

## INTRODUCTION

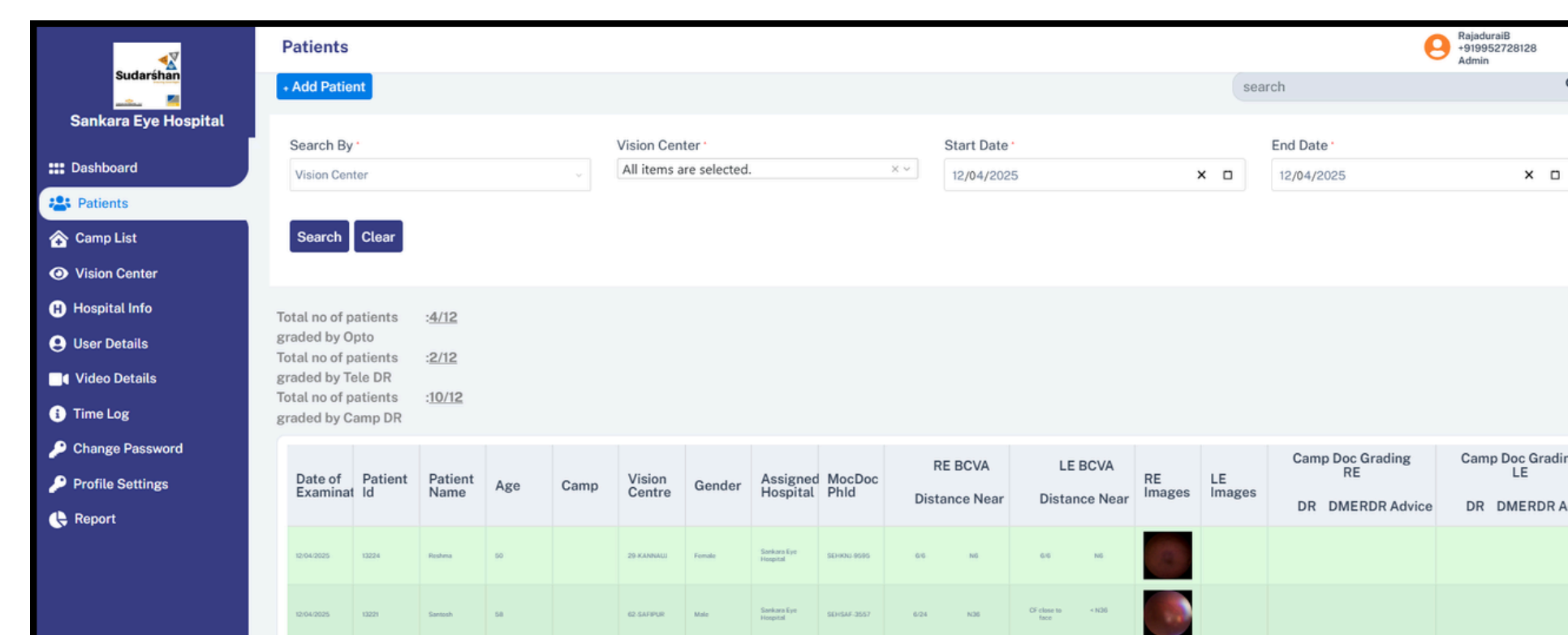
Rural India faces a severe shortage of accessible eye care due to limited infrastructure, few trained ophthalmologists, and long travel to tertiary centers. These challenges delay diagnosis and treatment, often resulting in avoidable vision loss. Vision Centres (VCs), using teleophthalmology and remote imaging, provide specialist consultations, accurate diagnostics, and timely interventions within local communities. This model improves access, facilitates prompt treatment, and keeps care affordable—enhancing the reach and impact of primary eye care in underserved rural regions.



Fundus image captured by the refractometer using the Remidio Application.

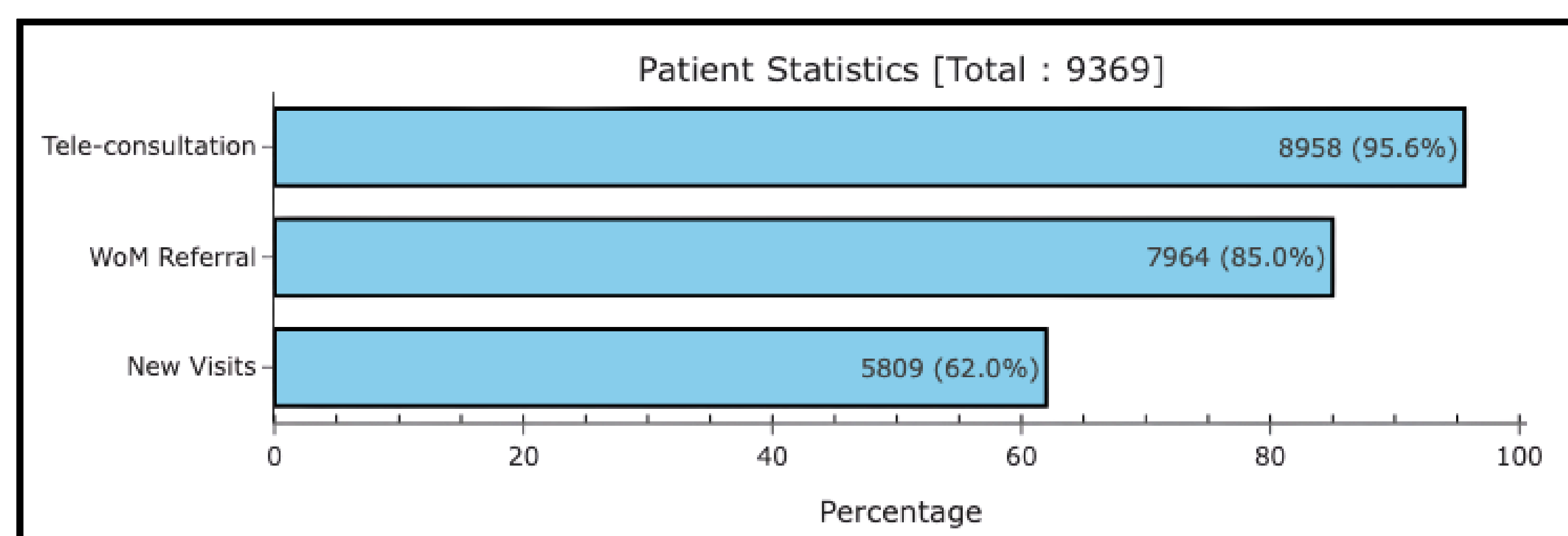
## METHODS AND MATERIALS

The present study was conducted at three Vision Centres—Aruppukottai, Rajapalayam, and Sivakasi—located in Virudhunagar District, Tamil Nadu. Secondary data on telemedicine consultations, optical sales, and patient demographics were collected from a cloud-based hospital information management system (HIMS) between April 2024 and November 2024. For imaging services, the data was gathered during the same period using the Sudarshan Application, developed collaboratively by Sankara Eye Foundation India and the University of Bonn.



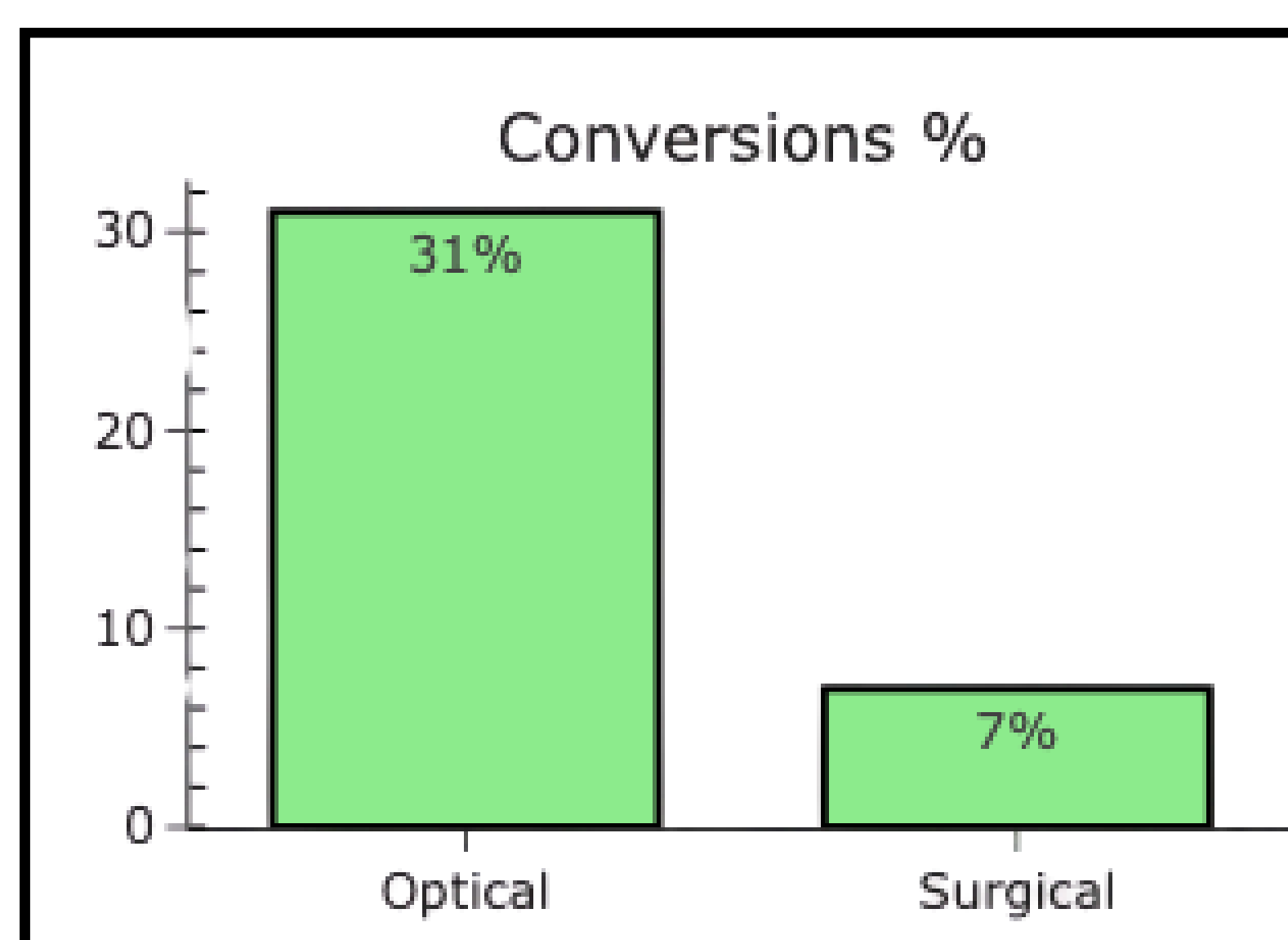
In the Sudarshan App, the fundus images are uploaded, which are then graded by doctors virtually.

## RESULTS AND DISCUSSION

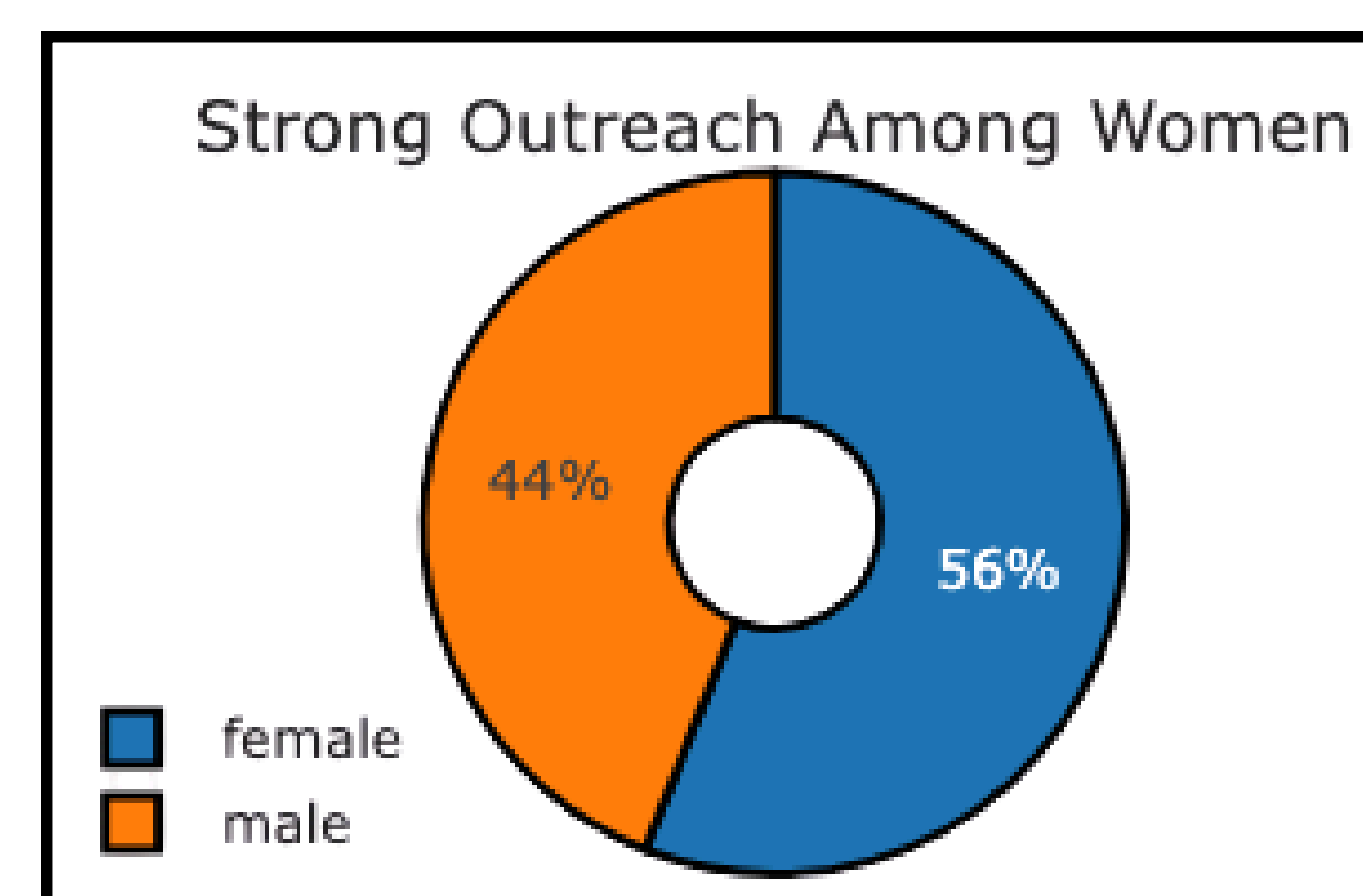


**Patient Statistics:** Out of a total OPD seen of 9369 patients during the period between April 2024 and November 2024, 8958 (95.6%) underwent teleconsultation. 7964 (85%) of the total OPD was attributed to an organic word of mouth (WoM) referral and 5804 (62%) of the patients were new visits.

**Remote Imaging Statistics :** The Sudarshan App supported 3551 anterior and 828 fundus images, enhancing diagnosis and care.



An optical conversion of 31% and a total surgical conversion of 7% indicate community's trust and acceptance of the Primary Eye Care Services being provided at Vision Centers.



**Greater Outreach Amongst Women:** Out of a total OPD seen of 9369 patients during the period between April 2024 and November 2024, 54% of the beneficiaries were women.

The Sankara Vision Centres adopt strategies that utilize teleophthalmology and remote imaging services, provide expert consultations, and employ trained eye care workers locally, ensuring high-quality service at an affordable price. This approach helps overcome resource gaps, and with proven success, it is scalable globally.

### Limitations

In spite of technological advancements, the need for humane touch felt by the patients is evident. Empathetic staff behaviour and the VC staff's ability to ensure a smooth communication between doctors and rural patients during teleconsultation are some of the critical success factors that are not evaluated in the current study.

## CONCLUSION

Telemedicine and remote imaging enhance access to specialized care, driving optical sales, surgical conversions, and patient trust. Balanced gender outreach, accurate diagnostics, and new patient visits highlight the potential for scalable, sustainable rural primary eye care solutions.