

Consultancy and Capacity Building

Thanks to technology, LAICO continued its offer of specific capacity building inputs to other hospitals by way of virtual classes and webinars, despite lockdown. A typical day during lock down started with the entire faculty meeting over a video-conferencing system which is continuing even now. During this, each member gives updates on their projects; commitments are made on new activities.

Thrice a week, the team engaged themselves on a joint learning session of the course, Model for Improvement offered by Institute of Health care Improvement, Boston. Later, the course was extended to doctors and managers at Aravind with the principal objectives of improving and sustaining better health outcomes in populations; introducing fundamental concepts of the importance of quality improvement, bettering patient care flow processes; ensuring patient safety and facilitating improvement of leadership capabilities.

LAICO organised a series of webinars which dealt with pertinent topics in ophthalmology and eye care delivery, especially in the context of COVID-19 pandemic. Faculty engaged in cleaning up systems relevant to the current times and spreading the revised versions across Aravind centres in consultation with the management and senior ophthalmologists. Realising that many smaller eye hospitals across India were handicapped in knowing how to manage their day-to-day operations during the pandemic, LAICO also organised a series of weekly webinars to share the guidelines.

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LEAP Collaborative Series

LAICO launched three more series in the LEAP Collaborative:

Collaborative on Establishing and strengthening vision centres (October 2020 to September 2021): The collaborative aims to facilitate eye hospitals to establish new vision centres

*and increase the efficiency of the existing centres. Two learning sessions were organised, in October 2020 and March 2021 respectively. Nine hospital teams - 5 from India, 2 from Nepal, 1 each from Bangladesh and Guatemala - are participating. Prior to the first learning session, a webinar titled, *Viable primary eye care delivery through vision centres* was conducted in September to reinforce the importance of achieving universal eye*

health coverage through vision centres and to generate interest among the eye hospitals to enrol for the collaborative. Community referral system (December 2020 - July 2021): The collaborative aims to enable LAICO's partner hospitals in Lavelle, GSI and HCI projects to create access to eye care by strengthening community referral mechanism. 16 hospital teams are participating in this collaborative and the first learning session was held in December 2020.

Implementing NABH standards for entry level certification (February 2021 - January 2022): The collaborative intends to guide eye hospitals aspiring to get NABH entry level certification. The first learning session was rolled out in February 2021. Five hospital teams are participating.

In order to develop internal capacity to handle sessions in this series, Aravind team attended Certified Professionals for Quality Implementation in Hospitals (CPQIH) Course organised by Consortium of Accredited Healthcare Organisations (CAHO) from December 1-3, 2020.

Free cataract surgery programme in collaboration with Bosch

LAICO in collaboration with Bosch India Foundation facilitated free cataract surgery programme for the identified persons living in the villages adopted by BOSCH as part of its CSR programme. The programme aimed to provide 870 free cataract

surgeries through Aravind Eye Hospitals and LAICO's partner eye hospitals in India during September 2020 to March 2021. A total of 249 villages located in the vicinity of Bosch's manufacturing plants in the districts of Tirunelveli, Coimbatore, Chennai, Nasik, Bangalore, Ahmedabad, Pune and Jaipur were identified. As part of this programme, Aravind Eye Hospitals at Tirunelveli, Chennai and Coimbatore collectively performed 300 cataract surgeries. LAICO's partner hospitals performed 570 surgeries.

Global Sight Initiative Collaboration

Supported by Seva Foundation, LAICO has embarked on a project to build the capacity of 11 of its already existing partner eye hospitals in the Global Sight Initiative (GSI) network, of which three are Aravind centres. The one-year project was started in March 2021 and focuses on mentoring, supporting free cataract surgeries and providing equipment support.

Cataract Quality Improvement Intensive Project (CATQIIP)

Cataract being the leading cause of avoidable blindness, Fred Hollows Foundation (FHF) has initiated a project to develop systems and protocols to ensure high quality in cataract care delivery. The project is implemented in three of FHF's partner hospitals in Bangladesh, Ethiopia

and Kenya. LAICO's helps develop learning materials on productivity, cost efficiency and environmental sustainability and share these with the select three hospitals via webinars. The first webinar will be held in May 2021.

Support to Partner Hospitals to Combat COVID-19

LAICO with funding support from Seva Foundation, helped its partner hospitals in the GSI network, offset the impact that they have had in the context of COVID-19 pandemic. The project was started in June 2020 and the fund is used to equip the hospitals with necessary personal protective equipment and consumables as well as provide operational support to offset losses due to COVID-19 crisis. Fourteen hospitals have benefitted from this project.

ACCESS Phase III

LAICO, Hilton Foundation, and Dana Center for Preventive Ophthalmology work with four partner hospitals of the ACCESS network on a project mode for 18 months. The four hospitals are Fitsum Birhan Specialised Eye Clinic, Mekelle, Ethiopia; Kisii Eye Hospital, Kisii, Kenya; City Eye Hospital, Nairobi, Kenya and Eye Foundation Community Eye Hospital, Lagos, Nigeria. The two-year project started in July 2020 aims to help these hospitals continue to maintain the project

target of annual cataract surgical volume and clinical outcome at 85%. It also aims to support the hospitals to strengthen their operations by deploying EMR and developing telemedicine facilities, increasing outpatient volumes, and setting up primary eye care centres. Necessary funding support was given to these hospitals to help them manage the crisis caused by COVID-19.

Enhancing LAICO's capacity to bring an effective change in eye hospitals

LAICO's organisational level intervention is designed to engage partner hospitals to bring about strategic changes for improved service delivery. Given the rapidly evolving ecosystem, LAICO has to supplement this by addressing operational aspects to drive better service delivery. This requires a detailed mode of collaboration and intense engagement with the participating eye hospitals, involving hospital leadership as well as operational level staff, working together to identify and implement solutions. As a new strategic direction to take this forward, LAICO with funding support from Hilton Foundation has started a project in November 2020. The project focuses on LAICO's capacity building to develop a robust system and apply it by developing new service offerings that are highly relevant to enhance the effectiveness of eye hospitals in improving service delivery.

Strengthening Community Referral System

As the regular free eye camps were stopped due to COVID-19 crisis, Aravind introduced community referral system wherein camp sponsors and village volunteers identify people who need eye care and refer them to Aravind Eye Hospital, Madurai. To strengthen this initiative, LAICO, with the help of Lavelle capacity building fund, offered to support 1,000 free cataract surgeries for patients belonging to lower socio economic groups. 817 cataract surgeries were thus done free of cost..

Teaching and Training

Launch of Eyexcel 2.0

Since 2007, LAICO has been offering the Eyexcel Global course, in association with Seva Foundation and International Council of Ophthalmology. Eyexcel prepares eye hospitals to deliver high-quality training. To make sure that these teams are supported in their efforts and to keep them updated with best practices and new technology in the field of education, an online resource was created: Eyexcel 2.0. Launched on July 29, 2020, Eyexcel 2.0 offered a refresher course on the concepts of training design and delivery. It is a growing library of resources for eye care training institutions. An important and useful feature that is offered to alumni and subscribers, is the monthly webinar

which brings in experts in the field of training to share best practices and new technology. As part of Eyexcel 2.0, three webinars were conducted for trainers of allied ophthalmic personnel: on leveraging technology for learning, on training assessment and on effective presentation skills. Altogether, 270 participants took part

Aurosiksha

The pandemic has forced several allied ophthalmic personnel (AOP) to resort to digital platform for learning. More than 20 new skill checklists and over 50 other training resources for AOP were published on the Aurosiksha website (www.aurosiksha.org).

During the lockdown months, as eye care services were severely affected but this downtime needed to be used constructively and this was an opportunity to reinforce learning. While there were a flurry of webinars and quizzes available for doctors, there was little training opportunity for AOP cadres. Aurosiksha launched the Lockdown Quiz Series targeted at AOPs worldwide, posted on Aravind's Facebook page. Through this effort 27 daily quizzes were published and AOP from 128 eye care institutions responded to these quizzes. Aurosiksha continues to offer the monthly online quizzes. Quizzes covered diverse topics like, neuro-ophthalmology, fundus imaging, visual acuity, magnitude

of blindness, diabetes and the eye, and ocular pharmacology.

Aurosiksha's online learning management system was also used to conduct online assessment for over 100 vision technicians across 9 hospitals in March 2021.

The Spanish version of Aurosiksha's Library or AOP training resources (www.aurosiksha.org/es/lica/library) was launched in February 2021. The Spanish translation was created in collaboration with Visualiza Eye Hospital in Guatemala and Divino Nino Jesus in Peru.

Participant feedback - Quiz

"I was satisfied with the quiz. I wasn't very familiar with the anatomy of the cornea. Thank you for this step. I would request for more quizzes during this period."

Milka Mwikali, Lions Sight First Eye Hospital- Loresho

"This surely seems to be a useful activity. As editor of the optometric journal Optometry Today, I'm including information on Cataract based on the February Quiz in its March 2020 issue. Due credit is of course being given to the source."

- Dr. Narendra Kumar, BAMS, DROpt, PGCR, Ophthacare Eye Centre

Online Course on Ophthalmic Instruments Maintenance

Being one of more popular courses, the instrument maintenance course had to go online due to the pandemic. This two-week online certificate course featured five common ophthalmic instruments and provided instruction on the working of the instrument, its care and maintenance and how to troubleshoot common issues. Since February 2021, 32 participants from Ghana, Ethiopia, USA, Sudan and India have completed this course.

Online Course on Project Management

With travel restrictions, another one of LAICO's annual course went online. The first batch of the Online Course on Project Management for Eye Care was launched in December 2020. Sixteen participants from eight countries attended this three-week course. The course included self-paced video sessions, exercises to help participants apply the learning and live sessions where they presented their work to their peers and faculty. The course saw active participation from the trainees.

October Summit 2020

As part of October Summit 2020, an online training-of-trainer workshop was conducted for trainers of allied ophthalmic personnel (AOP). Organised on October 29 and 30, the workshop had over 350 registrations from 32 countries; it discussed good teaching practices and explored solutions for common challenges faced by AOP trainers.

Projects

- Providing optimal care for economically disadvantaged people with ocular trauma, Aravind- Madurai: funded by Standard Chartered Global Business Services (GBS) Pvt Ltd
- RoP Telescreening project, Aravind – Madurai: funded by Standard Chartered Global Business Services (GBS) Pvt Ltd
- Setting up of surgical training centre at Free section, Aravind-Madurai: funded by Standard Chartered Global Business Services (GBS) Pvt Ltd
- Improving adherence to follow-up in childhood glaucoma, Aravind Madurai: funded by USAID
- Impacting quality of life in women through Presbyopia correction, Aravind Coimbatore: funded by Standard Chartered Global Business Services (GBS) Pvt Ltd
- Improving RoP telemedicine systems in southern India, Aravind-Coimbatore: funded by USAID
- Evaluation of artificial intelligence in a large ROP tele-screening programme in southern India with additional evaluation of lower-cost camera systems, Aravind Coimbatore: funded by Seva Foundation
- Enhancing early glaucoma detection through family screening to reduce glaucoma related blindness at Aravind tertiary care centres- Pondicherry, Coimbatore, Madurai, Tirunelveli and Chennai
- RoP screening and treatment programme in underserved and rural areas of Tiruvallur, Kancheepuram, Vellore and Chennai Districts, Aravind-Chennai: funded by Cognizant Foundation
- Aravind centre for technology assisted facial alignment and surgical treatment (ACT-FAST) - Project SHINE, Aravind-Chennai: funded by TATA Lockheed Martin Aero Structures Ltd (TLMAL)
- Setting up 6 Phaco training centres across the country for making phaco surgery popular, Aurolab: funded by Standard Chartered Global Business Services (GBS) Pvt Ltd
- Vision centre project (Cycle 7): funded by TOMS through Seva Foundation
- Vision centre projects (Cycle 9) for 3 VCs: funded by TOMS Seva Foundation
- Vision centre projects (Cycle 10) for 4 VCs: funded by TOMS Seva Foundation
- Setting up of 10 vision centres as part of Dr. V's birth centenary commitment: funded by Seva Foundation
- Universal eye health through tech enabled vision centres: funded by FICCI-Millennium Alliance
- Centre for Excellence in allied ophthalmic training: funded by Standard Chartered Bank

- Enhancing eye care services in Indian sub-continent, LAICO: funded by Lavelle Fund for the Blind
- Leap- together towards excellence collaborative series to enhance eye care, LAICO: funded by Lavelle Fund for the Blind
- ACCESS - African centres of excellence in cataract surgical services (Extension of HCI phase II), LAICO - funded by Conrad N. Hilton Foundation
- Enhancing LAICO's capacity to bring an effective change in eye hospitals, LAICO-funded by Conrad N. Hilton Foundation

Health Services Research

As an initiative to enable more staff members to involve in research projects leading to publications, the first half of every Saturday has been scheduled for research-related work. Staff who have taken up research projects assemble in a classroom to sit and work exclusively on their respective projects. The Research Division provides support in terms of consultation on study design, data collection, management and analysis and manuscript preparation.

LAICO's weekly journal club discussed 43 research publications with active participation from staff from all Aravind centres and external partner institutions. Seven articles based on health service research studies were published in national and international peer reviewed

journals. Following are the on-going health service research projects at LAICO:

- Impact of electronic medical record implementation on provider and patient satisfaction
- Pattern of uptake of training programmes over two decades at an international ophthalmic training institute in India
- Estimation of global cataract surgical rate (CSR)
- Comprehensive eye care work assessment (CEWA) study in Theni district of Tamil Nadu
- Investigating accuracy of a simple, portable refractive error estimation device (ClickCheck™) compared with standard subjective refraction – a diagnostic accuracy study
- Impact of a structured mentoring model in enhancing eye care services in the Indian Sub-Continent
- Compliance on usage of low vision aids and spectacles and assessment of visual function and quality of life in a southern Indian population.
- Diagnostic and economic yield of neuroimaging in neuro-ophthalmology
- Evaluating the impact of a field vision assistant on the uptake of vision centre services
- An assessment of factors influencing compliance to cataract surgery advice
- Evidence based management of out-patient cycle time in a setting with fluctuating demand