Funding Indian healthcare
Catalysing the next wave of growth
Preface

The growing ageing population and rise in costly chronic care needs are exerting considerable demands on our health systems. Governments are expected to do more in the face of healthcare funding challenges and skilled labour shortage.

Access to capital has been one of the biggest roadblocks to the growth of the Indian healthcare sector. Today, the Indian government spends only about 1% of its GDP on healthcare, which is among the lowest globally for any country. Along with building highways, firing up our power plants and ensuring there is a roof over every Indian’s head, there is a need to focus on healthcare in the country.

The private sector has been involved in building the healthcare infrastructure in the country, with active participation from private equity players and increase in FDI. However, to meet India’s burgeoning healthcare needs, both the public and private sector will have to join hands to build infrastructure and the skill sets required to deliver care. This means that conventional modes of healthcare funding will need to be aided by innovative modes of funding to improve healthcare investments.

The government will need to play a critical role as a catalyst by creating an enabling ecosystem which draws investments from both domestic and international players.

Empowered and informed customers; flexible and adaptive operating models; nontraditional resources and partnerships; a growth and innovation mindset; and focus on accountability, integrity and sustainability are some of the key themes that will shape healthcare delivery in the future.

Ensuring healthcare delivery through traditional methods will require additional investments of 245 billion USD by the year 2034. This amount can be reduced by 90 billion USD by focusing on preventive care, leveraging technology to deliver care and shifting care from hospitals to homes.

If we get this right, 340 million more people will have access to quality healthcare, 4.3 million additional employment opportunities will be generated, and 141 billion INR will be saved for the country by preventing daily loss due to heart disease, stroke and diabetes in the next 5 years.
What are the emerging trends in healthcare funding?

**Growth of venture capital and private equity** – heightened investor interest in the past 5 years, with transaction value increasing from 94 million USD (2011) to 1,275 million USD (2016) – a jump of over 13.5 times

**The success of initial public offerings (IPOs)** – four key IPOs over the last 18 months – Dr Lal PathLabs, HCG, Narayana Hrudayalaya and Thyrocare – all IPOs were oversubscribed, reinforcing investor confidence in the sector

With the recently announced **National Health Protection Scheme (NHPS)**, a precursor to Universal Health Coverage (UHC), the government is increasingly moving towards the role of being a payor.

Despite the best of efforts, **public private partnerships (PPPs)** are yet to meaningfully impact the healthcare delivery system.

A slew of investments by **global health players**, including the Parkway Group and a host of Middle East players, have strengthened the perception of India as an attractive healthcare investment destination.

Source: 1 – Merger Market, IBEF | 2 – Moneycontrol
Are we there yet?  
A reality check for Indian healthcare

Developmental goals, communicable diseases and the growing NCD epidemic

- India still accounts for 16% of the global share of maternal deaths and 27% of global newborn deaths.³
- Deaths continue to occur due to communicable diseases, with 22% of global TB incidence in India.⁴
- India’s non-communicable disease (NCD) burden continues to expand and is responsible for around 60% of deaths in India.⁵

NCD disease burden on India

- Hypertension: Every fourth individual in India aged above 18 years has hypertension.
- Obesity: Age standardised obesity prevalence increased by 22% in the past 4 years.
- Diabetes: India has the world’s second highest number of diabetic patients.
- CVD death rate: Cardiovascular diseases (coronary heart disease, stroke and hypertension) account for 45% of all NCD deaths.
- NCD toll: The probability of dying from NCDs between ages 30 and 70 years is 26%.


Source:
The growing need for healthcare spending

- Out of pocket expenditure (OOPE) constitutes more than 60% of all health expenses, a major drawback in a country like India where a large segment of the population is poor.\(^6\)
- Approximately 63 million people fall into poverty each year due to lack of financial protection for their healthcare needs.\(^7\)

**Healthcare expenditure as percentage of GDP**

<table>
<thead>
<tr>
<th>Country</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>4.7%</td>
<td>1.4%</td>
</tr>
<tr>
<td>China</td>
<td>5.5%</td>
<td>3.1%</td>
</tr>
<tr>
<td>United State</td>
<td>8.8%</td>
<td>8.3%</td>
</tr>
<tr>
<td>World</td>
<td>9.9%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: PwC analysis, World Bank data on healthcare expenditure, World Bank Data 2014

**Average total medical expenditure for treatment per medical case (INR)**

- 8.7% CAGR
- 11.6% CAGR
- 10.4% CAGR

<table>
<thead>
<tr>
<th>Year</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>3,396</td>
<td>3,134</td>
</tr>
<tr>
<td>2004</td>
<td>6,643</td>
<td>6,643</td>
</tr>
<tr>
<td>2014</td>
<td>19,995</td>
<td>19,995</td>
</tr>
</tbody>
</table>

Average cost of hospital treatment has gone up by a CAGR of 10.4% between 1996 and 2014, which is much higher than the consumer price index (CPI) inflation of 7.2% in the same period.

Source: NSS 52nd, 60th and 71st Round, PwC analysis

**OOPE as a percentage of total health expenditure in India**

- 2010: 63.37%
- 2011: 64.43%
- 2012: 64.88%
- 2013: 63.81%
- 2014: 62.42%

Source: World Bank Data 2014

**OOPE as a percentage of health expenditure (2014)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>62.4%</td>
<td>11%</td>
</tr>
<tr>
<td>China</td>
<td>32%</td>
<td>18%</td>
</tr>
<tr>
<td>United State</td>
<td>11%</td>
<td>5%</td>
</tr>
<tr>
<td>World Average</td>
<td>18.2%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: World Bank Data 2014

**Source of finance for medical expenditure**

- Income/saving: 68%, 25%, 1%
- Borrowings: 75%, 18%, 5%
- Sale of physical assets: 1%, 1%, 5%
- Contribution from friends/relative: 1%, 1%
- Others: 1%, 1%

Source: NSS 71st Round

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Source:
6 – World Bank Data 2014, 7 – National Health Policy Draft 2015
Poor infrastructure, shortage of a skilled workforce and lack of standards impact the quality of care

- With a 22% shortage of primary health centres (PHCs) and 32% shortage of community health centres (CHCs), it is estimated that 50% of beneficiaries travel more than 100 km to access quality care.\(^8\)
- India has only 1.1 beds per 1,000 population in India compared to the world average of 2.7.\(^9\)
- 70% of India’s healthcare infrastructure is in the top 20 cities.\(^10\)

![Percent shortfall of specialist doctors in CHCs in 2015](image)

Many hospitals are obtaining NABH accreditation to improve the quality and standards of care

![Number of hospitals with NABH accreditation](image)

Source:
8 – Rural Health Statistics 2014-15 | 9 – PwC analysis, WHO Global Statistics 2014 | 10 – PwC analysis
Increasing preference for availing of medical treatment from the private sector

Over the last 20 years, there has been an increase in hospitalisation in private facilities (in both rural and urban areas), marking a rise in preference for private set-ups.

Source – NSS 71st round
How is healthcare funding evolving in India?

Significant increase in transactions and foreign direct investment (FDI) inflow over the last few years

Private equity deals

- Value of transactions has increased from 94 million USD in 2011 to 1,275 million USD in 2016—a jump of 13.5 times. A gradual increase in the ticket size is now evident. Some of the key deals (over 50 million USD) include:

<table>
<thead>
<tr>
<th>Company</th>
<th>Amount (million USD)</th>
<th>Key investors</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vijaya Diagnostic Centre</td>
<td>63.5</td>
<td>Kedaara Capital</td>
<td>Dec '16</td>
</tr>
<tr>
<td>Apollo Health &amp; Lifestyle</td>
<td>68</td>
<td>IFC</td>
<td>May '16</td>
</tr>
<tr>
<td>Care Hospitals</td>
<td>221</td>
<td>Abraaj Group</td>
<td>Jan '16</td>
</tr>
<tr>
<td>Cloud Nine</td>
<td>60.5</td>
<td>India Value Fund</td>
<td>Dec '15</td>
</tr>
<tr>
<td>Metropolis Healthcare</td>
<td>127.5</td>
<td>Carlyle</td>
<td>Sep '15</td>
</tr>
<tr>
<td>Metropolis Healthcare*</td>
<td>90</td>
<td>KKR</td>
<td>Apr '15</td>
</tr>
<tr>
<td>Sutures India</td>
<td>60</td>
<td>TPG Growth</td>
<td>Feb '15</td>
</tr>
<tr>
<td>Manipal Health Enterprises</td>
<td>150</td>
<td>TPG Capital</td>
<td>Jan '15</td>
</tr>
<tr>
<td>Medanta Medicity</td>
<td>113.5</td>
<td>Temasek</td>
<td>Jan '15</td>
</tr>
<tr>
<td>Aster DM Healthcare</td>
<td>60</td>
<td>India Value Fund, Olympus Capital</td>
<td>May '14</td>
</tr>
</tbody>
</table>

Source: Venture Intelligence  *Structured finance

FDI

- Healthcare has seen a significant increase in FDI inflow over the last 3 years.

<table>
<thead>
<tr>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td>318</td>
<td>257</td>
<td>685</td>
<td>663</td>
<td>647</td>
</tr>
</tbody>
</table>

Healthcare FDI as a percentage of total FDI for the year

Healthcare FDI inflows (million USD)

Effective implementation of REITs and NHPS is expected to give impetus to healthcare funding; price control on stents could impact investor sentiments

**Real estate investment trusts (REITs)**

- The Securities Exchange Board of India (SEBI) introduced regulations in relation to business trusts, i.e. infrastructure investment trusts (InvITs) and REITs in 2014.
- These regulations should pave way for additional investments in creating healthcare infrastructure in the country.

**National Health Protection Scheme (NHPS)**

- The government will provide for over 100 million families below the poverty line through NHPS. It envisages an annual coverage of 1,00,000 INR for a family. Implementation plans for NHPS are under way.

**Price control on stents**

- The National Pharmaceutical Pricing Authority (NPPA) capped the price of coronary stents, which is inclusive of a maximum of 8% of trading charges and hospital handling charges, if any. The prices of bare metal stents and drug-eluting stents have been capped at 7,260 INR and 29,600 INR respectively excluding local taxes.
What innovative modes should be introduced for funding Indian healthcare?

**Fund of funds**
- Healthcare investment and improvement fund with a multi-billion dollar corpus to accelerate the overall pace of development – similar to India Infrastructure Finance Company Limited (IIFCL)
- Management body appointed by the government to handle the portfolio, allocation and management of fund
- Sources of funding – pension funds, others
- Investment route – PPP, long-term debt, social impact bonds

**Financing through pension funds**
- Access to a large pool of money
- Intervention by the government required to use this pool based on redefined risk assessment criteria
- Can be channelled through fund of funds

**REITs/business trust entity**
- Dividing the asset operations and medical operations will trigger faster actions
- Help in overcoming real estate costs
- Insulated from instability of stock and bond markets

**Bilateral investment treaties**
- As an attractive investment destination, India already has 74 bilateral investment treaties
- Has a low cost of financing, e.g. India offers much higher returns compared to countries like Japan
- Potential for huge capital inflow

**Long-term debt instruments**
- Tax-saving and tax-free bonds for financing healthcare infrastructure
- Source for long-term debt financing
- Potential for huge capital flow via participation from retail investors
## How can the Indian government facilitate investments in the healthcare sector?

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Steps</th>
<th>Key features</th>
</tr>
</thead>
</table>
| 1       | Increase spend on healthcare | • Increase public expenditure on health to at least 2.5% of GDP by 2025  
• Focus of this spend to be on government’s role as a payor  
• Increase in spending will spruce up private participation in creating new healthcare infrastructure |
| 2       | Move towards UHC | • Facilitate UHC framework development and subsequent implementation  
• UHC, once fully implemented, should focus on these three pillars:  
  - Measurement and focus on health outcomes  
  - Due weightage to quality of care  
  - Adequate private sector participation |
| 3       | Fiscal incentives for hospitals in Tier 3 cities and below | • Provide tax benefits for setting up healthcare infrastructure in Tier 3 and 4 cities as well as rural areas  
• Similar to the now withdrawn North East Industrial and Investment Promotion Policy (NEIIPP), 2007  
• Pan-India focus (NEIIPP focused on the northeast) |
| 4       | Health savings fund | • A fund similar to the provident fund should be introduced for salaried employees  
• It could be also used to pay for outpatient services and preventive health checks  
• Investments into this fund could be tax deductible under section 80C of the IT Act |
| 5       | Development of healthcare-specific standard PPPs | • Scaling up PPPs in the healthcare sector will require effort to standardise concession agreements and collateral and exit clauses  
• Clauses should ensure financial viability to aid exponential growth of such PPPs |
| 6       | National priority status | • Healthcare should be given a priority sector tag (currently, agriculture, MSMEs, export credit, education, housing, social infrastructure, renewable energy and others have been given this status)  
• This will help channelise funds from the banking sector to create necessary healthcare infrastructure |
| 7       | Zero tax under the GST regime | • Healthcare services should continue to be charged zero tax under the GST regime  
• Levying GST can add to the financial burden on the patient and/or patient’s family |
| 8       | Enhancement in medical reimbursement exemption limit | • The limit of 15,000 INR p.a. for medical reimbursement was fixed in 1999  
• Adjusting it with the healthcare inflation of ~10.4%*, the amount should be around 80,000 INR in today’s terms  
• This limit needs to be revised to at least 50,000 INR p.a. with a provision to increase the same as per medical inflation every year |
| 9       | Timely reimbursement of scheme dues | • Multiple healthcare schemes such as RSBY, CGHS, Rajiv Aarogyaasri and Yeshasvini by both the central and state governments, where beneficiaries can also avail of cashless treatment at empanelled private hospitals  
• Government reimburses the private hospitals at notified/agreed prices  
• These payments should be adequate and on time, which will ensure viability of the sector. |

*Average inpatient medical inflation since 1996
National Health Policy, 2017: UHC and affordable quality health care services for all

Key takeaways:

Promotes quality of care, with a focus on emerging diseases and investment in promotive and preventive healthcare

Access and financial protection at the secondary and tertiary care levels, free drugs, free diagnostics and free emergency care services at all public hospitals

Envisages private sector collaboration – financial and non-financial incentives to encourage participation

Allocates a major proportion (up to two-third or more) of resources to primary care, followed by secondary and tertiary care

Proposed establishment of National Digital Health Authority (NDHA) to regulate, develop and deploy digital health across the continuum of care

Source: Press release, Government of India; National Health Policy, 2017; PwC analysis
How do we take the winning leap to manage better health outcomes at lower costs?

Disruptive trends are revolutionising the health industry today

These trends are impacting the delivery and financing of care...

- Demographic shifts and social change
- Shift in global economic power
- Technological advances
- The empowered consumer
- Globalisation

...resulting in:

- The emergence of new business models
- A greater focus on reward for outcomes instead of volume of activity
- New entrants expanding and reshaping the health system
- A shift from inpatient care to outpatient services
- Rebalancing of the participation of public and private sectors in the financing and delivery of care
- Industrialisation of the healthcare sector
Significantly different solutions can be adopted in 40% of cases, leading to a one-third reduction in investment.

Healthcare investment (2014–34)

Without leap

- 245 billion USD
- 15 billion USD
- 10 billion USD
- 135 billion USD

With leap

- 156 billion USD

90 billion USD

Life expectancy at birth

Required additions (2014–24)

Bed equivalent

<table>
<thead>
<tr>
<th>000s</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,400</td>
<td>(500)</td>
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</tbody>
</table>

Required additions (2024–34)

Bed equivalent

<table>
<thead>
<tr>
<th>000s</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2,250</td>
<td>(950)</td>
</tr>
</tbody>
</table>

2014

- 66

>35%

>40%

2024

- 71

2034

- 80

Fierce catch-up

Significant leap

Leapfrog
Achieving desired healthcare outcomes by traditional means

**The issue**
Challenges around access, affordability and quality of healthcare contribute to low life expectancy

2014
Average life expectancy

Per 1,000 people:

- 0.7 doctors
- 1.3 nurses
- 1.1 hospital beds

66 Years

**Desired outcome**
Improved health outcomes with easier access to quality healthcare infrastructure

2034

- 2.5 doctors
- 5.0 nurses
- 3.5 beds

80 Years

Achieving outcomes by traditional means

**Building more traditional hospitals**
Additional 3.5 million hospital beds required to achieve desired outcomes

**Investment in medical education**
Addition of 3 million doctors
Addition of 6 million nurses
Taking the winning leap…

**The winning leap**

Enabling universal healthcare access through the adoption of winning leap solutions could help save 90 billion USD in capital costs.

**Winning leap solutions enabling alternative healthcare delivery access**

- **Shifting point of care**
  Non-critical patients recuperate at home, reducing average length of stay in hospitals

- **mHealth**
  Technology-enabled solutions to reduce stress on hospital infrastructure

- **Preventative care**
  Early diagnosis of diseases enables timely treatment and fewer complications

**The bottom line (over 20 years)**

<table>
<thead>
<tr>
<th>Projected investment:</th>
<th>Without winning leap investment:</th>
<th>With winning leap</th>
<th>Winning leap savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD</td>
<td>245 billion</td>
<td>156 billion</td>
<td>90* billion</td>
</tr>
</tbody>
</table>

* rounded up

**Winning leap contribution:**
- Fierce catch-up
- Significant leap
- Leapfrog

- **2.2 million hospital beds required**
  - High volume, low cost
  - Traditional hospitals
  - PPP model hospitals
  - Government as an enabler

- **Investment in medical education**
  - Addition of 2 million doctors
  - Addition of 6 million nurses
If we get this right...

340 million more people will have access to quality healthcare in the next 5 years

4.3 million additional employment opportunities will be generated in the next 5 years

141 billion INR in savings for the country by preventing daily loss due to heart disease, stroke and diabetes
About NATHEALTH

NATHEALTH has been created with the vision to “Be the credible and unified voice in improving access and quality of healthcare”. Leading Healthcare Service Providers, Medical Technology Providers (Devices & Equipments), Diagnostic Service Providers, Health Insurance companies, Health Education Institutions, Healthcare Publishers and other stakeholders have come together to build NATHEALTH as a common platform to power the next wave of progress in Indian Healthcare. NATHEALTH is an inclusive institution that has representation of small & medium hospitals and nursing homes. NATHEALTH is committed to work on its mission to encourage innovation, help bridge the skill and capacity gap, help shape policy and regulations and enable the environment to fund long-term growth. NATHEALTH aims to help build a better and healthier future for both rural and urban India.

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About PwC

At PwC, our purpose is to build trust in society and solve important problems. We’re a network of firms in 157 countries with more than 223,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com

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About PwC’s Healthcare practice

PwC India’s Healthcare team offers advisory services in the healthcare sector covering multiple domains such as strategy, business planning, market scan, commercial due diligence, feasibility study, operations improvement, cost reduction, health IT, digital and technology, internal audit and PPPs.

The Healthcare Advisory team of 25 members combines over 40 years of operational experience in setting up and managing hospitals, and over 60 years of healthcare consulting experience. This enables the team to deliver granular strategy and market and operational insights of the highest quality. The team works with leading healthcare providers, medical technology companies, central and state governments, diagnostic players, insurance companies and private equity players on projects both in India and overseas.

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