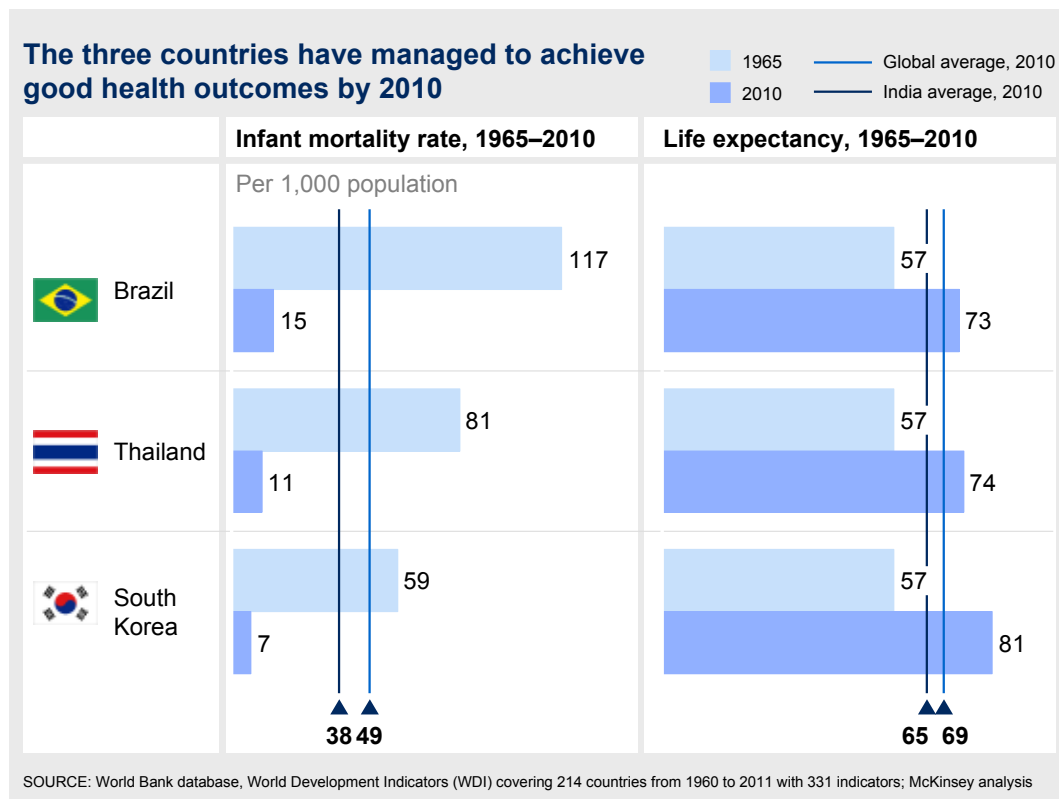
Six relevant learnings for India

The experiences of Brazil, Thailand and South Korea in reforming their healthcare systems, and the experiences of other nations, provide useful lessons for India [Exhibit 7]. These experiences substantiate the emphasis, laid out in the draft Twelfth Five Year Plan of the Planning Commission on removing barriers to health access, on removing the barriers to healthcare access.

First, transforming the health system is a long-term journey, championed and driven by political leadership over a sustained period. Second, creating universal access has to be a primary focus, with a secondary focus on efficiency or quality. Third, in an economic environment of low per capita income, it is not possible to create access with a high out-of-pocket spend. Fourth, government should ideally choose between the payor or provider role. Fifth, to collaborate with the private sector, government would need an inclusive vision, dialogue and an effective

regulatory framework. Finally, a decentralised federal system functions effectively when supported by a common policy framework.

Exhibit 7



THE DECADE TILL 2022: A CRUCIAL PHASE IN INDIA'S HEALTH REFORMS JOURNEY

It is unrealistic to assume that India's health reforms journey can be achieved within a decade. Given the weak starting position and the complex realities of healthcare in India, the journey towards equitable, efficient, quality and universal access is likely to continue over a much longer timeframe. However, the next decade will need to count for much and enable the country to traverse a significant portion of its longer term journey.

Significant inequity in healthcare access

India's inequity in healthcare access is a matter well known. The differences in health outcomes across states are strong indicators of this inequity. What is perhaps less understood is the magnitude of this inequity, its manifestation across the rural-urban divide and income segments, and its alarming upward trajectory.

In order to better understand this inequity, we analysed six segments of the population along the dimensions of urbanisation and income: urban poor, urban middle class, urban rich, rural poor, rural middle class and rural rich. While we recognise the importance of other factors such as gender and education, we excluded these from the analysis given the paucity and unreliability of available data.

We studied these six clusters to understand their growth rates over time, their healthcare situation such as disease prevalence and incidence, and healthcare choices such as spend profiles and site of treatment. The analyses bring to light six realities of healthcare access,

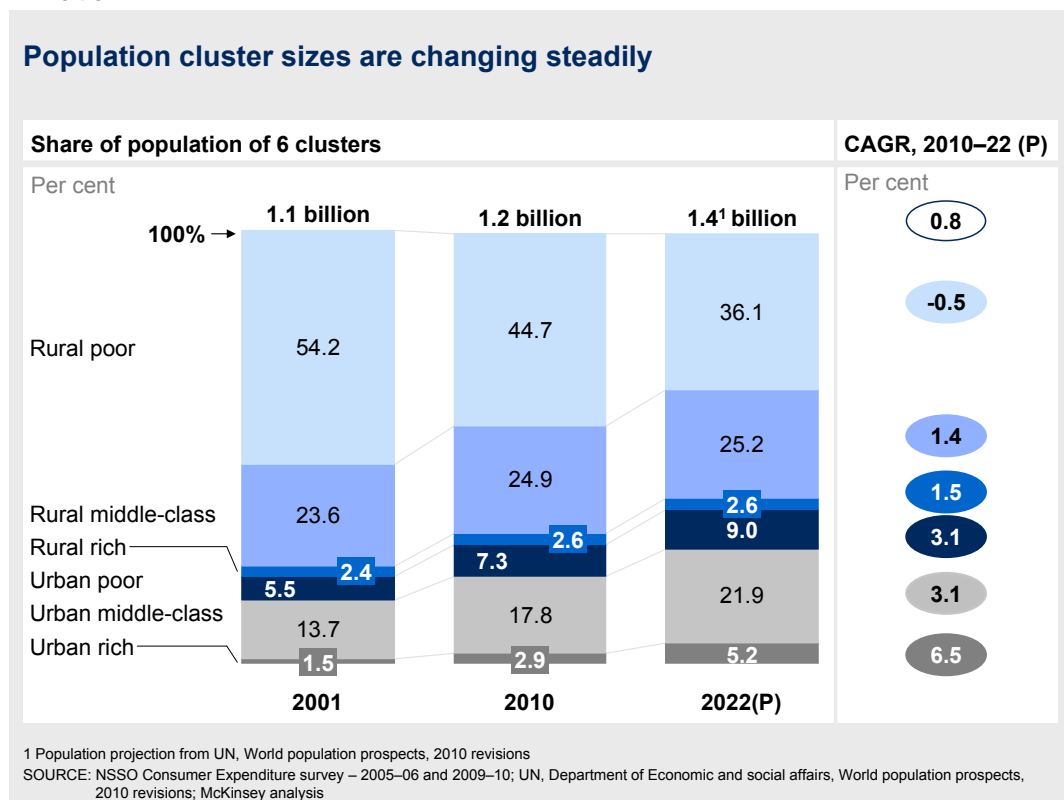
remarkably different from each other. The differences in these realities need to be factored in as the government envisions its long term health reforms journey.

The analyses highlight several dimensions of inequity in healthcare access. First and foremost, the demographics of these population clusters are undergoing steady change that will add up over the coming decade [Exhibit 8]. Interestingly, rural India accounts for not only 70 per cent of communicable disease cases, but also 50 to 70 per cent of NCDs¹² [Exhibit 9].

On the other hand, the urban rich access health services at a rate that is double that of the rural poor and 50 per cent more than national average. Moreover, major differences exist in the costs of hospitalisation between private and public facilities. Consequent to the two above mentioned factors, spend on hospitalisation for urban rich is significantly above that of other demographic groups.

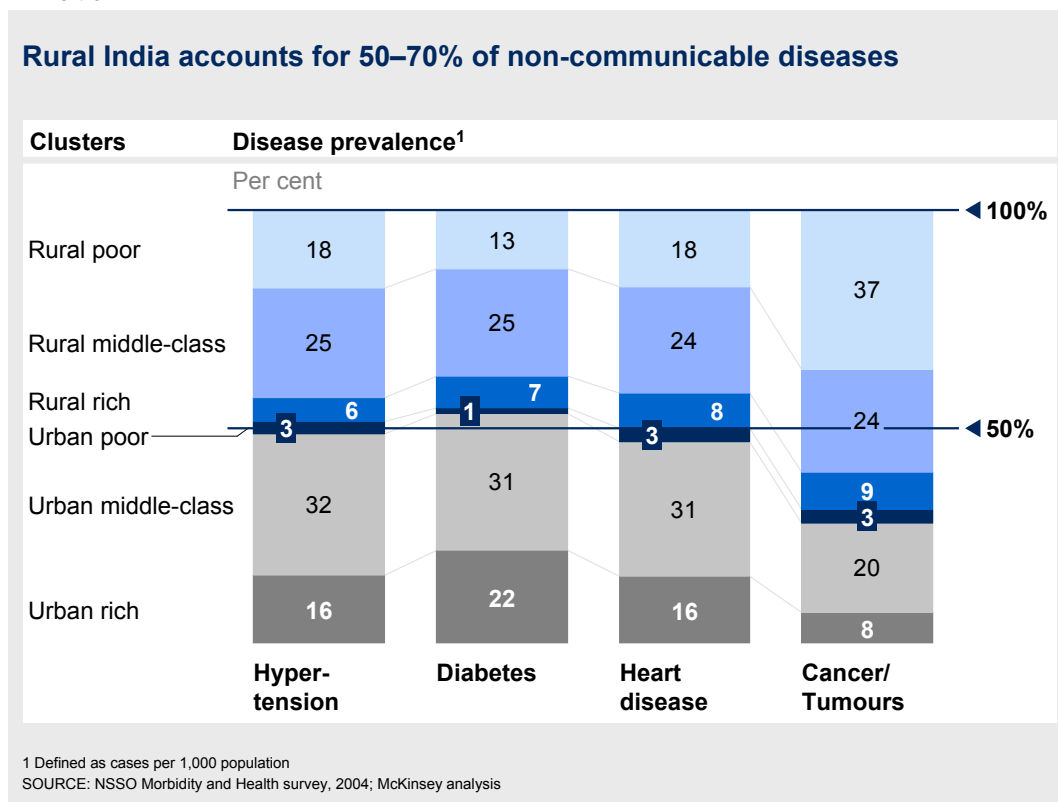
Finally, urban and rural poor access private facilities the least, though the difference with the rich segment is not that significant.

Exhibit 8



¹² NSSO records self-reported ailments in the last 15 days and during hospitalisation in the last one year. This analysis is based on this self reported data.

Exhibit 9



Envisioning India’s health system in 2022

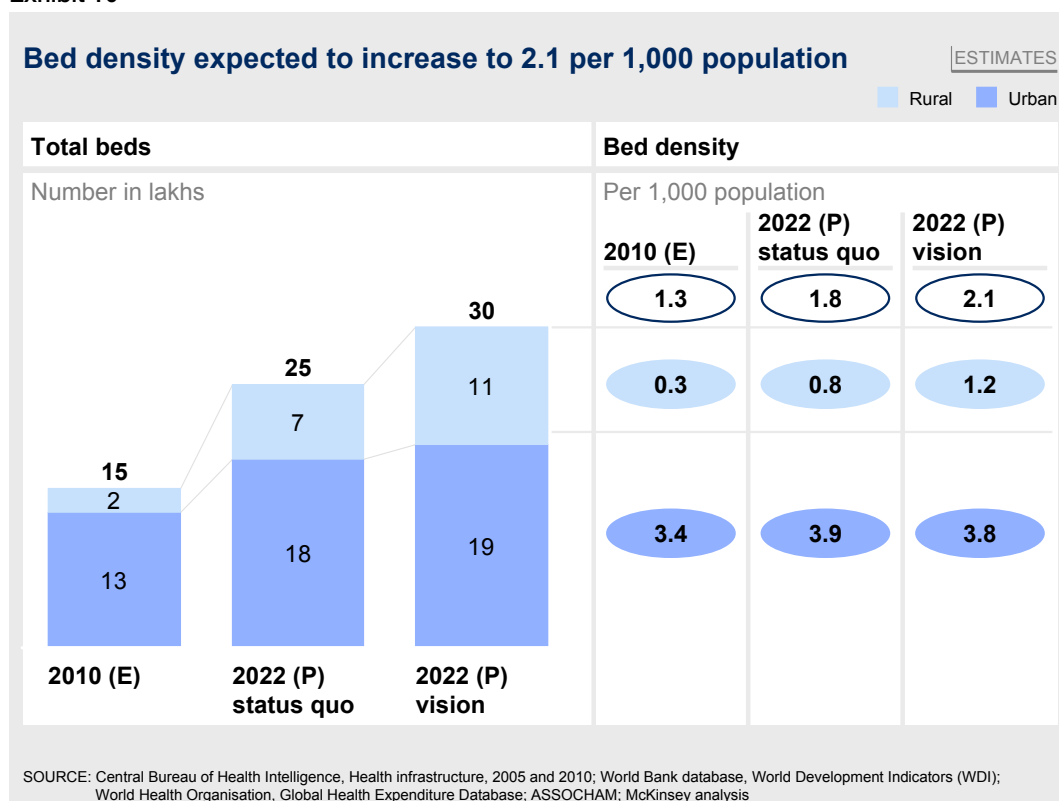
In the Planning Commission’s draft Twelfth Five-Year Plan, the vision laid out for India’s healthcare sector is to “establish a system of Universal Health Coverage”. This is undoubtedly a lofty aspiration, and in the right direction. Affordable healthcare underpins this vision, and is aligned to the learnings and experiences of nations that have moved a long distance in their health reforms journey.

Notwithstanding the need for pace and momentum, it will be important to avoid the trap of aiming for a goal that targets the maximum along all dimensions. Hence, while describing the 2022 vision, we have attempted to articulate 2022 goals that are aspirational and stretched, yet attainable.

- **Much improved financial access.** This would be achieved primarily through more extensive insurance cover, which could move up to 75 per cent¹³ from the current 25 per cent. Those who cannot pay for healthcare would receive it free through public provision (e.g., government hospitals) or government payments (e.g., RSBY).
- **Healthcare resource gaps filled.** Infrastructure would have scaled up with increased utilisation, reaching an overall bed density of around 2.1 per 1,000 people, including 1.0 to 1.2 beds per 1,000 people in rural areas and 3.8 to 4.2 beds per 1,000 people in urban areas [Exhibit 10].

¹³ Assuming 100 per cent coverage for poor population and up to 60 per cent coverage for the middle class.

Exhibit 10



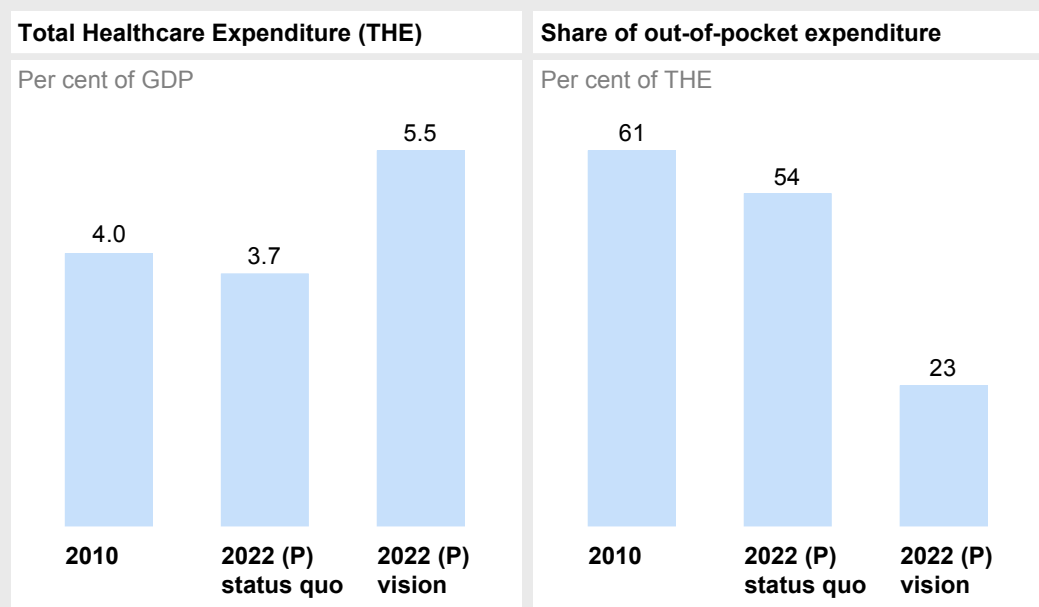
- Workforce shortages have to be overcome.** For this to happen, up to 90 per cent of registered practitioners will need to practise. Moreover, AYUSH and Rural Medical Practitioners will need to be incorporated into mainstream healthcare at a national level, thereby also bridging the urban-rural inequity in healthcare resourcing. By 2022, the country could aim for doctor and nurse density of 0.7 and 1.7 per 1,000.
- Much greater spending needed on healthcare vis-à-vis current levels of spending, and a much lower level of OOP.** In order to achieve the desired financial access and build the desired level of infrastructure, total spending will need to be at 5.5 per cent of the country's GDP by 2022, up from the current 4 per cent¹⁴ [Exhibit 11]. India's out-of-pocket spend will need to come down from the current 61 per cent of total healthcare spend to 23 per cent.
- A much higher level of healthcare demand catered to.** India's health system will need to cater to a much higher level of demand for healthcare services. Hospitalisations will rise from the current 4.8 per 100 people to 6.5 per 100 people. For poor segments of the population, this will go up from 2.6 per cent to an impressive 6.1 per cent. For the rich segments, this will go up from the current 7.5 to 8.5 per cent¹⁵.
- Patient interests at the core of the agenda.** Quality of care needs to be in focus, enabled by an effective regulatory system. This regulatory framework will need to include legislation for the standardisation of treatment practices, clinical establishments and malpractice mitigation.

¹⁴ Assuming a nominal GDP growth rate of 14 per cent based on Global insights, WIS. Growth rate for total health expenditure required to reach destination 2022 will be 16 per cent. Total healthcare spend will be INR 1,900,000 crore.

¹⁵ Access for the lower income groups increases towards the level of the middle-income groups, enabled by publicly funded services. For the higher income groups, access increases with awareness of NCDs, which require higher frequency of visits.

Exhibit 11

What could be India's total healthcare expenditure and out-of-pocket share in 2022?



SOURCE: World Bank database, World Development Indicators (WDI) covering 214 countries from 1960 to 2011 with 331 indicators; McKinsey analysis

- **Better integration of health facilities.** Referrals from one link in the chain (e.g., primary health clinic or private physician) to another (e.g., tertiary hospital) needs to be orchestrated and patient treatments tracked.
- **Consequently, a substantial and cross-the-board improvement achieved in health outcomes.** In effect, the Millennium Development Goals would have been met. In addition to the MDG goals, there will need to be emphasis on areas that have been hitherto in less focus, such as non-communicable diseases and services such as diagnostics, trauma and emergency care. The diagnosis of chronic diseases will have to be more in line with that of peer countries and even some developed countries.

Current momentum insufficient

The current trajectory of development in the healthcare sector will not be sufficient to achieve the 2022 vision. A 'status quo' approach will be rendered ineffective due to epidemiological pressures, burgeoning healthcare demand, existing and growing inequities in access and delivery, and unregulated growth of the sector.

- **Gap in healthcare spending vis-à-vis the 2022 vision.** If the current trajectory of spending growth were to continue, total health expenditure will in fact drop from the current 4 per cent of GDP to 3.65 per cent by 2022.
- **Gap in healthcare infrastructure.** At current growth rates, infrastructure will be unable to keep pace with demand. India will end up with a total bed density of around 1.7 to 1.9 per 1,000 people against the global average of 2.9, even in 2005, and the WHO guideline of 3.5. Public sector beds have been increasing at a CAGR of 3 to 4 per cent and private sector beds at a CAGR of around 7 to 10 per cent. However, this private sector growth cannot be sustained on a high level of out-of-pocket spend.

- **Gap in healthcare workforce.** As per the Twelfth Five-Year Plan, the physician and nurse density is expected to reach around 0.7 and 1.7 per 1,000 respectively by 2022. Of these, if the current utilisation numbers were to be maintained, the active workforce would only be 0.5 and 0.8 per 1,000 respectively. It is evident that the government will need to play the lead role in accelerating from 'status quo' and providing much needed momentum to India's health reforms journey.

ROLES AND IMPERATIVES FOR THE GOVERNMENT

The government will need to play the lead role to drive India's healthcare transformation journey. It will need to make an important choice with regards to its primary role. We have also indicated a few areas that merit joint action by the government and the private sector.

Government's 'stewardship' role

Health reforms journeys of peer nations underscore the stewardship of the government and the political leadership of the country. This stewardship is underpinned by at least eight imperatives:

- **Creating the vision for the country's health system.** This vision will need to be long-term, sustainable and rooted in the core objective of the achievement of 'universal healthcare coverage'. The government has taken an important step by stating its longer term goal of universal health coverage. Going forward, it will be important to detail this vision, describe the health system that the country should aspire for (i.e., beyond spelling out the targeted health outcomes and the quantum of funding and resourcing needed), and lay out a high level roadmap for the journey.
- **Making a choice of its secondary emphasis beyond 'universal access', at the outset of the health reforms journey, between efficiency and quality.** Experiences of peer nations indicate that governments have chosen between efficiency and quality at the outset, to complement its core objective of universal healthcare coverage. This choice informs government policy, regulatory framework and the usage of government funds. The Twelfth Five-Year Plan spells out affordability as an important consideration.
- **Orchestrating the envisioning process such that it is inclusive.** The integrity of the health system is important for it to succeed in achieving the country's goals of universal healthcare coverage. This integrity can be achieved only through complementary goals and consistent and collaborative behaviour across the stakeholder groups including the public and private sectors.
- **Ensuring that funding for healthcare is secured and appropriately deployed.** The government will need to assume responsibility through a combination of its own budgetary outlays, private investments, funding from multilateral institutions, and reasonable levels of out-of-pocket spending. The total spending on healthcare needs to move up from the current 4 per cent of GDP to 6 to 7 per cent of GDP by 2022. Within this, government spending needs to move up to at least 3 per cent of GDP. In the main text of this report, we outline several initiatives the government could take to achieve this level of funding.
- **Making a responsible and explicit choice between playing a 'primary payor' role and a 'primary provider' role.** Rarely have governments been able to play the dual roles of 'primary payor' and 'primary provider', and do justice to the requirements of resourcing and leadership. Most governments chose the role of the primary payor, while a few chose the role of the primary provider. This choice will have important implications on how the government deploys its resources and leadership bandwidth, and where it encourages the private sector to invest. It will also have an impact on the nature of the country's regulatory framework.
- **Better utilising and integrating the existing workforce to address shortfalls.** Adding to the existing workforce is an important priority. Setting up six medical institutes modelled after the AIIMS and upgrading thirteen regional medical colleges will go a long way towards

this goal. However, the new institutes will have an appreciable impact on the workforce only, and at least, after a decade of their setting up. Hence, improving the utilisation of the existing workforce becomes an important prerogative for the government. To achieve this goal, the government can undertake several initiatives, of which we outline a few in the main text of the report.

- **Architecting the regulatory framework for the healthcare sector.** This regulatory framework needs to be underpinned by the considerations of patient centricity, system performance, and the transparency of cost and outcomes data. Moreover, it should be in line with the primary roles to be played by the government and private sector. The main aspects that will need to be included in the regulatory framework will be the performance expectations from the healthcare delivery system, government support to promote private investments in healthcare, and the important aspects of reimbursement and copayment that will help extend financial coverage while encouraging system efficiencies and reducing the OOP spend.
- **Orchestrating and facilitating, at a system level, the implementation of developmental initiatives.** This role needs to be an important emphasis for the government during at least the initial phase of the health reforms journey. In addition, the government will need to harness information technology. The proposal to establish a Health Management Information System in the Eleventh Five-Year Plan was a critical step in playing this role. Building on this, the Twelfth Five-Year Plan approaches information technology in a more holistic way, incorporating this in registration, health records, electronic patient records, healthcare payments and telemedicine. The second is to build technical and managerial capability that will help drive large scale programs owned by the government.

Government's choice of its primary role

The government will do well to explicitly choose between playing a 'primary payor' role and a 'primary provider' role. The two roles and their differences need to be defined, and their implications understood.

- **Choosing the role of the 'primary provider'.** Making this choice implies that the government will focus its efforts primarily on the setting up and operations of hospitals, diagnostics, clinics and sub-centres across the country. Growth of social insurance will slow down as the government deploys its resources mostly in provision and subsidising the costs of treatment in its hospitals. Private provision will likely slow down with the government unlikely to incentivise private investments in setting up healthcare delivery centres. If the government were to play the role of the 'primary provider', it would have to strengthen several capabilities that we enumerate in the main text of the report.
- **Choosing the role of the 'primary payor'.** Making this choice implies that the government will become the principal payor for healthcare in the country, with services provided through the private sector insurers as well as providers. Growth of public beds will slow down as government starts deploying an increasing share of funds in scaling up RSBY or similar schemes. Alternatively, the government could opt for a capitation, PPP or O&M contracting model, wherein the beds will be set up by the government, but the facilities managed and run by private players. Private provision will show strong growth. In addition, insurers are likely to experience strong growth if the social insurance schemes are rolled out at scale. If the government were to play the role of the 'primary payor', it should have to strengthen several capabilities that we enumerate in the main text of the report.

Working with the private sector

The 12th Five Year Plan envisages two predominant routes to enable this collaboration, first through government sponsored social health insurance schemes such as the Rashtriya Swasthya Bima Yojana (RSBY) and other state funded social health insurance schemes, and second through public-private-partnerships (PPP).

Our analysis of successful PPP schemes around the world indicates that the following five-stage approach increases success: first, create a legal framework; second, build competence in the public sector; third, carefully choose and test PPP models by understanding the key value drivers and risks; fourth, actively build a market and supplier base for public-private contracts; and finally, implement strict controlling and performance monitoring.

We consider action areas for collaboration that are aligned to the achievement of the country's goals of universal healthcare access and do not need to necessarily wait for the development of a full-fledged long term healthcare vision. Progress in these areas could help enhance overall momentum and signal intent.

These action areas include the authorisation and accreditation of nursing associations (e.g., INA, NCI); creating and working with a body of private providers to address challenges in RSBY pricing and collections; potentially identifying a set of hospitals across the country where the private provider and government actively collaborate to ensure utilisation of beds, payments and reasonable profitability; rolling out and scaling up of existing standards such as the clinical standards and begin their implementation in a few geographies; launching a programme for tackling NDDS in collaboration with the private sector; considering the contracting out of operations and maintenance of select district hospitals to address utilisation and supply issues; and integrating patient records and other health care information with the UID or NPR, as a starting point to begin developing a patient data base.

This list is indicative, and by no means a comprehensive agenda for public-private collaboration.

OPPORTUNITIES AND IMPERATIVES FOR THE PRIVATE SECTOR

In this section, we discuss about the driving forces that are likely to shape the industry in the next decade. We then identify opportunity areas these forces create for the sector, and the imperatives necessary for players to capture these opportunities. We discuss about four industry segments – providers (including diagnostics providers), insurers, pharmaceutical manufacturers and devices and equipment manufacturers.

Drivers for growth

The private industry stands at an interesting juncture, facing several headwinds and tailwinds. We have identified the drivers that will shape the private sector opportunities.

- **The rising burden of NCDs:** As the prevalence of non-communicable diseases balloons in the next decade, policy makers as well as insurers should increasingly push for long-term care models as opposed to event based models that are currently the norm. This approach will be a more holistic one, and will also drive the need for increased diagnostics and sophisticated devices.
- **Increasing affordability:** With rising income levels across the population, as well as increasing insurance coverage, the number of patients accessing health services will rise. This fact is reflected more strongly in the rural and urban middle class clusters. These 'consuming' classes will see the addition of nearly 150 million people over the next decade. Social insurance coverage under RSBY and state schemes will likely increase over the next plan period. Similarly, private insurance penetration has increased from 4 per cent to 7 per cent over the past decade and trend is expected to continue.
- **Increasing awareness of disease, prevention and treatment:** Rising awareness of health and related outcomes, and the rising perceived need for health insurance will lead to more patients exhibiting care seeking behaviour, especially if covered by insurance.

- **Evolution of the six Indias, leading to newer and varying business models:** Different population clusters vary significantly in terms of access, epidemiology and expenditure and are growing at highly different growth rates. These differences will drive the industry to evolve different business models for each. For example, the urban poor, which is currently the most neglected segment from a healthcare access perspective, will grow to nearly 10 per cent of the country's population by 2022. The provider industry will need to explore ways to serve this large population group at right price points. A low cost model will be needed.
- **Addition to and improved utilisation of the existing medical workforce:** This will be applicable to the country's strength of general practitioners, specialists, paramedics, technicians and nurses, whose numbers have been a key constraint to the expansion of the provider and equipments industry.
- **Scaling up of public infrastructure:** This will drive the growth of all associated healthcare industries. Depending on the government's choice of a payor or provider role, the relative distribution of public versus private infrastructure will differ.
- **Margin pressures will increase:** As costs of manpower and utilities continue to rise, while prices come under competitive and regulatory pressure, the private sector will witness a steady pressure on margins.
- **Saturation of the metro and urban centres:** Our analysis reveals that currently urban India enjoys 3.4 beds per 1,000 population, higher than global average of 2.6. This of course does not take into consideration the well known 'drainage routes'¹⁶ within India towards the urban centres. Nonetheless, it does reveal the dramatic crowding of the sector in the metros. Discussions with leaders in the sector highlight the resultant pressures on utilisation and pricing¹⁷.
- **Governmental push to ensure equitable access to affordable health services:** This stated position, as per the Twelfth Five-Year Plan, could likely lead to a regulatory environment that aims at reducing the cost of care and OOP spend. The government should ideally take a holistic system-wide view to this cost containment.
- **Stronger regulatory framework can shape efficiency and performance levels of the private sector.** It is likely that the government will strengthen the regulatory framework through the standardisation of treatment guidelines, enforcement of the Clinical Establishment Act, and stronger redressal mechanism against malpractices is likely.

We fully expect India's healthcare sector to grow at a steady pace during the next decade. The share of value added between the private and public sectors will depend in large measure on the pathway government adopts and the choices it makes. Notwithstanding these choices, we expect the sector to grow at a CAGR of 15 to 17 per cent, reaching up to 5 to 6 per cent of GDP. This will imply that total spending in healthcare could well be in the range of INR 17,00,000 crore to 21,00,000 crore by 2022. Needless to say, such growth will take place provided the government and other stakeholders choose to undertake the challenging journey of health reforms.

Opportunities and imperatives for the provider industry

As we discuss 'providers', we refer to the entire industry, including diagnostic services. We will make explicit references to diagnostic providers or unique business models only in cases when the implications for these segments are different.

Traditional opportunities for the provider industry are well known. Beyond these, the opportunities that stand out are:

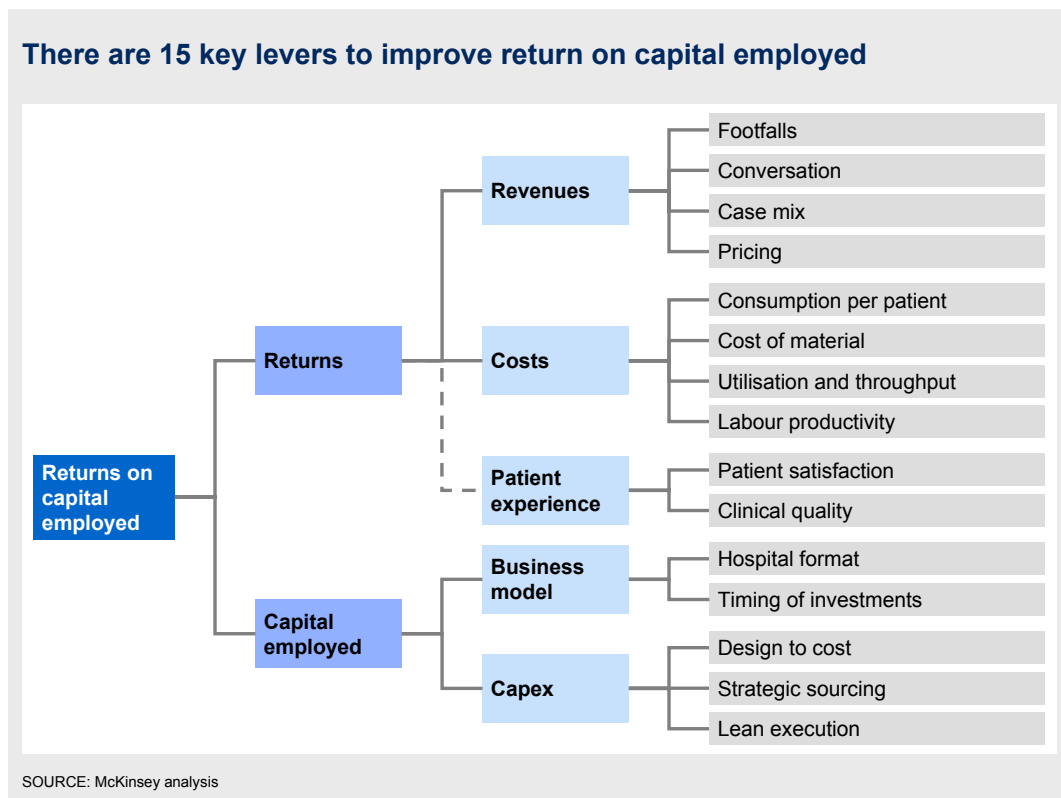
¹⁶ Drainage routes refer to flow of patients from areas with poor healthcare access, to urban centers or other places with good healthcare facilities.

¹⁷ See Appendix

- **Non-communicable diseases.** NCDs represent an important high-volume and high-value opportunity. These accounted for nearly 53 per cent of mortality in 2009-10. Average bill size for NCD hospitalisation was nearly 50 per cent higher than the remaining in 2004-05. For the hospital, the 'lifetime value' of the patient will go up at no incremental capex.
- **Non Metro urban market.** This geographic segment will provide a large opportunity even for secondary and tertiary multispecialty hospitals. The business model for these hospitals will need to be adapted to lower costs, and staffed with a different doctor pool.
- **The urban poor.** This is the segment in which the private sector has the lowest penetration. Less than 50 per cent of hospitalisations take place in the private sector. This cluster will represent 10 per cent of India's population by 2022, and could represent an interesting source of growth in metros.
- **Government sponsored social health insurance programs.** This opportunity, combined with the one above, will open doors to a hitherto underserved population. These schemes had provided hospitalisation cover to 183 million people by 2009-10. Early examples indicate that it is possible to develop low cost facilities to focus on such program.

To capture these opportunities, providers will need to undertake three imperatives. First, invest in business model innovation. Corporate chains will require different modules within their network - with different levels of capex, equipment usage, doctor models, non-healthcare services and utilities, and modes of payment. Second, maintaining profitability and ROIC¹⁸ in the existing facilities through greater operation efficiency and optimisation of capital [Exhibit 12]. Third, collaborate with other stakeholders in 'private-private partnerships' to plug leaks in patient funnel. This requires solutions that increase awareness, improve access to diagnostics, improves follow-up on referrals and strengthens trust amongst patients.

Exhibit 12



¹⁸ Return on Invested Capital (ROIC) is a financial measure of how well a company generates cash flow relative to the capital it has invested in its business. When the return on capital is greater than the cost of capital, the company is creating value; when it is less than the cost of capital, value is destroyed.

Opportunities and imperatives for the health insurance industry

The last decade has been a landmark decade for health insurance. Total number of insured people increased from 55 million in 2003–04 to 300 million in 2009–10. Four opportunities have the potential to make the next decade one of unprecedented growth. These opportunities are aligned to the priorities for healthcare identified by the government.

- **Government sponsored social health insurance programs.** These schemes have already formed an important component of growth over the last decade. These present substantial opportunities for the private sector. For example, Kerala covered 2.7 million families under the RSBY scheme within 4 years of launch.
- **Cover for out-patient spend.** This is nearly twice in-patient spend—and will imply a doubling of spend, and potentially premium, with the same population covered. Needless to say, methods need to be evolved to control fraud and overuse.
- **Non-communicable diseases.** Given the chronic nature and slow onset of NCDs, these are strong reasons for consumers to seek health insurance. However, insurance products for them are still in early stages. Developing such products would be an important opportunity for private retail as well as government sponsored social insurance programs.
- **The urban middle-class.** This segment continues to offer a large opportunity. Private insurance coverage data indicates significant untapped opportunity.

To capture these opportunities, health insurers will need to undertake the following 4 imperatives. First, strengthen focus on improving quality of service delivered by hospitals. Currently, quality issues have been reported¹⁹ in private and public facilities. Insurance companies have the negotiating power to assure minimum standards of quality amongst providers. Second, continue efforts towards increasing awareness of health insurance. Third, innovate to create appropriate products targeted at non-communicable diseases. Finally, the sector has to identify systems and methods to extend coverage beyond in patients and into the outpatient segment as well.

Opportunities and imperatives for the pharmaceutical industry

The Pharmaceutical industry has seen robust growth of 13 to 14 per cent during last five years. India's domestic drug market was estimated at nearly INR 63,000 crore²⁰ in 2010. Going forward, four opportunities stand out.

- **Metro and tier-I markets.** These geographies will continue to make significant contributions to growth, driven by rapid urbanisation and greater economic development. However, even here, medical treatment and compliance levels need significant investments and enhancement.
- **The urban poor.** This cluster is one of the fastest growing and much neglected segments. Geographical proximity makes it easier to tap than the rural segments.
- **Infectious diseases and vaccines.** If government adopts a provider role and continue with its thrust on immunisation, there will be new opportunities in these therapeutic areas.
- **The rural population.** This is currently the most underserved of all population clusters²¹. A profitable model to penetrate these markets at scale will need to be worked out.

19 Das et al., 'In Urban And Rural India: A Standardised Patient Study Showed Low Levels Of Provider Training And Huge Quality Gaps', Health Affairs, No. 12, Issue 31 (2021: 2774–84).

20 Data for 2004–11; IMS, SSA, MAT, December 2011, Annual report OPPI.

21 Rural poor have the lowest hospitalisation frequency (admissions per 100 population, per annum).

To capture six opportunities, the pharma industry will need to undertake the following imperatives. First, protect margins and drive costs and efficiencies to cope with price pressures and changing demand landscape. Low cost manufacturing and improving operational efficiency will be critical. Second, segment the market at a granular level and develop different business models for different opportunities. Third, strengthen two sets of commercial capabilities: marketing excellence and sales force excellence. Fourth, leverage partnerships across the value chain (e.g., with providers, diagnostics) to plug leakages in the patient funnel. Fifth, engage with government extensively, particularly if it adopts the provider model. Sixth, design its commercial model to cater to the rural population.

Opportunities and implications for medical devices and equipment industry

The medical devices and equipments sector is seriously under-penetrated in India. Poor diagnosis and treatment rates combined with an absence of affordable products have led to this situation. If Indian healthcare were to fulfil its promise in the next decade, the following opportunities would arise for medical devices and equipments players:

- **High income population segments in metros and tier I markets.** Unlike in pharmaceuticals and providers, this population segment continues to remain underpenetrated for medical devices. In order to capture the full potential, players would need to drive awareness and acceptance. Orthopaedic reconstructive joints and pacemakers are cases in point.
- **Mid-income segment in urban areas.** The potential in this segment is underpinned by a large and growing population, rising incidence of non-communicable disease, old age and greater access to diagnosis and treatment. To capture this opportunity players will need to introduce products with mid-tier pricing and coordinate with the other players in the value chain to provide a low 'cost of treatment' offering.
- **Home-based self-monitoring devices.** This opportunity is supported by the growth of chronic diseases, greater awareness and compliance. In addition, we witness a growing tendency amongst patients to become self-reliant with regards to non-invasive and periodic monitoring for chronic disorders.
- **Provider based equipment.** This opportunity will grow, driven by an increase in healthcare delivery facilities. To accelerate this growth innovative financing and public-private partnerships (PPP) will be crucial.

To capture these opportunities, the private sector will have to undertake the following imperatives. First, strengthen commercial capability to cater to the traditional urban rich segment. Second, introduce globally relevant products with state-of-the-art features targeting specialists and super-specialists in metros. Third, enhance product development capabilities to offer product with reduced features at mid-tier pricing. Fourth, drive collaboration across players in the business system in order to provide end-to-end treatment solutions. Fifth, for provider based equipment, drive innovation in financing and PPP models to develop solutions that can be scaled up.



India initiated its health reform journey in the last decade. This journey now needs to gain momentum. An ever growing disease burden for a large scale and evolving population demands fast –paced health reforms. What peer nations have achieved across three to four decades needs to be achieved here in much lesser time. Therein lies the importance of the next decade.

The government will need to lead this healthcare reform journey. It needs to reach out to, and in turn be supported by, other stakeholders such as the private sector. The stated goal of universal

health coverage in the draft of the Twelfth Five-Year Plan, and the HLEG's recommendations, provide a solid start to this journey. While the journey will be challenging, the outcomes and opportunities will be inspiring. We feel confident that purposeful and visionary leadership by the government, along with concerted action by all stakeholders, will help India achieve its healthcare vision and provide its populace with best-in-class health outcomes.

