



Activity Report – 1990
Aravind Eye Hospitals
& Aravind Children's Hospital



A divine life in a divine body is the formula of the ideal that we envisage. But what will be the divine body? What will be the nature of this body, its structure, the principle of its activity, the perfection that distinguishes it from the limited and imperfect physicality within which we are now bound? What will be the conditions and operations of its life still physical in its base upon the earth by which it can be known as divine?

It is indeed as a result of our evolution that we arrive at the possibility of this transformation. As Nature has evolved beyond Matter and manifested Life, beyond Life and manifested Mind, so she must evolve beyond Mind and manifest a consciousness and power of our existence free from the imperfection and limitation of our mental existence, a supramental or truth consciousness and able to develop the power and perfection of the spirit. Here a slow and tardy change need no longer be the law or manner of our evolution; it will be only so to a greater or less extent so long as a mental ignorance clings and hampers our ascent; but once we have grown into the truth consciousness its power of spiritual truth of being will determine all. Into that truth we shall be freed and it will transform mind and life and body. Light and bliss and beauty and a perfection of the spontaneous right action of all the being are there as native powers of the supramental truth-consciousness and these will in their very nature transform mind and life and body even here upon earth into a manifestation of the truth-conscious spirit. The obscurations of earth will not prevail against the supramental truth-consciousness, for even into the earth it can bring enough of the omniscient light and omnipotent force of the spirit to conquer. All may not open to the fullness of its light and power, but whatever does open must to that extent undergo the change. That will be the principle of transformation.

- Sri Aurobindo

'We are pleased to present the Aravind Eye and Children's Hospitals' Activity Report for the year 1990. This has been a year of remarkable accomplishments, both for the Eye Hospitals and the Children's Hospital. None of these would have been possible without the enthusiasm and dedication of our staff and supporters. We thank you all and invite you to join with us in

Celebrating Sight and Health 1990'.



Celebrating Sight and Health 1990 !

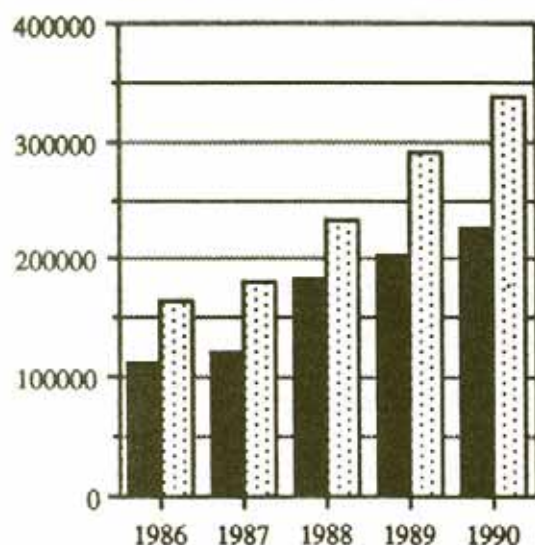
During 1990, Aravind Eye Hospitals provided high quality care for more than half a million eye patients, over 60% of whom paid nothing. Beginning in a rented facility with twenty beds, the hospital has grown to include four major facilities with over 1300 beds, Outpatient and Surgical facilities to provide the most advanced and comprehensive ophthalmic care. All this has been made possible through the leadership of Dr. G. Venkataswamy and the dedication of the staff at every level. Each shares a commitment to quality care for every patient, whatever their needs or ability to pay. The success of Aravind Eye Hospitals is based on careful attention to five principles:

- Development of effective social marketing to reach those who need eye care;
- Training of appropriate staff and their optimal use;
- Attention to quality;
- Promotion of efficiency in order to serve large number of patients; and
- Limiting costs in order to achieve self sufficiency.

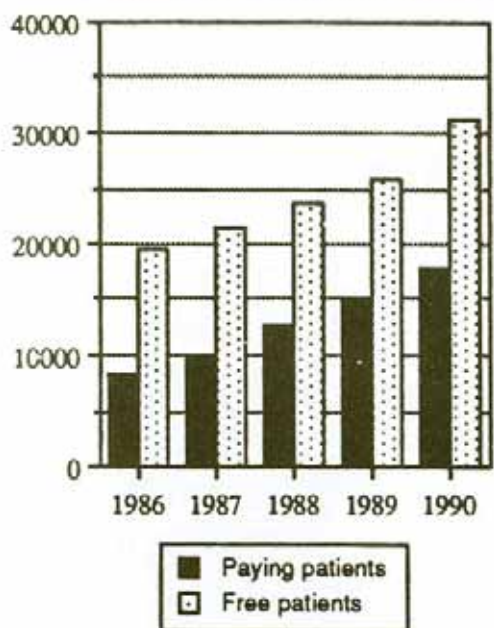
Yet more important than these, is the faith and certainty that it is possible to make the world a better place and thus bring light to those in darkness.

The hospital's future encompasses many exciting new dimensions of service to enhance in-patient and out-patient modes of care. Integral to the hospital's role as a major teaching, regional and tertiary referral centre, is a philosophy which emphasizes innovative, dynamic programs and dedication to service which makes quality eye care available to all segments of the community.

Out-Patient Visits 1986-90



Number of Surgeries 1986-90



Aravind Facilities

Eye Hospitals:

Aravind - Madurai

Founded in 1976 as a 20 - bed clinic, Aravind - Madurai has now grown into a twin hospital complex, with facilities for training and research. The speciality clinics are

- Retina & Vitreous Services
- Neuro-ophthalmology Services
- IOL Clinic
- Cornea Services
- Paediatric Ophthalmology Services
- Glaucoma Services
- Ocular Microbiology & Pathology Clinic

Paying section - 325 beds
Free section - 450 beds

Aravind - Theni

Slowly gaining prominence, this is the major eye hospital for a population of one million people living within a radius of 50 kms from the hospital. The services and facilities offered here equals in quality to those offered at the base hospital in Madurai.

Paying section - 40 beds
Free section - 60 beds

Aravind - Tirunelveli

Aravind - Tirunelveli inaugurated in February 1988, is a near replica of the base hospital in Madurai. Staffed by a team of dedicated doctors and nurses trained at the base hospital, this hospital serves people in and around Tirunelveli, V.O.Chidambaranar and Kanyakumari districts. Through the unique programme called the 'Village Cataract Awareness Programme', Aravind - Tirunelveli selects and trains volunteers from various social service organizations to identify cataracts and bring the patients to the hospital.

Paying section - 200 beds
Free section - 200 beds

Aravind Child Care Programmes: Madurai

Aravind Children's Hospital

Founded in 1984, Aravind Children's Hospital represents a commitment to the prevention of blindness in children through the provision of broadly based paediatric services. The Children's Hospital seeks to promote health and prevent disabling disease by conducting research,



The new out-patient wing seen behind the main paying hospital

facilitating community involvement, and providing curative services. Modest in comparison to the Eye Hospital in staff and in the number of patient visits, it is striving to develop model systems of community health and organization which, if successful, could later be introduced on a larger scale.

Apart from the hospital based patient care, ACH also conducts -

- Rural Outreach Programme
- Urban Slum Programme
- Prenatal and Postnatal Care

Aravind Medical Research Foundation - Madurai

Though founded as a separate organization in 1984, it works very closely with the various research programmes of Aravind Eye and Children's Hospitals. It provides the necessary technical support and research skills to ensure the integrity and scientific rigour of research projects. The following projects were in progress in 1990.

- Vanadium Stainless Steel Suture project
- Low cost Suture Production
- Salt Pan Keratitis

Aravind Education Programs - Madurai

Medical Education:

Aravind is recognised as a teaching hospital by the Medical Council of India, National Board of Examinations. It is affiliated to the Tamil Nadu Dr. M.G.R. University. Medical Courses offered at Aravind are:

- Diploma in Ophthalmology
- Diplomate of the National Board
- Post-residency (M.S) sub-speciality fellowships in
 - Retina and Vitreous Diseases
 - Corneal Diseases
 - Intraocular lens implantations
 - Paediatric Ophthalmology



Rural Outreach Programme

Ophthalmic Nurses Training:

An important reason for the hospital's low costs and high quality is the efficiency of Aravind's ophthalmic nurses who receive training appropriate to their job requirement. Twice in a year, Aravind interviews and recruits 25 high school graduates and trains them in basic nursing with special focus on ophthalmic care. After the basic training, they are divided into groups for specialized training as theatre nurse, ward nurse, lab assistants and refractionists. This on-the-job training is for three years.

WHO Fellowship:

The World Health Organization has recognized Aravind as a training centre for eye health professionals from other countries.

Masters in Hospital Management Program (MHM):

Madurai Kamaraj University in collaboration with Aravind Eye Hospital offers this two year course leading to masters degree in hospital management. The training curriculum for this program was developed by Aravind with the assistance of Prof. Fred Munson of the University of Michigan. This course was started in 1989 with 10 students in the first batch. In 1990, the number was increased to 25 for the second batch.

Aravind Statistics

Aravind Eye Hospitals

	Madurai	Tirunelveli	Theni	Total
Hospital Out-Patient visits	247,180	85,704	28,961	361,845
Eye Camp Out-Patient visits	126,301	5,773	19,767	203,805
Total Out-Patient visits	373,481	143,441	48,728	565,650
Screening Camps	428	343	113	884

Cataract & other Lens Removal Procedures (without IOL)	22,704	6,734	1,975	31,413
Intra Ocular Lens (IOL)	6,876	1,194	199	8,269
Trabeculectomy	323	44	23	390
Retinal Detachment	340	1	-	341
Vitreous Surgery	206	-	-	206
Membranectomy	42	1	1	44
Squint Correction	206	-	-	206
Keratoplasty & Therapeutic Grafting	75	-	-	75
Ptosis	21	-	-	21
DCR,DCT & other septic operations	1,368	870	137	2,375
Pterygium	279	190	45	514
Other Surgical procedures	1,798	571	177	2,546
Laser & Xenon Photocoagulation	1,405	-	-	1,405
Yag Laser	1,062	191	-	1,253
Total Surgery	36,705	9,796	2,557	49,058

Out-patient visits	- Paying	153,857	51,119	22,267	227,243
	- Free	219,624	92,322	26,461	338,407
Surgery	- Paying	15,114	2,173	609	17,896
	- Free	21,591	7,623	1,948	31,162

Aravind Children's Hospital

Out Patient visits	21,399	Total Immunizations	2,963
In Patients	90	No. of pregnant women seen at the Ante-natal clinics	305
Children's Camps	85		
Cases seen in the camps	6,981		

Camps conducted in 1990

Name of Organisation	No. of camps	Total out-patients	Cataract	Other surgery	Total
Lions Clubs	83	31534	3121	92	3213
Vivekananda Kendra	172	29253	2626	322	2948
Bhagavan Sri Sathya Sai Seva Orgn. Trusts	22	8696	1620	36	1656
Hospitals	19	8449	1452	22	1474
Rotary Clubs	38	7909	1305	81	1386
Mills & Factories	35	12275	1257	36	1293
Schools and Colleges	36	9674	1020	48	1068
Aathi Parashakthi	103	16349	941	63	1004
Youth Associations	16	7421	918	17	935
Banks	77	10336	638	33	671
ASSEFA	48	8286	595	68	663
Other Religious Organisations	12	1198	67	3	70
Others	72	14712	1316	44	1360
	151	37713	2984	127	3111
Total	884	203805	19859	993	20852

Record Breakers

- At the camp organised at Chittur by Palakkad District Sericulture Farmers Welfare Society on 23rd and 24th September 1990
Total Outpatients - 6144
No. operated for cataract - 498
- At the camp organised by MGM & NSIT Trust at Namakkal on 26th May 1990
Total Outpatients - 2203
No. operated for cataract - 454



Patients lined up at 7.30 am in front of the campsite at Chittur

Events



Dr. G. Venkataswamy inaugurating the Ocular physiotherapy clinic

Aravind at Ganeshpuri

A camp was organized by the Mukhthananda Ashram under the guidance of David Green of Seva Foundation at Ganeshpuri near Bombay in March. Dr. Ramakrishnan, Dr. Sielda Gomes and two nurses participated in it. During the 10 days that the camp was held, more than 7000 patients were seen and 237 cataract surgeries were performed of which most were with IOL implantations.

ASSEFA and Aravind join hands

On the 30th of March, a combined meeting between members of Association of Sarva Seva Farms (ASSEFA), an integrated rural development agency and Aravind staff was held. Work done by both organisations were presented and discussions held on how the two organisations could work together towards their common goals. ASSEFA invited the Aravind Children's Hospital staff to conduct a survey on the prevalence of Vitamin A deficiency in the rural areas of Natham block.

Nutrition Society

The 19th Chapter of the Nutrition Society of India was inaugurated at Aravind by

Dr. Rajammal Devadas, under the chairmanship of Dr. M. Lakshmanan, the Vice Chancellor of Madurai Kamaraj University.

Dr. G. Venkataswamy and Dr. Tara Natarajan, Dean, Madurai Medical College spoke at the Scientific Session on Anaemia and Vitamin A deficiency.

Inauguration of the Ocular Physiotherapy Clinic

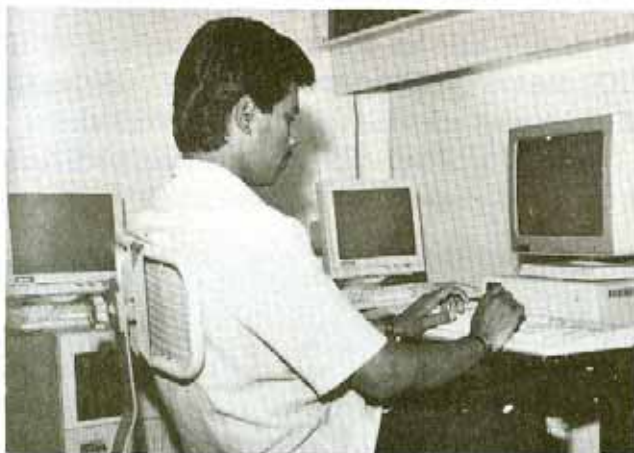
With assistance from Dr. Shyam Kumar and Ms. Santosh Poddar of 'School for Perfect Eye Sight' at Sri Aurobindo Ashram at Pondicherry, the Ocular Physiotherapy clinic was started at Aravind on the 2nd of April. Ocular Physiotherapy is aimed at generating an awareness of correct use of eyes, through a series of eye muscle relaxation exercises.

Out-patient clinics move into the new wing

Following the inauguration of the ocular physiotherapy clinic in the new wing, all the out-patient clinics moved in, in July. The staff of all clinics appear both comfortable and efficient with better clinic layout and smooth patient flow. The spacious and separate waiting areas for each department are well appreciated.



The new out-patient waiting area



Programmer Ganesh using the new computer based network system

Computer Network

In July, Aravind set up a Local Area Network based computer system from which one can access and use data and programs in the fileserver kept in the main Computer Room. Mark Green, a Seva volunteer from Los Angeles, USA installed a printer utility which facilitates sharing of printers from different workstations and a database software. He also provided a lot of guidance and training to the computer section staff, in using this new system. The network operating system was donated by Novell Inc., USA and the data management software - 'Advanced Revelation' was donated by Revelation Technologies for both of which Aravind is grateful.

Hospital Annual Day

The "Hospital Annual Day" was celebrated on 17th September 1990. The staff of Aravind participated in a variety entertainment program. The function's highlight was the presentation of mementos to Dr. Taraprasad Das and nurses Indrani, K. Subbalakshmi and Maheswari for having served the hospital for over ten years.

Aravind Institute Planning Meeting

Aravind eye hospital plans to set up an institute of community ophthalmology at Madurai, with technical assistance coordinated by Seva Foundation of USA, to provide training skills and orientation necessary for delivery of eye care on a large scale. A planning meeting was held at the hospital on the 23rd and 24th of October, to specify the mission and goals of the institute and to outline an action plan for setting it up within the next 18 months. In addition to the Aravind senior staff, the following were present at the meeting:

Dr. Ram Dass, Director, Seva Foundation, U.S.A.

Dr. Suzanne Gilbert, Executive Director, Seva Foundation, U.S.A.

Eddie Hauben, Volunteer, Seva Foundation, U.S.A.

Dr. Alan Morinis, Director, Seva Foundation and Seva Service Society, Canada.

Dr. Fred Munson, Prof. of Hospital Administration, Univ. of Michigan, U.S.A.

David Green, Technical Assistance Director, Seva Foundation, U.S.A.

Dr. Pararajasegaram, Consultant, WHO, New Delhi, India.

Interplast Surgeons' visit to Madurai

'Interplast' is a non-profit service organisation of plastic surgeons who volunteer their services worldwide to the poor who need, but cannot afford the cost of plastic surgery.

The team consisting of Dr. Nievergelt and Dr. Baerwald (Plastic surgeons) Dr.(Mrs) Nievergelt (Pathologist), Dr. Gorbach (Anaesthetist), Mr.Sander (Medical student) and Mrs. Margit Pauss (Nurse) was at Madurai from the 19th to 29th of November. Dr. Sam C. Bose of Grace Kennett Hospital and Dr. P. Vijayalakshmi of Aravind coordinated the free surgeries. A total of 48 plastic surgeries were performed at Aravind, out of which 20 cases were various deformities of the eye while the rest were general plastic surgery cases.

Highlights 1990

International Congress of Ophthalmology (ICO) meeting - Singapore:

In March, a team of six doctors and the administrator of Aravind attended the XXVIth International Congress of Ophthalmology held at Singapore from 18th to 24th March. The Aravind team participated in over ten scientific sessions, many of them in the plenary session.



Dr. Natchiar received the First Prevention of Blindness Merit Paper Award for her presentation of Model for High Quality and Large Volume Cataract Surgery in Developing Countries'.



R. D. Thulasiraj at the Panel Discussion on 'Efficient Cataract Services'



Dr. G. Venkataswamy at the Panel Discussion on 'Cataract: Surgical Problems and Techniques'

38th Annual Conference of the TNOA at Aravind - Tirunelveli

Aravind-Tirunelveli had the privilege of hosting the 38th Annual Conference of the Tamil Nadu Ophthalmic Association from 7th to 9th September. The hard work and meticulous planning that had gone into the conducting of the conference under the direction of Dr. R. D. Ravindran as the organising secretary, was all too evident. The organising committee had support from all corners, especially the doctors, administrative staff, trainees and MHM student volunteers from Aravind-Madurai.

The conference was attended by over 250 ophthalmologists and 30 trade delegates. All arrangements, inside and outside the conference halls, were of a high order. Preview facilities to the participants was made available for the first time in a state conference and was highly appreciated. One more feather in the cap was Dr. R. D. Ravindran receiving an award for enrolling the maximum number of members to the TNOA.

Vitamin A Project report published in New England Journal of Medicine

The Ford Foundation funded the study to determine the effect of Vitamin A on morbidity and mortality in preschool children. The study established a very strong correlation between intake of Vitamin A and mortality. The mortality rate in children receiving Vitamin A was less than half. This has been hailed as a landmark study in Vitamin A and the results were published in the October 4th, 1990 issue of the prestigious New England Journal of Medicine.



Dr. Govindarajan, TNOA Secretary and Dr. R. D. Ravindran at the 38th Annual Conference of TNOA



Dr. Lakshmi Rahmathullah, the Principal Investigator of the study with social worker Vasanthi

Research Activities

Several research projects are initiated at Aravind which have the potential of improving eye care and its delivery. These projects reflect Aravind's commitment to finding new ways to reduce needless blindness in India.

Aravind is grateful to the following organizations which have supported Aravind's research projects in the form of research grants, technical guidance and assistance.

World Health Organization (WHO), Geneva
National Eye Institute (NEI), USA
Ford Foundation, USA
University of Michigan, USA
ICMR, New Delhi
Aravind Medical Research Foundation

VSSS Project

The VSSS Project still in progress was reviewed on the 17th May 1990 by its data monitoring committee.

(The Vanadium Stainless Steel Suture Project is a clinical trial to evaluate the safety and efficacy of VSS sutures against conventional silk sutures in cataract surgery. This study is approved by Government of India and funded by World Health Organization (WHO) with support from National Eye Institute, USA.)

The meeting was attended by the Committee Members - Dr. C.P. Gupta from Madras, Dr. Barbara Underwood from NEI, USA and Mr. Ramanujam, Statistician from Gandhigram, Dr. G. Venkataswamy, Dr. P. Namperumalsamy, Dr. M. Srinivasan, R.D. Thulasiraj and Raheem Rahmathullah from Aravind and Dr. Dominic Negrel from World Health Organisation.

The study continues to generate high quality data. Most noteworthy is that 97% of the 3,547 patients enrolled in the study have been followed up.

Salt Pan Keratitis

Salt Pan Keratitis is a non-infective superficial keratitis involving the exposed parts of the cornea, among the salt pan workers. This study to determine the prevalence was carried out in V.O.Chidambaranar district in Tamil Nadu which is a major salt producing area. As control, non workers living in the same village as the salt pan workers were taken up for this study. Past workers were also included. The prevalence of salt pan keratitis was 26 times higher amongst the workers when compared to non workers. The study also established that it occurs more amongst men and in those engaged in "scraping" work. There was also a geographic clustering of cases with saltpan keratitis.

As the salt pan keratitis cases are not amenable for medical treatment and advanced cases may have to be given a corneal transplant, the following preventive measures were suggested:

1. An annual ophthalmic medical checkup of all the workers.
2. To wear "goggles" while at work to avoid salt water, salt particles and other dust from getting into the eye.
3. Health education of the workers to overcome possible reluctance to use goggles.

The above study was taken up in collaboration with the Salt Department of the Government of India and Tamil Nadu and Tamil Nadu Regional Advisory Board for Salt.

In appreciation . . .

Aravind's growth in the past year would not have been possible without the dedication of our staff and the assistance of the following organizations. Aravind is grateful for the contribution of their time and support.

Sight Savers, UK

Their firm and steadfast support since the hospitals' beginning in 1976 has helped Aravind meet several challenges. Their support enabled Aravind to expand its free services and to increase the number of eye camps and free surgery. They have supported 740 eye camps and 17,600 surgeries in 1990.

- Since assuming charge as Field Director of Sight Savers (RCSB), Dr. Nagarajan has visited regularly, to share with Aravind, new ideas and strategies to strengthen the work in the area of needless blindness.
- Dr. Gopa Kothari from Sight Savers was at Aravind to review the activities of the children's hospital.



Minibus donated by Sight Savers to Aravind for conducting camps

Seva Foundation, USA Seva Service Society, Canada

Aravind has forged strong bonds with Seva which has so whole-heartedly teamed up in Aravind's efforts in the war against blindness. Seva enriches Aravind's resources by widening Aravind's access to latest technology and sending volunteers who are experts in various fields to the hospital.

- Ram Dass, Suzanne Gilbert, Alan Morinis and David Green of Seva Foundation were at Aravind to participate in the Aravind Institute Planning meeting held on the 23rd and 24th of October.
- Dr. G. Venkataswamy and R. D. Thulasiraj were in the US in June 1990 to attend the Seva Board meeting. They also visited other American voluntary agencies and institutes that collaborate with Aravind's work.
- R. D. Thulasiraj became a member of the Board of Directors of Seva Foundation in October.

Helen Keller International (HKI), USA

HKI continues to support the Masters in Hospital Administration (MHM) Program. The second batch of 25 students joined in July 1990. HKI sponsored Prof. Munson's visit to Aravind.

Direct Relief International (DRI), USA

DRI plays a prominent role in helping Aravind make important strides in treating eye disease. Aravind would lose valuable time and money, but for DRI which helps in shipping and customs passage of donated medical supplies and sophisticated medical equipment under the Indo-US agreement.

- Katy Wyckoff from DRI visited Aravind in April during her visit to India.

Action Health 2000, UK

Action Health 2000 continues to coordinate the placement of medical volunteers and medical students on elective program from England. They help with the outreach work at Aravind Children's Hospital.

Aravind Jyoti

This voluntary organization is formed at Aravind by a small group of local women under the active leadership of Mrs. Ranna Shroff. Apart from running the shop at the hospital, it also helps to raise funds from the paying in-patients to meet the cost of feeding the poor patients.

Aravind conveys its gratitude to the individual volunteers who help us out each and everyday, talking to the patients and helping out wherever the workload is heavy.



Volunteers Mr. Rengaswamy and Ms. Mangalam, lending a helping hand at the Reception

Visitors & Volunteers

Volunteers:

- Prof. Fred Munson of the University of Michigan was at Aravind for about 5 weeks teaching a course on Personnel Management to the MHM (Masters in Hospital Management) students. He was accompanied by his wife Mary who helped in designing and furnishing some of the patient rooms.
- Mr. V.A. Desai, visiting professor from Miraj, Maharashtra was here again this year, under Aravind sponsorship for 3 weeks to teach Hospital Administration.
- Meg Swainson took classes on general nursing and helped in producing several teaching videos.
- Nathan Munson helped in the latter stages of producing the 1989 Annual Report. He also helped to develop a project addressing patient barriers to receiving eye care by using previous patients as motivators.
- Michael Drummond, University of Birmingham, UK and Terrence Gillen, National Eye Institute, USA were at Aravind to study the economic aspects of cataract blindness
- Dr. Pararajasegaram and Dr. Brodhead from Ottawa, Canada spent three days at Aravind as the evaluators of CIDA funded projects.
- Dr. Frank D. Cirisano from Columbia Medical School, and Dr. Carol Lynn Karp, University of Michigan, USA did a study on " Identification of motivational elements common and dissimilar to the paying and free cataract patient populations of Tamil nadu".
- Jill Joseph and Joanne Natale, epidemiologists from the University of Michigan were here to teach a course in epidemiology to the first year MHM students.
- Francesca Mattone Volpe, Paediatric resident, Massachusetts General Hospital, Boston, USA worked in the Children's Hospital.

Volunteers from Seva Foundation, USA

Dr. Richard Litwin, Ophthalmologist, California
Dr. David Sachs, Ophthalmologist, California,
Dr. Randy Bergen, Paediatrician and Mrs. Cathy Chilcott, a paediatric nurse - volunteers from San Lorenzo
Mr. Dan Dunlap, from California

Volunteers from Action Health 2000, U.K.

Ms. Katrina J. Cockburn and Jonathan Dickson

Visitors:

- Dr. Michel Laflamme, Ophthalmologist and Dr(Mrs) Laflamme from Montreal, Canada
- Dr. Chandrasekar Shetty from Minto Ophthalmic Hospital, Bangalore
- Dr. C. P. Gupta, Madras Medical College
- M. Thangaraj, Madras Institute of Ophthalmology
- Dr. M. Thangavelu
- Dr. Bijayananda Patnaick, New Delhi
- Dr. P. N. Nagpal, Retina Foundation, Ahmedabad
- From Venu Eye Institute: Dr. R. K. Sethi, Ms. Tanuja Joshi and Dr. S. Gupta
- Dr. George M. Martin, Director, Alzheimer Disease Research Centre, University of Washington, USA
- Tom Schatzky, CIDA, Canada
- Five participants from Global Links, USA
- Mr. Soli Luth, Executive Officer, NAB, Delhi.

Education Programmes

To stay abreast with the advancing world of medicine and to accentuate superior quality of patient care and cost containment, Aravind has developed its own continuing education programmes. Aravind's fellowship programmes and postgraduate education programmes draw post-graduates and medical residents from all over the country.

Fellows, postgraduates and senior house surgeons who joined Aravind in 1990:

Fellowship in Cornea

Dr. K. Madhukar Reddy Dr. Prabjot Channa

Fellowship in IOL

Dr. Joag Yashashri Dr. Anitha Thalekkare
Dr. A. Venkatachalam

Fellowship in Paediatric Ophthalmology

Dr. Adke Santosh Shankar Rao

Fellowship in Retina

Dr. Vidyut Shah Dr. K. Lakshmanmurthy
Dr. D. Dwarak Nath

D. O. Students:

Dr. R. Kim Dr. R. R. Manohar
Dr. M. T. Ramesh Dr. V. Narendran
Dr. G. Arunagiri Dr. K. M. Selvakumar
Dr. R. Ramesh

Senior House Surgeons

Dr. J. Lakshmanan Dr. N. V. Prajna
Dr. S. Kalpana Dr. V. S. Venkatraghavan
Dr. J. Damaris Magdalene Dr. P. Sasikumar
Dr. S. Shoba

Visiting residents:

Each year Aravind receives a number of residents from abroad who come here as part of their training. They share and exchange ideas and techniques as they observe the diagnosis, treatment, surgeries and nursing methods followed at Aravind.

Residents who were at Aravind in 1990:

University of Illinois, Chicago, USA.

Dr. Jennifer Dr. Terri Young
Dr. Howard Dr. Robert Urban
Dr. Harmeet Chawla Dr. Susan Letchinger
Dr. David Malitz Dr. Michael F. Shabbaz

Mass Eye and Ear Infirmary, Boston, USA

Dr. Eleanore Ebert Dr. Deborah Jacobs
Dr. Nicholas Volpe Dr. David Hunter
Dr. Peter Netland

Brookdale Hospital Medical Center, New York, USA

Dr. Lori J. Tindel, Dr. Phyllis Weingarten

St. Vincents' Hospital, New York, USA

Dr. Gregory Kent, Dr. Susan Fromer,
Dr. Timothy McDevitt Dr. Sylvia Kodsi,

University of Oklahoma, USA

Dr. Sushant Sinha

Sinai Hospital, Detroit, USA

Dr. Leslie Grosinger

Monongalia Eye Clinic, Morgantown, USA

Dr. William Benson,

Columbia Presbyterian Medical Centre, USA

Dr. Alexander Eaton

Pacific Presbyterian Medical Centre, San Francisco, USA

Dr. Marc F. Libermann, Glaucoma surgeon visited Aravind and conducted classes for our residents and postgraduates.

On WHO Fellowship

From Sri Lanka:

Dr. S.C.Wimalasundara Dr. W.M.S.K.B.Weerakoon

From Myanmar:

Dr. Daw May Thu aung Dr. Daw Than Myint
Dr. Chit Maung Dr. U. Yanthein

From Indonesia:

Dr. Samuel Robert Dunu Mrs. Miatual Chumro
Mr. Mohammed TANG

From Maldives:

Mrs. Aminath Latheefa, for training in ophthalmic nursing

On HKI Fellowship

From Indonesia:

Dr. Ghozi Mr. Umarshirmohamed

From Central Tibetan Relief Committee, Dharamsala:

Ms. Dolkar Tsering, for training in ophthalmic nursing.

Conferences held at Aravind

Aravind conducts frequent conferences, lectures by guest speakers and group discussions to help address the current needs and provide continuous medical education.

Symposium on Diabetes and the Eye

Last February, a symposium on Diabetes and the Eye was held at Aravind by the Retina and Vitreous Service on the 17th and 18th. The guest faculty were:

Dr. Babu Rajendran and
Dr. P. Janakiraman, TERF, Vijaya Hospital, Madras
Dr. Chandran Abraham, Sankara Nethralaya, Madras
Dr. Ashok K Das, JIPMER, Pondicherry

Meeting of expert committee on Vitamin A

On 18th May, an expert committee on vitamin-A met to discuss future strategies on dissemination of information on vitamin-A to policy makers, workers in the field and beneficiaries. The expert committee consisted of

Dr. Saroj Pachauri, Ford Foundation, Delhi
Dr. Barbara A. Underwood, NEI, USA
Dr. Peeran, Deputy Director of Public Health and Preventive Medicine (Research) Tamil Nadu Government
Dr. Nirmala Moorthy, IIM, Ahmedabad
Dr. Shiela Vir, UNICEF, Delhi
Dr. G. Venkataswamy,
Dr. (Mrs). Lakshmi Rahmathullah and
R. D. Thulasiraj from Aravind.

The meeting started with the presentation of Aravind Eye and Children's Hospitals' research project "Effect of an improved intake of vitamin-A on morbidity and mortality among children 6 months to 60 months of age". It was shown that vitamin-A was most protective against mortality in the younger age group of under 3 years. Two video cassettes - one on NRC taken by Doordarshan Madras and the other prepared by UNICEF on vitamin-A deficiency were also presented.

During the discussions it was felt that there is a need to give more publicity to the information generated by the research study as it indicated a much wider implication of vitamin-A deficiency

than hitherto suspected. Its special relevance to effect on mortality places vitamin-A as an important consideration in child survival strategies. It was recommended that workshops should be organized for people working in the field of Primary Health Care. Training on vitamin-A deficiency could be organized by Aravind Eye and Children's Hospital for field workers. Educational material have to be developed for the use of beneficiaries. It was felt that there was a need to involve the media people in developing messages. The present messages are very general and more specific messages need to be developed to bring about changes in diet to include Vitamin A rich foods.

Symposium on Parsplana Surgery for Anterior and Posterior Segment Disorders

On July 28th and 29th, Aravind hosted a Symposium on Parsplana Surgery for Anterior and Posterior Segment Disorders. Directed by Dr. P. Namperumalsamy and the doctors in the Retina Service, the conference was well attended by more than 60 doctors and postgraduate students from Tamil Nadu and other states. Guest faculty included Dr. Babu Rajendran, TERF, Madras, Dr. Lingam Gopal, Sankara Nethralaya, Madras and Dr. P.N. Nagpal, Director, Retina Foundation, Ahmedabad.



Dr. Taraprasad Das, Dr. L. Gopal and Dr. P. Namperumalsamy at the Symposium.

38th Annual Conference of the Tamil Nadu Ophthalmic Association

Aravind-Tirunelveli hosted the 38th Annual Conference of the Tamil Nadu Ophthalmic Association from 7th to 9th September. Participation in the academic activities of the conference by Aravind doctors was in no small measure. While the guest lecture by Dr. G. Venkataswamy on *New trends in ophthalmic practice* was an eye opener to many, the contribution of other doctors in the form of free paper presentations and instruction courses was of high quality.

Dr. P. Namperumalsamy
Fundus and scleral depression -Advantages Rationale and Technique of Scleral buckling - Implant technique

Dr. G. Natchiar
Posterior capsule opacification - prevention and management

Dr. M. Srinivasan
Morphology of ocular fungus and lab diagnosis Can bindi cause corneal ulcer? - Free paper

Dr. Taraprasad Das
Indirect ophthalmoscopy - instrumentation and practice
Photocoagulation in Eales' disease - Results of prospective randomised study - Free paper

Dr. Ramakrishnan
Management of secondary glaucoma in ocular trauma in the symposium on ocular trauma.
Bilateral extensive persistent pupillary membrane management with Yag Laser- A case report - Free paper
Pseudophakic pigmentary glaucoma - Free paper

Dr. S. Manohar
Complications and prognosis in Retinal Detachment surgery

Dr. K. Madhukar Reddy
Mitomycin eye drops as an adjuvant in preventing recurrence of pterygium

Dr. R. Kumaraswamy
Study of surgically induced corneal astigmatism after cataract surgery

IOL Symposium and Workshop

The much awaited IOL symposium and workshop was held on 3rd and 4th of November. There were many delegates from various parts of the country. Dr. G.Natchiar, Dr. M. Srinivasan, Dr. P.Vijayalakshmi and Dr. R.D.Ravindran from our hospital and Dr. Satish Gupta from L.V. Prasad Eye Institute, Hyderabad were the faculty members. IOL fellows Dr. Yashashree Joag and Dr. Anitha Thalakare presented papers. Delegates were shown various surgeries like primary and secondary implants in adults and children. Delegates also had microsurgical workshop, hands on experience in using keratometer, ultrasound and examining various patients.

Conferences attended. . .

48th Annual Conference of the All India Ophthalmological Society,
Ahmedabad,
January 5th to 8th.

- Dr. P. Namperumalsamy
Convenor of the course *Post Operative Endophthalmitis*
Symposium on *Lasers in Ophthalmology*
Vascular diseases - EALES
- Dr. G. Natchiar
IOL Surgery - Complications
Evaluation of Cataract - Historical review in the
Symposium on *Cataract Surgery in 1990s*
- Dr. T. P. Das and Dr. P. Namperumalsamy
Pseudophakic Retinal Detachment
- R.D. Thulasiraj
Operations Research Approach to Reduction of
Cataract Blindness and overcoming the Barriers to
surgery
- Dr. P. Vijayalakshmi
Symposium on Strabismus Management
- Dr. R. Ramakrishnan
Bilateral extensive persistent pupillary membrane
management with N.D. Yag Laser - a video presentation
- Dr. R.D. Ravindran, R.D. Thulasiraj and
Dr. C.A.K. Shanmugam
Community Based Referral System for Cataract Surgery
- Dr. T. P. Das
Management of Retinal Detachment
(Newer Technique) - Round Table Meeting
- Dr. R. D. Ravindran
Cataract surgery in Eye Camps in 1990's
in the symposium on cataract surgery in 1990's

National Workshop on AIDS
organised by ICMR at Tirunelveli.

XXVI International Congress of Ophthalmology ,
Singapore,
March 18th to 24th



Dr. P. N. Namperumalsamy at the Schepen's Alumni meeting at Boston

- Dr. R. D. Ravindran
Ocular Manifestations of AIDS
- Dr. G.Venkataswamy
Cataract eye camps in India - Future
Case for IOL - Plenary Session
- Dr. P.Namperumalsamy
Vitreous Surgery in Eales Disease - When and Why
- Dr. G. Natchiar
Model for high quality and large volume cataract
surgery in developing countries.
Pitfalls in the Diagnosis of Neuro-Ophthalmic Conditions
Instructor in Course on 'Mobile eye camps'
- Dr. P. Vijayalakshmi
Posterior Chamber Implants in Children - Follow-up
Study on 150 Cases
- Dr. Taraprasad Das (Dr. Nagappan attended the conference
in place of Dr. Das)
Photocoagulation in Eales' Disease - Results of Prospective
Randomized Study
- R.D.Thulasiraj
Efficient Cataract Services - Panel Discussion in Plenary
Session
Instructor in Course on 'Mobile eye camps'
- Dr. R.D. Ravindran
Community Based Referral system for Cataract Surgery

- Workshop on Health Care Financing**
Organized by Voluntary Health Association of India in collaboration with Ford Foundation, Simla, May 1st.
- Schepen's Alumni Meeting**
Boston, USA
June 9th and 10th
- 40th Anniversary of India Partners' meeting**
Organised by Sight Savers at New Delhi
June 27th and 28th
- Workshop on "Cataract Surgery"**
L.V. Prasad Eye Institute, Hyderabad,
June 30th and July 1st
- "Management of Craniopharyngioma"**
Meeting organised by Bombay Hospital Institute of Medical Sciences, Bombay
July 21st
- Symposium on "Diabetic Retinopathy"**
JIPMER, Pondicherry,
August 25th and 26th
- National symposium on Eye Banking and corneal transplantation**
R.P. Centre for Ophthalmic Sciences, AIIMS, New Delhi
August 25th and 26th
- Colloquium on Food Security**
Smithsonian Institute, Washington, USA
October
- Symposium on "Causes and solutions of blindness in developing countries"**
American Academy of Ophthalmology (AAO)
Meeting, Atlanta, USA
October 28th to November 1st
- Fourth General Assembly of the International Agency for the prevention of Blindness (IAPB)**
Nairobi, Kenya
November 11th to the 17th
- Advisory meeting of the global initiative for vitamin A deficiency control.**
WHO, Geneva
December
- R. D. Thulasiraj
Health Care Financing - Case Study of Aravind Eye Hospital, Madurai"
 - Dr. P. Namperumalsamy
"Management of Eales' Disease"
Chaired a Scientific session on
" Vitreoretinal Research".
 - Dr. Natchiar
Delivery of high volume, high quality, low cost cataract surgeries -Aravind's experiences.
Dr. G. Natchiar and G. Srinivasan had discussions with Sight Savers regarding new policies.
 - Dr. G. Natchiar spoke
"Surgery for Congenital Cataract - When and How?"
 - Dr. G. Natchiar
'Neuro-Ophthalmological Aspects'
 - Dr. Taraprasad Das
Guest speaker - *"Diabetic Retinopathy"*
 - Dr. M. Srinivasan
"Problems of Eye Banking in India"
 - Dr. Lakshmi Rahmathullah
"Aravind's Vitamin A study and its implications for community programs".
 - Dr. Venkataswamy
"Causes and solutions of blindness in developing countries" - the Indian perspective
"The extensive backlog of cataract blindness in India and how the Aravind model could help to solve this problem".
 - Dr. Venkataswamy
Prevention of blindness - appropriate technology
 - R.D.Thulasiraj
Managerial manpower development in prevention of blindness
 - Dr. Lakshmi Rahmathullah

Publications:

1. *The current status of Ophthalmic Contact B-Scan Ultrasonography in Posterior Segment Disorders of the Eye*
 - Dr. Taraprasad Das and Dr. P. Namperumalsamy
 - Journal Tamil Nadu Ophthalmic Association 27 (1): 7-12, 1990**
2. *Vitreous Surgery in diabetic retinopathy*
 - *Neuro Ophthalmic manifestations of diabetes*
 - *Cornea in diabetics*
 - *Ocular surgery in diabetics*
 - *Previtrectomy evaluation*
 - *Glaucoma in diabetes mellitus*
 - *Pathogenesis of diabetic retinopathy*
 - Dr. P. Namperumalsamy
 - Dr. G. Natchiar
 - Dr. M. Srinivasan
 - Dr. P. Vijayalakshmi
 - Dr. Taraprasad Das
 - Dr. Ramakrishnan
 - Dr. Nagappan
 - Journal of Kerala Ophthalmological Society, 2: May 1990**
3. *Acanthamoeba keratitis in non contact lens wearers.*
 - Dr. Savitri Sharma, Dr. M. Srinivasan, Celine George
 - **Archives of Ophthalmology Vol.108 : 676-678, May 1990**
4. *Importance of Neuro Ophthalmology in general Ophthalmic Practice*
 - *New Surgical Procedures for Bullous Keratopathy*
 - Dr. G. Natchiar
 - Dr. M. Srinivasan
 - **Journal of Tamil Nadu Ophthalmological Association, March-June 1990, Vol.XXVII.**
5. *Diagnosis of Acanthamoeba Keratitis: A report of four cases and review of literature.*
 - Dr. Savitri Sharma, Dr. M. Srinivasan and Ms. Celine George
 - **Indian Journal of Ophthalmology, Vol.38: 50-56 June 1990.**
6. *Pathology of proliferative vitreoretinopathy*
 - Dr. Taraprasad Das
 - **Journal of Kerala State Oph. Soc.Vol.2: 602-606, June 1990.**
7. *Wedge Scleral Buckling*
 - Dr. Taraprasad Das, Dr. Avinash R.Kelkar and Dr. P. Namperumalsamy
 - **Afro-Asian Journal of Ophthalmology Vol.9: 17-19, August 1990**
8. *Vitreous loss in cataract surgery*
 - *Management of post-operative endophthalmitis*
 - *Pars plana surgery in management aphakic glaucoma*
 - *Intraocular irrigating solutions in pars plana surgery*
 - *Vitreous surgery instrumentation*
 - *Vitreous and pars plana - Anatomical consideration*
 - *Lensectomy; membranectomy*
 - Dr. P. Namperumalsamy
 - Dr. Taraprasad Das
 - Dr. S. Manohar
 - Dr. Shankerlingam
 - **Journal of Kerala State Oph. Soc.Vol.2:September 1990.**
9. *Reduced Mortality among children in Southern India receiving a small weekly dose of Vitamin A*
 - Dr. Laxmi Rahmathullah, Barbara A. Underwood, Ravilla D.Thulasiraj, Roy C. Milton, Kala Ramaswamy Raheem Rahmathullah, Gancsh Babu
 - **New England Journal of Medicine, 323:929-935 (October 4), 1990**
10. *Vitreous Haemorrhage-Aetiology & Natural history*
 - *Non-surgical management of Vitreous Haemorrhage*
 - Dr. Donald F.Lobo, Dr. Taraprasad Das
 - **Journal of Kerala Oph.Society, Vol 11: November 1990**
11. *Significance of Conjunctival Smear Examination in Chronic Conjunctivitis*
 - *Traumatic Glaucoma - an analysis*
 - *Photocoagulation in Eales' Disease*
 - Dr. A.R. Muralidharan, Dr. Savitri Sharma, Ms. Celine George
 - Dr. R. Ramakrishnan, Dr. A.R. Muralidharan, Dr. P. Namperumalsamy
 - Dr. Taraprasad Das, Dr. P. Namperumalsamy
 - **Journal of Tamil Nadu Ophthalmic Assocn. Vol 28 (1): November 1990**

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