

Epidemiological Research Projects:

Ongoing projects

Title: Vision in Occupational Groups Eye Study (VOGES)

Funding Support: Lions Clubs International Sight First Research grant and LVPEI

Project Duration: October, 2019 - September, 2022

This longitudinal study aims to comprehensively study vision loss, binocular vision anomalies and ocular morbidity in occupational groups involved in intensive near work. The occupational groups include garment makers, bangles makers and cloth weavers.

Objectives: This study also aims to assess the impact of interventions such as spectacles for distance and near vision, vision therapy for binocular vision anomalies, treatment of ocular morbidity for better work productivity and visual functions among people involved in near work-intensive occupations.

Title: Nirmal Eye Evaluations for Trends (NEET) Study

Funding Support: iHOPE

Project Duration: November, 2021 - April, 2022

This project aims to assess the prevalence and causes of visual impairment in the Nirmal district in Telangana and aims to compare the prevalence estimates with earlier epidemiological studies. Rapid assessment of Visual Impairment and Rapid Assessment of Refractive errors methods are combined in the study. This study is scheduled to complete in April 2022.

Title: Environmental Eye Study (EES)

Funding Support: Odisha Mining Corporation (OMC) and LVPEI

Programme Duration: June, 2021 - June, 2022

Dry eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles. Odisha is one of the most mineral-rich states of India. Keonjhar district top among the 6 districts with current high extraction (31.28%). There are many ocular conditions, reversible and irreversible that can affect the quality of life. One such condition is dry eye disease which is presumed to be more prevalent in the mining environment. Such condition can affect daily activity and work - related tasks, wage loss, reduced productivity and poor quality of life.

Objectives:

- To study the ocular surface health status and prevalence of dry eyes among miners
- To study the presence of inflammatory markers and quantify the presence of mining particles in the tear fluid samples and correlate clinically with signs and symptoms

Title: Tribal Odisha Eye Disease Study (TOES)

Funding Support: Ministry of Tribal Affairs, Govt. of India & SCSRTRI, Govt. of Odisha and LVPEI **Programme Duration:** July, 2021 - February, 2022

The Dongrai Kondhs are Particularly Vulnerable Tribal Groups (PVTG) inhabiting the lofty forest of Niyamagiri Hill ranges of Eastern Ghat of Rayagada District. The population of DongriaKondha is around 9659 spread over 100 villages. The health status of the Dongra Kondhs is poor due to high level of poverty, poor environmental sanitation and hygiene and poor knowledge on availability and access to public health care facilities resulting in increased severity and duration of illness. As per the study conducted by ICMR / RMRC, Bhubaneswar on the health profile of the Dongria Kondhs, it was reported that around 20% of the Dongria Kondhs suffer from eye disease problems and even blindness. As a follow up of the RMRC study, SC SCTRTI proposed to conduct a pilot study to understand the prevalence of eye diseases amongst PVTGs in Odisha.

Objectives:

- Decrease avoidable visual impairment/blindness due to uncorrected refractive errors in PVTGs in Odisha.
- Decrease avoidable visual impairment/blindness due to cataract in PVTGs in Odisha.

<u>Title: Cognitive Level Enhancement through Vision Exams and Refraction</u>

<u>A randomized controlled trial (RCT) to assess the impact of near and distance spectacles on reducing rates of cognitive decline with aging in community-dwelling older people in India (CLEVER)</u>

Funding Support: Wellcome Trust and LVPEI

The CLEVER trial aims to determine whether free near and distance glasses provided to older adults living in or near Hyderabad, India, aged ≥ 60 years, with under- or un-corrected refractive error and normal baseline hearing and cognition (HMSE > 18), can reduce rates of cognitive decline, measured by a global cognitive score from the LASI-DAD cognitive testing battery over 36 months.

Project Duration: June, 2021 - September, 2026

Objectives:

- To assess the impact of glasses for distance and near on the cognitive decline among the community-dwelling elderly in India
- To assess the impact and cost-effectiveness of glasses for distance and near on the quality of life, falls, depression, social interaction, and physical activity in the among the communitydwelling elderly in India

The qualitative component of the CLEVER study will provide information on the context in which the trial will occur. Specific objectives include:

- co-developing a Theory of Change that shows what stakeholders think is needed for a successful trial
- understanding prevalent views on normal or expected changes accompanying aging
- analysing perceptions on the value of good vision for older adults
- exploring current and changing patterns of elder care, including policy changes, in India and Telangana state/Hyderabad
- exploring how the COVID pandemic has affected elder care
- verifying the incentives planned for optimal recruitment and retention of trial participants conducting a process evaluation of the trial.

Title: VC-SC Barrier Study

Funding Support: IHOPE

Barriers to reach secondary level eye care service centre of LV Prasad Eye Institute, Hyderabad after being referred by primary rural eye care centres -- A qualitative study at Kuchakulla Ramachandra Reddy Eye Centre (KRREC), Thoodukurthy and Navabharat Eye Centre (NBEC), Paloncha, Bhadradri Kothagudem District, Telangana.

Program duration: November, 2021 - Ongoing

Objectives:

- To analyse the barriers to the uptake of referral services in patients aged over 18 years in a secondary level eye care rural centre in Telangana.
- To understand the characteristic difference between those who availed the services versus those who did not avail services despite being referred for higher level treatment.
- To identify the risk factors for non-compliance of referral services and identify modifiable barriers that can be addressed to improve the compliance with referrals.