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SHAPING OUTCOMES

*Low Cost
Healthcare Delivery:*

Impact v/s Sustainability

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Low Cost Healthcare Delivery: Impact v/s Sustainability

Low cost healthcare delivery (LCHD) has progressed considerably in India. National Rural Health Mission's (NRHM) reforms have led to improvements in key health indicators such as institutional deliveries, out-patient cases, complete immunization, availability of diagnostic and family welfare services and disease control programmes¹. However, the country's healthcare market continues to face challenges of affordability, availability, and quality. Also, pertinent questions still persist:

- Can LCHD, both, create impact and achieve financial sustainability?
- Has India witnessed innovations in its LCHD business models which can help achieve these objectives?

While many businesses have been established in the LCHD space, few have been able to tackle and address its issues related to accessibility, affordability, viability or scalability. At the Sankalp Unconvention Summit 2014, the Investment Banking team of Intellectap hosted a panel session along with Swasti to understand the current landscape of market based approaches for affordable healthcare delivery. The panel also discussed the potential of these market based approaches to create impact while achieving scalability and financial sustainability. The conversation further explored the scope of innovation in the existing delivery methods to ensure quality affordable healthcare at scale.

This report, a distillation of contributions from the panel discussion, provides an overview of the realities and challenges of LCHD models and seeks to identify enablers that can change the LCHD landscape.

Healthcare in India

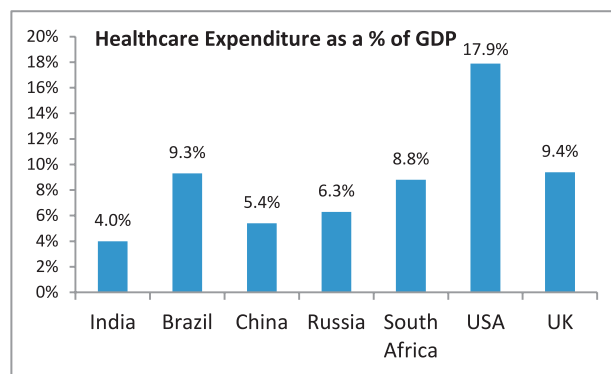
The Good

- Healthcare revenue in India which was at USD 68.4 billion in 2011, is set to reach USD160 billion by 2017²
- Healthcare expenditure is likely to rise at a CAGR of 15.1 per cent over 2008–17³
- Growth Drivers⁴
 - Demand growth drivers include growing target hospitalization population group, increasing lifestyle diseases, surge in medical tourism and rising disposable incomes
 - Supply growth drives include shortage in number of hospital beds, government initiatives propelling investment and growing health insurance market
- The Government of India has allocated INR 67,398 crores (US\$ 11.05 billion) to the Ministry of Human Resource Development (HRD) and INR 33,725 crores (US\$ 5.53 billion) to the Ministry of Health and Family Welfare under the Union Budget 2014-15⁵ (IBEF Healthcare-March'14)

And the Not So Good

- India lags behind the BRICS nations in Healthcare spend as percentage of GDP⁶.

Further, government spends on public healthcare schemes fails to reach the targeted population due to poor implementation.



- Private sector dominates the healthcare delivery segment with 77%⁷ share in total healthcare spend and constituting 74%⁸ of the country's hospital beds. However, the growth of private hospitals has been inequitable,
 - with 53%⁹ of private hospitals beds being present in the metros and Tier I cities; and
 - with 29%¹⁰ and 18%¹¹ in the tier II and tier III cities respectively.
- Inadequate infrastructure further plagues the healthcare delivery sector.

Health Infrastructure per 10,000 individual (2005- 2012) ¹²			
	Physicians	Nurses and midwifery personnel	Hospital Beds
India	6.5	10	9
World Median	14.2	33.2	27

- Additional 1.8 million beds needed for India to achieve the target of 2 beds per 1000 people by 2025¹³
 - Additional 1.54 million doctors required to meet the growing demand for healthcare¹⁴
 - Only 25%¹⁵ of the population is covered by private or public insurance and 71%¹⁶ of all health care expenses continue to be out of pocket
- Many value chain inefficiencies exist such as,

Each year 39 million people are pushed into poverty because of indebtedness to cover healthcare costs¹⁷

- limited data available for consumers to take an informed decisions about their medical choices
- limited training and information provided to healthcare workers in rural areas lack of accessibility to generic drugs
- prevalence of counterfeit drugs in the market

Is Low Cost Healthcare Delivery a Myth

Low cost healthcare delivery is by no means a myth. Models in the LCHD space like Aravind Eye Care System (AECS), Narayana Hrudayalaya (NH), and LV Prasad are examples which have demonstrated that high quality medical care can indeed be provided at affordable prices. However, there are numerous others who are struggling to achieve scale.

There are a few enterprises like Glocal Healthcare, LifeSpring Hospitals, BeWell, Vaatsalya and Jeevanti which are examples of for-profit enterprises that are enabling healthcare access to under-served geographies, serving low-income segment population in urban and rural areas and striving to achieve sustainability.

Secondary and tertiary care segments have seen the highest traction in the low cost healthcare delivery market. Primary care, unfortunately, is trailing behind immensely. Players are making substantial efforts to find a balanced business model in the primary care segment.

So far, specialized eye care is one of the few, if not the only, healthcare segments that has observed successful business models. LV Prasad Eye Hospital and Aravind Eye Care are examples of specialized eye care business models that are providing services to the rich and poor alike and are also financially self-sustaining. These business models are able to offer subsidized services to their low income patients because the subsidies are financed by the full-fee services sought by the affluent individuals.

Despite the limited number of enterprises that demonstrate both impact and sustainability, one cannot and must not write off the viability and validity of LCHD. By keeping cost of operations to a minimum and by taking advantage of economies of scale, sustainability and impact creation could become attainable targets by LCHD business models.

Challenges of Low Cost Healthcare Delivery

The challenges that LCHD enterprises face can be broadly categorized as systemic, business model and financial challenges.

Systemic Challenges:

1) Lack of appropriate interventions by the Government :

- Poor Resource Allocation at Primary Healthcare Centers (PHCs): Currently, Karuna Trust, a

government funded organization, manages primary health care centers (PHCs) across India. However, in rural India, the number of PHCs is limited with lack of adequate skilled manpower,

- 8% of the centers do not have doctors or medical staff,
 - 39% of the centers do not have lab technicians and
 - 18% do not have a pharmacist¹⁸.
- **Limited Success of Government Schemes and Policies:** Success and effectiveness of many policies and programs like RSBY, Janani Suraksha Yojana is questionable due to large gaps in their implementation. These government schemes have often faced criticism that they increase the tendency of patients to get hospitalized at the first instance. This leads to malpractices where hospitals conduct needless procedures on patients to earn money through the cashless insurance schemes.
 - **Rates Fixed by Government make Hospitals Unviable:** As NABH empaneled hospitals are required to charge patients the prices fixed by the government, they struggle to stay sustainable. These hospitals become unviable as they end up charging prices that do not cover even the direct costs incurred to deliver the service. Also, despite the schemes and subsidized rates, India's out of pocket health expenditure (% of private expenditure on health) has not reduced much from 87% in 2008 to 86% in 2010¹⁹. This backdrop, coupled with the government regulations and the lack of good infrastructure such as water, sanitation and governance, make it tough for private sector business models to thrive and function well.

2) Chronic shortage of highly skilled doctors

Increasing population and disease burden along with inadequate resources, has led to perpetual demand supply gap of medical professionals and healthcare resources in most parts of the country with the situation being worse in rural and semi urban areas. A recent estimate reveals that as many as 40 per cent of rural posting by trained medical graduates and post graduates in different states in India are not fulfilled²⁰.

However, the shortage of doctors has forced hospitals to maximize the duties that doctors perform thereby creating specialists that perform high volumes of focused procedures. The responsibility of routine tasks is transferred to lower-skilled workers, leaving expert doctors to handle only the most complicated procedures.

Although these constraints can potentially be credited to have furthered innovation- emergence of hub and spoke models, development and adoption of frugal products, implementation of streamlined processes; these challenges continue to obstruct the ability of business models to scale.

Business Model Challenges

1) Creative revenue procurement models

- The rural India, as observed by the healthcare market, has demonstrated paying power for healthcare services. But enterprises still immensely grapple with revenue procurement.
- Most enterprises, due to incapability of devising a revenue procurement system that is mutually suitable for themselves and the target communities, gradually extinguish themselves.
- For a service provider, cash in-flow is of utmost importance. Enterprises can sustainably deliver

INDUSTRY SPEAKS:

P Pradeep, Executive Director - Aavishkaar, commented on whether Government's fixed rates will help in reducing the out of pocket expenses, by saying "If the Government did get involved in pricing alone and kept everything else as is, it would merely lead to crony capitalism. If the road map is to increase the Government role, then the interventions would have to be across the entire value chain- from the supply of nurses, doctors and medical colleges etc. Else, all the stakeholders of the value chain should be allowed to navigate their path and find their own place within the value chain. While the government has been trying to play a significant role in the value chain, the results of their initiatives are often slow and the practitioners tend not to wait for the government's role to play out. They are going ahead and seeing what they can do within the system."

2) Inability to develop relevant technological solutions for BOP

- The Indian healthcare market is inundated by both indigenously and internationally developed technology
- It is important for enterprises to understand the needs and ground realities of their target segment before developing and attempting to implement innovative medical devices
- If the interventions offered by technologies are not in line with the needs of the community then their respective business models are likely to fail socially as well as financially
- Products are also been observed to fail if they require a paradigm shift in the behavioral patterns of the doctor or the patient. It is imperative for enterprises to keep the products simple and limit the product parameters to a minimum by offering only those that are most essential

3) Keeping capital expenditure at a minimum

- Technology has made it possible to reduce capital investments, thus making it slightly easy for the private sector to deliver at reduced costs. e.g.: Mobile health clinics, e-centers for health care where consultation is done using computers, have all tremendously reduced the costs of providing services.
- Hospitals, where revenue collection is at staggered pace, have to carefully analyze each capital expenditure decision
- One way of mitigating this risk is to service larger volumes of patients so that enterprises enjoy economies of scale for not only equipment but also, doctors and facilities

4) Difficulty to replicate model across geographies

Scalability is a challenge for many, if not all, entrepreneurial models. Most business models are developed to suit a particular geography or community. This makes it difficult to replicate the model elsewhere as its features are specific to the community it is catering to.

INDUSTRY SPEAKS:

Unit economics of a business (service providers and medical device companies) is very important as ultimately the enterprise's focus should remain on the unit that is delivering the intended service and ensure that it can make the unit profitable while doing so. This thought process is the key for the viability of any business model. Furthermore if the enterprise is successful in making the unit profitable, educated investors who understand the importance and dynamics of unit economics can take the enterprise to the next stage.

According to Mr. T. P. Devarajan, Director-Investments, InvAscent Advisory Services, "A company is sustainable when it has one set of its investors bought out by another. Whether an enterprise's EBITDA is positive or not is less important than the fact that the enterprise has successfully built a model which has demonstrated sustainability at a unit level."

When enterprises venture into the affordable healthcare segment, impact creation is usually a given. Achieving sustainability is the overarching challenge that every entrepreneur faces in a country like India, where the nuances of conducting operations and procuring revenue change from one target community to the other.

Financial Challenges

Availability of Patient Capital

Due to the aforementioned systemic and business model challenges, enterprises are starved for patient capital. Enterprises, specifically the ones attempting to implement innovative market based business models, seek for capital that allows them to experiment.

Investors should have a thorough understanding of both the financial and the social relevance of business models and provide entrepreneurs the time and capital to navigate their paths around the existing market constraints and achieve the desired results.

Due to these constraints companies have been forced to get creative with their product offerings and their internal/external processes. The healthcare space has witnessed increasing number of technological and process innovations which have acted as the key enablers of affordable, accessible and quality LCHD.

Following are some of the shifts that the healthcare space has witnessed²¹:

Market Shift:

Companies are changing the healthcare landscape in India by addressing current inefficiencies in the market including restricted outreach to rural areas, presence of spurious drugs in the market, limited data/information availability for consumers to take informed medical decisions and few financing options which enable customers to afford healthcare. Examples are:

- PharmaSecure is an example of a company that leverages technology to solve problems of counterfeit drugs, by tagging each drug through a unique id that can be tracked from source to consumption by the patients.
- iKure is a network of Rural Health Centers which provides Primary care treatment and is equipped with a pharmacy which dispenses genuine drugs. Furthermore, iKure has developed a Wireless Health Incident Monitoring System (WHIMS) which is a cloud based platform which enables exchange of patient data and advocacy of healthcare programs.
- Rajasthan Government's "Life-line drug stores" have increased accessibility of generic drugs to consumers
- Intel Skool Healthcare Education platform offers virtual learning solutions to a large number of healthcare workers Similarly there are many companies attempting to address the value chain inefficiencies of the Indian healthcare space.

Technology Shift:

The technology shift witnessed various technology innovations like

- product designs and software solution
- creation of access to remote areas and Increased mobility of services;
- development of minimal and non-invasive diagnostic devices
- development of pre-configured open source systems that are available for enterprises to adopt and jet-start their operations

Examples are:

- The Embrace warmer is an award winning product that is designed for hypothermic infants in developing countries
- Ziqitsa and GVK EMRI offer emergency and referral transport services
- Forus Health addresses the healthcare delivery crisis with an innovative, low-cost, portable pre-screening ophthalmic device: 3nethra, built with Edmund's Optics optical components
- Apollo Telemedicine Networking Foundation facilitates the availability of specialists virtually even to Mobile Medical Units (Hospital on Wheels), among other services
- BioSense Technologies has developed a non-invasive device called uChek. It is a Lab Made Mobile which is a smartphone based portable diagnostic system. It can perform a wide variety of tests ranging from routine urine analysis to specialized tests.

The healthcare market tends to provide an impression that it is flooded with innovations, but the presence of these innovations in the market is vital. Innovations at every stage of the healthcare value chain can facilitate interventions at their respective stages. Furthermore when these innovations take place across the entire value chain of the healthcare market, they can create an environment where creative business models can, both, thrive and scale. Gradually the landscape will evolve to a juncture where aggregation and consolidation of these innovations would weed out the redundancies in the market.

The LCHD market has seen certain business models that have the potential to both create impact and achieve financial sustainability. But currently there is very limited exhibition of sustainability and scalability by these business models.

As mentioned earlier, innovations at every stage of the healthcare eco-system are paramount. When delivery, drug, device and diagnosis innovations occur simultaneously, then the Indian healthcare market will witness a paradigm shift. The enterprises, irrespective of the area of innovation, have to ensure that their service/product offering has to be pertinent and applicable to their target audience. The burden of a paradigm shift should be placed on business models and not on cultures and behavior of target communities. The business models should allow flexibility for them to be replicated across geographies. When this is achieved, then impact, sustainability and scale, together would have occurred.

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