



# HOSMAC *Pulse*

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Affordable Healthcare For All

Cover Story  
Pg. 3

Strategies of the State  
Pg. 21

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# Table Of Content

<b>Affordable Healthcare For All</b>	<b>3</b>
<b>A Better Way To Do Healthcare</b>	<b>5</b>
<b>Making A Healthy Impact</b>	<b>7</b>
<b>PPP: Making Healthcare Affordable</b>	<b>9</b>
<b>Novices' Experiment With Affordable Healthcare</b>	<b>11</b>
<b>Low-Cost Solutions To Curb Non-Communicable Diseases</b>	<b>14</b>
<b>The Cost Effectiveness Test</b>	<b>15</b>
<b>The Dynamics of Design Teams</b>	<b>17</b>
<b>A Global 'Medical' Visa – A 'Dream' Passport</b>	<b>19</b>
<b>Strategies of the State</b>	<b>21</b>

## Editor's Note

India is a country with diversity and so is its population, hailing from disparate socioeconomic classes spread over vast geographies of urban and rural hinterland. Healthcare planners therefore have to plan to cater to all its population, when they set out to provide healthcare for all. The present system of healthcare has been getting more and more expensive by the day. Of late, those who are not covered by health insurance are finding it rather difficult to pay for care services. This holds true especially for the middle class in India, which constitutes the largest mass in semi-urban and urban India. Thereby, lower income groups, primarily the unorganized sector, find it extremely difficult even to get admitted in hospitals for treatment.

The government has been mindful of the fact. Ergo, it has popularized social health insurance schemes like R.S.B.Y. and E.S.I.C. to cover these people. Apart from mode of payment for treatment, India also needs to utilize the apt technology to make quality healthcare available in remote geographies. Use of telemedicine is the best way to reach diagnostic tools; the government is keen to take the PPP route to ensure it.

The Andhra Pradesh Government seems to have taken a lead in this respect and has both diagnostic and therapeutic PPPs to its credit. Other states should also imbibe the concept and employ such an inclusive use of technology.

High volumes in hinterland will surely make investments attractive for private players. Already, there are many overseas investors looking to invest in such ideas. They shown keen interest in setting up no-frills model of small hospitals in tier-3 cities that ensure faster return on the capital.

In urban centers, day surgery is fast catching up as a concept, by which many chains have started to proliferate. Yet, since the concept is in its early days, tweaking the model is key to ensure that businesses run profitably. Cross-subsidy models, as successfully demonstrated by the Narayan Hrudalaya and Arvind Eye Care chains, must be followed in urban conglomerations. This edition of Hosmac Pulse grapples with such issues to explore how India can make available affordable healthcare for all of its population.



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A handwritten signature in black ink, appearing to read 'Vivek Desai', with a stylized flourish at the end.

Dr. Vivek Desai  
Managing Director, Hosmac India Pvt. Ltd.





## Affordable Healthcare For All

*Kimi Mehta, Management Consultant — Hosmac, surveys India's initiatives towards an affordable and accessible healthcare for its vast population, and points out how it can be driven further.*



The WHO had envisioned “Health for All” by year 2000. A decade later, India, a nation of 1.15 billion people has yet some distance to go. Today, the gulf between this aim and our achievement remains. Health for all is possible if there is adequate healthcare, of a consistent quality, at affordable rates.

In the health expenditure pie for India, the government’s share of expenditure is 26%; while 74% of all healthcare expenditure is private. In effect, much of the investment in healthcare is left to market dynamics: private health facilities proliferate where people can pay; also private healthcare often prices its services to cater to this paying population. As per the Planning Commission, outpatient services in private healthcare are 20-54% costlier, and inpatient services 100-740% costlier than public healthcare. This pushes up the cost of healthcare, making the gap wider. The challenge hence is to develop a healthcare delivery system that overcomes this inequity; one that is available, accessible and affordable to all.

India’s health industry, now increasingly dependent on the private sector, is unable to provide modern health facilities to more than 60% of the country’s population. The Union Budget for fiscal 2011 has done little to attract investment in healthcare or improve the access and affordability of modern health services.

Affordability in healthcare is measured by the amount of money a household can spend on health costs, while still having enough left over to pay for other necessities. Affordability becomes an important factor as it has been observed that the healthcare seeking behavior often depends on the cost of the medical treatment. Patients often either do not seek care, or do so only when they have

access to funds, thus affecting continuity of care. Even in urban India around 12% of ailments go untreated. Further, of the ailments that remain untreated in rural India for one-third of the cases, the reason is lack of financial affordability.

High cost of inpatient treatments, in the context of low insurance penetration and high out-of-pocket expenditure, place an undue burden on the individuals and specifically the vulnerable sections of society – those below the poverty line and the aged population.

While the upper income class can afford its healthcare expenditure and the government has planned initiatives to address the rural and certain deprived sections of urban population, urban middle class is left to fend for itself.

### **Health Insurance**

People today undergo immense stress looking at their medical bills, much more than the stress caused by their illness itself. One of the best solutions for this, apart from reducing the cost of healthcare, is medical insurance. This not only safeguards your health, but also your life after the illness leaves you. In developing countries like India, China and Brazil, medical expenses are one of the reasons for the poor becoming poorer. Households in these countries are vulnerable to financial shock associated with ill health. Nearly 65% of India’s poor get into debt and 1% fall below the poverty line each year because of illness, according to the National Sample Survey Organization (NSSO). Health insurance can lighten the medical cost but only 6% of India’s workers are covered. Free public hospitals are not the solution to this problem either, as two out of five doctors are absent, and there is a 50% chance of receiving the wrong treatment in such facilities.

Considering that the total healthcare expenditure annually amounts to approximately INR 3,00,000 crores, only one-third of this amount is spent on hospital related services. Currently, this comes under the purview of health insurance and its efforts to unburden the common man from the costs of healthcare. Various models have been introduced by the central and state governments to deal with the problem of affordability, such as, Rashtriya Swasthya Bima Yojana Programme by Government of India, Rajiv Aarogyasri Community Health Insurance Scheme.

#### **Alternative Medicine**

A major development towards affordability in healthcare would be to seek different models of alternative modes of treatments, such as Homeopathy, Ayurveda, Yoga, Unani and others. Considering the number of doctors graduating in alternative medicine, the upswing can play a crucial role in reducing the patient's overdependence on mainstream medicine. In turn, the growing call for overcoming the challenge of affordability in healthcare in India will be taken care of. To strengthen alternative modes of treatments, the Department of AYUSH is undertaking concrete steps to focus on the development and propagation of alternative systems of medicine. One of the key aims of the government scheme - the National Rural Health Mission is to encourage alternative systems of medicine through AYUSH. In addition to this, insurance cover for alternative modes of treatment by many insurance companies surely is a welcomed move.

The need of the hour is to blend modern medicine and alternative systems of medicine into a holistic synergy to provide affordable, available and accessible healthcare to every citizen of India.

#### **Government Initiatives and Programs: India**

Many steps have been taken by the Government to reduce the cost of delivering healthcare and thus make healthcare services affordable to all. Some of these initiatives are stated below:

- Import duty on medical equipment has been reduced from 25% to 5%. Import license requirements have been cancelled, majority-owned subsidiaries are possible and dividends too can be paid out abroad.
- Depreciation limit on medical equipment has been raised to 40% from 25%, to encourage medical equipment imports. This also has an effect on the bottom line of the hospital, thus helping the break even chart faster.
- Customs duty has been reduced from 16% to 8% for medical, surgical, dental and veterinary furniture. Also the customs duty on approximately 24 medical equipments, which include X-ray, goniometry and teletherapy stimulator machines, has been reduced to 5%.
- To further make India a competitive player in the medical equipment manufacturing space, the Government is encouraging setting up of Special Economic Zones (SEZs) for the same.

Introduction of the Rashtriya Swasthya Bima Yojana (RSBY), a visionary national health insurance scheme, which provides US\$620 in-patient health benefits at a premium of US\$12.40, paid by the Government.

Several social sector schemes that have begun to have an impact, have been conceived at the state level and later adopted at the federal level and offered across the country either in a fully subsidized form or on a cost-sharing basis. The Janani Suraksha

Yojana (JSY) is a prime example. It offers incentives to pregnant women who shun the age-old practice in rural India of delivering babies at home and instead go to an established medical facility for the purpose. It was first introduced in September, 2005 in Madhya Pradesh as 'Prasav Hetu Parivahan Evam Upchaar Yojana'. The Union Government appropriated it, re-christened it as JSY and offered it to all states.

The 'Arogyasri' programme provides health insurance cover to the poor while the Yashasvini program - a low-cost, affordable health insurance cover for farmers and their families. While in Karnataka the beneficiaries under 'Yashasvini' pay a nominal INR 10 per month as premium to have the health cover, in Andhra Pradesh this facility is offered free to all BPL families.

Employees' State Insurance Scheme of India, a multidimensional social security system provides socio-economic protection to worker population and their dependants. Several developments have been made so as to increase the population that comes under the umbrella of the scheme. The wage limit for coverage under the scheme has been extended to INR 15000 from INR 10000. The age limit of dependent children has been enlarged from 18 years to 25 years. Participation of third-party for commissioning and running of hospitals is also encouraged and opening of medical, dental, paramedical and nursing colleges so as to improve the quality of medical care provided at the hospitals.

#### **Need of the Hour – India Calling**

India is poised for dynamic growth and development in the years to come and is in the threshold of a major transition from being a developing nation to a developed nation. While the world gears up to India as a Super Power, there is still a considerable amount of changes and reforms that the country must bring about to ensure an effective and sustained development pattern. And at the crux of all these changes and reforms lies Healthcare.

Availability, Accessibility and Affordability of healthcare to each and every one of its citizens is truly one of the most important parameters that define a developed country; India must strive to attain these golden standards.

There still is a long way to go before quality healthcare becomes affordable and available to everyone in India. However, despite the many challenges, a combination of government initiatives, public-private partnerships and market forces seem to offer some hope that this ideal could become a reality.

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## A Better Way To Do Healthcare

*Anant Kumar, CEO – LifeSpring Hospitals, writes about the story behind LifeSpring and how its model has been filling the void of high-quality healthcare at affordable rates.*



Like many social businesses, the genesis for LifeSpring began with a simple belief: “There has to be a better way.”

At the time, I was working with the contraceptive social marketing program of HLL Lifecare Limited, an Indian government company that manufactures and markets contraceptive products. While working in the family planning clinics of private and government hospitals in Hyderabad to promote family planning services, I was continually disturbed by the conditions in which low-income women were delivering their babies. The government hospitals were under-resourced and overcrowded leading to difficult conditions for both patients and doctors. There were not enough beds, doctors, or space, to cope with the number of people needing care. Pregnant women would wait in long lines outside the hospital, often having to pay bribes for minimal services.

Then there were the private hospitals offering services that were of high-quality but priced out of reach for lower-income families. Since it was this type of healthcare that they preferred, low-income women would often sell assets or borrow money at high interest rates to finance a delivery in private hospitals.

LifeSpring was thus born to fill the gap between the existing options: a hospital that could serve poor women with affordable, dignified healthcare. However, financial sustainability was a vital concern to establish a scalable model.

### **A Model based on Economic Efficiencies**

In 2005, we launched our first hospital as a pilot. Women would pay a low, all-inclusive price for a complete delivery package and would receive high-quality healthcare services. We would also focus on customer care, recognizing our female patients as empowered customers as opposed to recipients of charity. LifeSpring offers the entire range of services covering a woman’s pregnancy, as proper antenatal care is essential to minimize complications during delivery.

Our low-cost model is based on the following main characteristics: service specialization, a no-frills set up, high asset utilization, and para-skilling. This last attribute enables the breaking down of a complex process into simpler tasks that less skilled professionals can perform recurrently. Our prices are one-third of one-half of the prices charged at other hospitals offering a similar quality of services.

LifeSpring’s double focus on reducing costs and improving volumes has helped its hospitals become profitable in less than two years since initiation. LifeSpring’s first hospital reached operational profitability in 18 months, ahead of its own business plan assumptions.

### **High Throughput**

LifeSpring operates at a much higher volume (outpatient and deliveries) than traditional players, which spreads its fixed costs over a larger number of customers. LifeSpring hospitals complete

100-120 deliveries per month as compared to 30-40 in other, similar-sized hospitals.

### **No Frills Model**

LifeSpring provides services that are required by most of its customers while refraining from making investments in infrastructure required by very few of its customers. For instance, LifeSpring partners with pediatric hospitals for treating neonate requiring intensive care (2-3% of all deliveries) instead of building this infrastructure in-house. This helps LifeSpring in not only keeping its initial capital cost low, but also in reducing operating expenses related with hiring full time pediatricians and pediatric nurses.

LifeSpring Hospitals operate in leased premises to keep project costs lower than traditional hospital models.

### **Service Specialization**

LifeSpring's specialization in core maternal healthcare allows its processes to become standardized and repeatedly performed by its clinical staff. These processes are replicated across all hospitals, facilitating LifeSpring's expansion.

#### **Maximising Asset Utilization**

Promoted by HLL Lifecare Ltd., LifeSpring received joint equity funding to scale up its model in 2008. Its investor includes Acumen Fund—an American social venture fund.

LifeSpring hospitals operate in clusters. By setting multiple hospitals in a city, some of the expensive resources (ambulances and back-end operations) may be shared across hospitals.

An additional innovation of this model is the way frameworks are adopted from the private sector and applied to processes. Extensive data is collected at LifeSpring, for example, from customers and operations. This data is utilized to streamline operations, keeping costs as low as possible. Customer socioeconomic data and feedback are also analysed to better understand healthcare needs better.

### **Drawing on research**

LifeSpring has also benefitted significantly from a partnership with the Cambridge-based Institute for Healthcare Improvement (IHI). IHI's expertise in clinical quality improvement has helped LifeSpring decrease its rates of maternal and neonatal morbidity, improve clinical protocol adherence, and strengthen a culture of safety in all of its hospitals. In addition to these clinical outcomes, the quality improvement initiatives have simultaneously increased operational efficiency, leading to a reduction in operating costs.

LifeSpring's operations have had indirect effects as well. The



burden on resource-constrained government hospitals by the shift of patients. Besides, by embellishing the quality of healthcare in its sphere, it has been catalyzing an improvement in the quality of care being offered by the wider market.

### **Awards & Recognitions**

LifeSpring Hospitals were honoured with World and Business Development Award in 2010. The awards are presented by the UN Development Program, the International Business Leaders Forum and the International Chamber of Commerce. The purpose of these awards is to raise awareness among governments, donors and other stakeholders, of the positive impact that inclusive business models can have on the progress towards the Millennium Development Goals (MDGs). The awards ceremony is part of a special focus on the MDGs during the opening week of the United Nations' General Assembly in New York.

LifeSpring has also received an award from Frost & Sullivan, a business research and consulting firm, for the "Mother and Child Healthcare Provider of the Year" and from ET Now for the "Leap of Faith Award" under the healthcare category.

LifeSpring has also received three other, major awards for its work in IT over the past couple of months, drawing both national and international recognition, due to its innovative use of open-source applications.

LifeSpring hospital chain has been covered extensively by some of the leading national and international magazines, besides popular journals like The Economist, Harvard Business Review, Outlook, India Today, etc.

### **Impact**

- LifeSpring is bringing down the cost of healthcare in the market by forcing other private players to remain competitive.
- It has proven to be a catalyst in improving the quality of healthcare being delivered by other providers in the market.
- LifeSpring also brings about substantial saving to its customers, as they pay a much lower price for care services than they would otherwise have been forced to pay.
- The spread of its chain of hospitals is reducing the burden on resource-constrained government hospitals.



The author launched the first LifeSpring Hospital in December 2005. He has held various leadership positions in the social marketing departments of both HLL and HLFPT. To know more, write to [anant@lifespring.in](mailto:anant@lifespring.in) or visit [www.lifespring.in](http://www.lifespring.in).



## Making A Healthy Impact

*Dr. Vasundhra Atre, Vice President — Maestros Mediline Systems, brings telemedicine to light, and how it can enable economical and quality healthcare from a distance.*



Area	Health Expenditure % GDP	Doctors /1000	Hospitals /1000
India	0.8	0.47	0.8
World	2.6	1.5	3.3
Developed Countries	6.1	2.8	7.2

No. of patients visiting a district hospital in a day	1500
No. of district hospitals in India	600
No. of patients needing specialists consultation	36000 (4%)

The term 'telemedicine' (distance healing) derives from the Greek 'tele' meaning 'at a distance', and the present word 'medicine' which itself derives from the Latin 'mederi' meaning 'healing'.

Telemedicine is not one specific technology, but a way of providing health services at a distance using telecommunication technology, medical expertise and computer science.

The idea of performing medical examinations and evaluations through the telecommunication network is not new. Shortly after the invention of the telephone, attempts were made to transmit heart and lung sounds to a trained expert who could assess the state of the organs. Willem Einthoven (1860-1927), Father of Electrocardiography, first probed ECG transmission over telephone lines back in 1906.

The WHO dream of 'Health for All by 2000' is yet far from being realized. The 'hard-to-reach' population's rise in the aging population, and the dramatic increase of patients with chronic diseases, such as hypertension, diabetes and obesity, are factors fueling increased interest and growth in connected health. The need is further fueled by the relative shortage of healthcare specialists, spiraling healthcare costs, and patient demand for quality and convenience.

The concept of telehealth—a system of remote, comprehensive healthcare delivery—extends healthcare beyond the traditional confines of a hospital and doctors' office. Use of new or available consumer technologies, such as the Internet, cell phones, and digital cameras, to facilitate patient-provider communication are all being explored to improve communication and connectivity.

The perceived goal of telehealth is expert quality healthcare economically delivered in the shortest possible time to an individual, wherever located.

### Healthcare Services in India

India is a country spread over an area of 32,87,268 sq. km. with a population of over 1 billion. But when it comes to healthcare, there are two Indias: one which offers high-quality medical care to middle-class Indians and medical tourists; and another in which the majority of the population lives—a country whose residents have limited or no access to quality care.

70% people live in more than 600,000 villages across rural India, with not more than an estimated 30% having access to modern

medicine. This is mainly because: 90% of secondary and tertiary care facilities are in cities and towns; 80% of doctors, 75% of dispensaries and 60% of hospitals are situated in urban areas. For every 10,000 Indians, there are only six doctors. Number of beds, nurses, and doctors per 1,000 people in India, is the lowest in the world—0.8 beds/1000.

### Medical Consultants

Urban: 75%

Semi urban: 23%

Rural: 2%

### Hospital Beds/1000

Rural: 0.19

Urban: 2.20

There is a problem with retaining doctors in rural areas, especially the specialist doctors. Penetration of healthcare services is low and the medical facilities inadequate with many of the rural poor having to rely solely on alternative forms of treatment, such as ayurvedic medicine, unani and acupuncture.

The government among its many initiatives to improve delivery of healthcare has envisaged an enhanced role for telemedicine in the Eleventh Five Year Plan. The total healthcare spending as per the 2010-2011 budget proposed was Rs.223 billion or \$4.82 billion; an increase of 12.4% from the previous year. The budget has earmarked Rs.13,910 crore for the National Rural Health Mission (NHRM), an essential instrument for achieving goal of health for all, operational in 18 states; while Rs.350 crore, has been earmarked for the Rashtriya Swasthya Bima Yojana (RSBY), proposed for all below poverty line (BPL) families entitling the beneficiaries to hospitalization coverage up to Rs 30,000 for most of the diseases that require hospitalization.

### Economics of a Visit to the Doctor

Typically, a visit to the doctor entails rearranging a working day, maybe taking leave from work, not just by the patient but also the accompanying person. At times, alternative arrangements may be required to be made at home if there are children or family members who need care being left behind. There is a time and cost factor involved in traveling to the clinic or hospital for the consultation. Thereafter, the waiting time at the consulting room. The doctor would spend an extended time for the consultation even if it is only

to check the reports of advised investigations. This means a longer wait for another patient in the consulting room. For the doctor this would also mean fewer consultations. The patient spends more and the doctor could have utilized his time better and more economically.

Considering all the 'adjustments' that need to be made for a visit to the doctor and the cost involved, there is a tendency to ignore early warning signs, try home remedies and rush to a doctor only when the condition deteriorates. This increases the load on the emergency services, increases hospitalization chances, the investigations required, intensive care requirement at times, days away from work both for the patient and the caregiver and, visibly, the healthcare costs.

This is particularly true for patients with lifestyle, chronic health problems like hypertension and diabetes, who because of the chronicity tend to be more negligent and 'postpone' regular advised check ups both because of the effort required and the cost involved.

Even today, 80% of healthcare spending comes from out-of-pocket. The strain of health related expenses can be a major drain on family resources. For the government, the expenses being incurred on healthcare are not benefiting the masses—for whom they are desired.

#### **Quality Healthcare at Economical Costs**

'Anything relating to technology is complicated and expensive' is a very prevalent misconception. Telehealth can be as economical and simple as a health-related email communication and video conferencing with a medical professional, or as complicated as robot-assisted surgeries, being controlled by medical doctors from miles away.

The ability to customize and mould technology to best suit the given situation and budget is what makes telehealth so attractive. The economic benefits derived from telehealth are both tangible and intangible:

- It enhances the recruitment and retention of healthcare providers in rural or remote areas, providing employment.
- Healthcare costs are lowered, travel time is reduced, time-off from work is minimized and patient waiting-time decreases. The cost accrued due to travel, lodging and boarding when traveling to higher centers of care for patient and companion, also added to treatment cost, are saved.

- Early diagnosis allows preventive measures and appropriate management before complications develop. Unnecessary, repeat diagnostic procedures or tests are avoided. Unnecessary visits to the emergency room are prevented which in turn reduces the load on the emergency services.
- Telehealth is an invaluable and innovative way to manage chronic lifestyle ailments. Increased access to medical care could encourage people to “visit” their physician more often, allowing earlier diagnosis of medical problems and recommendation of preventative courses of medicine. This could translate into fewer hospitalizations and emergency room visit.
- In a situation of routine check-up, follow-up or a 'stay well' consultation, the commonest use of telehealth consists of real-time telecommunications between a medical personnel and a patient. Remote patient monitoring allows a specialist to collect and analyze vitals, such as pulse oximetry, blood pressure and electrocardiogram among others. Medical data and images can also be transmitted online. It is possible for the doctor to update drug prescriptions and follow up with patients in a time-efficient and practical manner. This allows the consultant to utilize his time more efficiently and economically.

In emergency situations such as transportation of a patient with a heart attack, a diagnosis and institution of emergency measures even before the individual reaches the hospital can reduce both the mortality and morbidity arising out of the condition. This translates into resource saving, both in the emergency situation and also in terms of restrictions in lifestyle and work after discharge. This could potentially affect income and subsequent expenses relating to frequency of investigations and hospital visits; the cost of maintenance medicines and any other procedures like dialysis which could be needed if the condition gets complicated with say renal failure. When analyzed in terms of socioeconomic factors, the main benefits of telehealth identified include increased access to health services, cost effectiveness, enhanced educational opportunities, improved health outcomes, better quality of care, better quality of life and enhanced social support. Telehealth offers a win-win situation for all; offering a way to deliver quality healthcare services at affordable prices.

*The author is an MD (Anae.) with 17 years of overall experience. She is an Hon. Consultant Cardiothoracic Vascular Anaesthesiologist with the Bombay Hospital, Mumbai, and has worked with Apollo and Care Group of Hospitals among others. She may be reached at [vasundhara@maestros.net](mailto:vasundhara@maestros.net).*



*Telemedicine in operation*



## PPP: Making Healthcare Affordable

*Dr. Rahul Garde, Principal Consultant – Hosmac, enumerates the revolution PPP has brought about in the healthcare system in Andhra Pradesh.*



### The Need of the Hour

India has one of the world's highest levels of private out-of-pocket financing of medical expenses, at about 85%, with debilitating effects on the poor. Public spending on health has remained stagnant at around 1% of GDP while population has been growing steadily over the years, such a scenario does not benefit the poor. The poorest quintile of the population uses only one-tenth of the public subsidies on healthcare while the richest quintile accesses one-third of these subsidies. Due to the deficiencies in the public sector health systems, the poor in India are forced to seek services from the private sector, often borrowing to pay for them about 35% of hospitalized patients fall below the poverty line because of hospital expenses.

A possible means of bridging this chasm of bringing technologically appropriate medical care to the masses is Public Private Partnership (PPP). It is defined as a variety of co-operative arrangements between the government and private sector in delivering goods or services to the citizens. PPPs provide a vehicle for coordinating with non-governmental actors to undertake integrated, comprehensive efforts to meet community needs. They aim to take advantage of the expertise of each partner, so that resources, risks and rewards can be allocated in a way that best meets clearly defined public needs. It is necessary that Public-private partnerships display that the following objectives are met in a balanced way to reflect the best interests of all stakeholders:

1. To ensure government services are delivered in an

economical, effective and efficient manner.

2. To create opportunities for private sector growth and to contribute to the overall economic development of the district/state/country through the stimulation of competitiveness and initiative.
3. To ensure the best interests of the public, the private sector and the community are served through an appropriate allocation of risks and returns between partners.

### Case in Point: Andhra Pradesh

One such endeavour was undertaken in the southern Indian state of Andhra Pradesh, where access to advanced diagnostic services is limited like in the rest of the country. Few government hospitals outside the urban areas are able to offer specialized services like CT or MRI scans; however, access to tertiary healthcare and advanced diagnostic services is particularly skewed towards private sector. In an effort to solve this problem, the state introduced the Aarogyasri insurance program to cover catastrophic health expenditures for families living below the poverty line.

Aarogyasri was well-received and did help a lot of people who are below poverty line to find timely and appropriate medical care, however a majority of the hospitals where these patients were treated were in private hospitals. The reason for this heavy dependency on private hospitals is the lack of technology infrastructure in the public hospitals. The oft-cited reasons for such state of affairs are that lack of funds with public hospitals to purchase modern diagnostic equipment, or to attract specialists to manage the

equipment and administer complex scans, the advanced age of the equipments and overall poor condition of public state-run medical facilities. These factors when taken into consideration with the complex needs of upgrading the imaging and laboratory setup of public hospitals make it a challenging task.

Besides the above issues, the difficulties of negotiating approvals in a multilayered bureaucracy for up gradation of both the physical and technological infrastructure of public hospitals leads to significant delay in these approvals being translated to actual change in the infrastructure. Moreover, the need for speedy completion of the project is dependent in part to the local political situation. The obvious fallout of this is borne by the common person who relies on these facilities for their medical care needs.

#### **The AP PPP Model**

To address these issues, Government of Andhra Pradesh (GoAP) decided to undertake provision of diagnostic radiology/imaging services under Public Private Partnership (PPP) mode by asking private partners to provide for diagnostic imaging services within the campuses of four medical college hospitals at Kurnool, Visakhapatnam, Warangal and Kakinada. These centres cater to about 17 million population with daily attendance at the OPDs running into thousands. As described above these facilities suffered from the curse of high patient volume and low technology infrastructure, that led to long waiting periods for diagnostic tests e.g. CT scan, and consequently delay in starting of appropriate treatment.

The PPP contract was designed in such a manner that the private partner could have done either of the first three things, depending on the state of infrastructure at the respective medical college hospital, to foster its partnership with the government under the PPP mode. The fourth requirement however, was an essential requirement that the private partner had to fulfil. These requirements were:

1. Just procure the equipment and start delivering services from the given facility within the said medical college hospital.
2. Procure the equipments and upgrade the physical infrastructure of the radiology facility as per the requirements of the technology so that quality services can be delivered to the patients. The government would provide the land and the base building to the private partner.
3. Procure the equipments, design and create new radiology facility as per the requirements of the technology, while government would provide the land to the private partner.
4. (Essential) Provide technical and specialist human resource support to optimize the usage of the equipments(s), maintenance of the equipment(s) and facilities as well as their financing.

#### **The Transaction Structure<sup>2</sup>**

Without delving into the finer details of the transaction structure of the PPP for radiology imaging at Andhra Pradesh, following were the salient points of this PPP transaction structure:

1. Though no guarantee of certain volume of scans or patients were provided to the private partners, the public hospitals are under an obligation to refer all diagnostic testing exclusively to the PPP facility in the hospital campus.

2. Private partner to have the opportunity to leverage unutilized capacity for services to private patients (fees-for-service) though priority to be given to public referral patients. No tariff distinction is allowed between private and public patients.
3. Enabling the medical students from the college to be trained on state-of-the-art equipment through co-location with the existing teaching hospital compound.
4. Requiring the private partner to seek, obtain, and maintain the most recent quality accreditation in India throughout the period of contract.
5. Defining in detail the key performance indicators for the PPP, against which these will be monitored and evaluated.

#### **Outcomes of the GoAP PPP Model**

Since the award of contract, the partnership between government and the private players has seen its share of ups and downs. Following are the highlights of this PPP:

- Diagnostic radiology services was provided to an estimated 100,000 patients per year throughout the four public hospitals, of which > 85% were people with BPL cards (from the below the poverty line).
- Advanced radiology services are being made available to underprivileged people at no additional cost via placement of diagnostic equipment at local hospitals.
- Certified facilities that have come up due to the PPP allow medical colleges to train doctors with state-of-the-art technology and techniques, helping solve the specialist shortage in the state.
- It is believed that the framework for this partnership (PPP) will influence the design of future public-private partnerships in the health sector in Andhra Pradesh and India as a whole.
- The medical colleges and their hospitals are now in a much better position to improve their use of public tertiary care health insurance and thus be able to attract additional revenues that will help to improve infrastructure and retain skilled doctors.
- The chosen private partner proposed a price per scan about 50% lower than the prevailing market rate, which was possible due to the large volume of scans available from various parts of the district and some parts of the adjoining districts.
- It is believed that the private operator will generate about INR 27 crore (US\$ 6 million) in investments throughout the seven year contract of the PPP.

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<sup>2</sup> IFC: Success Stories – AP Hospitals; 2010



## Novices' Experiment With Affordable Healthcare

*Dr. V. Renganathan, Co-Founder & VP Alliance — Vaatsalya Healthcare Solutions, writes about how the Vaatsalya model came to life and its take on affordable healthcare.*



In the past, affordable healthcare was an issue only for the poor and low-income countries. However, today in the beginnings of the 21st century, affordable healthcare has become a global issue. According to the American Heritage Dictionary, 'afford' means 'to have the financial means for; to meet the expense of.' In the context of healthcare, affordable means that one should be able to pay for his/her treatment with the available financial resources (or if they borrow to pay, they should be able to repay the debt without any hardship). Nonetheless, individuals, corporations and governments are struggling to pay for the ever-escalating cost of healthcare with resources that they can't afford to spend, the world over.

Healthcare is mostly local and there is no external force that imposes equilibrium in its pricing. Consequently, the cost of the same level of care varies depending on the locale. In general, higher levels of healthcare spend lead to higher quality of care. The per capita healthcare expenditure of the top 20% of the countries is 16 times more than the bottom 20%, so naturally the top 20% gets to enjoy the best care money can buy. The higher spending helps keeping population healthy and extends the longevity as well as the productive life. However, there is no linear correlation between spending and benefits. Take the case of life expectancy: the US per capita healthcare spending was USD 6719 in 2006. Nevertheless, the average life expectancy of an American being 78 years is almost the same as that of a Cuban with a per capita Purchase Power Parity (PPP)-adjusted healthcare spending of USD 674. India, on the other

hand, is spending a PPP-adjusted amount of USD 86 (healthcare per capita), and the average life expectancy of an Indian is 64 years. The comparison clearly indicates that it is possible to provide reasonably good care even with limited resources.

### **Vaatsalya was born**

India is predominantly rural and agricultural. About 40% of its population survives with their below the poverty line earnings of INR 17,000 per annum. In 2004, when the Vaatsalya founders were traveling the rural landscapes of Karnataka, poverty was visible, but even more noticeable was the lack of good quality healthcare facilities. Whereas a few Vaatsalya hospitals could be created to address the problem, it was unlikely to have a larger impact because "healthcare is all local." For their efforts to have an impact, Vaatsalya needs to be a corporate healthcare with a chain of hospitals. Then there was the question of whether Vaatsalya should be a non-profit or for-profit. The decision was to operate as a for-profit outfit because of the availability of financial resources for expansion. Besides, there were no successful examples of a non-profit corporate in healthcare within the Indian extent. Thus was born Vaatsalya Healthcare Solutions in late November 2004, a for-profit entity, with a mission to provide affordable, quality healthcare to the semi-urban and rural populace of India. Dr. Ashwin Naik and Dr. Virendra Hiremath, buddies from Karnataka Medical College, Hubli, founded Vaatsalya and were later joined by Rocky Philip and the author.

### Patient ambassadors

Vaatsalya, constrained by the lack of marketing resources and relative obscurity, believed from the beginning that if patients were to be provided good care, they would become great ambassadors for our brand. To reach that level, all our healthcare personnel including the doctors, nurses, paramedical personnel, and administrative staff need to work collaboratively to provide a satisfying experience for the patient. They also have to keep the cost of care in mind and at the same time remain ethical and value the lives of all patients the same. An anecdote from a Vaatsalya will explain the fruits of this approach. In one of the hospitals providing neonatal care, a premature baby that Vaatsalya cared for did not survive. However, the mother who lost the baby referred one of her relatives, who also had a pre-mature baby, to Vaatsalya with a recommendation that “they (Vaatsalya) will take good care of it”. That neonatal unit started with just 2-beds five years ago and today it is a 16-bed NICU with capacity to save over 1000 preemie babies a year. So an ethical, caring practice of a healthcare organization is bound to enhance its image with its customer base and form a strong foundation for future growth.

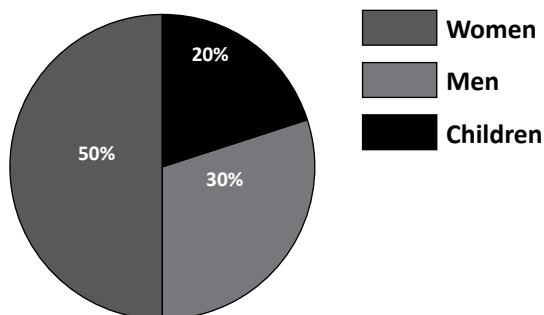
### Non-urban healthcare challenges

Every hospital needs a good infrastructure and a talented human resource. These two resources are very scarce in the non-urban areas. The most critical among a healthcare human resource are the doctors, who predominantly like to practice in the urban areas hospitals with advanced facilities. Then how does a hospital with a semi-urban and rural focus recruit doctors? It turned out, at least in India, there are a sizeable number of doctors who have their roots in rural India and would be happy to serve the community in which they grew up, provided the hospital could assure good quality infrastructure and nursing and paramedical to support them. They are also entrepreneurial and independent. Vaatsalya understood their doctors, using its network cherry-picked doctors, both specialists and generalists, to practice at Vaatsalya hospitals.

As for infrastructure, in the non-urban areas, very few appropriate buildings are constructed to be a hospital; so Vaatsalya has created a flexible plan by which it can create a hospital from an infrastructure meant for say a hotel or a school. Similarly electricity is unreliable so all Vaatsalya hospitals have diesel generators and in the future plans to utilize renewable energy such as solar and wind. The non-urban internet connections lack reliability and bandwidth which prohibits adoption of modern IT systems and tele-medicine. Hopefully future economic growth of rural areas improves these public infrastructure issues.

### Investors, a life line

As an investment, healthcare business is a long-term play and



requires capital to fund expansion and operational losses since it takes many years before a hospital breaks even. Vaatsalya, like most other start-ups began with small investments from friends and family critical in the initial stages of an enterprise formation but very insufficient for a growing organization. Fund managers tend to invest in segments they are specialists or familiar. Back in 2004-05, investors were reluctant to invest in healthcare because it was very new to India and to compound it Vaatsalya was focusing on making it affordable based on a new business model. Aavishkaar, the first institutional investor, was attracted by the healthcare opportunity and Vaatsalya’s social commitments. Over the years, as Vaatsalya’s business model took shape, three more investors—Seed Funds, Blue orchard (Switzerland), and Aquarius Capital (Singapore)—have joined to support it.

### Affordable, how?

Pricing of a service consists of the cost of providing that service plus the profits that company would like to earn based on its level of investment. So in theory, a company can offer affordable pricing by reducing the unit cost of providing a service and by reducing the expected profits. There are two types of costs—fixed and variable. In a hospital, most costs tend to be fixed and mostly attributable to personnel. The variable costs are medicines, consumables etc. It is important to stay focused on fixed costs and that means adequate number of staffing but not excessive. High level of investments increases the costs by increasing depreciation and requires a higher level of profit to be earned as well. Since Vaatsalya was cash-constrained it had to develop strategies to conserve cash. In India, traditionally hospitals own the land and the building and even in a semi-urban area this would require an investment of Rs 20 M and this will not even include the investments in equipments and other infrastructure. So Vaatsalya early-on decided only to lease a hospital

or a building that could be converted into a hospital. This vastly reduced initial investments; reduced profit expectations; and generally reduced risks for the investors. Investments were mainly used to modernize medical infrastructure which has immediate revenue generator capability versus investment in a building which is a long-term asset and not a revenue generator. Deliberate move away from real estate assets made Vaatsalya nimble; reduced the time to start a new unit to a few months. Investments within the hospital were no-frill nevertheless clean and aesthetic. Where Vaatsalya does not cut costs are cleanliness and customer service. Hospitals are cleaned in every shift by a dedicated staff and each unit has friendly patient co-ordinators who assists the patients getting unhindered service. As the number of unit increases, Vaatsalya is in a position to bulk purchase medicines and consumables and there is potential for transferring those reduced costs back to consumers. Corporate expenses or overheads, yet another component of service cost, are kept below through planning and expense control.

#### **Vaatsalya Hospitals' growth and customer profile**

Vaatsalya started with a small hospital in Hubli in 2004 and initially focused only on Karnataka. In the first 4 years, 7 hospitals were started in Karnataka. Since then, 6 more hospitals have been added and Vaatsalya has expanded into Andhra Pradesh. In the next 3-4 years, the network is likely to have 30 hospitals located primarily in South India. The average size of a Vaatsalya hospital today is 70-beds and offer core services such as Obstetrics & Gynaecology, paediatrics, general medicine, and general surgery. In addition, in certain locations, specialized services such as nephrology, urology and orthopaedic surgery are offered. Most of the hospitals have intensive care units and neonatal intensive care units. Vaatsalya's focus so far has been on acute care and with increasing burden of chronic diseases it plans to offer cost-effective chronic disease management programs with an aim to reduce the cost of care and the complications arising from chronic ailments.

A typical Vaatsalya customer is from above the poverty level segment and earnings Rs 3,000 to 15,000 per year. About 40% of them are from villages and the rest from the towns where Vaatsalya is located. About 50% of customers are women; 20% children and 30% are men. About 2 years back only 2% of the in-patients were covered by some form of health insurance whereas currently over 5% of Vaatsalya in-patients customers carry health insurance. Vaatsalya is well-positioned to benefit from future increases in



*Clean and spacious ward at Vaatsalya*

health insurance enrolment due to its easy access, widespread network, and its focus on quality.

Vaatsalya is the recipient of several awards and significant among them are the Rashtriya Samman Puroshkar given by govt of India (2009) and Frost & Sullivan's Excellence in Healthcare award (2010).

#### **Social contributions**

There are segments of the rural population not receiving quality healthcare services because either they do not have easy access to them or unable to afford them. Keeping this segment in mind, Vaatsalya has started a pilot Rural Birthing Center in collaboration with Deshpande Foundation, Hubli. The aim of this pilot is to explore providing low cost antenatal care and delivery services in the village itself and the impact of it on maternal and neonatal mortalities. The first such pilot has been started at Kotumuchagi, Gadag, a village situated about 80 km from Hubli, Karnataka and which has no primary care facility or a doctor. The birthing centre is a 1500 sq ft building with a clean labour room and a 3-bed ward. The unit is managed by a program coordinator and an experienced midwife who is allowed to conduct normal deliveries only. A gynaecologist from Vaatsalya hospital, Gadag, visits Kotumuchagi every month to provide antenatal care at the birthing centre. Based on her assessment, a woman would be allowed to have delivery at the centre; if not the woman will deliver at the Vaatsalya hospital. In case, any complications were to arise at the time delivery, the woman will be shifted to Vaatsalya hospital through an ambulance. About 18 women have registered for the service so far and their progress is being monitored. Vaatsalya hopes to provide other gynaecologist related services and general physician services at village level. Provision of chronic care is also a possibility. While the state governments have built primary care centres they have not been efficient for a variety of reasons and the Kotumuchagi-like low-cost primary centres are an option by which communities can get the much required healthcare at their door steps.

Food, shelter, and clothing are considered the basic necessities and in the 21st century one should add healthcare to that list. However, providing quality healthcare at affordable prices has become a global issue and Vaatsalya hopes that some of its experiences serve as solutions to this issue and affordable quality healthcare is realizable by every global citizen.



*BC-Kotumuchagi: Inexpensive antenatal care being provided to expectant mothers at Vaatsalya Rural Birthing Centre, Kotumuchagi, a village situated at 80 Km from Hubli*

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18 September, 2011 | New York | Geneva

A new WHO study reveals that low-income countries could introduce a core set of strategies to prevent and treat cancer, heart disease, diabetes and lung disease for just US\$ 1.20 per person per year.

"Noncommunicable diseases are the leading cause of death worldwide, killing ever more people each year. Nearly 80 per cent of these deaths occur in low- and middle-income countries," says Dr Ala Alwan, Assistant Director-General for Noncommunicable Diseases and Mental Health at WHO. "The challenge to these countries is tremendous, but this study proves that there are affordable steps all governments can take to address noncommunicable diseases."

### Cost of not taking action

The impact of noncommunicable diseases - or NCDs - goes beyond health: their socioeconomic effects are staggering. The cost of not taking action to address this global threat is already severe and will intensify over time.

"Noncommunicable diseases are one of the leading threats to global economic growth and development. Over the next 15 years, noncommunicable diseases will cost low- and middle-income countries' more than US\$ 7 trillion," says Jean Pierre Rosso, Chairman, World Economic Forum (WEF), quoting the results of a WEF and Harvard School of Public Health study released today. "When so many of the workforce is sick and dies in their productive years, national economies lose billions of dollars in output. And millions of families are pushed into poverty."

### Low-cost interventions

The WHO study set out to help low- and middle-income countries identify low-cost interventions that can help turn the tide on NCDs and reduce their economic burden. The interventions must be highly cost-effective (see note to editors), and there must be strong evidence that they prevent disease and save lives.

The list includes measures that target the population as a whole, such as excise taxes on tobacco and alcohol, smoke-free indoor workplaces and public places, health information and warnings, as well as campaigns to reduce salt content and replacement of trans fats with polyunsaturated fats, along with public awareness programmes about diet and physical activity.

Other tactics focus on the individual. These include screening, counselling and drug therapy for people with or at high risk of cardiovascular disease, screening for cervical cancer, and hepatitis B immunization to prevent liver cancer.

Many countries have already adopted these approaches, and have seen a marked reduction in disease incidence and mortality. WHO monitored progress over ten years in 38 countries taking steps to address cardiovascular disease at both the population and individual level: all recorded a substantial decrease in exposure to risk, incidence of disease and deaths.

### Best buys

"The new tool will help countries with limited resources work out

what the "best buys" are and what they will cost," adds Alwan. "Implementing them would save literally millions of lives over the next 15 years."

In compiling the tool, WHO considered five key ingredients: the size of the population; the extent of the burden of disease; the proportion of the population that would be covered by the strategies; the resources required (human, medicines, technology); and the unit cost for example salaries, medicines. No intervention that costs more than US\$ 0.50 per person per year was included.

The total cost for adopting these strategies in all low- and middle-income countries would be US\$ 11.4 billion per year.

### Low cost

Providing access to population-based interventions in all low- and middle-income countries would cost a total of US\$ 2 billion per year. That breaks down to less than US\$ 0.20 per person per year in low-income and lower-middle-income countries, and around US\$ 0.50 per person per year in upper-middle income countries.

Providing access to individual-level NCD best buys costs roughly US\$ 10 billion per year for all low- and middle-income countries. For the period 2011-2025, the annual per capita cost will be: US \$1 in low-income countries; US\$ 1.50 in lower-middle-income countries; and US\$ 2.50 in upper-middle-income countries.

High-income countries spend US\$ 4 trillion per year on health. The United States of America alone spends US\$ 2 trillion per year. Noncommunicable diseases - like heart attacks and strokes, cancers, diabetes and chronic respiratory disease - account for over 63% of deaths in the world today. Every year, NCDs kill 9 million people under 60 years old - 90 per cent of these premature deaths occur in low- and middle-income countries. From 19-20 September, global leaders gather at the United Nations high-level meeting on noncommunicable diseases in New York to set a new international agenda for tackling them. Note to editors: A highly cost effective intervention generates an extra year of healthy life for a cost that falls below the average annual income or GDP per person in the country/region in question. For example, the average annual income per person in India is around US\$ 1000: an intervention that generates a healthy year of life for less than this would be counted as very cost-effective.

**Source: WHO (World Health Organization) Media Centre. For more details, contact Mr. Gregory Hartl, Communications Officer – WHO, at [hartlg@who.int](mailto:hartlg@who.int).**



## The Cost Effectiveness Test

*Dr. Mahesh Reddy, Executive Director – Nova Medical, answers whether day surgery or in-patient care would be more cost-effective and why.*



Have you ever walked into a 5-Star hotel and ordered a soft drink? If you have, you will know that the simple, colored and sweetened water sells at 5 times the price at which it is available in your grocery store. So, how did that innocuous bottle of dark colored liquid appreciate 5 times in value between the 5-Star hotel and the grocery store that is perhaps just across the road?

The answer is fairly clear to all of us. In a 5-Star hotel, it is not just the cost of the soft drink—it's the 'ambience', the palatial surroundings, the expensive chandeliers, and the ivory-lined water fountain, in short, the overheads.

In essence, it's the same story when you need to undergo surgery. You have the option of paying for just the surgery, which is what happens in a day surgery setting, or you have the option of paying for the surgery and for the vast infrastructure of the big hospital where the surgery was performed. The hundreds of nurses; of who probably one or two paid you a visit, the retinue of interns, the 500 beds, of which you slept in one. In short, the overheads associated with a big hospital. 70% of the spend in a tertiary care facility is for 30% of the patients but, the cost is distributed to 100% of the patients.

### **What is Day Surgery?**

Day surgery or ambulatory surgery (also referred to as outpatient surgery or same-day surgery) comprises all surgical procedures that allow the patient to return home within 24 hours of the surgery being performed. 70 percent of all elective surgeries can be performed as ambulatory surgical procedures. These procedures span across all specialties excluding polytrauma, neurosurgical and cardiac cases.

### **What is in-patient care?**

In-patient care is the conventional method of hospital care. Here a patient is admitted following a diagnosis, retained overnight for pre-operative procedures, a surgery conducted and retained again

for a recuperative period that depends on the complexity of the surgery as well as the doctor's recommendation. Typically, the average length of stay (ALOS) in most tertiary care hospital varies in the range of 3.2 – 5.5 days. In-patient care is available across the board – in big corporate hospitals as well as smaller nursing homes. Cost of day surgery vs cost of in-patient care at corporate hospitals To understand and compare the costs in day surgery and in-patient care, it is necessary to first understand the cost structures of both these set-ups.

For the purpose of this exercise, let us consider a 100-bed hospital, which is a medium sized hospital by today's standards, on one side and an ambulatory surgical center, say Nova (well versed with the cost equations here) on the other.

Typical hospitals would have a ratio of one operation theatre per 40 patient beds. The focus of the industry has been on having a higher bed count. A typical Nova center, on the other hand, has 4-5 OTs, 16-20 beds with ICU facilities and only 2-3 rooms for stay.

The 100-bed hospital is typically built on acquired land. And the land area is mostly upwards of 60,000 sq ft., sometimes going up to 100,000 sq ft. Nova on the other hand, requires lesser space - 10,000 – 15,000 sq ft. and we can simply lease the space, which brings down capital expenditure even before an ambulatory center starts off. A 100-bed hospital can cost anywhere between Rs. 120 crore – Rs. 130 crore to set up. In comparison, setting up a Nova center costs just Rs.10 crore – Rs. 12 crore

The number of operation theatres in a 100-bed hospital and those at Nova would be similar with four or five OTs per center. But then, just consider the staff that mans these two set-ups. The 100-bed hospital is generally managed by a staff of 300 while a Nova center, with the same number of OTs has just about 35 staff members. This makes a crucial difference in the operating cost of the two set-ups. While a 100-bed Hospital needs around Rs. 2 crore – Rs. 3 crore per

month for operational expenses, the corresponding cost for a Nova center is between Rs. 35 lakh and Rs. 40 lakh per month.

It is clear then, that with a much capital cost and lesser operational costs, ambulatory surgery centers like Nova, are well positioned to pass on cost benefits to patients.

### Costs of Day Surgery vs Costs of in-patient care at Nursing Homes

Let us now look at how ambulatory surgery center costs compare with in-patient care at nursing homes.

In terms of the cost structure, the costs associated with nursing homes and those for an ambulatory surgery center would be broadly similar.

The advantages start showing up when you consider how the two operations are run. In an Ambulatory Surgery chain like Nova, each center is standardized in terms of layout, interiors and medical equipment. A central team deals with vendors and Group purchasing helps achieve cost effectiveness.

Even if the surgery costs for a patient are comparable in these two formats, the difference to the patient becomes evident when an overnight stay kicks in. In an ambulatory surgery set-up, the largest cost component is the surgery and consumables. However, in-patient care starts calling in additional resources in terms of overnight stay, the costs associated with medical support staff during the recovery period and meals.

So, it is safe to say that even in the case of in-patient care at Nursing homes (and not just Corporate hospitals), ambulatory surgery centers have a distinct cost advantage.

It is important to note here that one would assume a certain standard of medical care, in terms of nursing homes considered, when doing these comparisons. Else, we would end up comparing apples to oranges.

### Cost Validation from Insurance Companies

The biggest validation for the Ambulatory Surgery model comes from the most critical enabler in the healthcare area – the Insurance companies. While an overnight stay is mandatory for insurance claims on procedures in big hospitals, insurance companies have clearly seen the value that ambulatory surgery centers bring to the table. A more affordable treatment is one of the reasons (among others) that have persuaded Insurance companies to approve more than 800 procedures in the day surgery mode.

### Ambulatory Surgery Centers vs In-patient Care

Finally, let us look at the macro perspective. While it is good that ambulatory surgeries help in bringing down the cost for a patient, there is a bigger, societal angle to this.

In-patient care confines a patient to a hospital for an extended period of time. This period is mostly non-productive for the patient and for his work place. In times when cutting costs and increasing productivity are becoming mantras not just for organizations, but

	100 bedded hospital	Conventional ASC
Land	Acquired	Leased
Space required	60-70,000 sq. ft.	10-12,000 sq. ft.
No. of OTs	5	5
Staff	Atleast 300	35 + support staff
Insurance	24-hour stay mandatory	Stay not mandatory
Initial setup cost	Rs. 120-130 crores	Rs. 10-12 crores
Monthly operating cost	Rs. 2-3 crores	Rs. 35-40 lakhs
Time to break even	5-7 years	8-10 months

for nations as well, can you calculate the loss of confining a healthy, productive individual to a bed for 3 or 4 days?

Productivity is a topic that developed countries like the US understand much better than developing ones like India. Part of the reason is that the manpower costs in the US are much higher than in other countries. This probably also explains why ambulatory surgery centers, that send back patients home in a day, ready to get to work the next day, have become so popular in the US.

India is clearly headed the same way. We are fast becoming a knowledge society. The service sector has become the back bone of our economy. And in scenarios such as these, it is but inevitable that productivity starts taking center stage sooner rather than later. Which is why, faster development of ambulatory surgery centers across India, is not just an urgent need, but an imperative.

### Free Standing Ambulatory Surgery Centers vs Hospital based Ambulatory Surgery Centers

Having spoken about in-patient care and ambulatory surgery and the costs associated therein; let me turn my attention to the many faces of ambulatory surgery centers itself.

Ambulatory surgery centers can be of two types – free standing (or standalone centers, like Nova) or Hospital based centers that are housed within a bigger premises (say a corporate hospital). All cost advantages mentioned in this article pertain primarily to free standing centers. Ambulatory surgery centers that are housed within a bigger premises, while still offering some cost arbitrage (no overnight stay costs, for example), will still be bound by the ‘overhead’ cost dynamics of a bigger center, thereby blunting its cost advantage overall.

Further, since the facilities are shared by the ambulatory center housed within a hospital and the hospital, the efficiency of the center is undermined by it with respect to OT utilization, surgical duration, patient check in and checkout which invariably leads to higher running costs.

### Summary

Ambulatory surgery reduces the cost of medical care—commonly referred to as “cost containment.”

1. Overheads associated with in-patient care at corporate hospitals clearly demonstrate that ambulatory surgery centers are better positioned to give more affordable surgical care to patients.
2. The cost of stay and associated expenses in terms of patient care for a longer duration makes in-patient care at nursing homes more expensive than ambulatory surgery centers.
3. Insurance Companies have validated the cost benefits associated with ambulatory surgery centers.
4. Ambulatory surgery centers also make a society more productive by putting patients back on their feet, and ready for work faster than in in-patient care.
5. The most affordable surgical care can be provided in free-standing or standalone ambulatory surgery centers rather than ambulatory surgery centers that are housed in a bigger hospital set-up.

**The author is also the co-founder of Nova Medical Centers. He was recently conferred with Honorary Fellowship by the Royal College of Surgeons of England. He can be reached at [mreddy@novamedicalcenters.com](mailto:mreddy@novamedicalcenters.com).**



## A Global ‘Medical’ Visa – A ‘Dream’ Passport

*Sandip Chaudhuri, Manager – BD & Corporate Communications – Genesis Hospital, paints a picture of how good it would be to sample the best of affordable healthcare models across the world.*



I was watching a documentary on the ‘US healthcare system’ with a colleague the other day. Suddenly he turned to me and said; ‘I’ve made up my mind, let’s go to France’ (it’s another thing that he wanted to go to UK a little earlier and before that to Canada). The reason for his excitement was obvious.

We were absorbed by the story of a French guy who spent a large portion of his adult life in the US (around 13 years) without health insurance. Things changed dramatically for him when he discovered that he had a tumor which needed urgent attention. Being uninsured, he had to go back to France where he didn’t even have a social security number. He had left the country at the age of eighteen, never paid any taxes there for the simple reason that he had never worked in France. The French healthcare system not only ensured that he got the treatment he required—for free, which included three months of intense chemotherapy, it did something even better. His doctor even wrote a note which he submitted to his employers to justify the three months time-off he required to recover post-treatment, plus entitled him to 35% of his salary (from his company). The French government paid the remaining 65%! As if on a historical prod from what their queen had said during the 18th century, the French are certainly having their cake and eating it too. No wonder our man grabbed this opportunity, as he put it, ‘to recharge his batteries’.

I started wondering, here I was living the great Indian middle-class dream (did I hear you guffaw?). This kind of French pampering never slipped into my dreams before. Most of the worldly possessions would pale in the face of free healthcare of the best kind, allowing one to give the best shot at life.

The French had been earning kudos for their healthcare system

even before. In fact, the last ever WHO ranking of the member states’ performance—in terms of ‘good health, responsiveness to the expectations of the population, and fairness of financial contribution’—gives the top rank to France.

**Exhibit: Overall health system performance rank of a few select countries (from The World Health Report 2000)**

WHO Member State	Overall Health System Performance Rank
France	1
Italy	2
San Marino	3
Andorra	4
Malta	5
Singapore	6
Spain	7
Oman	8
Austria	9
Japan	10
United Kingdom	18
Canada	30
India	112

Like the enterprising American director, I decided to find for myself, what the world has to offer in the name of affordable universal healthcare. I decided to pack my bags immediately. The travel itinerary for my hurricane tour (not exactly a tour operator’s delight!) read like this: Singapore, Austria, Japan, Oman, Spain,

Italy, UK, Canada and France. My global journey was about to begin. And then I went to sleep.

Even after allowing for the 'grass is greener on the other side' surmise, I saw plenty to get impressed with.

Singapore's healthcare system is a highly regulated affordable model with government subsidies and contributions by both employer and employee and as you would expect, efficient as well. In Austria, health care is based on a social insurance model that promises all inhabitants equitable access to high quality health services. Japan, which has given birth to some of the most humane management philosophies, mandates all its hospitals to run on a not-for-profit basis!

The Sultan of Oman, through the Royal Decree of 1970, guarantees access to free healthcare to all citizens free of charge. The Spanish system similarly offers universal coverage as a constitutionally-guaranteed right with no out-of-pocket expenses—apart from prescription drugs. Talking of the constitution, it is heartening to look at Article 32 of the Italian Constitution which 'affirms that the Italian State guarantees free care to the indigent'. In line with the objective in article 32 that 'the Italian state has the responsibility of safeguarding the health of each citizen as an individual asset and a community interest', the Italian National Health Service, *Servizio Sanitario Nazionale* (SSN) was created in 1978.

In UK, the National Health Service (NHS) was started way back in 1948. The NHS employs more than 17 lakh people. Only the Chinese People's Liberation Army, the Wal-Mart chain and the Indian Railways directly employ more people than NHS! Not only big in terms of numbers, the NHS is a good paymaster too for doctors under its ranks. These doctors are amongst the top 1% earners in Britain. Now they can double more than their basic salaries by sticking with the health service, thanks to bonuses inflated by incentives to meet government targets to cut waiting lists. As a patient, you would look forward to treatment from a doctor who is motivated and content (with his paycheck). With NHS, the freebies don't end with treatment alone. You can claim a refund of the travelling cost to hospital or other NHS premises for NHS-funded treatment or diagnostic test arranged by a doctor under the 'Healthcare Travel Costs Scheme' (HTCS). For e.g. if you travel by car you will be reimbursed the estimated cost of fuel used plus unavoidable car parking and toll charges.

I visited Canada to pay my respects to Tommy Douglas, who is regarded as the 'father of the provincially-based Medicare systems.' Two separate polls conducted among Canadians in 2008 and 2009 found respectively 91% and 82% of them preferring their system to the one in US. It is not hard to understand why Americans, especially those who can't afford healthcare, sneak through the border for economic treatment and medicines to Canada.

The French National Health Service refunds of 100% the cost of treatment, in case of costly or long-term ailments. If they don't deserve to be at the top of the list, then who does?

My global travel literally opened my eyes and the thought of my own country's healthcare system made me sad. It's not just about the poor in the country who have converted survival into an art. I get the heebie-jeebies thinking about the middle class sexagenarians and septuagenarians who are living off their lifelong



savings. After toiling for most of their lives, their simple peace of mind can be totally wiped away by the incidence of a single critical disease. By the time they are rudely shaken out of their false sense of security, it is already too late. Being on the wrong side of life they can't increase their coverage even with a steep rise in premiums.

You must have seen the ad of Bharti AXA where the patient refuses to believe the doctor's diagnosis that he had a particular disease, simply because it was not covered by his health policy! The joke isn't funny anymore. Our senior citizens had raised the present generation often amidst great hardships, contributed to our GDP and paid taxes which the government had imposed on them. And if we pay them back by giving the Hobson's choice of unhygienic unsympathetic ghettos, then all the rhetoric about affordable healthcare system appears meaningless.

So what kind of reforms would make the Indian Health System truly affordable? The three simple cardinal principles:

- Healthcare should be mostly free at the point of use.
- The patients should have the right to choose their healthcare provider.
- Freedom from the curse of 'preexisting disease' profiling.

The citizens pay whatever they can while they can (in the form of taxes), whereas the healthcare system does whatever needs to be done to meet their treatment requirements.

Taken together, to put it poetically '...Into that heaven of freedom, my Father, let my country awake'.

Finally, if you are wondering whether I had queued up at any embassy for my 'global medical visa', the answer is no. Nor did I get a Carte blanche from the United Nations. I didn't need any; after all I had my 'dream' passport!

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## Strategies of the State

*Dr. Col. Chaturvedi, Executive Director – BMCHRC, scans through various initiatives that the central and state governments have implemented for the common man across India.*



### Current Scenario

With 9-10% consecutive impressive growth in GDP, India is among the top ten economies of the world. The largest Democracy in the world is even planning a manned space mission by 2015, to join the elite club that has only the US, Russia and China as its members.

When it comes to 'Universal Health Coverage', however, India ranks amongst the last ten countries in the world. According to a recent Multidimensional Poverty Index (MPI) release, India has more poverty—421 million people just in eight states—than the Sub Saharan Africa. The official government national poverty line regards only 29% of India's population, the World Bank definition claims 42% but MPI puts 55% of India's population as poor. The Government cannot ignore this group while planning any health strategy. According to the report 'Global Infrastructure: Trend monitor Indian Health Care' edition by KPMG, Indian healthcare expenses are expected to be double its value in the next three years (by 2012). This will be driven by rising income levels (more expenditure on healthcare), changing demography and illness profile. Thus, there is huge potential for healthcare infrastructure investment. With only 0.94% GDP (2004-05) expenditure, as compared with 1.82% in China and 1.89% in Sri Lanka, the Government certainly cannot meet this demand, and money has to come from private sector. The private sector accounts for approximately 78% of expenditure on health. Currently, the Indian population is growing at a

rate of nearly 2% every year. At this rate, India will be the most populous country in the world by 2035. In 2025, India will have 190 million people ageing 60 years and above. The increased life expectancy and increased incidences of chronic health conditions (diabetes, hypertension, cardiac problems, cancer, HIV etc.) will exert extreme pressure on India's already overburdened healthcare system. In terms of expenditure, this is about 75% of the total healthcare expenditure.

There is a need to add approximately 25000 beds annually for another 10 years, and invest an annual budget of USD 50 million every year for next 20 years. Availability of trained medical and para-medical manpower is another issue needs attention. More than 70% population resides in rural India, where accessibility to healthcare is very poor.

Before we embark upon a new strategy, it will be pertinent to study the existing schemes, the mechanism of fund-transfer between the central and state governments, and the impact on healthcare delivery system both public and private.

### Medical Insurance

Indian healthcare is mostly out-of-pocket expenditure, which keeps the poor out of accessible and affordable network. Health-related reasons account for almost 40% population coming under BPL, who sell their land and/or belongings to avail medical care. CGHS, ECHS and ESIs essentially cater to organized sectors with limited popula-

tions. Only 11% of population has some form of insurance.

#### **Rashtriya Swasthya Bima Yojana**

A national medical insurance scheme launched on April 1, 2008, issued 14.45 million smart cards to 29.76 million BPL families in 172 districts by April 2010. The financial protection offered by this and other medical insurance schemes remains insufficient, they are not universal in coverage. Health insurance cover is provided under this scheme to BPL workers in unorganized sector and their families (up to 5 members) to the extent of INR 30,000 p.a.

The beneficiary has to pay only INR 30 p.a. as registration fee. Every State has to implement this scheme in a phased manner and cover all their districts by 2012-13. States have to approve an insurance company in each district and nominate well-functioning public/private hospitals, which have sufficient facilities as per guidelines. The insurance company shall enroll the beneficiaries. The scheme shall be financed by the central and state governments, as laid down. Smart cards shall be issued to each beneficiary household for cashless service in the nominated hospitals. The beneficiaries shall be eligible for coverage of financial costs of inpatient healthcare services as well as agreed day care procedures not requiring hospitalization, as decided by the State Government with the insurance company.

#### **Rural Group Life Insurance Scheme**

At the insistence of the Central Government, LIC introduced the Arogya Raksha Yojna scheme to provide social security to rural families by way of life insurance from August 15, 1995. A life cover of INR 5000 for two types of policies: one 'general' policy on full payment of premium by the applicant; and another 'subsidized for BPL households' that avails the whole family. Premium is subsidized by Central and State Governments on 50-50 basis.

#### **Private Charitable Hospitals**

As per provisions in Section 41 AA, the Bombay Public Trust Act, 1950, and similar Acts elsewhere, the Charity Commissioner has to instruct and ensure that all private charitable hospital perform towards the needy. For starters, their reserves must earmark 10% of the total number of operational beds and 10% of the total capacity of patients treated at such hospitals for medical examination and treatment in each department. Indigent patients, required to be given free treatment, must be on par with paying patients, without any discrimination. They are also required to earmark 10% more, in both operation and OPD for those belonging to weaker sections of society seeking admission or treatment and are required to be treated at concessional rates. Indigent person means, whose total income does not exceed INR 3600 p.a.; person belonging to weaker sections means, those whose income does not exceed INR 15000 p.a. Almost all private hospitals are run by charitable trusts and are required to give this facility.

#### **Rashtriya Arogya Nidhi**

The Department related to the Parliamentary Standing Committee on Human Resource Development had expressed in their 31st Report on the functioning of the Central Government Hospitals under the Department of Health the concern about inadequate facilities for the treatment of poor patients for major illness. The committee felt that it was essential to explore all appropriate sources of funds to assist poor patients coming to AIIMS or other Central Government Hospitals for their treatment of specific life

threatening illnesses. In view of the recommendations of the committee, it was decided to set up a National Illness Assistance Fund renamed Rashtriya Arogya Nidhi (RAN) under the Department of Health, Ministry of Health & Family Welfare. The Committee on non-Plan Expenditure in its meeting held on October 17, 1996, approved the proposal for setting up of the fund. Accordingly, RAN has been set up vide Resolution No. F-7-2/96-Fin-II dated 13/1/97, as an autonomous society. This was set up with an initial contribution of INR 5 crore from the Ministry of Health & Family welfare. The fund could also be subscribed by individuals in India or abroad with the approval of FCRA, corporate bodies in private or public sector, philanthropic organisations and all contributions made to this fund are exempt from payment of income tax under section 80-G of Income-Tax Act, 1961.

All State Governments/UT Administrations have been advised vide Ministry of Health & Family Welfare letter dated 11/11/96 to set up an Illness Assistance Fund in their respective States/UTs. It has been decided that grant-in-aid from Central Government would be released to each of these States/UTs (with Legislature) where such Funds are set up. The grant-in-aid to States/UTs would be to the extent of 50% of the contributions made by the State Governments/UTs to the State Fund/Society subject to a maximum of INR 5 crore to states with largenumber and percentage of population below poverty line viz. Andhra Pradesh, Bihar, Madhya Pradesh, Karnataka, Maharashtra, Orissa, Rajasthan, Tamil nadu, Uttar Pradesh and West Bengal and INR 2 crore to other States/UTs. The State/UT level Funds could also receive contributions/donations from donors, as mentioned for RAN. The Illness Assistance Fund at the State/UT level would release financial assistance to patients living in their respective States/UT up to INR 1.5 lakh in an individual case and forward all such cases to RAN, where the quantum of financial assistance is likely to exceed INR 1.5 lakh.

Only for persons below the poverty line suffering from specified life threatening disease. Assistance admissible for treatment in Government Hospital only. Central Government/State Government/P.S.U employees not eligible. Re-imbusement of medical expenditure already incurred not permissible. Diseases of common nature and disease for which treatment is available free of cost under other health programmers/schemes not eligible for grant. Patient taking treatment in his state has to avail assistance from State Illness Fund (where such fund has been set up) provided medical estimate does not exceed INR 1.50 lakh. Cases of estimates above INR 1.50 lakh to be referred by States for assistance from Rashtriya Arogya Nidhi (Central Fund) by the Ministry of Health & Family Welfare. Setting up of Health Minister's Cancer Patient Fund within Ran

The Standing Finance Committee (SFC) has approved the proposal in 2008-09 for establishing National Cancer Fund with the following observations:

principles:

1. Health Minister's Cancer Patient Fund is to be established as a separate corpus fund within RAN which would be managed through the management and technical committees of the RAN.
2. The Scheme outlay for the Cancer Patient Fund and its share of INR 100.00 crore would remain within the approved Plan allocation for National Cancer Control Programme (NCCP) as



mandated in the 11th Five Year Plan i.e. INR 2400 crores.

3. The earning from the corpus fund to be accrued out of the interest from the corpus fund would not be used on meeting the administrative expenses of the corpus fund.
4. An estimate should be made to ascertain the percentage of cancer patients that would be covered under the scheme.
5. A cancer expert from the Directorate General of Health Services will be co-opted in the Technical Committee of RAN.

Most of the state governments have set up some scheme or fund to make the health care accessible to BPL category. Some of the schemes are enumerated below:

- Andhra Pradesh: Arogyasri Health Care Trust
- Rajasthan: Swasthya Bima Yojana
- Uttarakhand: Rajya Vyadhi Nidhi
- Punjab: Nirogi Yojana Scheme
- Karnataka: Vajpayee Arogyasri
- Kerala: Comprehensive Health Insurance Scheme (CHIS)
- Maharashtra: Jeevandayee Arogya Yojana
- Goa: Goa Mediclaim Scheme

Except six Indian states, all others have set up some health assistance fund.

#### **National Rural Health Mission and Janani Suraksha Yojana**

A successful experiment India has set a target of increasing public spending on health from 0.94% in 2004-05 to 3% of the GDP. The Planning Commission's Expert Panel has recommended a health surcharge on table income to fund the universal health coverage scheme. Though the government has not recommended the rate, a 1% surcharge would yield over INR 9000 crores. The panel also wants the government to introduce a National Health Entitlement Card (NHEC) for every citizen that will guarantee free access to health package of essential primary, secondary and tertiary health-care fully funded by the Centre. Hike in public spending on health from about 1.4% of GDP to at least 2.5% by the end of the 12th Five Year Plan (2012-17) and at least 3% by 2020 (Times of India: August 16, 2011).

Under NRHM, the central and state governments are expected to share the additional health expenditures in the ratio of 85:15 during 2007-12. After 2012, the ratio is expected to change to 75:25. This arrangement needs to be assessed on a state-by-state basis. In the past, state governments have used central government funds for the creation of health infrastructure, there had been perceptible qualitatively and quantitatively improvement in health delivery capacity of public healthcare system funded under NRHM. Most of the states have introduced some scheme or other for the

BPL population, but these are mired with shortcomings, like OPD facility, INR 30,000 is not enough, the procedure is not uniform in all states and is cumbersome. People have to pay bribe to get the card made. The state of Andhra Pradesh has tried to address most of the issues, and the same model can be adopted by other states also with some modification.

#### **Major Shortcomings**

1. Low per person spending (0.9 % of GDP) resulting in high out-of-pocket expenditure on health.
2. Large inefficiencies in public and private sectors that reduce effectiveness of health expenditure.
3. Failure to recognize and address the public health needs.
4. Practically no financial protection for majority of population against medical expenditures.

#### **Policy responses needed**

- Ensure commitment to increase direct public spending on health from 0.94 % to 3% and more of GDP.
- Improve quality, performance, efficiency, and accountability of public and private health care systems; they should be subjected to peer-review, social and administrative audit.
- Introduce and effectively implement policy and legislative changes to contain the rising cost of medical care and drugs.
- Increase availability and affordability of health services through inclusion of private healthcare providers in all central and state funded schemes.
- Increase insurance and risk pooling to include financial protection against medical expenditure.
- Introduce and strengthen a predominantly tax-paid universal medical insurance plan (National Health Entitlement Card) that offers essential coverage to all citizens.
- Make investment in healthcare sector by private operators more remunerative.
- Encourage 'not for profit' hospitals to provide quality care to BPL and other category of patients (as done in Andhra Pradesh Arogyasri scheme), it can be considered as a CSR-activity and tax incentives can be provided.

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