

Project Title

Community & Home Eye Screening Service (CHESS)

Organisation(s) Involved

Yishun Health, Khoo Teck Puat, National Healthcare Group Polyclinics, AHS Program Office

Project Category

Workforce Redesign, Care Redesign

Keywords

Workforce Redesign, Workforce Transformation, Job Redesign, Staff Training, Community Care, Ophthalmology, Nursing, Optometrists, Ophthalmology Extenders, Multi-Disciplinary Team, Eye Care, Eldercare, Care Continuity, Cost Saving, Cost Effectiveness, Manpower Saving, Khoo Teck Puat Hospital, National Healthcare Group Polyclinics, Eye Screening, First-Level Community Eye Screening, Second-Level Eye Consultation, Polyclinics, Wellness Kampung , Trans-Disciplinary Collaboration, Community & Home Eye Screening Service, Increase Care Accessibility, Financial Simulation & Evaluation

Name and Email of Project Contact Person(s)

Name: Yip Chee Chew

Email: yip.chee.chew@ktp.com.sg

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:

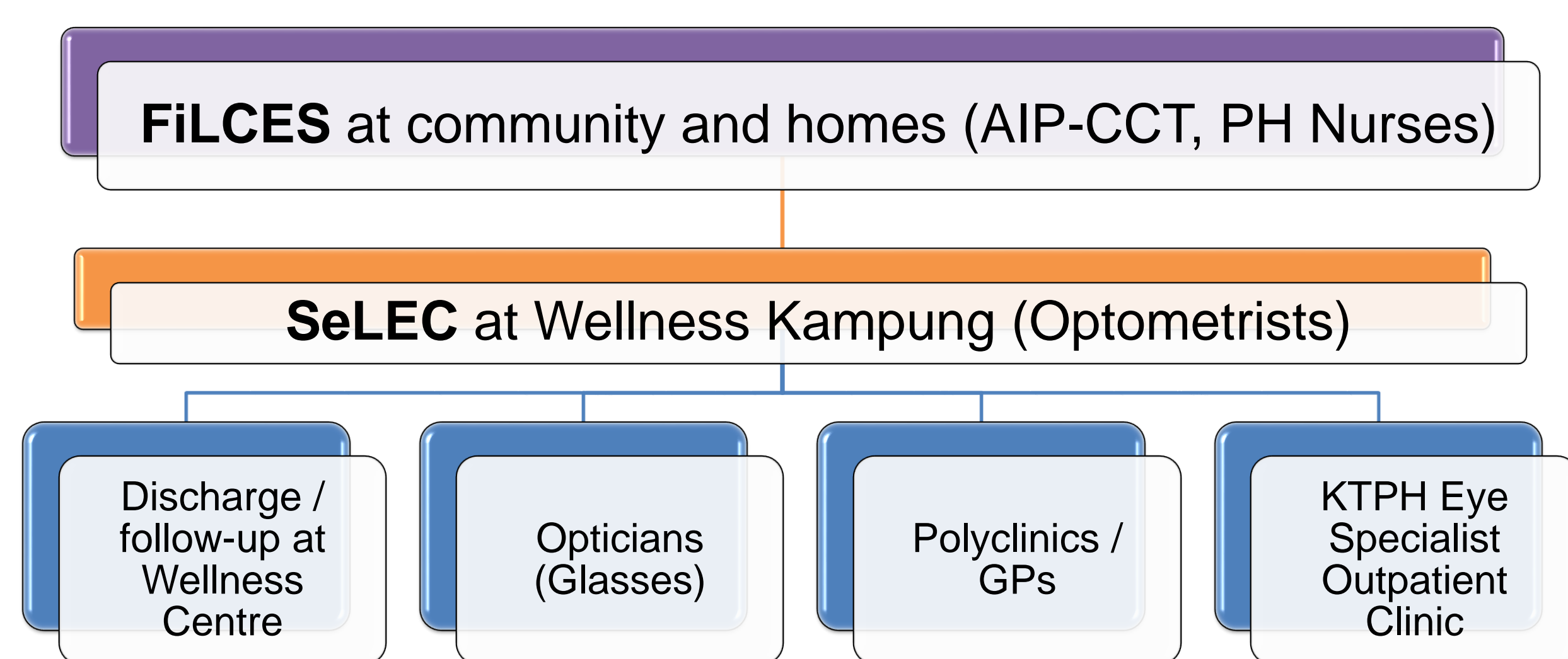
- 1. Labour-intensiveness:** about 30 staff required.
- 2. Complex logistics:** need to coordinate manpower, equipment & participants.
- 3. Limited follow up** of patients with eye conditions.

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:

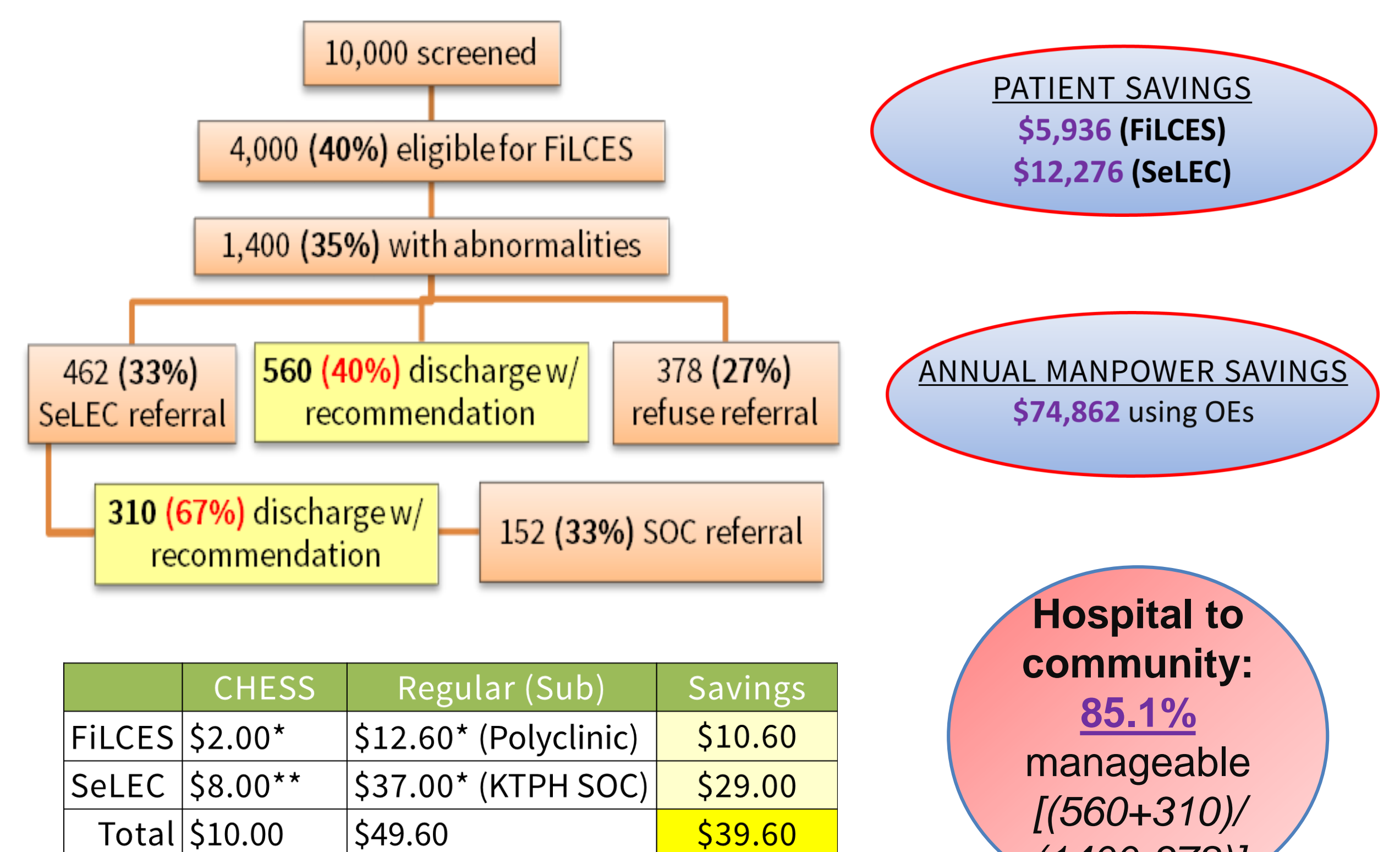
Date	Patients Screened at FiLCES	One or more eye conditions	Referred to SeLEC	Referred to Specialist
Feb'17 – Sep'17 ongoing	1,231	590	245 (seen 231)	105

- 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.