



About organization

Tilganga Institute of Ophthalmology (TIO) serves as the national implementing body of the Nepal Eye Program, launched in July 1992 to promote early detection and control of blindness throughout the Himalaya. By restoring sight to tens of thousands of people each year, TIO operates under the motto “Prevention is not only better but also cheaper than cure” and makes enormous contributions to the quality of community life. The organization has established 15 community eye centres (CEC) to date in order to provide comprehensive screening and stimulate awareness about general health care.

Challenge



The [research](#) published in the Journal of Gandaki Medical College-Nepal indicated that the prevalence of blindness is high in remote areas due to different barriers like lack of facilities and treatment, geographical distribution and low economic status. Although many routine follow-up visits or non-urgent consultations could be managed at the nearest CECs across the country, most patients had to travel to the main hospital, located in the capital of Nepal, for preliminary diagnosis and surgical services. Teleophthalmology consultations with the ophthalmologists in Kathmandu could potentially provide rural staff in the Nuwakot CEC and Dhagin CEC with additional support in making referral decisions.

The biggest challenge for the TIO management was to find a reliable video conferencing system which would play nicely with Remidio Fundus on Phone, a portable smartphone-based device used to capture anterior and posterior eye images of the retina. Additionally, the solution had to provide high video quality even with unstable Internet connection and ensure the security of confidential information.

Country: 
Nepal

Field:
Telemedicine & Healthcare

Implementation:
2019

Website:
<http://tilganga.org/>

Solution

After an exhaustive search, TIO chose TrueConf as an optimal easy-to-use video conferencing system and successfully deployed it in the CECs and main hospital in the capital. The physical examinations are usually conducted in a small room equipped with PTZ cameras Aver VC320 for wide area coverage. The ophthalmic technicians capture the patient’s eye images with Remidio Fundus on Phone and simultaneously display the photos to the TIO colleague. A doctor who reviews the received data gives real-time feedback. Besides, ophthalmologists record video calls and conferences, thus making patient handover much easier.

TrueConf client applications for all popular platforms offer high-quality communication experience and enable healthcare workers to communicate with each other on an ad hoc basis. Other TIO employees use TrueConf Server for internal collaboration within the organization.



“With TrueConf, we’re bridging the distance between cities and remote villages, patients and doctors. Now our specialists have a unique opportunity to perform comprehensive exams remotely, thus improving access to quality healthcare services.”

— Sudhatma Karki, Assistant Manager-IT

Results



TrueConf solution has drastically improved the quality and performance of healthcare by connecting two rural CECs with the main hospital located in the capital of Nepal. Patients appreciate the convenience of having remote digital evaluations and receiving preliminary diagnoses by an ophthalmologist. According to doctors’ opinions, such advantages have caused a tectonic shift in healthcare as they help them reduce the risk of medical error almost to a minimum. The success of this project has persuaded the TIO staff to deploy TrueConf Server in other community eye centres in the near future.