

Note: Access to Eyecare

On May 31st we completed 36 years in the business of preventing needless vision loss and blindness. Exactly 36 years ago on June 1, 1987, we started the LVPEI journey from our campus in Hyderabad. 1st June is a day of big celebration for us, and this year too, the LVPEI team put together a great event of talent and fun. That day, as I reflected on our 36-year journey, one of the several things that amazed me was that our services have reached approximately 13,000 villages, while we have a physical presence in 252 villages. Starting as an advanced tertiary eye care centre in an urban setting, we spent these 36 years creating a large and interconnected network, providing the full spectrum of eye health: from promoting eye health, to treating complex eye diseases, and to offering rehabilitation for those with irreversible vision loss. This has been a fascinating and most satisfying journey. As our founding chair, Dr Nag Rao, always reminds us with a big smile, he had "...never thought or planned it this way. This is made possible because I pursued the path less travelled; and that has made all the difference".

The road may be less travelled, but it is an essential path. Most developing countries are struggling with two major challenges to achieve universal health coverage: a severe shortage of trained human resources, and a robust healthcare delivery system. I experienced the consequences and trauma of a poorly run healthcare delivery system in my childhood, which I spent in a small village near Jaipur in Rajasthan. The village had a primary health centre, but the doctor was mostly unavailable. The village had to depend on a nurse posted at the PHC or RMPs and quacks for our health needs. Many a time we had to travel 60 kilometers to seek medical care at a medical college hospital in Jaipur. 40 years ago, this was not an easy task. I still distinctly remember conversations among my parents and their friends worrying about delayed diagnosis and inappropriate primary management. The burden of poor health access continues to haunt many parts of India even today.

Local access

Few months ago, our colleague Varsha Rathi and a group from the University of Sheffield evaluated the economic and clinical outcomes of the early treatment of corneal abrasions and ulcers. Corneal abrasions are small scrapes, perhaps due to agricultural work, that people get on the surface of the eye, which when untreated becomes infected. The study was conducted in our primary and secondary centres. Published in *The Lancet Regional Health – Southeast Asia* journal, the study found that prompt treatment of corneal abrasions at a local health centre helps prevent the development of far more serious corneal ulceration – a leading cause of vision loss in India for those under 50 years of age. Topical eye drops for abrasions can be given out at primary care centres with good outcomes. But corneal ulcers require specialized care at urban centres with relatively poor outcomes, and the cost of treating ulcers, the travel, and the loss of a daily wage to the patient compound the problem. So, the sooner we treat, the better it is for our patients.

This is one more line of evidence that highlights the value of LVPEI's eye health pyramid and its ability to address the key gap in healthcare delivery: access. The model brings appropriate, affordable, and high-quality primary care to remote rural areas. It also interconnects between different tiers of service, so that even the most complex cases can be identified and managed timely and seamlessly. Both these aspects: the availability of primary care and appropriate referral mechanism are crucial to an efficient healthcare system.

High-quality telehealth

When Varun was 3 months old, his mother noticed that his left eye had turned blue. The parents rushed Varun to LVPEI's vision centre in Nagarkurnool village. The Vision Technician suspected glaucoma, where due to an increase in eye pressure the colour of the eye turns blue. The VT immediately connected to an ophthalmologist at the nearest rural secondary eye care centre in Thoodukurthy, through teleconsultation. A detailed eye examination was arranged for Varun at the secondary centre the same day. Through a priority referral system, Varun was referred to the centre of excellence in Hyderabad where Anil Mandal, our childhood glaucoma specialist, successfully performed glaucoma surgery on him. Varun required follow up care that was provided through teleconsultation with a few physical visits to LVPEI's secondary centre, saving the family time and money on frequent travel.

Varun's follow-up plan exemplifies LVPEI's high-quality network. Think about it: a vision technician running a primary care centre in a village quickly identified a difficult and complex eye condition, sought expert advice, then ensured care over time. Over these 36 years, the pyramid established a network of nodes for public access, but our investments in teleconsultation and referral have super-charged these nodes. In this case, they have empowered the technician to supplement their skills—all to the benefit of this young patient. Varun's parents do not have to think of the opportunity cost of visiting Hyderabad; high-quality, advanced care is only a teleconsult away from their village.

Today, we are exploring new segments who could benefit from these services. Geriatric patients and patients with disabilities in rural and urban areas, for example, benefit from Homecare, an innovative, digital form of telecare. We even have had some success with telerehabilitation. In just the past year, we've conducted over 60,000 primary level teleconsults that allowed us to manage 84% of our caseload at primary care centers with only 16% of patients requiring referral to a higher level of care. In the last three years, ConnectCare, our telehealth app, has been embraced at every level of LVPEI's pyramid resulting in over 250,000 teleconsultations.

On this anniversary, I reaffirm our commitment to strengthen our primary care network while continuing to develop institutes of excellence - the global resource centres. We would not hesitate to explore new, yet untraveled paths to create a world free of needless vision impairment. It will be a world where every human being regardless of their ability to see realises their full potential.

-Prashant Garg