Aravind Eye Care System - Compassion in Action

N. R. Govinda Sharma

"Alaghammal, a very old lady wearing an old sari, walks with the help of a bamboo stick into one of the out-reach camps of Aravind Hospitals held in a remote village in Tamil Nadu. Like many others who have assembled there, she is neither able to tell her date of birth nor the name of her native village. Helped by a volunteer, she undergoes preliminary vision test and primary health check-up and refraction test[1]. She pleads, with a trust that is no less than that which is reposed on God, the doctor that she is not able to see and be given her vision back. Looking at her condition, the doctor tells her that she can undergo surgery for free. She is taken to the base camp in a bus, free of cost, operated and provided facility to recuperate for a day. In the evening, a bus is ready to take Alaghammal and the other patients back to their village.

Alaghammal has to work on daily wages because she has no one to help her and now with her sight back, she can make her living without

Copyright © 2014 Shri Dharmasthala Manjunatheshwara Research Centre for Management Studies (SDMRCMS), SDMIMD, Mysore

The case writer(s) N. R. Govinda Sharma, Professor - Strategy & Business Ethics may be reached at nrgovinda@sdmimd.ac.in. Author(s) have prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of the situation. This case is fictionalized and any resemblance to actual person or entities is coincidental. The case was developed between March 2013 and August 2014. His students Deepak Nesarikar, Achita Khare and others from PGDM 2012-14 batch visited the Aravind Eye Hospital at Madurai during August 2013 and parts of this case are written based on direct observations and interviews by the students. The author acknowledges the contribution of the students in preparation of this case. Parts of the case have been successfully tested in the classroom discussion during the course on "Ethics and Values in Management" and "Business Policy Strategic Management" at SDMIMD and this is an integration of the various discussions. The purpose of this case is to highlight contextual managerial situation and is intended solely for classroom discussion rather than to comment on the administrative handling of the situation. This publication may not be digitized, photocopied, or otherwise reproduced, posted, or transmitted, without the permission of SDMRCMS, SDMIMD, Mysore. For Teaching Notes please contact sdmrcms@sdmimd.ac.in.

having to beg others. Aravind, along with vision, gave her dignity." (Doctor at Aravind Eye Hospital, 2013).

In a world that is being increasingly commercialized, is it possible that the dichotomy between making money and doing good be broken down? Is it a utopian idea or, is it that someone has actually put it into action? Could it be that a mission that was started out of compassion be a commercial success? Could it be that that someone, who could put a grand dream of eliminating curable blindness into action, was himself a person crippled with a disease but chose to defy his limitations and work with a missionary zeal?

This is the story of Dr Govindappa Venkantaswamy, or Dr V, as he came to be known the world over and the institution, Aravind Eye Care System (AECS) that he built.

In 1976 Dr V, at the age of 58 years, when most people prefer to retire and rest, set up an eleven bed eye clinic at Madurai, Tamil Nadu, India with no money, business plan or safety net. But Dr V integrated a heart of service and deep spiritual[2] aspiration with the best practices of business. By 1981, Aravind had reached a capacity of performing 10,000 eye surgeries an year and by 1991 the figure had climbed to 50,000 surgeries an year, a fivefold growth (Mehta & Shenoy, 2012). By November 2013, Aravind had grown into a network of ten hospitals (Exhibit 1), and was treating 3.1 million outpatients and performing over 370,000 surgeries an year (Aravind Eye Care System, 2013). At Aravind, if you could not pay for surgery, you did not have to. In fact, two thirds of the patients receive free or subsidized care at AECS. If the patient could not reach the hospital, its doctors would come to her. Yet, year after year, AECS has been making profit (see Exhibit 2) and has paid for all its expansion projects from its profits (Govindarajan & Ramamurthy, 2013).

Over the decades, numerous case studies and articles have attempted to explain its success by seeking to answer the question: How has Aravind reached its current scale and prosperity despite giving

away specialised, high quality service for free? The framing of the question tends to limit the scope of the answer. Aravind is an unconventional model that came into being not despite but because of the deep-seated compassion at its core. This is a model that demonstrates the power of integrating innovation with empathy, business principle with service, and outer transformation with inner change (Mehta & Shenoy, 2012).

This case study attempts to put the various pieces of the zig-saw puzzle into place.

Blindness in India

285 million people are estimated to be visually impaired worldwide: 39 million are blind and 246 have low vision. About 90% of the visually impaired live in developing countries (World Health Organization (WHO), 2013).

India is now home to the world's largest number of blind people. Of the 37 million people across the globe who are blind, over 15 million are from India (Sinha, 2007). In India, 62.6% blindness is due to cataract (Kangarajan, 2011) but the saving grace is that blindness due to cataract could be prevented by a simple operation. Blindness has implication far too than the loss of visibility. Many blind people are devastated by the triple loss of eyesight, livelihood and a sense of self-worth. Blindness can be fatal in India as loss of sight and its attendant trials can strip the already poverty-stricken of the will and means to live. Once blindness set in, life expectancy can reduce to just few years (Mehta & Shenoy, 2012).

To understand the situation better and get a feel of field situation, a group of students from the Shri Dharmasthala Institute for Management Development, visited Aravind Eye Hospital. How this visit was initiated is itself an interesting story.

A Visit to the Aravind Eye Hospital, Madurai

The documentary "Infinite Vision" , depicting the story of Aravind Eye Care System was screened as a part of the course "Business

Policy and Strategic Management" to the students of Post Graduate Diploma in Management (PGDM) 2012-14 batch around mid-July 2013 to demonstrate how compassion could be combined with business. In fact, the hidden agenda was to drive home the point that compassion can be the driving force for business, for, most of the students believed that money is what drives business. Unprompted by the faculty, five of the students[3] expressed their desire to visit Aravind Eye Hospital at Madurai and did visit the hospital on 15th and 16th August 2013.

The case is, in part, based on, learning during the visit.

Strategy at AECS

Most of the studies of the Aravind model start at the middle of the story. They treat the founding of Aravind Eye Clinic as the beginning and from there try to give an account of how a series of eye hospitals burgeon into existence, thanks to the financial viability of a revolutionary approach. There was intuition true in the work of Dr V but no strategy as the management studies understand. Thulsiraj, the Executive Director of LAICO[4], laughingly admits that the detailed strategic framework underlying Aravind's work was articulated in hindsight – to explain Aravind's success, not to achieve it (Mehta & Shenoy, 2012).

Based on the visit to the hospital and application of "Strategy Diamond" (Donald C Hambrick, 2005), we have tried to analyse and understand the strategy at play at AECS.

Arena

AECS focuses on lower and middle class people but also provides treatment to upper middle class people. Thus, those can afford to pay more than the break-even cost, subsidise those who cannot. Building a sustainable model requires that there is healthy mix of those who pay and those who are treated for free. In fact, Aravind positions free service as not a charitable hand-out but

as one of the many options in self-selecting free system. Its price range – from zero to market prices – is built around a culture that respects every patient's right to selection. The ratio of free to paying has been varying and in the late 1990s the proportion of paying patients at Aravind plunged to 18 per cent. The senior management was concerned that the situation was not reflecting the market. There was an upward mobility in the economic condition post 1990 in India and not showing in Aravind's patients' trends. Survey of patients and scrutiny for trends indicated that while the India's economy had grown and patients were willing to pay more for more comfortable and modernised settings, Aravind's inpatient had not undergone any major renovation since its inception. So, improvements were made in the patient counselling methods, waiting room ambience and cafeteria food. A more deliberate focus on subspecialties like diabetic retinopathy was introduced. In 2011-12, the paying to free to paying patient ratio is roughly 53:47 (Mehta & Shenoy, 2012).

Vehicle

AECS is setting up hospitals at tier II towns at costs lower than that at metros. AECS appreciates that it cannot grow organically at the rate at which it desires to grow. Therefore, forging alliances is a must. It has forged an alliance with like-minded people like Lions Club to set up facilities. Lions Aravind Institute of Community Opthalmology (LAICO) is a good example of such an alliance.

Differentiator

The service provides is low cost but the quality is not compromised. The affluent is attracted by the quality of service and less affluent get the advantage of economies of scale. The differential cost charged to affluent is only in type of rooms with luxuries whereas the less affluent stay in dormitories but the quality of service remains the same, high class.

Staging and Pacing

AECS is growing at fast pace and realises that this rate of growth cannot be sustained organically. Thus, AECS forges alliances with like-minded groups as mentioned under "Vehicle".

Economic Logic

The revenue is generated by catering to large volumes by adopting tiered fee structure. Counselling services and Cataract surgeries with IOL implants have ramped up the revenues. Thus by increasing the paying-patient pool, revenue has been drastically improved.

Source of Funds

Aravind started and continued grow under constraints, lack of funds being an important self- imposed constraint. AECS is managed by Govel Trust[5]. Why would Dr V not take bank loans? In the words of Dr V, "You management people will tell me, why don't you go to banks, take loans and grow faster? Cost of debt is low. But we, as a policy, will not go the banks for loans, since it will compromise our freedom" (Manikutty & Vohra, 2004). But then, the vision of Aravind was driven by empathy. Empathy and self-imposed constraints can force one to go beyond the usual options. What you then get is the chance for a break-through solution rather than incremental innovation (Mehta & Shenoy, 2012).

The sources of funds for Aravind in the initial days were personal savings and family silver. To build the first hospital, Dr V mortgaged his house, and his siblings pooled their life savings (Rs 500 each). Dr V's brother G.Srinivasan recalls, "We had to pawn jewels from the family to pay construction workers every Saturday" (Mehta & Shenoy, 2012). Later, to make the venture sustainable, Dr V took a conscious decision neither to seek donation nor raise loans from banks as first application for bank loan to start Aravind was rejected and his sole attempt at fund-raising yielded more embarrassment than riches and this lead to self-reliance being built into ethos of Aravind. At Aravind,

self-reliance is more of an ethos than an end goal. The growth has been essentially supported by internal surpluses. For example, in 2009-10, Aravind made an operating surplus of approximately $13 million on revenues of $29 million (Mehta & Shenoy, 2012). However, now AECS accepts donations both from foreign and Indian donors and is registered as a non-profit organisation (Aravind Eye Care System, 2013). Grant in aid (Rs 37.8 million) and donations (Rs 3.74 million) worked to only 9.94% of the total income of Rs 418.10 million in the year 2002-2003. Excess of income over expenditure in the same year (2002-2003) was Rs 213.39 million (Manikutty & Vohra, 2004)

Leadership at AECS

The beacon light at AECS is undoubtedly, Dr. V. He may not be in mortal frame now (he passed away on 7 July 2006 (Mehta & Shenoy, 2012)) but his vision and memory continues to inspire the next generation of leadership at AECS.

Dr Govindappa Venakataswamy (Dr. V)

Dr. V was born on 1st October 1918, one day before Mahatma Gandhi's 49th birthday, in a remote village, Vadamalapuram (Mehta & Shenoy, 2012), eighty kilometres from Madurai, Tamil Nadu, India. He began his university education in the American college, Madurai from which he graduated with a B.A. in chemistry. He received his medical degree from Stanley Medical College at Chennai in 1944.

Thereafter, he joined the Indian Army Medical Corps but had to retire in 1948 after developing rheumatoid arthritis. At one point, the arthritis became so severe that he was bedridden for over a year. For a time, he struggled just to walk and could not hold a pen in his badly crippled fingers.

Perhaps, it is this noble suffering[6] that prepared him for the mission of eradicating the curable blindness.

Despite his condition, he returned to medical school and earned his diploma and master's degree in Ophthalmology. Through his hard work

and determination, Dr. V learned how to hold a scalpel and perform cataract[7] surgery. Eventually, he was able to perform more than one hundred surgeries a day.

Dr. V joined the faculty at Madurai Medical College, a government school, where he was appointed head of the Department of Ophthalmology and later served as Vice- Dean of the college. During his period of government service, Dr. V introduced a number of innovative programmes to deal with the problem of blindness in India. He developed the outreach eye camp programmes in 1960, a rehabilitation centre for the blind in 1966, and the creation of an ophthalmic Assistants Training programme in 1973. In his clinical work, Dr. V personally performed over one hundred thousand successful eye surgeries.

In recognition of his work in the fight against blindness, Dr. V received the Padmashree[8] award in 1973 by the Government of India. This award is given to citizens, who have rendered outstanding service to their nation. In 1976, after mandatory retirement from government service at age of 58, Dr. V resolved to continue his work in eye care delivery. With support from his family, he founded Aravind Eye Hospital in Madurai, a non-profit institution dedicated to providing high quality eye care to all patients who come to its door.

Dr. V blends his spiritual life to his daily work remarkably well. As a young man, he became a disciple of Sri Aurobindo, an Indian philosopher and saint who lived in service to God and man. Aravind was founded on this principle of service and continues to be guided by it.

In 1991, as part of its Wit lectures series, Dr. V was invited to deliver an address at the Harvard Divinity School on the theme of living a spiritual life in the contemporary age. The address entitled ‘Illuminated Spirit’, has been published and read by many people.

Dr. V begins and ends every day at the hospital with a visit to the meditation room for “a silent talk with God”. In discussing his work as

a spiritual practice, Dr. V has said, “When I go to meditation room at the hospital every morning, I ask God that I be a better tool, a receptacle for the divine force. We can all serve humanity in our normal professional lives by being more generous and less selfish in what we do. You don’t have to be a ‘religious’ person to serve God. You serve God by serving humanity.”

The result of putting his philosophy into action is evident in the remarkable career of Dr. V and the growth of Aravind Eye Hospital into an internationally renowned institution since inception in 1976.

Aravind Eye Care System will remember the year 2006 as the year it lost its founder, the legendary Padmashree Dr. G. Venkataswamy on July 7. Dr. V’s life was a long dedication to serving the Divine through work in the field of eye care. His tireless vision, inspiring leadership as well as his selflessness and humility shaped Aravind into all that it is today (Aravind Eye Care System, 2013).

Going Forward: The Challenges to AECS

The success of AECS has been due to its spiritual mooring, financial discipline, “hard work, hard work and hard work”, alliance with various agencies and the art of building bridge between the profane and the spiritual.

Will it model of being philanthropic while being very successful in business terms continue? With hope the world watches. May be, the answer lies in the words of Dr. V, “My goal is to spread Aravind model to every nook and corner of India, Asia, and Africa; wherever there is blindness, we want to offer hope” (Rangan, 1994).

The success of AECS is so much tied to the charismatic personality of Dr. V that its continued growth and committed services post Dr. V’s era poses a series of questions. Will the next generation leaders be as charismatic and spiritual as Dr. V? Has AECS adopted systems that enable it to continue to grow and serve without Dr. V is flesh and blood?

With the success of the work of LAICO, which not only allows it "competitors" to copy the very system that gave Aravind its competitive advantage, but encourages then to do so, will not Aravind be not out of business? Just to cite an example, Chaitanyapur Eye Hospital near Kolkata is a "Mini-Aravind". Everything from the case sheets, receipts, operating room protocol, preparation, sterilisation and camp setup are the replica of Aravind. As a business entity would it be strategically right to develop your competitors? Traditional strategists may disagree with this "share all" concept of Aravind but management of Aravind has a refreshingly different view. "People ask why spend so much effort on training our competition," says Thulsi, laughing. "By definition, competition would mean a situation when where service supply is greater than demand. Right now that may be the case, only because the demand is only a small fraction of the need." (Mehta & Shenoy, 2012). What if all the need is converted to demand and the demand is met?

Perhaps, that day, the team at Aravind will happily hang its boot and turn towards the other challenges of life. Then, on that day the mission of Aravind to "To eliminate needless blindness" would have been truly met and the soul of Dr. V will smile from its heavenly abode.

End Notes:

1. Refraction test is an eye exam that is conducted to determine whether the patient has a refractive error (a need for glasses or contact lenses) and to determine a person's prescription for eyeglasses or contact lenses. This test is performed by an ophthalmologist or optometrist. The patient is seated on a chair that has a special device (called a phoropter or refractor) attached to it. The patient is asked to look through the device and focus on an eye-chart 20 feet away. The device contains lenses of different strengths that can be moved into patient's view. The test is performed one eye at a time. The eye doctor performing the test will ask if the chart appears more or less clear when different lenses are in place. If the patient's uncorrected vision (without

glasses or contact lenses) is normal, then the refractive error is zero (plano) and the patient's vision should be 20/20, which means the patient can read 3/8-inch letters at 20 feet. This test alternatively referred to as Eye test - refraction; Vision test - refraction; Refraction (Lusby, 2013).

2. "This man's (Dr. V's) spirituality wasn't incidental to the story. It was what everything else hinged on", (Mehta & Shenoy, 2012) wrote Dr V. Kasturi Rangan, Harvard Business School's Malcom P. McNair Professor of marketing in a case on Aravind titled "The Aravind Eye Hospital, Madurai, India: In Service for Sight", HBR Case No. 9-593-098. Rv. May 23, 1994. "When we grow in spiritual consciousness," said Dr. V, "we identify with all that is in the world. And there is no exploitation. It is ourselves we are helping. It is ourselves we are healing." (Mehta & Shenoy, 2012). Dr V was deeply influenced by Sri Aurobindo who believed that humankind is a work in progress.

3. Deepak N, Achita Khare, Juthika Kamdar, Dilip Jaiswal and Sagar Kulkarni. They bore all the expenses and willingly gave up the holidays – 15th August, Independence Day and 16th August, Varamahalakshmi festival! Two of them (Deepak and Achita) came up with a "report" of the visit, again, with just one prompt!

4. LAICO: Lions Aravind Institute of Community Ophthalmology (LAICO) was established in 1992 with the support of the Lions Club International SightFirst Program and the Seva Foundation. LAICO is Asia's first international training program provider for healthcare administrators and practitioners (blindness prevention workers) from India and other parts of the world. It contributes to improving the quality of eye care services through teaching, training, research and consultancy. R.D. Thulsiraj is presently LAICO's Executive Director (Aravind Eye Care System, 2013).

5. The name of “GOVEL” Trust is based on the names of Dr. V’s father (Govindappa), Dr. V himself (Venkataswamy) and Dr. V’s mother, Lakshmi (Manikutty & Vohra, 2004).

6. Noble suffering is human misery that drives towards insight, determination and, release. It is the knowledge that suffering is existential. The wounded healer is a person suffering from a deep, human, personal pain, who is able to perceive in his/her own plight the kernel of the universal truth about all pain and all plights, and who is accordingly sensitized to, and activated by, a lifelong calling to heal (Fleischman, 1990). As a young surgeon, Dr. V suffered from rheumatoid arthritis that left his fingers and joints gnarled permanently and with a life-long companionship with pain. “Severe pain has been my companion and it has never left me,” Dr. V once said, in a rare, raw admission. Perhaps this carved deep into him the capacity to feel the suffering of others. He was known for his heightened power of empathy and worked to eliminate the curable blindness with his training and talent to do something about it (Mehta & Shenoy, 2012).

7. A cataract is a clouding of the lens in the eye that affects vision. Most cataracts are related to aging but secondary cataracts could be due to diabetes or use of steroid. The lens is a clear part of the eye that helps to focus light, or an image, on the retina. The retina is the light-sensitive tissue at the back of the eye. In a normal eye, light passes through the transparent lens to the retina. Once it reaches the retina, light is changed into nerve signals that are sent to the brain. The lens must be clear for the retina to receive a sharp image. If the lens is cloudy from a cataract, the image seen will be blurred. The lens lies behind the iris and the pupil (See **Exhibit 3**). It works much like a camera lens. It focuses light onto the retina at the back of the eye, where an image is recorded. The lens also adjusts the eye’s focus, letting us see things clearly both up close and far away. The lens is made of mostly water and protein. The protein is arranged in a precise way that keeps the lens clear and lets the light pass through it. But as we age, some

of the protein may clump together and start to cloud a small area of the lens. This is a cataract. Over time, the cataract may grow larger and cloud more of the lens, making it harder to see. There are several causes of cataract, such as smoking and diabetes. The symptoms of early cataract may be improved with new eyeglasses, brighter lighting, anti-glare sunglasses, or magnifying lenses. If these measures do not help, surgery is the only effective treatment. Surgery involves removing the cloudy lens and replacing it with an artificial lens (National Eye Institute, 2009).

8. The Padmashree is the fourth highest civilian award in the Republic of India, after the Bharat Ratna, the Padma Vibhushan, and Padma Bhushan. Padma Awards were instituted in the year 1954. Padma Shri is awarded for 'distinguished service'; Padma Bhushan for 'distinguished service of a high order'; and Padma Vibhushan for 'exceptional and distinguished service. The award seeks to recognize work of any distinction and is given for distinguished and exceptional achievements/service in all fields of activities/disciplines, such as Art, Literature and Education, Sports, Medicine, Social Work, Science and Engineering, Public Affairs, Civil Service, Trade and Industry etc. It is conferred by the President of India at a function held at Rashtrapati Bhavan sometime around March/ April (Ministry of Home Affairs, 2013). Dr Govindappa Venkataswamy was awarded "Padma Shri" in the year 1973 for his distinguished services in the field of medicine (Ministry of Home Affairs, 2013)

Bibliography

Aravind Eye Care System. (2013). About Us - Board and Staff. Retrieved November 26, 2013, from Aravind Eye Care System: http://www.aravind.org/aboutus/stafflaico.aspx

Aravind Eye Care System. (2013). About us / Genesis/Founding Chairman. Retrieved November 26, 2013, from Aravind Eye Care System: http://www.aravind.org/aboutus/genesis.aspx

Aravind Eye Care System. (2013). Get involved/Donate. Retrieved November 27, 2013, from Aravind Eye Care System: http://www.aravind.org/getinvolved/donate.aspx

Aravind Eye Care System. (2013). Services\Hospital Services. Retrieved November 27, 2013, from Aravind Eye Care System: http://www.aravind.org/ClinicalServices.aspx

Doctor at Aravind Eye Hospital, M. (2013, August 15-16). (D. Nesarikar, & A. Khare, Interviewers)

Donald C Hambrick, J. W. (2005, November). Are you sure you have a strategy? Academy ofManagement Executive, 51-62. Retrieved August 13, 2013, from http://turbo.kean.edu/~jmcgill/havestrategy.pdf

Fleischman, P. R. (1990). Vipassana Meditation: Healing the Healer. Igatpuri, Nashik, Maharashtra, India: Vipassana Research Institute.

Govindarajan, V., & Ramamurthy, R. (2013, November). Delvering World-Class Health Care, Affordably. Innovative hospitals in India are pointing the way. Harvard Business Review.

Kangarajan, P. N. (2011, September). Prevalence of cataract blindness in rural Puducherry. Indian Medical gazette, 348-352. Retrieved January 10, 2014, from http://medind.nic.in/ice/t11/i9/icet11i9p348.pdf

Lusby, F. W. (2013, July 2). Refraction Test. (D. Z. al, Editor, U. L. Medicine, & N. I. Health, Producers) Retrieved November 30, 2013, from MedilinePlus: http://www.nlm.nih.gov/medlineplus/ency/article/003844.htm

Manikutty, S., & Vohra, N. (2004). Aravind Eye Care System: Giving them the most precious gift (R1). Case Studies - IIM, Ahmedabad. India: Indian Institute of Management, Ahmedabad. Retrieved November 20, 2013, from https://wiki.brown.edu/confluence/download/attachments/9994241/Aravind+case.pdf?version=1

Mehta, P. K., & Shenoy, S. (2012). Infinite Vision. Noida, Uttar Pradesh, India: HarperCollins Publishers.

Ministry of Home Affairs. (2013, November 21). Awards & Medals/ Padma Awards/Scheme. Retrieved November 30, 2013, from Ministry of Home Affairs: http://mha.nic.in/sites/upload_files/mha/files/Scheme-PDAWD-12.pdf

Ministry of Home Affairs. (2013, November 21). Awards & Medals/ Padma Awards/Year Wise List of Recipients - 1954 to 2013. Retrieved November 30, 2013, from Ministry of Home Affairs: http://mha.nic.in/sites/upload_files/mha/files/LST-PDAWD-2013.pdf

National Eye Institute. (2009, September). Facts about Cataract. (a. p. National Eye Institute (NEI), Producer) Retrieved November 30, 2013, from National Eye Institute (NEI): http://www.nei.nih.gov/health/cataract/cataract_facts.asp

Rangan, V. K. (1994, May 23). The Aravind Eye Hospital, Madurai, India; In Service for Sight. Harvard Business School Cases, 9-593-098. Boston, MA, USA: President and Fellows of Harvard College.

Sinha, K. (2007, October 11). India has largest blind population. The Times of India. Retrieved January 10, 2014, from http://timesofindia.indiatimes.com/india/India-has-largest-blind-population/articleshow/2447603.cms

World Health Organization (WHO). (2013, October). Media Centre/ Visual Impairment and Blindness (Fact sheet No 282). Retrieved November 27, 2013, from World Health Organization: http://www.who.int/mediacentre/factsheets/fs282/en/

Exhibit 1: Aravind Eye Hospital Locations

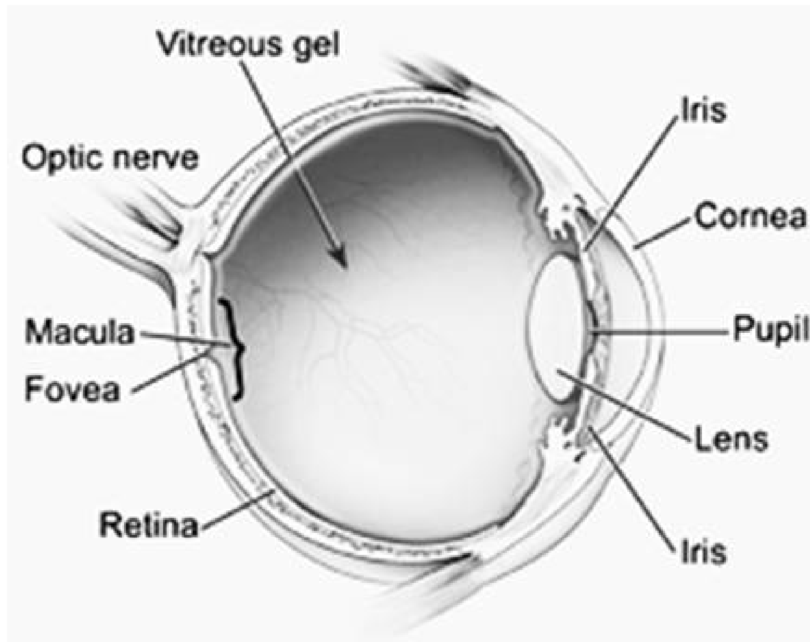
Aravind Eye System, as on November 2013, has ten hospitals at Madurai, Theni, Tirunelveli, Coimbatore, Pondicherry, Dindigul and Tirupur, Salem, Tuticorin and Udumalaipet (Aravind Eye Care System, 2013).

Exhibit 2: Income and Expense Statement of AECS

Income & Expenditure, 1997-98 to 2002-03(Rs. Million)			
Year	**Income**	**Expenditure**	**Surplus**
1997-1998	180.3	81.7	98.6
1998-1999	239.5	123.2	116.3
1999-2000	276.3	143.2	133.1
2000-2001	340.4	156.6	183.8
2001-2002	388.0	177.5	210.5
2002 - 2003	423.7	204.7	219.0

Source: "ARAVIND EYE CARE SYSTEM: GIVING THEM THE MOST PRECIOUS GIFT (R1)" Prepared by Profs. S. Manikutty and Neharika Vohra of the Indian Institute of Management, Ahmedabad, 2003. Revision 1: 2004.

Exhibit 3: Cross Section of an Eye



Cataract is caused due to clouding of the lens. Lens is between iris and the pupil and helps to focus the light on the retina which is the nerve centre. The light is transmitted into nerve signals and transmitted to the brain through optical nerves. (National Eye Institute, 2009)