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Shri Sadguru Seva Sangh Trust

Sadguru Netra Chikitsalaya, Chitrakoot, India

A rural eye care initiative to ensure comprehensive eye care to all

This case study aims to highlight and analyze an innovative model of 'low cost-high volume - consumer driven differential services'. This case also identifies key challenges and innovations that have led to effective provision of care for the marginalized



R.Vasantha Kumar

ACCESS Health International

Centre for Emerging Markets Solutions

Indian School of Business, Hyderabad

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Sadguru Netra Chikitsalaya is situated in Chitrakoot, a remote area bordering Madhya Pradesh and Uttar Pradesh characterized by a lack of health care providers. Despite this, Sadguru Netra Chikitsalaya performs the highest number of eye surgeries in the country. The unique aspect of this hospital model is that even though 50 percent of its services are provided at free or subsidized rates, the hospital is viable and able to sustain its growth. The hospital practices effective resource utilization and maintains low operational costs and thus the price paid by each wealthy patient covers the cost of the poor.

This case study aims to highlight and analyze this innovative model of 'low cost-high volume and consumer driven differential services'. This case also identifies management innovation and challenges that have led to effective provision of care for the marginalized.

Background

The World Health Organization defines health as a basic human rights issue and has stressed that “the government has responsibilities for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures” (WHO, 1978). However, for decades, policy makers of India and other developing countries have struggled endlessly to bridge the gap in health care delivery, especially in the government run facilities.

The underprivileged in low and middle income countries have limited access to health services due to limited purchasing power, residence in underserved areas, and inadequate health literacy, all within a population that has a disproportionately large burden of disease (Bhattacharyya et al, 2010). To bridge this divide, a subset of private organizations, called ‘social enterprises’, have developed novel approaches to increase access to quality health care. India is a country with a low resource pool and integrating quality health service delivery with best practices at a low and differential cost is a challenge, for both private and public sector.

The Innovation

Param Pujya Gurudev Shri Ranchoddasji Maharaj, addressed as “Gurudev”, started the Shri Sadguru Seva Sangh Trust (SSSST) in 1968 and organized the first eye camp in India in 1950, a time when blindness control measures were unheard of even within the Government.

*There is no greater a religion
than service to humanity*

- Gurudev's vision

In line with Gurudev’s vision, the trust’s eye care services were initiated with “Tara Netra Dan Yagna” (hospital based eye camps). Shri Arvind N Mafatlal, who hails from the India's leading textile business family, later continued as the chairman and visionary of the trust. He donated his land to build the hospital in Chitrakoot.

SSSST has actively contributed towards holistic development of the surrounding districts ¹ by –

- Providing health care services
- Primary, secondary and higher education
- Agriculture, dairy and women empowerment
- Employment opportunities for the local youth

In the health care area, even though SSSST offers a wide and diverse range of essential clinical services under one roof like General Medicine, Gastroenterology, Obstetrics, Gynecology and Pediatrics, its main area of focus is provision of comprehensive eye care services.

¹ A division of an area for administrative purpose (in India)

Eye care in India

India, the second most populous country in the world, is home to 23.5 percent of the world's irreversibly visually impaired population.

The state of Madhya Pradesh is one of the largest states of India. Along with other neighboring states like Bihar, Chhattisgarh and Uttar Pradesh, it bears a substantial part of the irreversibly visually impaired population burden. In Madhya

Pradesh 4000 cataract surgeries are performed per million people which is less compared to states like Gujarat where 10000 cataract surgeries per million people are performed (Thomas et al, 2008).

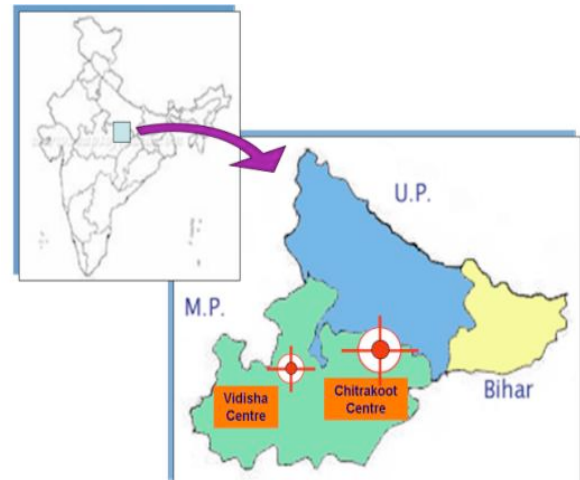
'Sadguru Netra Chikitsalaya (SNC)' hospital was started in the year 2000 as a charity based, 80 bed hospital. By the year 2004, it grew into a 350 bed, state-of- art multispecialty hospital, performing 106,409 eye surgeries annually (2009-2010) (Sudhan.A, 2009).

While establishing the hospital, the trustees realized the absence of health care providers in the area surrounding the hospital, in addition to comprehensive eye care, there was also an unmet need of other general medical specialties in the area. Thus, clinical specialties were subsequently added to the already offered comprehensive eye care services to address this need.

The progress and performance of SNC has been quite impressive so far. It started its second hospital in Anandpur in the year 2004. By 2010, SNC had 1500 beds and the hospital catered to

A survey conducted in 2001-02) in India indicated that the main cause of blindness in the 50+ population is Cataract (62.6 percent). The other major causes are - refractive errors (19.7 percent), Glaucoma (5.8 percent), corneal blindness (0.9 percent), surgical complications (1.2 percent), Posterior Segment Disorders (4.7 percent), others (5 percent)

- Source: Thomas, R., Pual. P., et al, 2005



a population of five to 10 million people, with a catchment area of 800 kms radius spanning across three states (Madhya Pradesh, Uttar Pradesh and Bihar).

With 12 operation tables and technologically advanced equipment, the facility offers the following services- Cataract surgeries, Glaucoma, Occuloplasty, Cornea replacement, Vitreo/Retina treatment, low vision treatment in addition to Pediatric eye care.

Though the trust provides wide range of health care services, comprehensive eye care continues to be the main clinical focus. Most of the services offered to the underprivileged, rural population are cross subsidized with approximately 50 percent of its surgeries offered free of cost. For more than three decades, the trust has successfully reached out to several thousands in the rural parts of Madhya Pradesh and central India.

Business Model

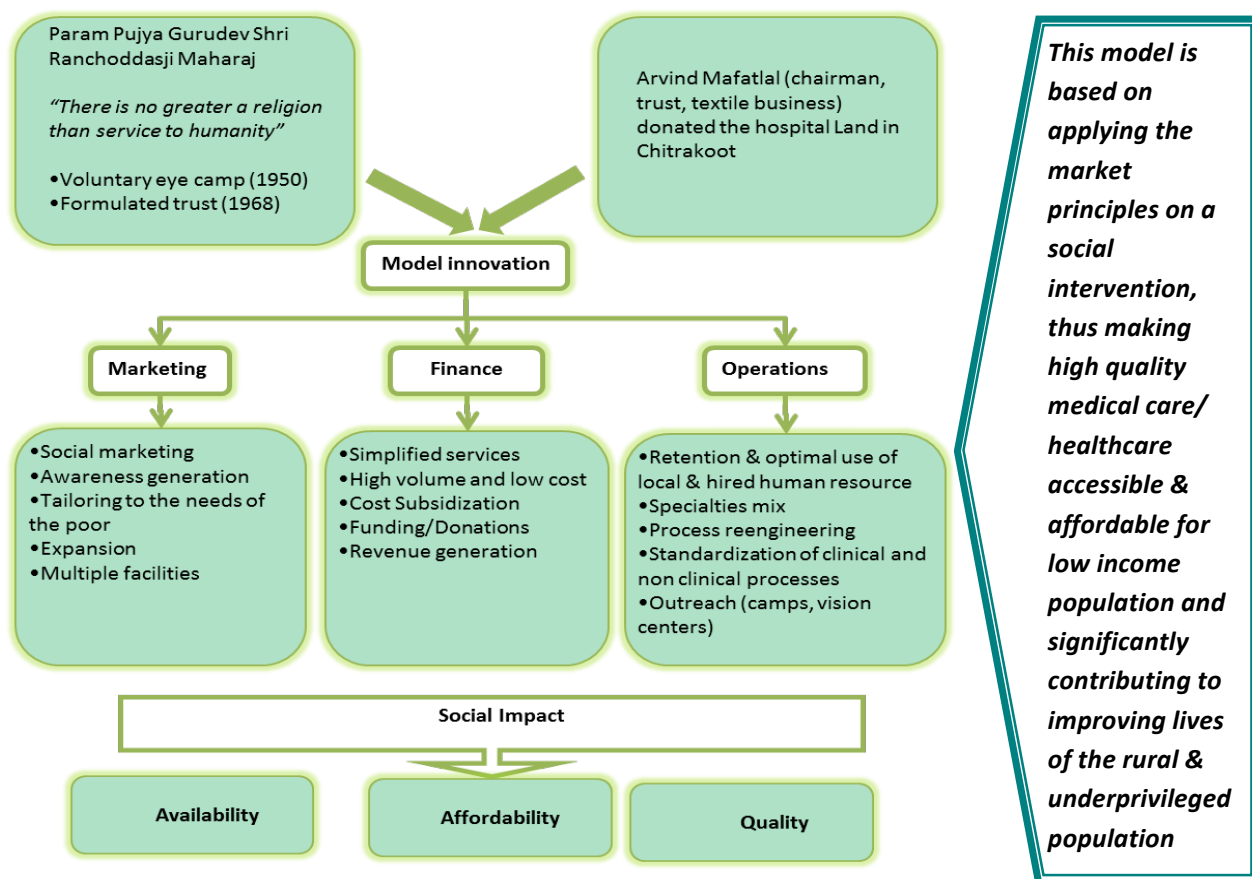


Figure 1: Business framework¹ for SNC

Pro-poor and charity-based interventions are generally very limited in their health scope, geographic reach and longevity. However, the success of the outreach activities of SNC and its popularity amongst the locals and neighboring states lies in its 'low cost-low margin/high – volume' approach, along with user driven clinical mix and differential subsidization, unique to the social health care landscape.

SNC has made remarkable growth in the last few decades and has also developed an identity for itself in the international medical fraternity. In SNC, the user fee is determined by one's ability to pay, with the wealthy covering the cost of serving the poor (Dimovska, 2010). However in addition to the usual 'one specialty focus' (eye care), this model has also incorporated other preliminary essential medical services under the same roof.

Marketing and outreach

SSST-SNC has a steady high volume rural clientele as it is the only tertiary eye care center in the catchment area. It has approximately 80 percent of the market share within the catchment area (Madhya Pradesh, parts of states of Bihar and Uttar Pradesh). Cataract surgery forms a prominent clinical service delivery area, contributing to almost 90 percent patient care share.

SSST-SNC trust believes firmly in the principles of 'Gurudev' and wants to further extend its services in the rural areas, focusing on the marginalized sections of the rural population. It has no formalized branding activity; however, it does social marketing through eye camps (community outreach). It has been observed that the people in the rural places are unaware of eye diseases and visit the hospital only after substantial loss of vision. Through these outreach camps, the Trust has been actively involved in generating community awareness about various types of eye ailments and their timely detection and treatment, with special focus on women and children.

On an average, about 200 persons are screened and about 35 surgeries are performed per camp.

The free eye camps conducted in the rural areas are supported and collaborated by state government and some private sector donors through District Blindness Control Scheme. Some of the key collaborations are:

Name of the collaborating organization	Nature of the organization	Activities
SEVA	International Non-Governmental Organization	Organizing outreach camps and capacity building of eye hospitals
ORBIS	International Non-Governmental Organization	Assisted in the provision of Paediatric Ophthalmology component of eye care
Standard Chartered Bank	Private Sector	Provided capital cost to set up vision centre
CBM International	International Non-Governmental Organization	Community based rehabilitation for differently abled people
Sight Savers International	International Non-Governmental Organization	Resource material development

Other outreach activities include 'Adult Outreach Program' (focusing on population above 50 years of age) and Child Outreach Program (focusing on children below 18 years of age), organized in collaboration with village schools and community health centers.

Operations- Optimizing local resources and standardizing protocols

The hospital has standardized not only clinical practices, but also non clinical practices related to general management and governance, thus reducing lacunae related to management and pooling and optimal use of local resources. The hospital has a well-defined protocol for the treatment of patients and appropriate work responsibility is delegated to the field and base hospital staff.

The trust has tried to create employment opportunities for the locally available youth and thereby engages and encourages community participation. SNC recruits local youth who have completed their senior secondary level formal education and trains them for the post of Ophthalmic Assistants. This cadre of staff helps the clinicians in the OPDs (Out Patient Department) and OTs (Operation Theatre). They perform various basic services like vision checking, refraction, tension test and blood pressure evaluation. This allows clinicians to focus on the core clinical activities and thus increase their overall productivity.

Performance measurement of all the cadres is regularly done by the department head and supervisors. Based on the outcome of the review, and on completion of five years of service, the Ophthalmic Assistants are promoted as Supervisors, Assistant Supervisors and In-Charge.

The hospital management proactively makes efforts in recognizing and appreciating the internal staff, motivating them and also minimizing the employee turnover rate. For examples, as a motivational strategy, supervisors are given different colored uniforms not only to recognize their separate cadre but also to recognize their work and commitment for over five years.

SNC runs three year comprehensive fellowship programme for doctors. However, a few doctors continue to work in SNC after completing the fellowship also, due to the exposure to varied types of eye ailments and hands on practice SNC offers. This ensures availability of a specific number of doctors at any point of time. The hospital also runs frequent training programs for other cadre of staff like ophthalmic assistants and optometrists. It has a well accredited four year bachelor degree program for optometrists and a two year course for ophthalmic technician.

Human Resource	Chitrakoot	Anandpur
Clinicians	49	12
Executive/Administrative staff	17	8
Supervisory Staff	12	10
Teaching Staff	66	16
Paramedical Staff	61	10
Supportive Staff	449	124
Sanitary Staff	135	20
Total number of personnel	789	200

Following their training many personnel are absorbed within the hospital. This has greatly contributed towards containing the attrition rate within the hospital.

Early case detection and timely referral

As an outreach initiative, the trust has established 23 'Vision Centers' which are manned by Ophthalmic Assistants. These centers are a permanent set up meant for screening and providing basic eye care services.

In addition to these Vision Centers, free eye camps are conducted within a radius of 200 kms in the surrounding areas, and a team of doctors and ophthalmic assistants screen the patients for all the common eye care ailments, including cataract surgery, pediatric ophthalmic care and treatment of Glaucoma. Patients screened for further treatment and requiring surgery are referred to the base hospital in Chitrakoot and Anandpur for further treatment. Transportation is arranged for the patient (screened in an outreach camp) needing further treatment at the base hospitals at Chitrakoot and Anandpur. The National Program for Control of Blindness pays INR 750 (USD 16-USD 17) as reimbursement for the transport provided. The base hospital also has two sets of clinics, one for the paying patients and one for the free patients.² In 2009-10, SNC, Chitrakoot organized 387 camps and SNC, Anandpur organized 388 camps respectively.

After the initial screening by an Ophthalmic Assistant, the patient is seen by the doctor for a final evaluation. If required, these patients are then referred to the main hospital for surgery and further treatment. Over 50 percent of services delivered at SNC are either free or subsidized for the patients.

The hospital has been inspired by the workings at Aravind Eye Hospital, Madurai. For example, SNC has tremendously improved on its working efficiency by allowing surgeons to work on two tables in the operating rooms, in alternation by shifting from one case to another. While one surgery is in progress, a team of nurses and paramedical staff prepare the next patient. This practice has allowed SNC to perform a cataract surgery in one third of the industry standard time.

² Patients referred from the outreach camps and free clinic OPDs have to pay INR750 as IOL (Intraocular lense) charges, however OPDs consultation, Surgery fee, OT/hospital fee is not charged from the free patients. The same surgery would cost INR 1500 in the paying hospital.

The hospital has evolved a practical and efficient management system to address all the management lacunae and shortfalls that otherwise retard the pace and quality of service delivery. A second level leadership has been developed and retained for most of the clinical and non clinical departments. All the admissions done at SNC are centralized, done through a common hospital network database. This has greatly helped co-ordinate activities within the various departments. Primary care and dispensing of spectacles is also carried out in the admission room. Instrument and consumable purchase is managed by the in-house purchase and stores department.

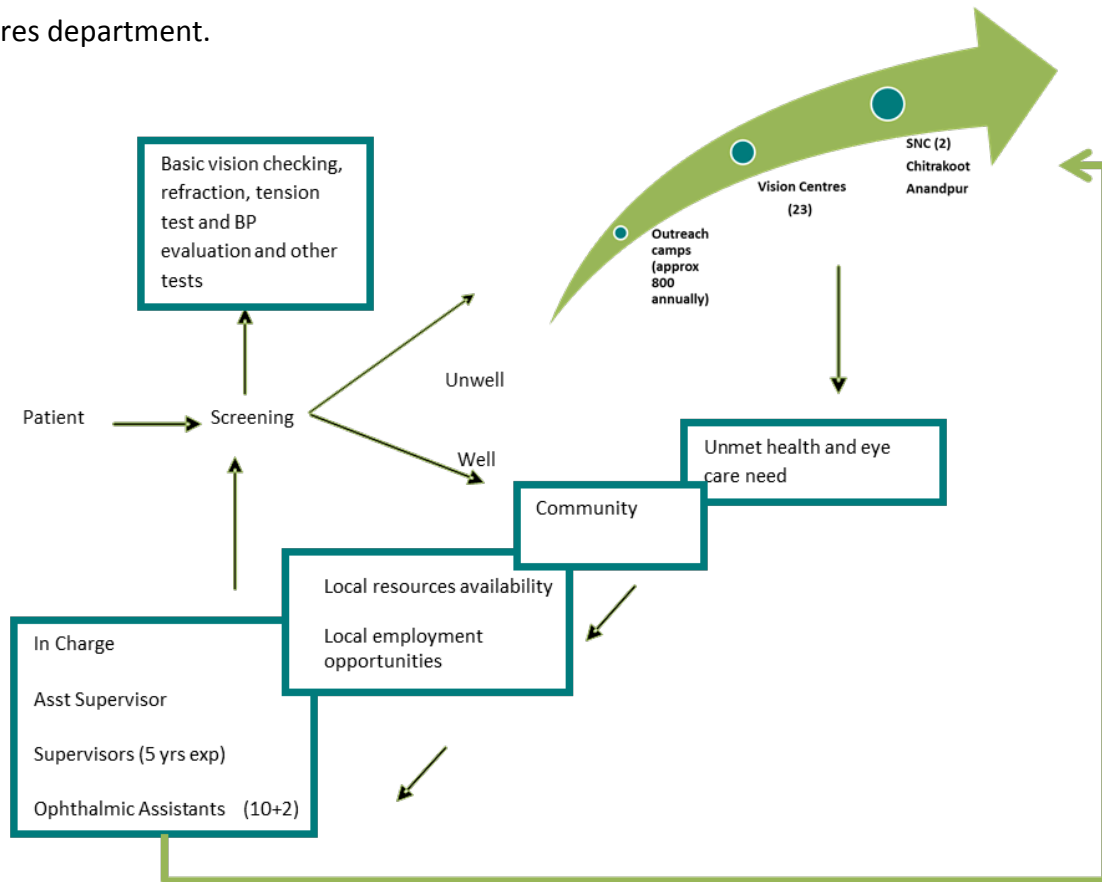


Figure 2: SNC outreach and community participation

Finance- high volume, low and differential pricing

Reducing hospital over heads

The hospital has actively minimized the Human Resource cost by hiring less than fully trained, local staff from within the community and then training them internally. In the process, the

hospital is also generating employment opportunities for the locals and maintaining the turnover rates.

High volume-differential subsidization of services

By increasing the volume significantly through outreach camps and vision centre, SNC has managed to reduce the per-unit cost of an otherwise expensive medical care. Financial sustainability is achieved through reduced unit cost and cross-subsidization strategy, where patients with greater willingness and paying capacity, cover for a part of the cost for the expensive services for the lower-income patients. SNC has separate service clinics for paying and free patients. Patient can choose the services based on their affordability. The clinical quality is maintained irrespective of the money paid. Surgical costs retrieved from paying patients (who can afford) and providing of free services to the underprivileged has resulted in creating sustainability of this model. The difference in the services of paying and non-paying patients lies in the peripherals, like better furnished private rooms and wash rooms as compared to free wards, avoidance of queue at billing counters and outpatient areas, use of imported IOL etc. However, the clinical and surgical levels of the services are maintained at the same level, irrespective of the class of the patients. The general or paying category pricing for clinical services is comparable to any Trust /Charitable hospital rates and is much lower than the private sector. All the paying surgeries are usually borne by the patients as 'out of pocket payment' and free surgeries are additionally supported by National Programme for Control of Blindness

Grants and donations

Approximately 17 percent of the cost is recovered by Grants and Donations by volunteer donors and partners. Since 2005-06, SNC has been able to recover 100 percent of its total operating costs and has attained financial viability. Donations are used for building up of capital infrastructure.

Quality process

Quality is ensured through process audit, system audit and outcome assessment. The hospital has a separate department to look after the quality processes. SNC has got ISO 9001:2008 certifications for its quality processes and standard protocols for all the clinical and non clinical activities.

The hospital performs visual outcome measures and complication analysis to ensure quality of the clinical care. Monthly reports for post-operative complications is generated and discussed during regular clinical meetings. Service quality is upgraded by providing periodical training to the medical, para-medical, managerial and other related staff towards continual improvement of service delivery.

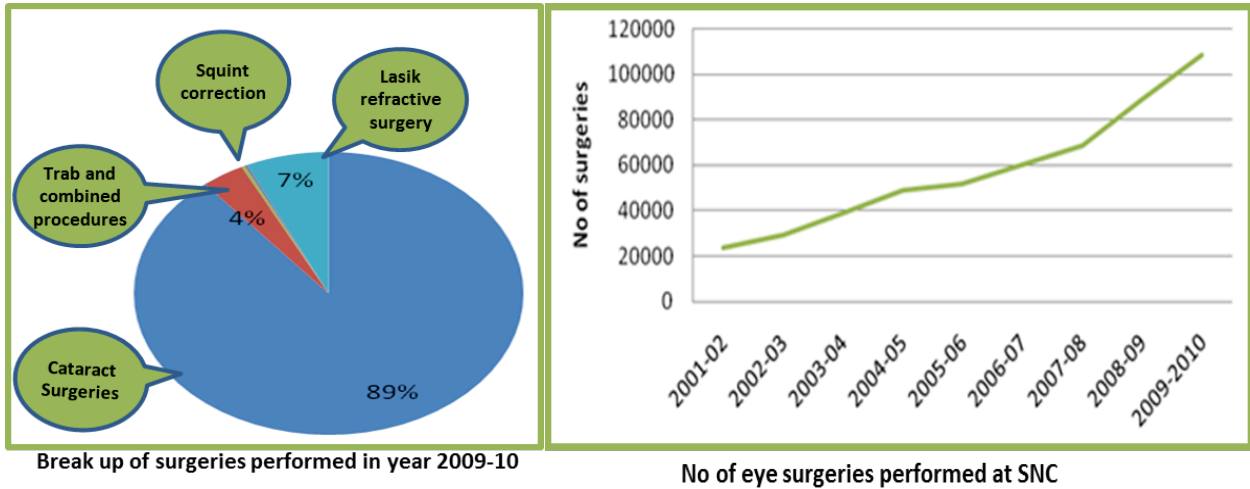
Research and collaborations

The Shri Sadguru Seva Trust has been actively involved in health service and system research to ground evidence, theory and practice into its service delivery initiatives. 'The Centre for Community Ophthalmology' (a community based eye care program running from SNC) plays the lead role in designing and conducting these community and hospital based research studies.

Results at SNC

Over the years, the volume of paying patients and free patients has increased substantially. Between 2001 and 2010, the total eye surgeries increased by almost 46 percent and the paying and free eye care patients' workload increased by 39 percent and 58 percent respectively.

Performance of Hospital SNC (2009-10)			
Outpatient visit		Surgeries	
Hospital	552,847	Paying	53,687
		Free (Direct+ Outreach)	
Outreach	132,440		52,722
Total	685,287	Total	106,409



Challenges

In order to be self sustainable, social initiatives (like SSSST-SNC) have incorporated both social objectives and corporate concept of employing entrepreneurial skills, mostly identified with the private sector (Spear 2006). In the process, these organizations face many operational challenges, a few of which are discussed below-

- Recruitment strategies for doctors and key management professionals
- Financial sustainability
- Management of double tier paying system
- Promotion of the focus on clinical expertise (eye care) along with other clinical sub-specialty like Gynecology, Pediatrics, general medicine, Surgery
- Expanding eye care services other than cataract
- Coordination and management of outreach activities
- Exposure to the clinical staff to research activities and evidence based practices, as a part of continued medical education

Future Road-map

By 2020, the centre envisions to become International Institute par excellences, equipped with state of art technology, delivering comprehensive care to treat all possible eye ailments. The milestones to realize this vision include-

- Upgrade Children’s Eye Care Centre to a Referral Centre in Central India.
- Upgrade Cornea and Eye Banking Services, Glaucoma, Vitreo-retina services and oculoplasty services to be on par with the best in the country.

- Introduce Tele-ophthalmology Services to reach the un-reached in the states of MP and UP.
- Develop into Training & Research Institute.
- Open a dedicated Institute for Community Ophthalmology
- Open 50 vision centre by the year 2020
- Establish 2 Secondary hospitals by the year 2020

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