Epidemiological Research Projects:

Completed projects

1. Andhra Pradesh Eye Disease Study
2. Refractive Error Study in Children
3. Rapid Assessment Studies
4. LVPEI - Glaucoma Epidemiology and Molecular Genomic Study (LVPEI GLEAMS)
7. Can Using the BOOST (Better Operative Outcomes Software Tool) App Improve Cataract Surgical Outcomes? A Prospective Study
8. Endophthalmitis Prophylaxis Study: Intracameral Cefuroxime and Moxifloxacin Prophylaxis for Prevention of Post-Cataract Endophthalmitis in Rural India
9. Impact of Intervention for Avoidable Visual Impairment Among the Elderly Population in Residential Care in and Around Hyderabad, India – The Hyderabad Ocular Morbidity in Elderly Study (HOMES)

Completed projects

Andhra Pradesh Eye Disease Study
One of the largest epidemiological studies in the developing world, APEDS was launched in 1996 with an aim to understand the burden of vision loss and its risk factors. Dubbed as one of the studies with robust and comprehensive study ever done in India, the results from this study had some far-reaching consequences in eye health in India and the rest of the world. The much accompanied and replicated LVPEI pyramidal model of eye care service is based on the results of this landmark study. The Andhra Pradesh Eye Disease Study, popularly known as APEDS has three phases:

- APEDS I: 1996 to 2000: Population-based cross-sectional study to assess prevalence and causes of visual impairment
- APEDS II: 2009 – 2010: A study to trace the original cohort of APEDS I and assess the mortality and migration trends.
• APEDS III: 2012 – 2016: A study to assess incidence (among non-cases) and progression (among cases) of blinding eye conditions among the surviving cohort of APEDS I participants

Rapid Assessment Studies

Rapid assessment methods are quick and low-cost epidemiological study methods that can generate information, which can be used to plan health policies and programmes, as well as to deliver and improve services. LVPEI spearheaded the development of two new rapid assessment study methods, 1) Rapid Assessment of Refractive Errors (RARE) and 2) Rapid Assessment of Visual Impairment (RAVI). These methods are being used in several regions in developing countries. In total, 13 rapid assessment studies were conducted till date.

Refractive Error Study in Children

Refractive Error Study in Children (RESC) surveys were designed to assess the age- and sex-specific prevalence of refractive error and related visual impairment in children of different ethnic origins and cultural settings, using consistent definitions and methods and thereby providing directly comparable data from entirely different parts of the world. Mahbubnagar in Telangana was one of the two sites for RESC studies in India. The aim of this study was to assess the prevalence of refractive error and related visual impairment in school-aged children in the rural population of the Mahabubnagar district in the southern Indian state of Andhra Pradesh.

LVPEI - Glaucoma Epidemiology and Molecular Genomic Study (LVPEI-GLEAMS)

In the developing world, more than 90% of glaucoma is undetected due to the lack of appropriate screening methods. The LV Prasad Eye Institute Glaucoma Epidemiology and Molecular Genetic Study (LVPEI-GLEAMS) is a population-based study that aimed to estimate the prevalence of, along with clinical, systemic and genetic risk factors for glaucoma in a rural population sampled from the state of Andhra Pradesh, India. The study also aimed to develop community screening strategies to diagnose glaucoma.

Barriers to Uptake of Referral Services within LV Prasad Eye Institute’s ICARE Pyramid: Khammam (2014), Mahbubnagar (2018)

Poor access to healthcare is a global issue that disproportionately affects resource-poor countries and correlates with poor health outcomes. Approximately 60%–70% of those who are referred to higher levels of care comply with their referrals. However, it is not known which factors are responsible for uptake of services or why some patients comply with referral services and others do not. Hence, this study was carried out to look at the referrals from one SC to TCs. Our objectives are (1) to identify barriers to the uptake of referral services from this SC to TCs, (2) to understand the characteristic differences between those who were compliant with referral services and those who were non-compliant, and (3) to examine the associated factors for non-compliance with referral services.

The aim of the study was to provide the estimates of the prevalence, causes and risk factors for childhood related diseases in Krishna District, Andhra Pradesh (AP), India. The secondary objectives were, a) To assess Knowledge, Attitude and Practices (KAP) of parents for the uptake of eye care services in children, b) To understand barriers in accessing eye care services including low vision and rehabilitation services and c) To assess compliance to spectacles use in children.

Endophthalmitis Prophylaxis Study: Intracameral Cefuroxime and Moxifloxacin

Prophylaxis for Prevention of Post-Cataract Endophthalmitis in Rural India

Intracameral antibiotics are known to reduce the rate of endophthalmitis. This study is about the reduction in the rate of acute endophthalmitis following the use of intracameral antibiotics. The second arm is this study is about no use of postoperative topical antibiotics with the use of routine intracameral antibiotics.

Can Using the BOOST (Better Operative Outcomes Software Tool) App Improve Cataract Surgical Outcomes? A Prospective Study

Cataract BOOST (Better Operative Outcomes Software Tool) is a simple, free and easy-to-use app to help surgeons monitor and improve cataract surgical outcomes. BOOST enables surgeons to record results the day after cataract surgery, then analyze and benchmark their results against other users around the world. It also suggests strategies to improve surgical quality where results are poor. The Cataract BOOST prospective study aims to demonstrate whether using the BOOST app can improve the proportion of cataract surgeries with good outcomes (uncorrected VA >= 6/18) and be effectively integrated into routine surgical care.

Impact of Intervention for Avoidable Visual Impairment Among the Elderly Population in Residential Care in and Around Hyderabad, India –The Hyderabad Ocular Morbidity in Elderly Study (HOMES)

Visual impairment is more common among elderly people living in residential care when compared to those living in non-institutionalized environments. A significant proportion has an impairment that can be corrected by simple interventions such as the use of spectacles and cataract surgery. Studies have shown that visual impairments in the elderly affect all dimensions of their life such as mobility, self-care, driving and participation in social and religious activities, general health and the overall quality of life. This research aims to investigate the prevalence and causes of visual impairment and assess the impact of intervention including the provision of cataract surgery and spectacles on the visual functions of elderly individuals living in residential care in India.