Nepal Netra Jyoti Sangh
Eastern Regional Eye Care Programme
Sagarmatha Choudhary Eye Hospital, Lahan
Biratnagar Eye Hospital, Biratnagar

Annual Report 2022
ERECP at a glance

40 years of excellence in eye care

Research & Academic trainings

Over 12.4 million beneficiaries since inception

High Quality, High Volume, Affordable and Comprehensive Eye & Ear Care Services

30 Eye and Ear Care Centers including 4 surgical centers

Over 2 million Eye & Ear surgeries

Two Hospitals
1,213,326 examinations & 131,846 surgeries
Highest number of surgeries since its establishment.

SCEH New OPD Building

The four story new Outpatient Building of more than 63 thousand sq. ft. has been completed and handed over in December 2022. It comprises of Outpatient, Subspecialty, Community Ophthalmology and Research, Administration, Ward and OT departments. This building will enable the hospital to enhance its capacity to serve more patients and provide a wider range of services.
School Screening: Sight for Education

Refractive Error Among Children (REACH) project was implemented in partnership with Orbis from 2020-2022 to reduce visual impairment due to uncorrected refractive error among school-going children of Siraha District. Despite the COVID-19 pandemic and prolonged school closure, 160,681 children received eye screening among them 2,578 received spectacles, 102 different eye surgeries were conducted. Likewise, over 4,597 teachers and community workers were oriented on ocular diseases occurring in children. It was found that prevalence of refractive error in school going children was 2%.

Similarly, Sundar Sansar project was implemented in partnership with CBM in Morang district. The objective of the project is to reduce prevalence of visual impairment caused due to uncorrected refractive error and hearing impairment among children between 3-18 years of age. Ophthalmic Assistant along with other paramedical staffs visit schools and community, perform eye and ear examination/refraction, prescribe spectacles and refer to those children to hospital whose treatment is not possible there.

23,137 children received eye and ear screening, 187 received spectacle, 8 children underwent surgery and 333 children were provided ear treatment. Total 837 children for eye and 3,049 children for ear referred to Eye Care Centers & base hospital for further treatment. More than 724 teachers were oriented about eye and ear related diseases. 2,970 children received IEC materials related to eye and ear care and 315 children from child club were trained as a vision ambassador and will function as a primary eye health volunteer for vision test in different schools.

RARE Research Project

RARE (Rapid Assessment of Refractive Errors) research project was conducted in Province No. 1 (Koshi Province) with the support of OneSight, USA and L.V. Prasad Eye Institute, Hyderabad, India. The objective of RARE was to estimate the prevalence of uncorrected refractive errors and presbyopia, spectacle coverage and barriers to uptake of eye care services. This study included participants aged 15-50 years randomly selected from the population. This would be the first study conducted in Nepal using RARE methodology. It is planned to publish the detailed report of the findings in 2023.
The Peek Vision Program started at Rajbiraj Municipality of Saptari district on 2021 by SCEH had been continued and also implemented at Duhabi Municipality of Sunsari district by BEH from December 2022 in association with Portable Eye Examination Kit (Peek), Vision Limited, UK. The program used the Peek Capture validated vision test App within wider data capture system. Through peek screening total of 3,102 patients have been screened. Among these, 37% have found eye problems and referred for further treatment at nearby Eye care centers.

Strategy and Multiyear Planning 2023-2027

To reduce the Prevalence of Blindness & Deafness by providing accessible, affordable, sustainable, comprehensive quality services and improving overall quality of life of people with disability and those at risk of disability, EREC-P developed a Strategic Plan for a period of 5 years (2023 – 2027), along with a Multi-Year Plan – MYP (2023-2027) specific for SCEH and BEH. Mr. S. Saravanan from Prashasa Health Consultants Pvt. Ltd, Hyderabad, India facilitated the strategic planning and MYP for EREC-P and senior leaders from C-NNJS, CBM Country Office-Nepal, EREC-P Central Office, SCEH, BEH, and NFDD provided their feedback. The current situation of individual departments (clinical & administration), current performance and their plans for next five years was discussed and developed.
## Surgeries

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cataract:</strong></td>
<td>94,009</td>
</tr>
<tr>
<td>Sutureless ECCE/IOL (SICS)</td>
<td>55,357</td>
</tr>
<tr>
<td>On children</td>
<td>1,339</td>
</tr>
<tr>
<td>Phaco with IOL</td>
<td>35,435</td>
</tr>
<tr>
<td>Other lens removal procedures</td>
<td>1,838</td>
</tr>
<tr>
<td><strong>Glaucoma:</strong></td>
<td>2,774</td>
</tr>
<tr>
<td>Trabeculectomy</td>
<td>368</td>
</tr>
<tr>
<td>Combined (Cat&amp;Trabeculectomy)</td>
<td>479</td>
</tr>
<tr>
<td>Trans scleral cyclo photocoagulation</td>
<td>136</td>
</tr>
<tr>
<td>Nd. YAG iridotomy</td>
<td>1,731</td>
</tr>
<tr>
<td>Surgical PI &amp; other</td>
<td>60</td>
</tr>
<tr>
<td><strong>Corneo-Scleral Surgical Procedures:</strong></td>
<td>6,619</td>
</tr>
<tr>
<td>Keratoplasty</td>
<td>137</td>
</tr>
<tr>
<td>Amniotic Membrane Graft (AMG)</td>
<td>111</td>
</tr>
<tr>
<td>Corneo Scleral Repair</td>
<td>667</td>
</tr>
<tr>
<td>Pterygium</td>
<td>4,513</td>
</tr>
<tr>
<td>Corneal Cross Linking</td>
<td>131</td>
</tr>
<tr>
<td>LASIK</td>
<td>6</td>
</tr>
<tr>
<td>Other Corneal Procedures</td>
<td>1,054</td>
</tr>
<tr>
<td><strong>Vitreo-Retinal Surgery:</strong></td>
<td>9,815</td>
</tr>
<tr>
<td>Pars plana Vitrectomy</td>
<td>1,242</td>
</tr>
<tr>
<td>Scleral Buckling</td>
<td>270</td>
</tr>
<tr>
<td>Intravitreal Injections</td>
<td>472</td>
</tr>
<tr>
<td>Inj. Avastin</td>
<td>6,980</td>
</tr>
<tr>
<td>Others</td>
<td>851</td>
</tr>
<tr>
<td><strong>Oculoplasty Procedures:</strong></td>
<td>4,110</td>
</tr>
<tr>
<td>Dacryocystorhinostomy</td>
<td>1,968</td>
</tr>
<tr>
<td>Dacryocystectomy</td>
<td>495</td>
</tr>
<tr>
<td>Entropion / Ectropion</td>
<td>349</td>
</tr>
<tr>
<td>Evisceration / Enucleation</td>
<td>433</td>
</tr>
<tr>
<td>Ptosis</td>
<td>47</td>
</tr>
<tr>
<td>Other oculoplasty procedures</td>
<td>818</td>
</tr>
<tr>
<td><strong>Lasers Procedures:</strong></td>
<td>8,107</td>
</tr>
<tr>
<td>Retinal Laser</td>
<td>3,624</td>
</tr>
<tr>
<td>Nd. YAG capsulotomy</td>
<td>4,483</td>
</tr>
<tr>
<td>Squint</td>
<td>160</td>
</tr>
<tr>
<td>Others</td>
<td>2,283</td>
</tr>
<tr>
<td><strong>SUB TOTAL:</strong></td>
<td>127,877</td>
</tr>
<tr>
<td><strong>Ear Surgeries:</strong></td>
<td>3,969</td>
</tr>
<tr>
<td>C.M.-Tplasty</td>
<td>24</td>
</tr>
<tr>
<td>MRM</td>
<td>62</td>
</tr>
<tr>
<td>Myringoplasty</td>
<td>532</td>
</tr>
<tr>
<td>Others</td>
<td>3,351</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td>131,846</td>
</tr>
</tbody>
</table>

## Out Patients

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCEH, Lahan:</td>
<td>214,828</td>
</tr>
<tr>
<td>Biratnagar Eye Hospital:</td>
<td>295,455</td>
</tr>
<tr>
<td>28 ECCs:</td>
<td>191,573</td>
</tr>
<tr>
<td>Screening Camps’ Patients:</td>
<td>92,331</td>
</tr>
<tr>
<td>COR Household:</td>
<td>81,019</td>
</tr>
<tr>
<td>School Screening (REACH):</td>
<td>133,261</td>
</tr>
<tr>
<td>Surg. Camps’ Outpatients:</td>
<td>5,612</td>
</tr>
<tr>
<td><strong>EYE SUB TOTAL:</strong></td>
<td>1,014,079</td>
</tr>
<tr>
<td>Ear Department, Base:</td>
<td>65,433</td>
</tr>
<tr>
<td>Ear OPD in ECCs:</td>
<td>24,460</td>
</tr>
<tr>
<td>Ear Screening Camp Patients:</td>
<td>58,961</td>
</tr>
<tr>
<td>COR Household:</td>
<td>50,393</td>
</tr>
<tr>
<td><strong>EAR SUB TOTAL:</strong></td>
<td>199,247</td>
</tr>
<tr>
<td><strong>GRAND TOTAL:</strong></td>
<td>1,213,326</td>
</tr>
</tbody>
</table>
Surgeries at EREC-P (2022)

- Cataract, 94009, 71%
- Ear, 3969, 3%
- Others, 2443, 2%
- Vitreo-Retinal, 9815, 8%
- Corneal, 6619, 5%
- Glaucoma, 2774, 2%
- Lasers, 8107, 6%
- Oculoplasty, 4110, 3%

EYE Services (2022)

- Hospital Reach, 510283, 50%
- Community Reach, 503796, 50%

EAR Services (2022)

- Hospital Reach, 65433, 33%
- Community Reach, 133814, 67%
Impact
40 Years of excellence in Eye and Ear Care

1983
4,528,570 Community Care
10,298 Eye Surgeries at Hills
163 Publications
892,469 Ear Patients Treated

2022
12,430,467 Patients Treated
2,094,015 Eye Surgeries Done
1,675,739 Cataract Surgeries
13,962 Ear Surgeries Done

ERECP: Outpatients
Operations at SCETI, Maitree Clinics & Camps
Outpatients at BEH, FECC & Camps

ERECP Surgeries
Operations at SCETI, Maitree, Camps
Operations at BEH & Camps
SPECIAL SERVICES at EREC-P

Cataract Services
A total of 94,009 patients underwent cataract surgery out of which 35,435 (38%) surgeries were performed through modern cataract surgery method Phacoemulsification, which is increasing over the years. Cataract surgery was 74% out of total eye surgeries. Phacoemulsification with Mono-Focal, Multi-Focal and Toric IOLs are available and regular procedures at both hospitals.

Cataract is a leading cause of blindness globally and also in this region. People from every socio-economic group have been suffering from this blinding disease. Since the very beginning, EREC-P hospitals have been providing high-quality cataract surgeries at an affordable price to every socio-economic group to reduce the burden of blindness.

94,009 Cataract Surgeries
35,435 (38%) Phacoemulsification

Cornea Department
A total of 43,412 patients were examined as outpatient and 6,619 corneal surgeries were performed, including 137 corneal transplantation surgeries, 111 Amniotic Membrane transplantation, 4,513 Pterygium surgeries along with 1,164 modified PERFECT technique. Both hospitals have highly qualified, specialized teams with the latest advanced equipment like corneal topography, specular microscope and collagen cross linking to treat the entire range of corneal disorders and infections. Dr Manish Pandey and Dr Pragya Luitel have completed their 1-year cornea fellowship and joined BEH as a cornea consultant.

43,412 Examinations
6,619 Corneal Surgeries
1,164 Perfect Surgery
402 Contact Lens Services

A total of 402 contact lens patients (231 males, 171 females) with different eye disorders mostly Keratoconus and Myopia received services from the contact lens units. 146 Spherical Soft contact lens, 59 Prosthetic contact lens, 125 RGP (Rigid Gas Permeable), 50 Rose K2, 64 Scleral contact lens were dispensed to patients. Contact lens units of both eye hospitals are referral units in eastern Nepal.
Paediatric Ophthalmology and Strabismus Department

In the Paediatric Ophthalmology and Strabismus Department of both eye hospitals, 57,036 children were examined. 3,932 children underwent surgery at both eye hospitals including 1,393 paediatric cataracts, 160 squint surgeries out of which 53 were children. 3,424 children underwent orthoptics evaluation. Aniridia Intraocular lens implantation has been started at SCEH from this year, which helps to avoid photophobia and glare after surgery.

Both eye hospitals have highly qualified and experienced team of paediatric ophthalmologist, anesthesiologist, ophthalmic assistant, optometrists, paediatric orthoptics and counselors trained in paediatric counselling. Dr Bhadra Priya completed one-year paediatric ophthalmology and strabismus fellowship from SCEH.

Biratnagar Eye Hospital has started Myopia clinic in 2021 which has been further strengthened in the year and a total of 977 patients upto 20 years of age have been examined and treated.

Similarly, 2,938 patients who had neuro-ophthalmology problems were examined and treated at BEH which saved their time to receive early treatments.

A child-friendly environment with a child play area is available at both hospitals enhancing the growth of the children by providing a multifunctional and comfortable space for children.

Vitreo-Retinal Department

In the Vitreo-Retinal Department of both eye hospitals, 42,139 patients were examined, 9,815 patients underwent VR procedures out of which 2,206 were Vitreo-Retinal surgeries, 6,980 Inj. Avastin, 472 other Intravitreal Injections, and 157 other surgeries. 3,624 received retinal laser, 30,700 received B-scan services, 622 received FFA services and 15,661 received OCT services.

Dr. Sanjeev Chaudhary has completed his VR-Fellowship from BEH and is working as VR consultant at SCEH. Diseases of the retina and vitreous can cause serious vision problems. Fortunately, most of them can now be managed satisfactorily with modern methods of diagnosis and treatment.
Vitreo-retina units of EREC-P hospitals are high-volume units catering to a large number of patients daily. The departments are equipped with the latest diagnostic technologies and provide minimally invasive treatment by a specialized team.

**ROP- Retinopathy of Prematurity**
Preterm births are an important public health concern worldwide due to the resultant morbidities. Survival of premature babies has improved largely due to improved neonatal care services.

Retinopathy of Prematurity (ROP) is a potentially blinding eye disorder that primarily affects premature infants born before 34 weeks of gestation and/or weighing 1750 grams or less. If diagnosed on time and treated early, it can prevent vision loss in infants and can save them from the pain of lifelong blindness. To improve neonatal care by providing timely ROP screening and treatment services in neonatal intensive care units (NICU) of Province No 1, BEH has been doing ROP screening since Nov 2020 by a team of trained Ophthalmologist, ROP & pediatric imaging expert, devoted pediatricians and ROP nurses. In 2022, 337 babies (226 boys, 111 girls) were screened several times in NICU and Biratnagar Eye Hospital ROP clinic. ROP was detected in 170 (50.4%) babies. 24 babies were treated with laser therapy and 4 babies with Inj. Avastin. This year, one more ophthalmic assistant received pediatric Retinal imaging and ROP training.

**Glaucoma Department**
In the glaucoma department of both eye hospitals, 31,096 glaucoma patients were examined and 2,774 glaucoma surgeries were performed among them, 19 children underwent glaucoma surgery. 4,227 patients underwent computerized Visual Field Testing and 1,731 received Nd. YAG iridotomy service.

Glaucoma departments of both hospitals of EREC-P have highly qualified, specialized teams with the latest advanced equipment to diagnose and treat glaucoma diseases.
**Orbit, Plastic and Lacrimal (OPAL) Department**

In the OPAL Department of both eye hospitals, 24,150 patients were examined and 4,110 surgeries were performed. Among them, 1,968 DCR (100 Endoscopic DCR), 47 Ptosis, and other different types of Orbitotomy. In the Ocular Prosthesis Unit, 472 patients received artificial eyes and among them, 28 were custom made.

OPAL Departments of both hospitals of EREC-P have experienced team and advanced equipment to treat patients of orbit, plastic & lacrimal diseases. OPAL department provided a wide variety of services including Endonasal DCR, Botox injection, various therapeutic and cosmetic eyelid surgeries, and orbital tumors.

**Low Vision, Hearing, Language & Speech Rehabilitation Unit**

In the Low Vision Department of both eye hospitals, 786 patients including 194 children with Low-Vision were assessed. Special Low-Vision devices were dispensed to 279 visually impaired patients for improving their vision. 243 incurable blind patients underwent counseling as well as orientation and mobility training, and 386 low vision patients were oriented on environmental modification to kitchen, toilet, and different lighting conditions to make their basic living activities easy.

Low Vision, Hearing & Speech Rehabilitation Unit provided comprehensive low vision and rehabilitation services.

**Physician Consultation Services**

This service was started in 2021 at BEH and has been expanded at SCEH in order to manage the pre-operative, post-operative and other eye patients with medical conditions like Diabetes mellitus, hypertension, heart disease etc. This has improved quality of service and also reduced cost and waiting time for faster ophthalmic treatment. Total of 8,670 patients with different medical conditions were examined and treated.

**Optical Unit**

This year 146,307 patients have received spectacles from SCEH and BEH optical dispensing units. Optical departments of both hospitals of EREC-P have a highly qualified, specialized team with latest advanced equipment dedicated to providing quality services and affordable spectacles. It stocks a wide variety of modern design frames along with premium sophisticated and the newest free-from design progressive lenses that ensures extraordinary adaptability, durability, performance and appearance of spectacle lenses. Apart from that our pediatric optical department is committed to offering a kid-friendly environment that makes it easy for kids to pick eyeglasses, as well as it focuses on providing challenging prescriptions quickly using our lens processing unit. Additionally, in accordance with ANSI standard, the optical department’s quality analysis management system inspects each pair of eyeglasses before delivery to make sure the patient receives the appropriate pair of spectacles. Furthermore, our department has a patient feedback system in place, which updates us on our operations and client relationships on a regular basis.
Ophthalmic Pathology and Laboratory Medicine at BEH

Ophthalmic Pathology and Laboratory Medicine department has been established to provide all Biochemistry, Haematology, Microbiology and Histopathology services and is the first ocular histopathology lab in Nepal. This year 59,474 patients received laboratory services. As usual, the load of infective keratitis was high in the cornea department, Fluorescence microscope staining with calcofluor white stain has been able to help with diagnosis of fungal keratitis.

Ocular Microbiology Laboratory at SCEH

A total of 52,754 patients received laboratory services. The Ocular Microbiology Laboratory was established in collaboration with the London School of Hygiene and Tropical Medicine in 2019 at SCEH, Lahan. The laboratory is well equipped with a Fluorescent Microscope, Bacteriology (aerobic and non-aerobic) and mycology incubator, -78°C ultra-low temperature Freezer, Biological Safety Cabinet II and a digital bench top Autoclave and others.

Integrated Ear Service

Since 2013, EREC-P has been integrated Ear Care Services at Eye Hospitals, Eye Care Centers, School Screening Camps, Screening Camps, and house-to-house visit programs to reduce the prevalence of deafness.

A total of 199,247 patients with various ear problems were examined out of which 65,433 were examined at the hospitals and 133,814 in outreach activities (ECCs, School Screening, Screening camps, and household visits). 15,448 Pure Tone Audiometry (PTA) examinations and 3,969 surgeries (Cortical Mastoidectomy with Tympanoplasty: 24, MRM: 62, Myringoplasty: 532 and other: 3,351) were performed; and 637 patients with hearing loss received hearing aids and 948 patients received nasal evaluation service for their DCR and DCT surgeries.

Ear departments of both hospitals of EREC-P have highly qualified, specialized teams with the latest advanced equipment to diagnose and treat ear diseases.
OUTREACH ACTIVITIES

Community Outreach and Rehabilitation Program (COR):
ERECP has been continuously running the COR program in Morang, Ilam, Bhojpur, Terhathum, Udaipur, Mahottari, and Sindhuli districts. COR is effective in linking poor people to Eye and Ear care services at their door-steps.

81,019 people received eye and ear screening in their community. Among them, 6,327 people with eye problems and 1,827 people with ear problems were referred to nearby eye and ear care centers for further treatment. 54 persons with disability (PwD) received vocational training on Incense-Stick manufacturing for income generation.

Establishment of New Eye and Ear Care Center:
For early detection and prevention of blindness and deafness, EREC-P Hospitals establish Primary Eye & Ear Care Center every year at different municipalities & rural municipalities in partnership with local governments to provide appropriate, accessible, and affordable care in a comprehensive and competent manner. Besides running 28 Eye and Ear Care Centers (Malangwa, Rajbiraj, Siraha, Gaighat, Diktel, Bhojpur, Terhathum, Rangeli, Inaruwa, Mirchaiya, Katari, Haleshi, Illam, Urlabari, Fikkal, Jaleshwar, Bardibas, Beldar, Letang, Arjundhara, Kanchanpur, Duhabi, Khalte, Dhanushadham, Mangalbhar, Biratchowk, Lalbandi and Ratuwamai), 2 new Eye Care Center were established at Ramdhuni Municipality, Jhumka and Chhireshwarnath Municipality, Mahendranagar in Partnership with the Municipality and financial support from CBM.

These centers ensure care for the poorest and the most unreachable patients. A Full-Time Ophthalmic Assistant/Optometrist provides wide range of eye and ear care services as well as referrals for patients who need specialized care. From 30 Eye & Ear Care Centers, 191,573 patients received eye treatment, and 24,460 received ear care service. Tele-Ophthalmology service has been started at Mirchaiya and Siraha Eye Care Centers by SCEH.
Surgical Eye Camps conducted in hilly areas of Mechi, Koshi and Sagarmatha zone:

The people in Nepal are still deprived of proper eye health care due to the challenging geography of the nation, illiteracy and poor socio-economic status. Conducting surgical eye camps provide effective and accessible eye care which helps in reducing the burden of eye disease. The surgery in camps is marginally economical and more accessible to the community.

EREC-P Hospitals have conducted 11 surgical camps in hilly and mountain areas (Lalitpur-1, Manthali-1, Haleshi-1, Bhojpur-3, Terathum-2, Ilam-1, Fikkal-1, Mangalbarez-1). Patients identified in surgical eye camps for surgery were operated in a well-setup operation theater prepared inside the premises of government hospitals taking all aseptic precautions. 5,612 patients were screened and 905 underwent surgery with the majority being cataract surgery (776). Follow-up eye examination of operated patients was done at the campsites and eye care centers. Patients were happy as their vision was restored, and they were able to see this beautiful world again.

Cataract Screening Camp:

EREC-P hospitals conducted 152 Cataract Screening Camps in rural areas. 28,352 patients received eye examinations & treatment at the community level. 6,130 patients were brought to SCEH and BEH for surgery and were operated free of cost and helped in restoring vision to the residents of remote areas and reduced the burden of cataract and refractive error.

EYE/EAR HEALTH EDUCATION:

Community awareness programs on Eye and Ear health:
EREC-P is promoting eye health education in the communities to increase their level of awareness and knowledge about common eye conditions. Jingles were being broadcast on various local radio FMs about eye problems including cataract, glaucoma, corneal ulcers, retinal detachment, and childhood blindness in local languages. Posters, pamphlets, handbills, etc. distributed to create awareness in the community. Similarly, different awareness messages were painted on walls at the school and health institutions level to create awareness among the community people. To create awareness and strengthen the referral mechanism, hospitals provided primary eye and ear care training to 850 FCHVs, 111 school-teachers, 204 drug-retailers, 244 traditional healers, and 110 Health Post In-charge.
FREE and Subsidised SERVICES TO PATIENTS:

Several screening and surgical camps at Province No. 1 (Koshi Province) and Madhesh Province were conducted and identified 6,130 Cataract patients who underwent free surgery at the base hospitals. Patients from eye camps and poor economic backgrounds arriving directly at SCEH and BEH received support with the worth of NPR 35,234,421 (USD 266,876) in their examination, surgery, spectacles, medicine, transportation & food cost. Out of 94,009 cataract surgeries, 22% were done on a subsidized package of NPR 1200 (approx. USD 9).

6,130
Free Surgeries

NPR 35,234,421
Subsidy to poor patients

22%
Cataract surgeries on subsidized package of NPR 1200

Strengthening Medical Record Services

Dynamic EMR Patient Medical Record Scanning system was started in BEH at 2021 which has further been strengthened by adding computer operators and duplex scanner system in the department. The newly developed system is integrated with existing MS Dynamic NAV software implemented in 2012 at EREC-P Hospitals. Currently the medical record department captures the patient diagnosis and findings on real-time basis. All the surgical record and patients files are scanned using DynamicEMR software. This has strengthen the EMR system of BEH and will help in maintain all the records of patients which can be easily retrieved for learning and research.
TRAINING & DEVELOPMENT

Postgraduate MD Ophthalmology with National Academy of Medical Science (NAMS):

Post Graduate MD Ophthalmology was started at EREC-P in affiliation with NAMS in 2015. Till 2022, 11 MD Ophthalmologists have completed their study and presently 6 are enrolled. Last year, Dr. Upama Paudel, Dr. Shankar Thakur and Dr. Myo Thant completed their Postgraduate MD Ophthalmology.

Bachelor in Optometry and Vision Science:
Bachelor in optometry and vision science (BOVS) was started at BEH in affiliation with NAMS in 2018. 4 BOVS students have completed their study and presently 18 are enrolled.

Diploma in Ophthalmic Science Course at SCEH, Lahan:
DOS course was started in 2015 in collaboration with CTEVT at Lahan Technical School. Currently, 76 students are undergoing 2nd and 3rd years of DOS training at SCEH.

Anterior Segment Fellowship:
5 Ophthalmologists have completed their 2-year anterior segment fellowship from SCEH and BEH. Presently 19 ophthalmologists are undergoing two years Anterior Segment Fellowship at SCEH and BEH.

Glaucoma Fellowship:
1 Ophthalmologist is undergoing 1-year Glaucoma Fellowship at BEH.

Vitreo-Retinal Fellowship:
1 Ophthalmologist has completed and 3 Ophthalmologists are undergoing a two-year Vitreo-Retinal Fellowship at BEH.

Pediatric Ophthalmology and Strabismus Fellowship:
1 Ophthalmologist is undergoing 1-year Pediatric Ophthalmology and Strabismus Fellowship at SCEH.

Primary Eye Health Worker training:
In 2022, 54 AHW & ANM received 6 months of Primary Eye Health Worker training. Currently, 20 AHW & ANM are undergoing 6 months of Primary Eye Health Worker training.

Optical Dispensing Training:
9 students completed 1-year Optical Fitting and Dispensing Training and 6 are under training.
WORKSHOP AND CONFERENCES AT EREC-P

Community Ear & Hearing Care: Learning and Sharing Workshop:
To learn and share various organizations’ community ear and hearing care practices, one-day Community Ear and Hearing Care Learning & Sharing Workshop was held at Kathmandu in partnership with Impact Nepal. There were 39 participants participated in the workshop. Different topics were presented by the participants like an overview of ear and hearing services in Nepal: past and present; global status and priorities in ear and hearing care; neonatal hearing screening; and the latest developments in hearing devices and technology. Furthermore, Dr. Rabin Acharya, ENT Specialist presented on activities and best practices in ear and hearing care of NNJS Hospitals.

CME on Specialty Contact Lens
To upgrade the knowledge on scleral contact lens, multifocal contact lens, and orthokeratology contact lens for control of myopia, a one-day CME on specialty contact lens program was held in Biratnagar where more than 140 optometrists and ophthalmic assistants from Province 1 and Madhesh Pradesh participated. Mr. Hamza Seikh from India, Mr. Sakar Subedi from Kathmandu and Mr Pankaj Ray Adhikari from BEH were speakers of the CME.

CME on “ROP: Where are we now?”
A CME on the topic “ROP: Where are we now?” was conducted at Biratnagar where 41 participants including Paediatricians, ROP NICUs nurses, and Retinal Consultants participated. In the experience sharing, hospital major activities, ROP perspective from a paediatrician view, and achievement of the ROP screening in the two years were discussed and shared among the participants.
INCLUSIVE SERVICES

EREC-P has been providing services to people with disability and those at risk of disability due to blindness and deafness. It has focused to reach people with disability in the community outreach, services from the hospitals and ECCs. EREC-P coordinates with local Organization of People with Disabilities to provide inclusive services ensuring accessibility. It has focused on inclusive and accessible services, develop team capacity to delivery disability inclusive services, develop accessible infrastructures and subsidies to people with disabilities as per need.

Sensitization Training on Disability Inclusive Eye & Ear Health
149 staffs of SCEH, BEH, Community program and Primary Eye Care Center received one day disability-inclusive eye and ear sensitization training which will initiate for positive environment and accessible eye and ear care service.

Disability Inclusive Disaster Risk Reduction (DiDRR) Training:
328 staffs of SCEH, BEH & Primary Eye Care Centers and Community people received one day Disability Inclusive Disaster Risk Reduction (DiDRR) training which has sensitized staffs on the concepts and principles of disability inclusive DRR.

Child Safeguarding and Gender Sensitization Training:
103 staffs of SCEH, BEH and Primary Eye Care Centers and community people received one day training on child safe-guarding and gender sensitization to enhance a child-friendly environment.

Apart from these, various types of training programs were conducted at SCEH and BEH for the capacity building of staff.
HUMAN RESOURCE AT EREC-P

The 916-member employees include 39 Ophthalmologists, 2 ENT Specialists, 4 Anaesthesiologists, 4 MDGP, 1 Pathologists, 2 Microbiologists, 9 MD Residents, 34 administrative staff, 1 Research Officer, 1 Health Educators, 77 Ophthalmic Assistants (OA), 3 Anaesthetic Assistants, 3 HA, 31 Optometrists, 12 Staff Nurses, 13 Pharmacy Assistants, 113 Eye Health Workers and other Supporting Staffs.

PUBLICATIONS

In the year 2022, the following publications were done:

1. Prijya Poudyal, Diwa Hamal, Pawan Shrestha
   Orbital Tumors and Tumor like Lesions: A Hospital Based Study

2. Pankaj Ray Adhikari, Nirmala Chaudhary, Rajiv Ranjan Karn
   Profile of contact lens patients attending to Biratnagar Eye Hospital, Nepal
   Journal of Chitwan Medical College 2022;12(39):77-80

3. Prerna Arjyal Kafle, Diwa Hamal, Sabin Sahu, Sharmila Chaudhary
   Blepharoplasty: Pattern and its Surgical Management in a Tertiary Eye Hospital of Eastern Nepal

4. Diwa Hamal, Prerna Arjyal Kafle, Binaya Lamichhane, Afaque Anwar, Sanjay Kumar Singh
   Endoscopic Endonasal Dacryocystorhinostomy under Local Anesthesia or Assisted Local Anesthesia
   Nepal J Ophthalmol 2022; Vol 14(27):10-8

5. Prerna Arjyal Kafle, 1 Diwa Hamal, 2 Krishna Kumar Thakur, 1 Sharmila Chaudhary1
   External Dacryocystorhinostomy Surgery at Biratnagar Eye Hospital, Nepal

6. Deepthi Pradhan, Lalit Agarwal, Ichhya Joshi, Kshitij Aditya, Archana Kumari
   Internal limiting membrane peeling in macular hole surgery
   GMS German Medical Science 2022, Vol. 20, ISSN 1612-3174
   https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9204259/

7. Krishna Prasad Pathak1,2†, Sandip Das Sanyam3*†, Tara Gaire4, Pushpa Babu Basnet 1, Sanjay Kumar Sah5, Buddha Bahadur Basnet 6, Sujana Pathak7, Stan Ingman8 and Jeremy J. Hoffman9,
   Perception and Challenges of Preventive Measures of COVID-19 Among Nepalese Frontline Health Professionals: An Unexplored Realism
   Frontiers in Public health

   Delay in accessing definitive care for patients with microbial keratitis in Nepal
   Frontiers in Medicine, 22 July 2022. DOI: https://doi.org/10.3389/fmed.2022.915293
9. Marzieh Katibeh; Sandip Das Sanyam; Elanor Watts; Nigel M. Bolster; Reena Yadav; Abhishek Roshan; Sailesh K. Mishra; Matthew J. Burton; Andrew Bastawrous
   Development and Validation of a Digital (Peek) Near Visual Acuity Test for Clinical Practice
   Community-Based Survey, and Research, Translational vision science & technology, ARVO Journal

10. Rina Yadav, Abhishek Roshan, Sanjay Kumar Singh
    High-volume cataract surgery in Lahan, Nepal
    Published online 15 December 2022

11. Jeremy J. Hoffman 1,* , Reena Yadav 2, Sandip Das Sanyam 2, Pankaj Chaudhary 2, Abhishek Roshan 2, Sanjay Kumar Singh 2, Simon Arunga 1,3, Victor H. Hu 1, David Macleod 1,4, Astrid Leck 1 and Matthew J. Burton 1
    Diagnosis of Fungal Keratitis in Low-Income Countries: Evaluation of Smear Microscopy, Culture, and In Vivo
    Confocal Microscopy in Nepal.
    https://www.mdpi.com/2309-608X/8/9/955

    Panuveitis after covishield vaccination in an undiagnosed immunocompromised patient: A rare case report from

13. Jeremy J. Hoffman 1,* , Reena Yadav 2, Sandip Das Sanyam 2, Pankaj Chaudhary 2, Abhishek Roshan 2, Sanjay Kumar Singh 2, Simon Arunga 1,3, Victor H. Hu 1, David Macleod 1,4, Astrid Leck 1 and Matthew J. Burton,
    Microbial Keratitis in Nepal: Predicting the Microbial Aetiology from Clinical Features.
    J. Fungi 2022, 8, 201. https://doi.org/10.3390/jof8020201
    https://www.mdpi.com/2309-608X/8/9/955

14. Limbu B, Kafle PA, Lamichanne DH, et al
    Epidemiological and Clinical Presentation of Retinoblastoma among Nepalese Children in 2019
    South Asian J Cancer 2022;00(00):1–7. DOI https://doi.org/10.1055/s-0042-1757581 ISSN 2278-330X

15. Yadav S., Karn R. R., Thakur S. K., & Sitoula R. P.
    Prevalence of Refractive Error among Children of Koshi Rural Municipality of Sunsari District: Door-to-Door
    Screening.

    Topical Chlorhexidine 0.2% versus Topical Natamycin 5% for the Treatment of Fungal Keratitis in Nepal: A Randomized Controlled Noninferiority Trial,
    Ophthalmology, Volume 129, Issue 5, 2022, Pages 530-541, ISSN 0161-6420.
HISTORY

Under leadership of Secretary General Dr. Ram Prasad Pokhrel and Chairmanship of General Ravi Shamsher Ja. Ba. Ra; Nepal Netra Jyoti Sangh (NNJS) was established in late 1978 for hassle-free and facilitative eye treatment of patients. Nepal Netra Jyoti Sangh appealed to different international unions and organizations to support them to eliminate blindness in Nepal. Christoffel Blinden Mission, CBM started collaboration with Social Welfare Council and Nepal Netra Jyoti Sangh after an agreement in December 1982. Dr. Albrecht Hennig from CBM started 12 bedded Eye Care Center from Ram Kumar Sarda Uma Prasad Murarka's Public District Hospital at Lahan in 1983.

As the number of eye patients was increasing day by day, Dr. Hennig realized the need for a separate building for an eye hospital. For this, he began contacting and appealing through the Principal of Pashupati High School Mr. Kameshwar Chaudhary to various social workers of Lahan. As the appeal was for a humanitarian cause, the Chaudhary family at Lahan showed interest and assigned responsibility to Mr. Padma N. Choudhary for discussion and finalization of land donation. Finally, a bilateral agreement was signed by NNJS General Secretary, Dr. Ram Prasad Pokhrel and Mr. P. N. Choudhary on behalf of the donor Chaudhary family. As per the agreement, social workers of Lahan Shree Chhabi Lal Chaudhary, Shree Sarowar Lal Chaudhary and Shree Rabindra Lal Chaudhary have donated land in Lahan and Hardiya for the noble cause.

CBM extended its financial support by constructing 50 beds Eye Hospital on this donated land. The dedication and unselfishness as motivated with social service, Dr. Hennig and his team served the neediest populations through Sagarmatha Choudhary Eye Hospital. The growing trust in services and increased demand in eye care helped establish a 450-bed hospital with highly sound technologies in a short period. This newly constructed building was inaugurated by the then King Birendra Bir Bikram Shah in 1986.

To balance the workload of Sagarmatha Choudhary Eye Hospital and to increase the scope of long-term human resource sustainability, Biratnagar Eye Hospital was established on 13th September 2006 under the leadership of Dr. Sanjay Kumar Singh in a rented building as a branch of SCEH, Lahan. The hospital started from 80 beds expanded to become 300 beds by 2009 to meet the demand of an increasing number of patients. The management of the Hospital and supporting organization’s far-sighted vision, skilled doctors, enthusiastic manpower, and high-tech technology have contributed to its immense success in a short duration of time.

With the help of Sagarmatha Choudhary Eye Hospital and supporting organizations like CBM, European Union, Standard Chartered Bank and Internal source, 500 bed high-tech building was constructed in Biratnagar. This new building was inaugurated on 15th November 2011 by the first president of the democratic republic of Nepal, Hon. Dr. Ram Baran Yadav.

Nepal Netra Jyoti Sang, Eastern Regional Eye Care Programme (ERECP) is a non-profit organization providing high-quality eye care services along with comprehensive approach in the eye and ear care. The services are very much accessible and affordable for people of all socioeconomic backgrounds. EREC-P is an umbrella of 2 tertiary level hospitals (Sagarmatha Choudhary Eye Hospital and Biratnagar Eye Hospital) and 30 Eye and Ear Care Centres. The program is providing services to a large number of populations of Province No 1, Madhesh Pradesh, and Bagmati Pradesh of Nepal and neighbouring countries. The name of EREC-P has now changed to Lahan Eye & Ear Care System.
ACKNOWLEDGEMENTS

On behalf of EREC-P, we would like to thank CBM and their donors for constant support and guidance, SEE international for their support with the Intra Ocular Lenses, Orbis International for their support in REACH Program, PEEK Vision Limited, UK for PEEK program, DAK foundation for their support in surgeries, Vision for the World for their support for strengthening optical services and OneSight for conducting RARE survey.


We also express our sincere thanks to LV Prasad Eye Institute for providing training to ophthalmologists and paramedical staff, Dr. Shroff Charitable Eye Hospital for providing training to ophthalmologists and paramedical staff and the London School of Hygiene and Tropical Medicine for its support in research activities.

All these accomplishments were possible due to strong commitment and support from EREC-P Board, Hospital Management Committee of SCEH and BEH, all clinical, administrative and support staffs of hospitals and eye care centers.

We take this opportunity to thank many unnamed people and organization for their constant support to make Eastern Regional Eye Care Programme a success.

Eastern Regional Eye Care Programme  
Lahan/Biratnagar, Nepal  
Email: info@erec-p.org  
Website: www.erec-p.org

Team of Annual Report

Mr. Sudhir Thakur  
Programme Coordinator, EREC-P

Dr. Sanjay Kumar Singh  
Medical Superintendent, SCEH

Dr. Rakshya Panta Sitoula  
Medical Superintendent, BEH

Mr. Abhishek Roshan  
Hospital Manager, SCEH

Mr. Kumar Prithu  
Hospital Manager, BEH

Mr. Som Kumar Shah  
IT Officer, EREC-P