

Community & Home Eye Screening Service (CHESS)

Yip C.C.¹, Lee J.K.S.¹, Tan K.², Woo W.L.³, Lim M.⁴, Lin, J.R.D.⁴, Irwan B.⁵, Yong C.¹, Chua E.³, Schmidt, L.⁶, Chia K.L.⁷, Seetoh T.B.H.⁷, Chung, G.L.⁷, Gowri, D.⁹, Wong S.F.²

¹Department of Ophthalmology & Visual Sciences, ²Operations, ³AHS Programme Office, ⁴Population Health, ⁵Transformation Office, ⁶Ageing-in-Place, ⁷Nursing SOC, ⁸Finance, Alexandra Health System; ⁹Care Integration, National Health Group Polyclinics

Background & Objective

Regular home and community eye screenings do not effectively reach out well to the elderly & frail.

CHESS aims to enable to detect early eye diseases via:

- 1. First-level Community Eye Screening (FiLCES)**
- 2. Second-level Eye Consultation (SeLEC)**
- 3. Training nurses & optometrists** as ophthalmologist extenders (OE) to manage simple eye conditions at the top of their licenses.

Methodology

AS IS:

Mass eye screenings done infrequently due to:

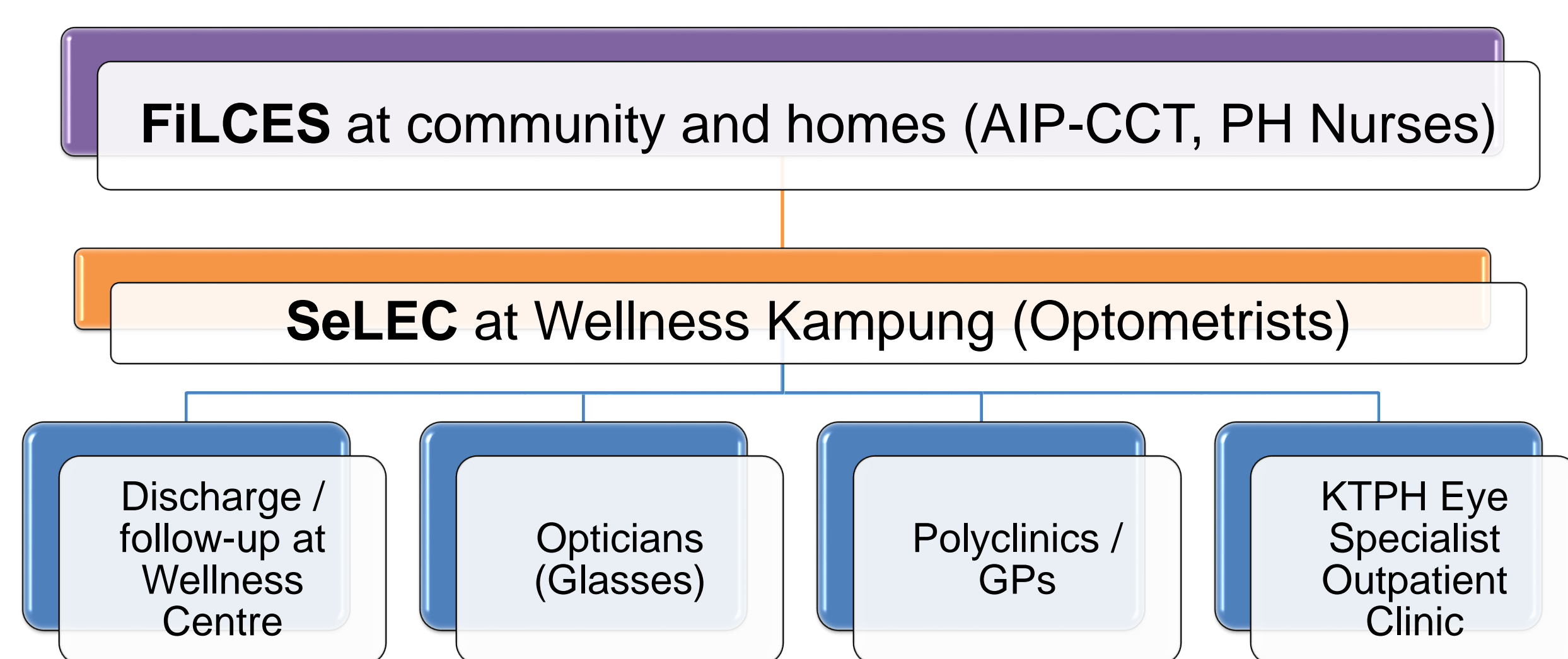
- 1. Labour-intensiveness:** about 30 staff required.
- 2. Complex logistics:** need to coordinate manpower, equipment & participants.
- 3. Limited follow up** of patients with eye conditions.

TO BE:

Trans-disciplinary collaboration involving various departments (as stated above):

- 1. To increase accessibility** of community eye care by using trained nurses & optometrists.
- 2. To reduce eye referrals to hospitals**
- 3. To be cost effective** using existing resources:
 - a. Wellness Kampungs:** AHS partnering with St Lukes Eldercare & Nee Soon GROs.
 - b. Trained Nurses** (Ageing in Place & Population Health Programs)
 - c. Optometrists** (KTPH Eye Department)
- To train and utilise **nurses and optometrists** as **OE** to manage eye conditions in the community

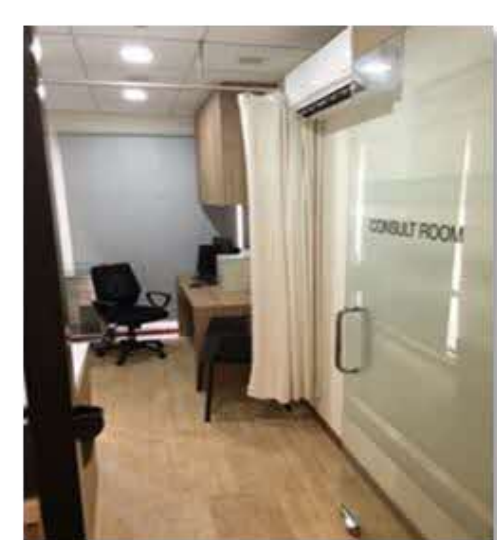
CHESS Care Model



Nurses trained by ophthalmologist



FiLCES



Wellness Kampung consult room



SeLEC

Results

PILOT PROJECT (May – June 2016)

Community Eye Screening Results:

Setting	Patients screened	Patients eligible for CHESS (FiLCES)	Patients with eye abnormalities
Health Screening	76 (53%)	75	23 (30%)
Community Nurse Posts	27 (19%)	27	11 (41%)
Homes	40 (28%)	27	18 (45%)
Total	143	129 (90%)	52 (36%)

- 40.3% (52/129 patients)** diagnosed to have **one or more** eye conditions at **FiLCES**

ROLLED-OUT PROJECT (February – June 2017) (on going)

Community Eye Screening Results:

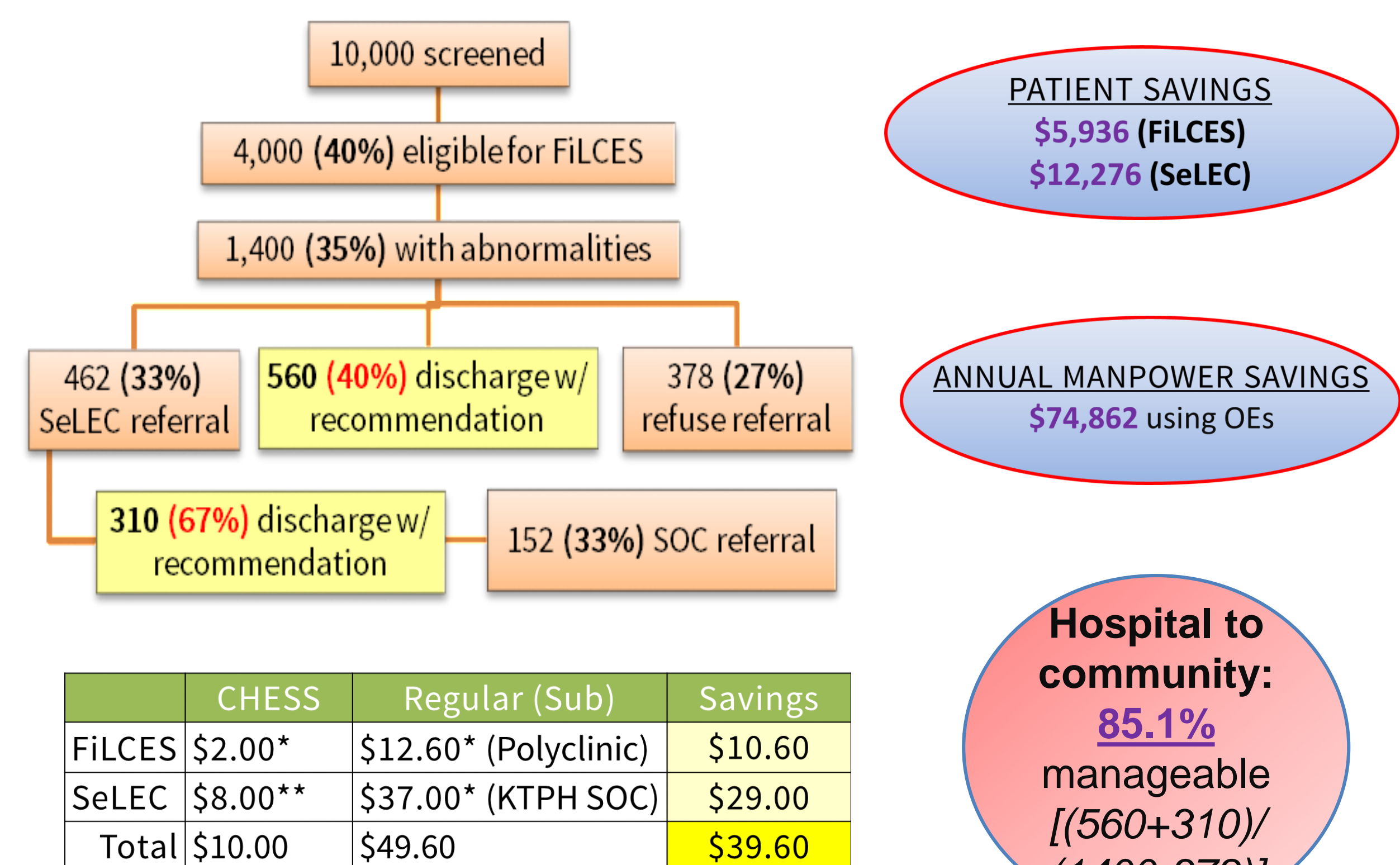
Date	Patients Screened at FiLCES	One or more eye conditions	Referred to SeLEC	Referred to Specialist
Feb'17 – Sep'17 ongoing	1,231	590	245 (seen 231)	105

- 47.9% (590/1,231)** of the community residents were diagnosed to have **one or more** eye conditions at **FiLCES**.
- 41.5% (245/590)** of the **FiLCES** referred community residents could be **managed at SeLEC**.
- Only 42.9% (105/245)** of **SeLEC** patients **needed specialist referral**. This translates to only **8.5%** (105/1,231) of **all the community residents screened**.

Project Impact

BASED ON PILOT PROJECT

- Projected workload: 560 patients (FiLCES) ; 310 patients (SeLEC)**



*Current consultation fees. **Proposed consultation fee.

Sustainability

- 1. Funding sources for CHESS:** MOH Health-Productivity for Acute Services Scheme (Health-PASS) (\$300,000) and Alexandra Health Endowment Fund (\$300,000).
- 2. Financial simulation:** After the external funding exhausts, **financial simulation and evaluation** of the project deem it to be **financially viable** based on the numbers projected above and the nominal fees of \$2 (FiLCES) and \$8 (SeLEC)*.

* Assumption: CHESS generates a 152 specialist clinic patient workload from SeLEC, of which 15% requires cataract surgery (Simulation by KTPH Finance Department).
- 3. Collaboration with NHG Polyclinics** to facilitate the follow up of SeLEC patients in the polyclinics for hospital specialist referral. A standardised workflow and referral process has been set up between the Wellness Centre and NHG Polyclinic Call Centre.

❖ Conclusion

CHESS is a **feasible and cost-effective** eye care model to **manage many ophthalmic conditions** in the community.