

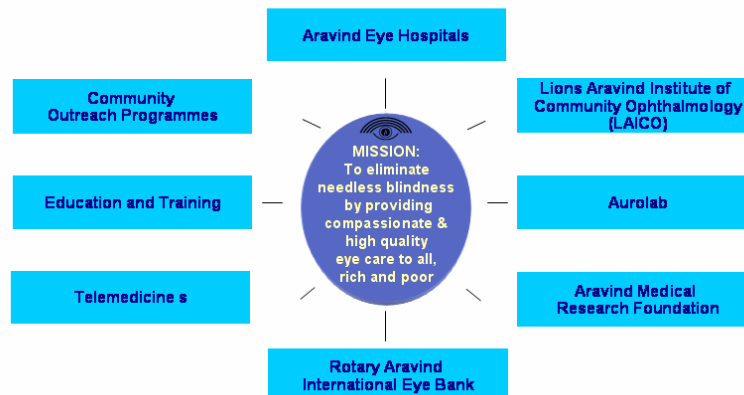
Aravind Eye Care System: A unique model

It was year 1976. Padmashree Dr. G. Venkataswamy, popularly referred to as Dr. V., had just retired from the Government Medical College, Madurai, India as the Head of the Department of Ophthalmology. Rather than settling for a quiet retired life, Dr. V. was determined to continue the work he was doing at the Government Medical College, especially organizing rural eye camps to check sight, prescribe needed corrective glasses, do cataract and other surgeries as needed and advise corrective and preventive measures: in short, providing quality eye care. This was to be provided to the poor and the rich alike. To Dr. V., this was more than a job to spend his time: he was a person seized with a passion to eliminate needless blindness. For an estimated 45 million people worldwide, and ten million in India, the precious gift of sight had been snatched away, most often quite needlessly. His vision was simple yet grand: eliminate needless blindness.

With this mission, after his retirement, Dr. V formed a non-profit trust, namely, the Govel Trust with himself as the Chairman and his two brothers, two sisters and their spouses, and an ex officio member, namely, the Madurai Main Rotary President as trust members. In 1976, the Govel Trust began with running a modest 11 bed hospital, named as the Aravind Eye Hospital, in Dr. V.'s brother's house at Madurai, with a mission of serving the poor blind people. In this hospital, five beds were for patients who would pay to get treatment and six were reserved for those who would be offered free treatment.

By 2002, the humble 11 bed hospital had grown into The Aravind Eye Care System. The Aravind Eye Care System was not merely a chain of hospitals, but was an eye care system consisting of a centre for manufacturing synthetic lenses, sutures, and some eye pharmaceuticals, an institute for training, an institute for research, an international eye bank, a post graduate institute of ophthalmology awarding M.S. degrees and offering fellowship programmes and a centre for community outreach programs. This article provides an overview of the various components that make up the Aravind Eye Care System.

Aravind Eye Care System - Elements



Providing compassionate patient care, Aravind Eye Hospitals:

Aravind Eye Hospital, a WHO Collaborating Centre for Prevention of Blindness, provides an entire range of eye care services from primary eye care to the State of the Art tertiary eye care, through its network of five eye hospitals with a combined bed capacity of 3,500 serving primarily southern States of India, Tamil Nadu, Kerala and partly Karnataka & Andhra Pradesh.

One of the key factors for the effectiveness of Aravind Eye Care System is adopting appropriate systems and processes that enables it to provide affordable eye care services either at subsidized or no cost. This constitutes 63% of the total surgical load. An Aravind doctor performs between 30 and 40 cataract surgeries in a 5-6 hours surgical session. An average ophthalmologist in India performs about 400 cataract surgeries per year, while an Aravind surgeon performs about 2000 such surgeries without compromising on quality.



From the inception in 1976 to the year 2005, Aravind Eye Hospitals (all the five centres together) have examined 19.5 million outpatients and performed around 2.5 million surgeries. Its high volume of surgery makes it the largest eye care provider in the world. Aravind with a mission to eliminate needless blindness maintains its commitment to providing high-quality, compassionate eye care to all those in need.

Building partnership with community to reach the unreached, Community outreach

Cornerstone of Aravind's high volume work is the structured outreach screening programmes that encourages active involvement of community in providing eye care. This has led to developing a wide community network consisting of more than 1000 such organizations (such as the Lions, Rotary, Youth Clubs, etc.). With the support of the community network every year 1200 - 1300 screening eye camps are conducted that covers a population of about 100 million accounting for close to 40% of all eye care provided in the region. Around 42% of the total surgeries performed at Aravind, is generated through outreach camps. Today this community based outreach activity has been extended to other sub-specialty areas like school screening camps, refraction camps, diabetic retinopathy detection and awareness camps and primary eye care vision centres.

As an alternative approach, Aravind is instituting outpatient community centers and comprehensive primary eye care vision centers in order to provide permanent access and sustained eye care to the rural population. As a pilot step, three vision centres in Theni district and two community centres in Madurai district have been launched. More such set-ups are in the pipeline that would extend to other adjoining districts as well.

Developing ophthalmic human resources capacity, Education & Training:

Aravind believes that appropriate training is required at all levels to work as a cohesive team and this has become one of the core activities that being carried out from the early eighties, aligning to the

mandates of the global initiative, Vision 2020 – the Right to Sight. Human Resources Development at Aravind Eye Care System has a wide spectrum from developing general ophthalmologists to highly skilled specialists; paramedic staff and hospital managers to skill based support staff like instruments maintenance, outreach coordinator etc. Aravind Eye Hospitals and LAICO (Lions Aravind Institute of Community Ophthalmology) together offers 35 structured courses and many more custom designed courses throughout the year. Till date, 2,200 Ophthalmologists have been trained in basic ophthalmology as well as in various sub-specialties. This amounts to 18% of the total ophthalmologists in the country who have undergone training at Aravind. Thrust is also given to develop well trained Mid Level Ophthalmic Personnel (MLOPs) who share at least 75% of the overall workload at the hospital. So far, Aravind has trained 4000 such paramedical personnel and 3000 ancillary staff.

Replicating Aravind Model globally, Lions Aravind Institute of Community Ophthalmology (LAICO): Asia's first eye care training institute, LAICO was established in the year with a mission to “contribute to the prevention and control of global blindness through teaching, training, publications, consultancy, research and advocacy in eye care”. In addition to the several eye care management and skill based training programmes offered, through consultancy and capacity building programme, LAICO shares its knowledge in a structured manner and helps the participating hospitals particularly for cataract services in the development of strategies and supports their implementation. This intervention has resulted in doubling of their output within a period of two years. Currently LAICO is working with 200 hospitals across India and other developing countries like Nepal, Bangladesh, Cambodia, China, Malawi, Kenya and Latin America. Now this programme is extended to set up tertiary eye care services like paediatric ophthalmology services and diabetic retinopathy services. Apart from the service delivery, capacity building activities is extended to develop training & teaching capacity in the developing countries.

Through its consulting services, LAICO has taken a new direction, ie. Contract model of managed hospitals whereby LAICO (and Aravind) would manage the eye hospitals effectively with the support of trained human resources from Aravind and also provide technical support. At present, Aravind is working with M P Birla Eye Hospital, Kolkata and Indira Gandhi Eye Hospital and Research Centre, Amethi. Aravind is also collaborating with the Grameen Bank to setup 7 eye hospitals in Bangladesh.

Committed to sharing Aravind's experience, LAICO with the support of IAPB has launched an eye care management online resource centre, “Vision 2020 e-resource”. This online resource centre has comprehensive collection of on eye care management that would be useful to the eye care programmes around the world. It shares valuable tools that help assess, plan, implement and manage high quality, efficient, and sustainable eye care programmes in the developing world. This website is currently being accessed by 1750 users across 120 countries.

Evidence based eye care - Aravind Medical Research Foundation (AMRF)

Aravind instituted AMRF to investigate issues concerned with causes and treatment of various eye diseases and problems related to delivery of eye care. The research activities at Aravind reflect Aravind's commitment to finding new ways to reduce the burden of blindness. In addition to the laboratory-based research in the areas of Genetics, Immunology and Microbiology, the studies conducted so far cover the broad spectrum of research areas as follows:

- Hospital Based Randomised Clinical trials: to evaluate surgical techniques, conduct drug trials.
- Community Based Randomised Clinical trials: studying the impact of vitamin-A supplementation on

- morbidity/mortality in infants and children; Role of anti-oxidants in cataract prevention.
- Population Based Surveys: Beneficiary assessment; Prevalence surveys; rapid assessment; impact assessment of cataract intervention.
 - Qualitative Research: Using participatory rapid appraisal (PRA) techniques to assess the reasons for low uptake of eye care services in a community; development of Quality of Life assessment instrument for persons with visual disability.
 - Health Systems Research: Operations research to determine the effectiveness of different community interventions for providing cataract services; assessment of eye care infrastructure utilization.

Now with the establishment of Centres of Excellence within Aravind's specialty clinics, alongside its continued emphasis on academic rigor and its recent thrust on developing comprehensive service delivery models in areas like diabetic retinopathy, glaucoma and pediatric ophthalmology, as well as its rapid strides in the field of tele-ophthalmology with remote consultations and the creation of a special software for diagnosis and teleconferencing between hospitals Aravind is poised as never before to take on a new challenge.

[Making affordable quality eye care products to the developing world through Aurolab:](#)

Aurolab, Aravind's manufacturing unit, was established in 1991 as a non-profit trust with a mandate to develop appropriate processes to provide instrumentation, equipment and supplies of world class quality for eye care providers at costs affordable to developing economies. Beginning with the manufacture of the IOL's, Aurolab later diversified in to manufacturing suture needles, surgical blades, ocular pharmaceuticals and processing spectacle lenses. Today it manufactures a wide-range of ophthalmic products as well, and these are now being exported to 120 different countries around the world. Aurolab has got **ISO 9001:2000** certifications for its quality system and **CE, WHO-GMP** certificate for its quality products. Aurolab now manufactures one million lenses annually and exports to 120 countries, with a global market share of 7%. About 80% of Aurolab's sales go to non-profit organizations.