

Technology Solution for Eye Care

Blindness and visual impairment are important public health problems. Globally, at least 2.2 billion people have a near or distance vision impairment. In at least 1 billion – or almost half – of these cases, vision impairment could have been prevented or has yet to be addressed. The leading causes of vision impairment and blindness are uncorrected refractive errors and cataracts.

As per **World Health Organization**, the leading causes of vision impairment around the world are:

Uncorrected refractive errors

Cataract

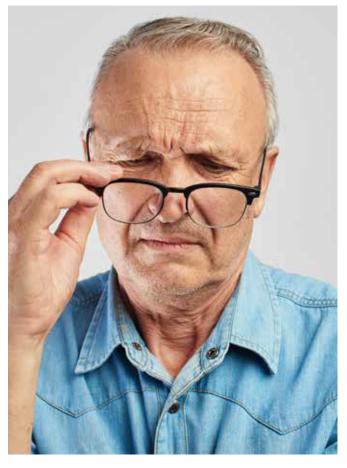
Age-related macular degeneration

Glaucoma

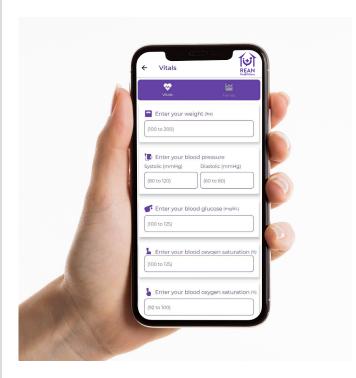
Diabetic retinopathy

Corneal opacity

Trachoma



There is substantial variation in the causes between and within countries according to the availability of eye care services, their affordability, and the eye care literacy of the population.



Eye-care continues to be restrictive due to various reasons that include:

- 1. Heavy reliance on physical check-ups
- 2. Constrained healthcare resources
- 3. Lack of an accompanying person
- 4. Travel and financial constraints for the patients.

Due to the resource constraints, patient compliance is poor. Around 23% of patients miss at least two scheduled hospital visits for post operative follow-up. Outcomes of corneal transplant have shown that more than 50% of all transplants fail within the first year, either due to lack of follow-up or due to complications such as infections.

Solution

REAN Foundation is developing a **remote ophthalmology assistant**, a comprehensive,
accessible, remote patient monitoring and support
system aimed to reduce patient travel and visits
while improving medication adherence to achieve
desired clinical outcomes and improve patient's
quality of life.

The solution will be based on a health-tech innovation that will empower individuals in rural as well as urban populations by addressing their eye care needs. The users could easily upload images of their eye on the REAN HealthGuru application to obtain medical advice remotely.

The ability to upload eye images on the mobile platform and receive real-time information about the eye condition would drastically reduce the need for follow-up visits to the eye clinic. Doctors or health workers could easily train the patients to perform basic imaging of their eye using their own smartphone from their homes.



The solution will also provide assistance with:

- **1. Follow-Up Reminders:** The application will remind users to schedule follow-up appointments for eye check-up post surgery, reducing wastage of time and money in unnecessary travel.
- **2. Medication Adherence:** The patient-friendly application will also assist patients in uploading their prescriptions, setting up medicine reminders, helping them achieve effective medications adherence. This will lead to better eye health outcomes.

REAN HealthGuru is a smart mobile application that can help users monitor and support the transition and recovery after surgery, both in urban and rural settings. The platform can effectively help during the postoperative period for: setting reminders for follow-up visits, regularly monitoring the progress and tracking vitals to identify onset of any complications as they appear. Learn more about REAN HealthGuru services here.

