Sustainable Strategies for a Healthy India:
Imperatives for Consolidating the Healthcare Management Ecosystem
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health in India</td>
<td>1</td>
</tr>
<tr>
<td>Emerging trends and imperatives</td>
<td>3</td>
</tr>
<tr>
<td>Collaborate to Innovate</td>
<td>6</td>
</tr>
<tr>
<td>Creating and facilitating a collaborative environment</td>
<td>13</td>
</tr>
<tr>
<td>References</td>
<td>14</td>
</tr>
<tr>
<td>Contacts</td>
<td>16</td>
</tr>
</tbody>
</table>
India rightly brands itself as incredible. The country’s remarkable political, economic and cultural transformation over the past few decades has made it a geopolitical force. Healthcare is one of the industries that marks this strengthened global presence.

As per industry reports, healthcare is poised to grow at an estimated annual rate of 19 per cent to reach USD 280 billion by 2020\(^1\) with India being recognized as a destination for world class healthcare. During the last decade the private sector grew to become the major provider of healthcare services. Its share of beds increased from 49 per cent in 2002 to 63 per cent in 2010\(^2\). As per NSSO 2008, the private sector accounted for 60 percent of all in-patient admissions and 78 percent of out-patient consultations\(^3\). Private diagnostics market is growing at 20 per cent and the pharmaceuticals market at around 15 per cent per annum.

The Indian government has also introduced several reforms. The 11th and 12th Five Year Plans and international focus on the Millennium Development Goals have led to successes, especially in the primary health area – maternal and child health, and infectious diseases. The National Rural Health Mission has achieved efficiency and health system reforms, while the Rashtriya Swasthya Bima Yojana (RSBY) - a national social health insurance scheme - has aimed to cover in-patient treatment, possibly making quality healthcare and private sector facilities accessible to the poor.

However, these exciting opportunities often mask certain urgent predicaments.

The healthcare sector in India is currently at a cusp. Issues of access, affordability, quality of care and efficiency remain significant. A number of reports have been published about the poor health status of India, compared to its Low and Middle Income Country (LMIC) peers. In terms of vital statistics like infant mortality (IMR) and maternal mortality, India has lagged behind significantly. Even life expectancy, at 62 years, is three years below the LMIC average. According to the Global Burden of Diseases 2010 study, total Disability Adjusted Life Years (DALYs) lost are 518,879,000 years for the Indian population\(^4\). The economic cost of these illnesses to the country is a staggering 600 billion dollars (approximately).

India is also facing an unprecedented pressure due to the poor reach of quality healthcare to millions of its citizens due to issues of access and affordability. The Indian healthcare sector has faced shortages of workforce and infrastructure. There were 1.65 trained allopathic doctors and nurses per 1000 population, compared to the World Health Organization (WHO) recommended guideline of 2.5 per 1000

---

1. Indian Healthcare: The Growth Story
2. Central Bureau of Health Intelligence, Health Infrastructure 2005 and 2010
3. NSSO 2008
4. Global Burden of Diseases 2010
population. Total hospital bed density in the country (0.9 per 1000 population) was well below the global average (3.0) and the WHO guideline of 3.5. Total healthcare expenditure in India was only 3.9 per cent of GDP, compared to 8.9 per cent for Brazil, 6.2 per cent for Russia and 5.2 per cent for China. Out of this amount, out-of-pocket expenditure was 61 per cent, and only 26 per cent of Indians are covered by health insurance with share of private being only 3-5 per cent.

However, this is not to imply that progress has not been made in the last decade – a significant contributor to which has been the private healthcare sector.

Inequity in access, affordability and quality of healthcare are the major concerns that the country is grappling with on one hand; and on the other hand it needs a strategic approach to leverage the growth trajectory of healthcare to its advantage.

Given this complexity of the sector and the unique situation of the country in healthcare, it is evident that a single stakeholder cannot offer all the solutions and address all the challenges. Collaboration, thus, becomes a pre-requisite for success.

5 WHO World Health Statistics 2012
6 Ibid
7 World Bank Global Health Expenditure Database 2011
8 WHO World Health Statistics 2012
9 Employees State Insurance Corporation; RSBY website
Emerging trends and imperatives

The healthcare system consists of multiple stakeholders including the government, providers, payers, pharmaceutical and medical devices firms. Each plays a vital role in the health care system in India. However, interactions between various stakeholders have remained limited.

Healthcare in India has assumed a more dynamic form over the last few years – offering exciting opportunities for new reforms and improving stagnant indicators addressing concerns of access, affordability and quality across different population groups.

An ecosystem of innovations for world-class healthcare delivery, driven by private providers, is developing in India. The country is establishing new global standards for cost, quality and delivery, through its breakthrough innovations in healthcare. The other end of the spectrum is witnessing a number of innovations to increase access and improve quality of health services for the poor and unreached at affordable costs. The last couple of years have seen a rapid increase of private equity and venture capital funds available for entrepreneurs in healthcare, which has enabled scale up of some of these new interesting models of providing healthcare.

It increasingly seems that the tool to address the inequities of poverty is choice and not charity. A number of innovations have taken this approach. Health care providers have tried to increase access and quality of care for the poor.

Telemedicine and m-health initiatives have led to better reach and quality in health management while being highly cost-effective. Various m-health initiatives across the world have led to improvements in patient access through cost effective solutions – education and awareness, chronic disease management and treatment support, remote monitoring, diagnostics support, and disease surveillance.

To leverage the healthcare growth story, the industry is now reshaping and redefining the very concept of “healthcare”. It has moved far beyond curative clinical practice (focused on episodic care), to embrace prevention, wellness and the concept of the “holistic care” through the pervasive health continuum.
Given the demographic and epidemiological transitions in India, this concept is of immense value. Prevention can help maintain a healthier population, thus reducing healthcare costs for cure, easing pressure on limited healthcare resources in India, and having a healthier, more productive population. A number of hospital chains and wellness centers are taking this approach.

The new age health systems thus, need not only skilled medical doctors, but also skilled managers.

Again, the broadening of the concept of health means that the healthcare industry also expands to include a range of stakeholders like information technology, financers/insurers, research-development, policy-makers etc.

As we have observed from the examples, there are countless new developments cropping up regularly. Emerging trends and innovations in the sector have the potential to change the healthcare landscape significantly. But these developments are often small innovations. They need to leverage the incomparable scale that India offers. In other words, the healthcare ecosystem needs excellent management and collaborations that are strategic, cutting-edge and forward-looking. While interactions between and amongst these stakeholders are taking place at a smaller scale in a case-by-case basis, these relationships and inter-linkages

---

Main Demographic and Epidemiological Transitions

- By 2020, an estimated 97 million Indians will be aged 60 or older, up from about 64 million in 2010.
- The number of diabetes cases expected to increase from nearly 60 million in 2011 to 100 million by 2030.
- India’s share of NCDs is expected to increase to 76% by 2030.
need to be developed and sustained. The diffusion of innovation still remains an issue in the Indian scenario. Majority of innovations do not percolate down and remain limited to urban affluent areas. Eventually, process innovation will have to leapfrog product and business model innovation and provide affordable healthcare, with efficiency and quality. These need to be the mainstream and not exceptions.

The main imperatives of the healthcare system are increasing access and reach to its consumers, increasing efficiency in service delivery to maximize profits, and improving quality to match global standards. Collaborations between different stakeholders are a pre-requisite to achieve the three aims. A facilitative ecosystem and conducive environment need to be created for such collaborations to flourish.
Collaborate to Innovate

The context of Indian healthcare in the current times, as sketched above, indicates a key lever – collaboration for innovation.

As discussed, the challenges faced by India are unique and diverse and tackling the entire problem of access, quality and efficiency in such a challenging environment by a single stakeholder using existing solutions, is not feasible. Stakeholders need to come together to develop and implement cost effective and scalable models of delivering healthcare.

Effective collaboration across the value chain is essential for new technology/drug introduction, lowering costs, increasing awareness and acceptance of preventive measures, strengthening healthcare financing and making healthcare accessible.

More often than not, stakeholders come up with an innovation on their own without much collaboration with the other players across the value chain. This works in scenarios where most of the cogs in the wheel are functioning properly. However, for India, where there is large room for improvement at almost all stages, such a process can lead to inefficiency and unwanted delays in reaching the potential consumers. The multiple stakeholders in the healthcare value chain need to collaborate and identify innovations that would span across their domains and add value for everyone, as the output from each stage would serve as inputs for the next stage.

**Key lever for access, efficiency and quality in healthcare**

**Collaboration**
- Need for stakeholders to use each other’s strengths to leverage the existing infrastructure and resources

**Innovation**
- Need for product and process innovations to provide affordable and cost-effective solutions

**Collaborate to Innovate**
- Stakeholders need to synergize to bring about innovative models in service delivery and technology
Collaborations between different providers across the healthcare continuum

Different providers across the healthcare continuum – preventive, primary, secondary, tertiary and rehabilitators all need to collaborate in order to form a seamless and efficient chain. Both vertical and horizontal integration can be implemented in streamlining business processes, reaching right clients and maximizing effectiveness.

Given the increasing competitive intensity, rising real estate costs and a tough operating environment, large numbers of healthcare providers are exploring new and innovative business models to tap larger number of patient segments, lesser penetrated geographies, and enhance service offering levels. Various unconventional formats are being tried out by some of the new entrants which have also increased willingness of existing players to collaborate.

Investments in collaboration between primary and curative care not only contribute to prevention of complications in chronic diseases, but also reduce secondary and tertiary overcrowding by managing simpler health problems at the primary level, thereby allowing them to focus on high-end treatments and in turn improve processes and cost efficiencies. Referral processes also become more efficient, timely and effective when primary and curative providers collaborate. Experiences from different models, like the Colston Health Centre in Birmingham for mental illness, show that employee motivation at the primary level and employee efficiency at the secondary level go up significantly with minimal investments in integration.

Besides this, collaborations between diagnostic chains, primary care facilities and hospitals can be leveraged to achieve these benefits.

To better manage primary care for patients with mental health problems, the Colston Health Centre in Birmingham, UK, developed a model of interaction between primary and secondary care. A consultation-liaison model was undertaken with the consultant psychiatrist visiting the health centre – who would support and give advice to the General Practitioners (GP) on how to manage patients with mental health issues and on potential referrals to specialist mental health care. The collaboration was taken further by using mobile phones for quick consultations, liaisons for undergraduate and postgraduate trainings. At a later stage, mental health professionals became attached to the Colston Health Centre to work along with the GPs to provide primary care and integrated therapies to patients.

Metropolis Health Services (a diagnostic chain) has tied up with the social franchising model of MerryGold Health Network in Uttar Pradesh to provide quality diagnostic facilities to patients. Patient samples are sent directly to the Metropolis Health Services laboratories and patients can collect reports from the MerryGold hospital.
Collaborations between providers and technology

Collaborations with technology companies can change the way providers deliver healthcare across the country. Technology can not only substantially improve efficiency in healthcare delivery processes, but can also make healthcare more pervasive and integrate it seamlessly to our everyday lives. Technology, for instance in diagnostics, genomics and invasive procedures, has revolutionized clinical practice. Medical devices and health technology players, like Biosense has launched its ToucHb (a non-invasive, instant, portable anemia scanner) through select provider clinics in India for screening anemia, especially for antenatal care of pregnant women. These cost effective point-of-care diagnostic solutions, often used by large scale providers (like the public health system) improve accessibility and affordability for a large section of the population.

While product innovations have been exponential in the last decade, and are only going to grow, process innovations through technologies in healthcare are a recent emerging trend – making management of healthcare more efficient, cost effective and accessible. Innovations in delivering what services are available, and delivering them better is going to be the focus of collaborative innovations in the coming years.

Increasing access to reach the unreached, while controlling costs, is made possible through the induction of technology in healthcare. Telemedicine is being used to connect remote rural populations to medical advice from specialists, which were until now, unavailable to them. The telemedicine based social franchising and social marketing by World Health Partners connect rural patients and providers to high skilled urban doctors that provide holistic care.

Besides this, telemedicine technology also allows physicians easier access to their colleagues and patients in multiple locations (both domestic and internationally) across health facilities, thus offering the possibility of creating a network of health service providers. Patients, now, do not need to be restricted by what is the best option available in India, but the best available in the world.

Philips’ award-winning tele-monitoring solutions enable healthcare providers to monitor chronic disease patients while the patient stays at home. These telehealth programs allow for early intervention in patient care, more informed decision making in patient management, greater patient self-care, and reduced risk of repeated hospital admissions and visits.
Another area where technology is used increasingly is in healthcare and hospital management to improve efficiency. Healthcare technology companies, such as GE, are offering a wide range of clinical and financial information technology solutions that enable better decisions and outcomes for both businesses and patients, improve revenue cycle, drive quality outcomes and accelerate image management and workflow.

**Collaborations between providers and payers/insurers**
The coming decade is going to mark rising demands on and costs of healthcare provision, changing demographics with an increasing aging population, and an epidemiological transition towards non-communicable diseases. Due to this, healthcare is moving towards a preventive and wellness approach. Addressing these demands of chronic disease management and of prevention and wellness promotion requires collaborations amongst providers, insurers, other payers (like employers) and wellness players.

Investment in preventive care by insurers is cost-effective and yields high returns by preventing critical illness episodes among the insured population, and thereby, reducing pay-outs. Insurers and payers can also undertake awareness generating initiatives about prevention, disease management and wellness. With greater awareness among consumers and patients, health seeking behaviour increases and there is willingness and acceptance of healthcare directed towards preventing illness and promoting good health. Wellness players involved in the collaboration can contribute in this entire process, especially in areas of better nutrition, stress management, lifestyle diseases and mental health. Insurance companies can incentivize wellness programmes through innovative products that have reduced insurance premiums for clients who maintain certain health standards, and cover out-patient treatment and annual health check-ups.

The Finance Bill 2012 in India has extended tax deduction under section 80D for expenditure on health insurance premiums for preventive health. These regulations by the government go a long way in boosting focus on prevention, rather than curative care, as well as towards creating a facilitative environment for preventive care.

- Private providers like Max Super Specialty Hospital, Apollo Hospitals, Medanta and Escorts are collaborating with public payers/insurers like the Central Government Health Scheme (CGHS).
- AstraZeneca (a pharmaceuticals company) has partnered with insurance and health benefits provider WellPoint in the United States to gain more insight into patients. Once equipped with the medical history of patients and their families, insurers can make better-informed decisions on the coverage they provide.
Health Stream provides learning products customized for healthcare organizations to meet a broad range of their training, certification, and development needs. It offers a variety of specialty courses for retail customers including CME, CNE apart from several healthcare compliance trainings. It has a total customer base of over 2,500 healthcare organizations (50% of all US Hospitals) throughout all 50 U.S. states, and has contracted approximately 2.45 million healthcare professionals from different healthcare organizations.

Health Stream has partnered with Harvard Business Publishing, to offer ‘Harvard ManageMentor’ to enhance leadership and management skills in healthcare organizations.

environment for insurers to collaborate with preventive/primary care providers.

Collaborations for nurturing and retaining talent
In a resource constrained setting like India, the challenge is not just talent management and retention, but also fundamental training and capacity development. As we have seen in the first section of this report, there is a huge shortage of qualified healthcare personnel in this country. Medical and nursing colleges need to strengthen, improve and increase training infrastructure to bridge the shortage of skilled human resource. This requires support from the government to form facilitative norms, accreditation criteria and grants and possible entry of investors to encourage private players in delivering quality medical education.

Besides medical and paramedical education, modern healthcare needs management training. Rising costs, expanding demand, and increasing customer expectations characterize healthcare today and are redefining the roles of patients, providers and payers. This is especially true as health facilities across the chain (primary, secondary, tertiary) are increasingly being run by corporates and funded through private equity – which demands better management practices and accountability mechanisms. The need for efficiently managed health systems, while containing costs and increasing access and profitability, has brought about a shift focus from just medical expertise to principles of business and management. Apart from clinical specialization, corporate hospitals are focusing on internal business functions such as inventory, asset, financial and human resource management as well sales and marketing and customer relationship management (CRM). It is expected that this trend will continue and create a demand for a specialized resource base of healthcare managers.

Collaboration of educational institutions with providers, especially hospital chains and other modern modes of delivery are needed for continuing medical education so that healthcare professionals keep themselves updated.
Apps like Bant, developed by the University Health Network in Toronto, allow Type 1 diabetes patients monitor their blood sugar levels to help manage their condition.

“Sleep as Android” is an app for insomnia patients to track their sleep cycle and analyze insomnia conditions to help improve sleep patterns.

UChek by Biosense is a urine analyzer that uses the iOS platform and iPhone camera to automatically read commercially available urine dipsticks to diagnose up to 25 medical conditions.

Collaborations for an empowered patient
Increasing use of technology is also resulting in evolution of interactive patient care by educating and empowering patients to be active participants in their care management. Models such as interactive technology platform, online patient self-help groups, and increased involvement of patients in care pathways – right from before admission to post discharge, mobile health, social media platforms and patient remote monitoring among others are increasingly being accepted. These models play a dual role – provide patients with multitude benefits including convenience and choosing a healthcare delivery model/provider based on informed access, and help healthcare providers increase service levels and at the same time reduce costs owing to higher efficiencies.

Multi-stakeholder collaborations
While there are models of two or three categories of stakeholders coming together for specific goals of healthcare (as seen in the above sections), multi-stakeholder collaborations involving players across the value chain and care continuum, and the government have also been undertaken.

The involvement of the government in a cross-sectoral convergence cannot be emphasized enough. Although India has experimented in limited scale with multi-stakeholder collaborations for healthcare, other countries like Indonesia, Mexico, and Bangladesh have had successful experiences. Facilitative regulations by the government (such as the preventive healthcare in the Finance Bill 2012 in India mentioned above), allocation of adequate resources (such as allocations and preferences for Public-Private-Partnerships in the 12th Five Year Plan), empowering key stakeholder groups for policy action, and political will are crucial for creating and managing large scale collaborations.
Collaborations between the government, healthcare technology firms and implementers have helped strengthen community-based efforts to improve maternal and child health. Dimagi and D-Tree International are leading CommCare - a mobile based case management solution for community health workers in 25 countries.

In India, ASHA (government workers) have been trained on using the CommCare application to monitor danger signs, use as a job aide and to capture patient data. The application is also used to monitor the activities of the ASHAs and for health surveillance. The use of the application has improved quality and consistency of care and has helped in engaging and educating the population.

In Zambia, CommCare has led to standardized interventions in clinical care and community health by linking patient data entry systems at health facilities with community health workers using CommCare on their phones. This helps clinic outcomes to be handled in a timely manner and the referrals made by the community health workers can be tracked at the clinic by using the mobile application.
The striking feature of the sector is that it has the potential to grow at an exponential rate in the foreseeable future and to present new opportunities within itself, which will emerge as growth drivers. In order to realize the immense potential for each to invest in and grow with the sector, there is a need for a cohesive and collaborative approach, where all stakeholders work synergistically and leverage the opportunities to create a lasting impact.

Collaborative innovations not only increase value for all players, it also reduces cost for the end user and improves health outcomes. But sustained and meaningful collaborations like the ones listed in the previous section need a conducive environment. The ecosystem has to be facilitative of such partnerships. All stakeholders, including industry, government, and investors need to step up to make coordinated and concerted efforts towards creating such an environment.

Some of the key questions that need to be resolved to achieve these desirable collaborations are:

- What role can the government play and what are the policy action points needed to create such collaborations?
- While collaborations between government and industry is common through public-private...
partnerships, how can they be made truly collaborative rather than just “outsourcing and insourcing”?
• How can regulation be made meaningful - without restricting talent and innovations - to counter malpractice, unethical measures and patient-rights violations?
• How can technology and patient data bases be used for improving patient experiences/outcomes, improving revenue cycles and broadening/deepening reach of healthcare, without being misused for denying insurance or for irrational care?
• What can investors do to promote collaborations and a progressive and innovative development of the healthcare sector?
• What specific action points can private players enact upon in the coming years to facilitate and sustain collaborations?

The All India Management Association (AIMA)’s seminar on “Sustainable Strategies for a Healthy India: Imperatives for Consolidating the Healthcare Management Ecosystem” aims to facilitate a discussion among key stakeholders from the health management continuum towards developing a facilitative and sustainable environment for meaningful collaborations.
References

1. Indian Healthcare: The Growth Story
2. Indian Health: The Path from Crisis to Progress, Richard Horton and Pam Das, Lancet 2011
4. India’s Health Care Hurdles, ISB Insight, Vol 9, Issue 2
5. Guest Editorial Introduction to the Special Section on Pervasive Healthcare, Ilkka Korhonen and Jakob Bardram; IEEE Transactions on Information Technology in Biomedicine, Vol. 8, No. 3; September 2004
6. Welcome to Welness, Sonal Vij, Express Healthcare, September 2009
7. Five Health Information Technology Trends for 2012, Physicians Practice