FICCI HEAL 2016
HEALTH - ENTERPRISE AND LEARNING

Re-engineering Indian health care

Empowered patient (consumer), enhanced outcome and efficient business

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FICCI

EY
Building a better working world

Foreword

Disruptive and innovative technologies are revolutionizing how healthcare is delivered today in India and has brought in a tremendous growth to the sector. We have seen a 15 % growth in CAGR for health sector since 2011, which is expected to reach USD 280 billion by 2020. However, providing access to quality healthcare for 1.2 billion plus population is a huge challenge that the country has to deal with. Our total health spend is only ~4.7% of GDP and out of pocket expenditure (OOP) is 62% of the total health spend. This is very high when compared to other countries such as Brazil 25%, China 32%, South Africa 6%, USA 11%, UK 9%.

As India joins many other nations in debating how best to reform the health care sector, it is critical that we engineer these reforms very thoughtfully. This calls for radical improvement of healthcare delivery processes that enhances the quality of care and dramatically lower costs, while also greatly expanding patient accessibility to this improved, more affordable care.

We would need a completely new approach for achieving these reforms, which should involve three pillars: people, process, and technology. When these pillars are reengineered, we envision a system of care that is patient-centered, free from cumbersome administrative processes that overcomes inefficiencies, barriers and distractions from the real work of delivering the highest quality of care.

This process of "Re-engineering Indian Healthcare" will need a collaboration between all the stakeholders of the sector, who must innovate beyond their traditional processes to evolve the sector and rise to the challenge of rapid digitization and technology advancement to deliver efficient healthcare.

Federation of Indian Chambers of Commerce and Industry (FICCI) as a change agent has been working diligently with the government to bring about requisite policy changes that can provide impetus to the growth of health services sector in reaching out to the masses. This joint study by **FICCI** and **EY** evaluates various aspects of re-engineering our healthcare ecosystem and the role that the government as well as the private sector will play in bringing in this transformation, while keeping the patient at the centre.

We are grateful to **Ministry of Health and Family Welfare, Government of India** for supporting **FICCI HEAL 2016** on the theme **"Re-engineering Indian Healthcare"** on August 31 & September 1, 2016 at FICCI, New Delhi. We are sure that the deliberations in the conference will help us in coming up with concrete recommendations that will be submitted to the Government at the highest level for consideration.

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Preface

In recent years, health care has been a subject of much debate and discussion across the globe – more specifically in developed economies, where health care costs are burgeoning. If the current trend continues, these costs are likely to become prohibitive, despite the health needs of significant sections of the populations remaining unmet and disease burden continuing to increase because of longevity and non-communicable diseases.

Hence, it is imperative that a new paradigm is evolved in health care policy, program and practice that aims to rationalize costs while expanding access and reducing the need for advanced care. In fact, at a fundamental level, the focus is shifting from "sick" care to "health" care in its true sense. Considering that this is the only solution to the current situation, this trend is expected to continue and strengthen in the times to come. In this context, health outcome, efficient care and health consumerism are the new buzzwords characterizing the emerging health systems, which are being driven by tools and capabilities provided by the digital revolution.

India, in terms of healthcare cost and expenditure, is a complete contrast when compared to the developed world, having one of the lowest per capita healthcare spend, total health care cost as a percentage of GDP and cost of health services in the world. Consequently, issues of access and capacity have been a reality for a long time and even affordability has been a challenge for the large majority with meagre means, just enough or struggling for subsistence.

However, the context has been changing for the better in recent years and the eEco system seems to be poised for a transformation in the days to come. This report focuses on understanding what will be the key change drivers and what should be the key tenets of the future health system. Interestingly, the deliberations of this report, also find an alignment with the global context discussed above, in terms of the challenges and imperatives facing the country in achieving its agenda of universal health access and right to health. Of course, the specifics of solutions will have to be customized for the local context.

It is also pertinent to clarify that in the chapter 2 of the report, related to improving the health outcome, we have not followed a first-principle approach but rather focused on new insights, especially with regard to the potential of technology to change the paradigm of health care and sick care delivery in the country. The key reason for this approach is our belief that several reports in the past, including High Level Expert Group on Universal Health Coverage for India, 2011 (HLEG), EY-FICCI reports[1], have already addressed the fundamental issues such as that of capacity creation, ramping up human resource for health, distribution of capacity, health financing, in great detail and made robust recommendations for structural and systemic correction. Much of the recommendations are still relevant and also in active consideration by the policy makers for implementation. While some recommendations have already been adopted for implementation, the speed of change can be significantly improved. In addition, we also recognize that the agenda of health outcome will need a broader cross-sectoral approach covering aspects such as nutrition, sanitation, hygiene, water, environment, which are not the focus of this report.

We are grateful to FICCI for this opportunity to partner with them on developing this report and the excellent support provided by them in facilitating the discussions with industry stakeholders and providing valuable inputs from time to time. We are also deeply grateful to everyone who gave us time to deliberate on the various aspects of this report and shared their valuable views and insights, which has positively shaped the form and content of this report.

It has been an enriching experience for us to work on this report, and we sincerely hope it further strengthens the mood, motivation and mandate for a health system where health care and not just sick care is the core focus.

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1. EY-FICCI Reports: "Universal Health Cover for India: Evolving a framework for health care reimbursement methodologies", 2013; "Universal Health Cover for India: Demystifying financing needs", 2012; "Fostering Quality Care for All", 2008

Executive summary

Indian health care is a story of great contradictions: it has one of the lowest cost health care systems in the world, yet it is unaffordable to the large majority of its population. While we have institutions and providers, both private and public, that are comparable to the world's best in secondary, tertiary and quaternary care, we have a long way to go in providing basic primary care beyond the urban limit where 70% of the population resides. While the Government of the day, during the last decade, has been speaking the language of "Right to Health" and "Universal Health Cover," yet the public expenditure on health at around 1% of GDP is one of the lowest in the world. For 16% of the world's population we have a disproportionately high share of global disease burden at 20% coupled with one of the fastest growing non-communicable disease incidence. At the same time, we have one of the weakest health infrastructures at around 1.3 beds per 1,000 people.

Many of these contradictions can be explained by few facts – the most important being the state of the Indian economy during the last seven decades after independence. For the most part, we were among the poorer nations of the world, struggling to fulfil the subsistence need of its populace, with meagre resource allocation to the development of social infrastructure such as education and health. At the same time, much of the population, struggling for basic necessities of 'Roti, Kapda and Makaan', was not discerning enough in matters of health.

As a result, it became a politically irrelevant subject and hence did not receive priority in allocation of public funds.

The silver lining has been the private sector. Several corporate provider chains have emerged in the last two decades with the ambition, resources and commitment to bring the best-in-class health care to India at one of the lowest costs in the world, even though much of it is restricted to urban areas.

However, the situation is changing and changing rapidly. India is no longer a subsistence economy, and with the economic transformation witnessed during the last decade, it is steadily moving on its way to becoming a developed economy; however, at a per capita level, there is a long way to go.

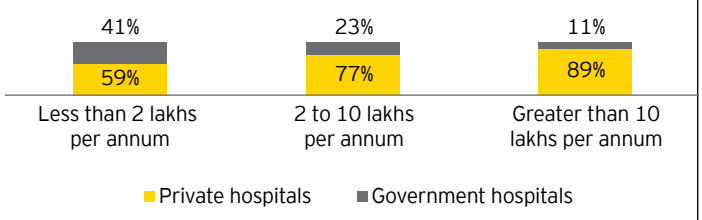
Along with it has changed the aspiration and demands of the population in matters of health. Health care is no longer politically irrelevant; it has found a place in the manifestos of both national and regional parties at the Central and state level. Government-sponsored health insurance for the poor is a reality in several states today, in addition to national schemes such as RSBY. These schemes account for the largest share of the covered population.

At the same time, as is evident from the results of our survey done as a part of this study, the aspirations of the middle and upper classes are evolving and their demands for convenience, participation and transparency in the health care delivery process are indicative of the shift from being a docile patient to an informed "health consumer."

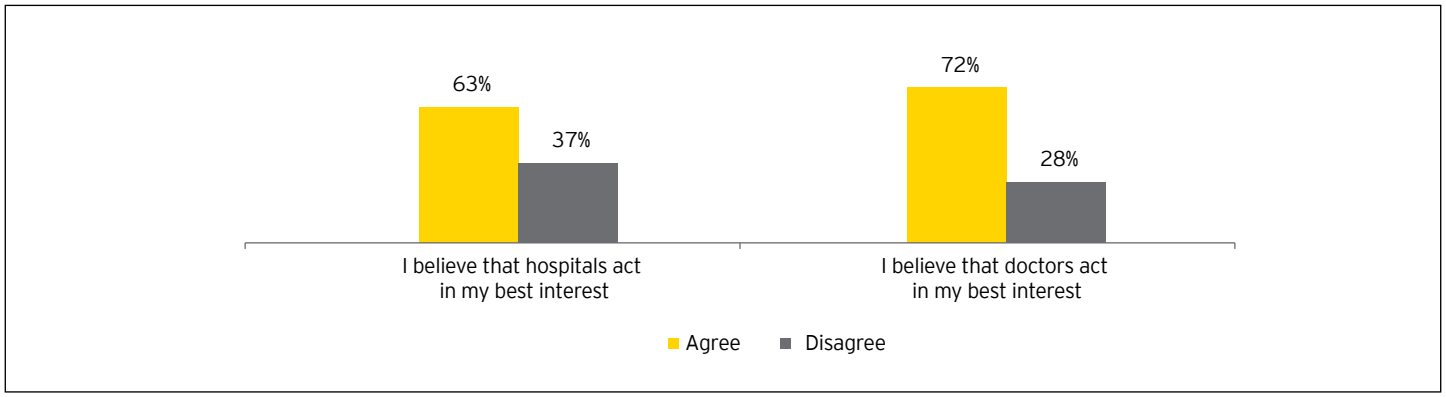
1. Clear preference for private sector care

Preference of respondents for hospitalization (as percent of total respondents)

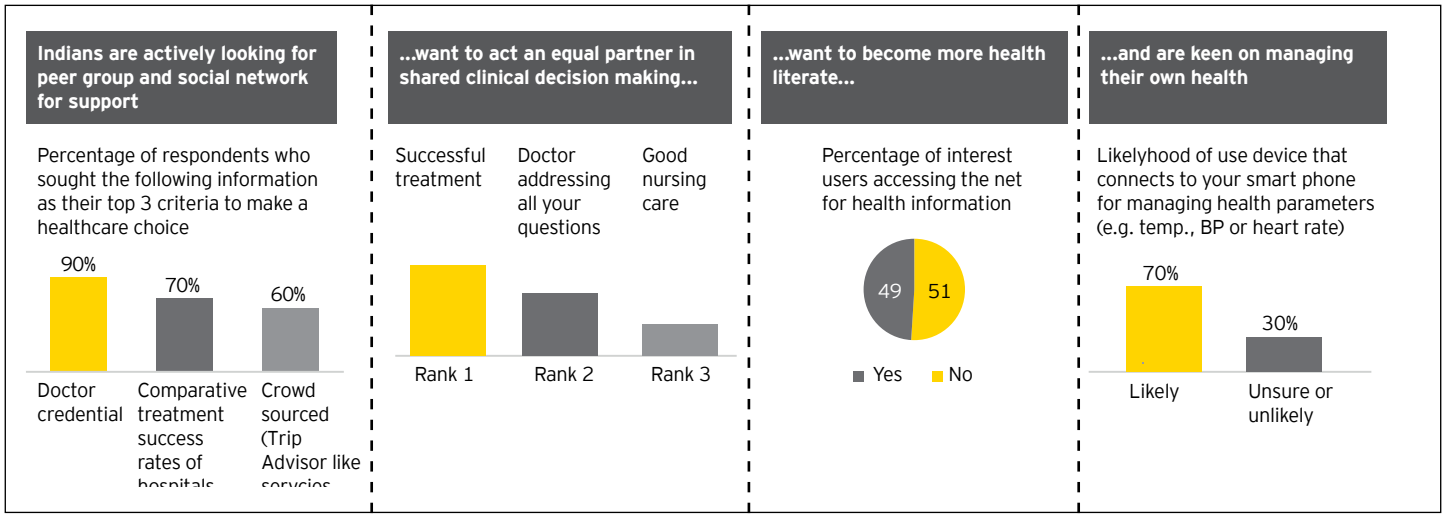
Preference of respondents for hospitalization across income class (Amount in INR)



2. Trust deficit between providers and patients is a concern



3. Clear aspiration to "participate" intimately in care process



However, we cannot undermine the fact that given India's population and disease burden, providing health care to all will be a huge economic burden, even for a nation with the means of a developed economy. The following table is an attempt to explain the magnitude of the challenge India faces in providing sick care to all, given its disease burden and the size of the individual pocket. It also highlights the risk that health expenditure alone does not result in better health outcome, as evidenced by the inordinately high hospitalization rates and DALY (for non-communicable) of the US and the UK, as compared to the top 5% (by MPCE) urban population of India (essentially this segment has been used for assuming a hospitalization need which is not constrained by affordability or accessibility reasons), Brazil and China.

Country	India	The US	The UK	Brazil	China
Disease burden (DALY per 100,000 people)					
Non-communicable	22,020	24,443	24,616	21,642	20,687
Communicable	16,184	1,699	1,614	4,521	2,811
Expenditure on health					
Health expenditure as a percentage of GDP (2014) In bracket – per capita spend on PPP basis in International $	4.7 (267)	17.1 (9403)	9.1 (3374)	8.3 (1334)	5.5 (731)
Out-of-pocket expenditure as a percentage of total health expenditure	62%	11%	10%	25%	32%
GDP per capita on PPP basis (International $) (2015E)	6,200	55,800	41,200	15,600	14,100
Hospitalization rate					
Hospitalization rate	4.5% (6%*)	12.5%	13.6%	5.8%	7.1%
Hospitalization due to communicable diseases (#) as a percentage of hospitalization rate (approximate)	~30%	7% to 9%	~10%	NA	NA

Sources: WHO, Global Health Expenditure Database, CIA World Fact Book ; OECD, "Health at a glance 2013: OECD indicators"

(*) Estimated hospitalization rate of top 5% of India's population

(#) Includes infections and respiratory diseases

A sick care–based health system, primarily funded by institutions and focused on health services and not health performance, manifests itself in a vicious cycle of health expenditure, where most stakeholders are beneficiaries of sickness and not health. This leads to spiraling costs, which even the most advanced economies of the world are struggling to cope with. Hence, it is imperative for us to avoid this pitfall and target for a hospitalization rate of around 6% and overall health expenditure of less than 6.5% of GDP (this means per capita healthcare expenditure growing at 1.3 times the GDP growth in real terms) to provide and sustain quality health service to all.

This will undoubtedly require a health system that is committed in its policy, program and practice to transform health outcomes through preventive, promotive and accountable care. There are two things that will be critical for this agenda to be achieved:

- Personal accountability of the individuals towards their health
- Effective use of technology

The good news is that with the advent of the digital age and the investments and innovations happening in health care–focused technologies and applications, individuals and the institutions have an unprecedented opportunity to avail of affordable and effective tools and capabilities to shape the health behavior of consumer and enhance the quality and accessibility to care. This will essentially require innovative technology–enabled solutions that can transform the point-of-care capabilities and patient engagement platforms.

It is here that a new class of stakeholders, the health care start-ups, may have an edge over the traditional players, and their role in the new health system will gain significant strength in times to come.

In the last decade, 70% of the new bed capacity additions were in the private sector. It is prudent to expect this trend to continue, with public expenditure getting split between capacity creation and health financing as payor. Therefore, considering the critical role of organized private sector providers in meeting the in-patient health demands of the country, it is imperative that India has a robust and thriving private health care business that can deliver quality care at affordable costs to the populace and yet manage profitability to sustain investor interest. However, the hospital business, particularly the multi-specialty tertiary care business (which is the segment of maximum scarcity), is capital-intensive with a long gestation. Several of the current operating assets are not delivering the expected investor returns, and we believe that capital and operating efficiency will be a critical imperative for keeping the hospital business healthy.

In summary, there are three key factors that will catalyze the "reengineering of the current health care system." The effectiveness of our response to these will define the contour, capability and capacity of the future health system to deliver on the health needs of a billion plus people with the unique challenge of high communicable and non- communicable disease burden and limited resources both at an individual and institutional level.

Factor 1: Emerging consumerism in health care – emergence of patient as a health care consumer necessitating a focus on patient experience and not just care

Given below are the key imperatives and actions needed for building a holistic patient experience using our '5E' framework – Empathy, Efficiency, Empowerment, Ease and Environment

	Key imperatives	Proposed actions	Actions by
1	**Empathy: Address issue of trust deficit** ▸ 38% of the respondents believed that hospitals do not act in their best interest, while 24% believed that doctors do not act in their best interest	Clinical community must respect the aspiration of patients and their family to be better informed and participate in the care process. Health care providers should respect the need for transparency and accuracy in financial matters	
	▸ 40% of the respondents believed that their bills and financial estimates were not correct	▸ **Institute process and systems for more precise estimation of patient bill** ▸ **Institute robust service-costing system** capable of providing financial estimates within acceptable confidence levels ▸ **Impart appropriate training to financial counselling staff**	**Health care provider**
	▸ 40% of the respondents were not happy with the quality of staff interactions	▸ Implement the MCI-proposed Attitude and Communication (AT-COM) module across all medical schools in the country ▸ Make effectiveness of patient communication a key performance criteria and support employees in improving through structured training programs	**Medical education administrators** **Health care providers**
2	**Efficiency** Make patient facing processes more efficient (processes such as admission, discharge and transfer, billing,, diagnostics) to reduce waiting times and improve responsiveness ▸ 43% of the respondents were not happy with service parameters linked to process efficiency	▸ **Embed patient centricity in design and execution of core operating processes and system:** It would require an aspiration to excel and a common definition of success for both consumers and health care providers, which is then internalized across the providers' organization structure and in processes and systems	**Health care providers**

	Key imperatives	Proposed actions	Actions by
3	**Patient empowerment – give patients a voice** 60% of the respondents expressed the need for data sources that provide reviews and feedback by peers (other patients) while selecting their providers	**Social media platform for patients to express their feedback in an impactful way** ▸ Develop patient portals that crowdsource posting of ratings, reviews and experience feedback from patients – similar to sites like TripAdvisor for hotels	**Entrepreneurs**
4	**Ease: Make availing health care convenient** ▸ 50% to 70% of the respondents expressed strong preference for home health care services ▸ On similar lines, 66% to 80% of the respondents expressed willingness to try technology-enabled services centered around providing convenience, such as appointments scheduling, reminders and connected personal medical devices	▸ Develop "convenience centered" health care models that can be delivered at the "third place" – i.e. at patient's home or through the use of technology wherever they are – away from the traditional two places: hospitals and clinics **Home healthcare** ▸ Promote home healthcare as a clinically safe choice for post-surgery recovery by both the hospitals and the payers ▸ Improve scalability of business through use of technology, for example, through remote patient management solution **Digitally enabled consumer interactions** ▸ Adopt digital technology enabled solutions and services to make consumer interactions more convenient	**Health care providers and entrepreneurs**
5	**Environment:** Address environmental aspects such as look-feel-touch, cleanliness, noise levels and food quality	▸ **Listen to voice of customer:** Get guided by what customers would have to say on patient review and feedback portals ▸ **Learn from other similar service industries:** A good industry to learn from can be the hospitality industry considering that hospitals build in the core aspects of that industry	**Health care providers**

Factor 2: Need to focus on health and not sickness

	Key imperatives	Proposed actions	Actions by
1	**Focus on robust primary care system and integrated care** **Evolve a new service focused on effective measuring, monitoring and management of health– 'Health Management Service' enabled by digital technologies and a virtually integrated network of care providers** The new health management service would re-envision health care beyond episodic and facility-based care to: ‣ Help individuals achieve their own personal health goals and manage lifelong health and wellness ‣ Bring in the capabilities of a connected health ecosystem to deliver best care early so that hospitalizations and complications are minimized	Develop 'Health Management Service' that has aligned incentives for all participants and builds on two key building blocks: ▸ **Personal health cloud**: An individual's health- and wellness-related data and health experiences are captured through a network of connected personal devices, and electronic health records, maintained securely on a digital cloud, which can then be shared with care providers in the network ▸ **Service delivery model** ‣ For preventive care and disease management: Remote Health Management ▸ Remote patient monitoring using AI diagnostics to identify patterns in the data on the personal health cloud that require intervention ▸ Consumer's case managers to engage with the consumer to guide and advise on necessary interventions and lifestyle modifications through a suite of communication tools, such as messages, tele calls and video calls We estimate the opportunity size to be between INR 8 to 14 billion over next 5 years (*) ‣ **For In-person encounters and hospital care** ‣ Evolve digitally connected virtual health care chains of empaneled home health care providers, general practitioners (GP) and hospitals, sharing patient records and acting as one to ensure best care in a transparent way	**Entrepreneurs and health care ecosystem participants**
	▸ **Cover out-patients services** under insurance so that individuals seek timely primary care. For example, India has a poor detection rate with only 20-30% of cancers being diagnosed in stages I and II, which is less than half of that in China, the UK and the US	‣ Standalone general practitioners organize themselves into primary care networks ‣ Adopt electronic health records (EHR) and IT systems across respective primary care networks ‣ Launch attractive insurance products covering out-patient products ▸ **Develop robust claim-management practices** for faster clearance of basic claims and robust analytics to identify likely fraudulent claims	**Primary care providers** **Insurance companies**

(*) The estimate only considers the geriatric population more than 60 years of age. However, the opportunity could expand with the service maturing and younger population with chronic ailments also starting to use it.

	Key imperatives	Proposed actions	Actions by
	Develop and deploy AI based systems for enhancing effectiveness in primary and preventive care A 2012 study on quality of care in primary care setting in urban Delhi revealed: ‣ 52% of providers in the sample, working in public and private sectors had medical degrees ‣ The rate of correct diagnosis was 21.8% and treatment was 45.6% ‣ Adherence to standard care checklist was 31.8%	▸ **Consider investing in developing an AI based clinical decision support system,** which could aid a primary care doctor with its own analysis of potential diagnosis and alternative courses of action. This system should then be offered to all primary care physicians (including AYUSH) in public and private setting for use. ‣ Once the AI system matures, consider involving trained health workers (e.g., three-year registered medical practitioners), aided by the AI system, in the delivery of primary care	**Government** **Government**
	▸ **Minimize the use of chemical drugs for basic primary care use**	‣ Leverage wealth of wisdom on traditional home remedies to enable their use for basic primary care through a health app which is enabled by an AI based system (similar to one suggested above), validated by a government appointed panel, to recommend home remedies based on natural products for prevention and first line of treatment	**Government or entrepreneurs**
	▸ **Promote development of technologies to aid point of care**	‣ Promote made in India technologies to radically value engineer cost, reduce operator dependence and increase consumerization potential of point of care devices. Typical thrust areas for low-cost indigenous research aligned to the country's disease burden could include lab on chip platform technologies for pathology tests, X-ray/USG machines, non-invasive screening technologies, glucose monitoring, imaging biomarker development and surgical technologies	**Government, academia and entrepreneurs**
2	**Promote adoption of healthy behavior among individuals** Some of the biggest opportunities for improving health outcomes lie in better prevention and management of chronic diseases ‣ Individual behavior gives rise to 30% of the chronic conditions. As the chronic disease burden escalates, the biggest challenge of all to tackle will be behavioral change People make promise related to such behaviors in rational and logical "cold" states, but they function completely differently when they are in "hot" states – for example, under the emotional sway of a tempting treat. People fail to appreciate how different their behaviors and preferences will be in hot states, and significantly overestimate their ability to resist temptation Good intentions don't count for much – what matters are not our cold-state intentions but our hot-state disregard for those intentions	**Nudge individuals toward positive health behavior** ▸ **Build services that leverage principle of behavioral economics to positively influencing patient behavior through the use of technologies, social networks, games and contracts in innovative ways. Understand,** ▸ What drives patient behavior? ▸ How patients can be nudged toward better health outcomes? ▸ What can be the revised commercial models?	**Payors and start-ups, The individual**

	Key imperatives	Proposed actions	Actions by
3	**Bring focus on health performance and not just services** Reporting of patient outcome both at the hospital and the clinician level at least for secondary and tertiary care providers	▸ **Adopt patient outcome reporting standards, which:** ▸ Provide relevant patient-outcome-reporting metrics at the hospital and the clinician level ▸ Spare technical obscurities so that they are easy for patients to understand, access and use ▸ **Payors should incentivize providers based on outcome** ▸ Assure credibility through **audit of reported outcomes** by independent third parties ▸ **Adopt advance technology tools**: AI-based decision support systems, system-driven treatment protocol and good clinical practice compliances ▸ **Use knowledge management tools**: to share clinical learnings and good practices within own networks – an area that is currently suboptimal and neglected by most providers within the country	Health care providers and the Government Payors of health care **Health care providers**

	Key imperatives	Proposed actions	Actions by
4	**Improve access to provide sick-care to all** ▸ Leverage technology for remote health care to address the skew in the access and distribution of health care expertise	▸ Develop telemedicine models that are sustainable and commercially attractive, by addressing some of the key issues as under: ▸ **Establish credibility of the solution and establish patient trust** ▸ Engage local trusted doctors, individuals or reputed institutes or the Government's own participation ▸ Establish an accreditation and evaluation framework for standard of care and technical standards ▸ **Manage legal and safety issues** ▸ Establish clarity for confidentiality and legal responsibility under medico legal rules so that everybody has clarity, including patients ▸ **Develop a sustainable commercial model** ▸ Evolve PPP models in telemedicine ▸ Setting up a telemedicine consultation centre can cost up to INR 5 lacs, which could be a big amount for a local entrepreneur – the stakeholders involved can explore tie-ups for financing and EMI options	**Telemedicine solution providers** **Government** **Government** **Government** **Telemedicine solution provider**
	Promote PPP in health care with the aim of: ▸ Better utilization of existing assets ▸ Delivering quality health care at affordable costs ▸ Achieving faster expansion of health care services	**Actions for the Government** ▸ Develop a national framework for PPP in secondary and tertiary care in a time-bound manner	

Factor 3: Making the business of health care healthy

The efficiency agenda for the health system is driven by two key requirements:

1. Private health care providers are in the "business of health care" and expect a typical project IRR of 15% to 18%. For this return, cash flow has to be positive before the third year of operation and EBITDA in the range of 23% to 25% in the fourth to fifth year of operations. However, in reality, very few assets are able to achieve and sustain the desired financial performance.
2. The public health system is plagued with scarcity of capacity and hence, efficient use of available capacity must be a key imperative for constrained public health settings.

	Key imperatives	Proposed actions	Actions by
1	**Plan hospital projects to be successful** **Develop realistic business plans** ▸ Test the practicality of key assumptions and their sensitivity to overall project feasibility ▸ Align capex cost per bed to planned revenue per occupied bed at steady state (typically two years after operation). For example, if capital expenditure per bed exceeds revenue per bed by 10%, project IRR gets strained by 40%–50% **Finance the projects realistically** ▸ While hospitals have been provided infrastructure status and are eligible for long-term loans (12 years) and a longer moratorium period, many promoters fail to get the projects appropriately financed because of lack of knowledge on their and the banker's part	▸ Conduct robust data-driven business planning involving a multi-stakeholder review, which takes an outside-in perspective as well and assessment of market data – market and market share data is essential to test the practicality of key assumptions of the business model, business plan and its achievability in the context of the hospital's capability and positioning ▸ The industry body should take initiative to create awareness about the benefits of the infrastructure status and engage different stakeholders (the RBI, finance ministry and commercial banks) to avail favorable financing	Health care providers Industry bodies
	Robust cash flow planning which assume impact of realistic business environment	▸ Objectively assess the quantum and period of operational loss and account for it in the funding plan ▸ Account for the delayed receivables in the working capital ▸ Fixed operating costs (typically 30% to 40% of the total cost) should be planned commensurate with capacity ramp up	Health care providers
	Execute projects on time ▸ A year of delay can reduce the project IRR from 18% to 15%	▸ Plan and execute projects efficiently, possibly by availing the services of professional project management agencies	Health care providers

	Key imperatives	Proposed actions	Actions by
2	**Undertake operational improvement programs** ▸ Focus on cost efficiency to counter operating margin pressure due to pricing pressures, price controls and spiraling input costs	**Undertake targeted EBITDA improvement program with focus on achieving and sustaining commercial excellence in operations.** This will require a three pronged approach covering cost, culture and capability Key focus areas include : ▸ **Manpower**: focus on three key aspects that drive productivity in provider's operations ▸ **Capacity**: Alignment of allocated manpower with work demand ▸ **Composition**: Right roles and appropriate staffing structure ▸ **Capability**: Skill and will of the hospital staff Improving manpower productivity ▸ (value unlocking potential of up to 20% of manpower costs) ▸ **Material**: Optimize material costs through: ▸ **Procurement cost reduction** including formulary design and commercial effectiveness (value unlocking potential between 15% and 25% of material costs) ▸ **Material consumption rationalization in key surgeries** (scope of a 30% to 50% reduction in the cost of materials consumed in select surgeries by eliminating waste) ▸ **Machine: optimize utilization of assets by minimizing:** ▸ Point and flow inefficiencies ▸ Planning related inefficiency (relevant for mature assets reaching peak utilization –potential capacity release of 10%–20%)	Private health care providers Health care providers – both private and public

	Key imperatives	Proposed actions	Actions by
3	**Sustain operational efficiency** **Manage efficiencies** Have a balanced scorecard approach for key personnel including clinical and non-clinical personnel	▸ Develop a detailed "**Management Insight System**" on cost and operational performance enabled through a robust business intelligence system	Health care providers
		▸ **Deploy a holistic approach to compensation for both clinicians and non-clinicians,** which recognizes not only growth and revenues, but also places due emphasis on operational and cost efficiency, clinical outcomes, compliance to quality management procedures and patient feedback	Health care providers
	Overcome challenge of shortage of capable managerial talent	▸ **Invest in nurturing talent in-house** ▸ Build and deploy an effective organizational design that suits your organizational culture complete with well-defined rules of engagement between clinical and commercial function ▸ Provide a work culture where non-clinical executives feel empowered to contribute	Health care providers
	Teach efficiency to clinicians With emerging focus on outcomes and value-based health care, it will be critical for clinicians to make the right choices to achieve the best outcomes at the least cost	▸ **Incorporate financial courses within the existing MBBS system** ▸ The course could follow the NHS-prescribed 3E framework of Economy, Efficiency, and Effectiveness, which strives to achieve a situation of low costs, high productivity and successful outcomes. The curriculum's aim must not be to cut costs, but rather to achieve optimal outcomes at the lowest cost	Medical education administrators