Project Title

An interdisciplinary approach to Improving quality of life of the residents in the community

Project Lead and Members

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Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group Involved in this Project

Allied Health

Applicable Specialty or Discipline

Community Operations

Aims

Community Operations aims to improve the average EQ-5D-3L index score of the residents by 10% (index score = 0.84) within 1 – 1.5 year of engagement.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

QoL extends beyond the physical health aspects; psychological and social health affects one's QoL too. During this COVID-19 pandemic, it is important to pay attention to residents' overall wellbeing, especially for residents who may be living alone or isolated.

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign, Value Based Care, Patient Reported Outcome Measures

Care Continuum, Population Health, Mental Health, Physical Health

Keywords

Care Connector Service, Quality of Life

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AN INTERDISCIPLINARY APPROACH TO IMPROVING QUALITY OF LIFE OF THE RESIDENTS IN THE COMMUNITY

MEMBERS: LEE HEE HOON, CAROL LEUNG, JESSLYN CHONG, ZENG HUI HUI, HO BEE HONG, CHEW TEE KIT, DR ESTHER TAN, DR KWEK THIAM SOO, CHEE JIA YI, KATHERINE TAN, CHRISTINE WU, FRANCIS PHNG

☐ SAFETY ☐ PRODUCTIVITY
✓ QUALITY ☐ COST
☐ PATIENT EXPERIENCE

Define Problem, Set Aim

The Care Connector (CC) service was initiated by NTFGH Community Operations in a community in Western Singapore. Through this initiative, the residents will be provided appropriate health-related support (e.g. link-up to relevant care services) during the engagement with the CCs at various Senior Activity Centers.

The quality of life (QoL) of 87 residents, aged ≥40, was assessed using the EuroQol-5Dimension-3Level (EQ-5D-3L)[1,] where the level of problems faced was reported for each of the 5 dimensions: *mobility, self-care, usual activities, pain* and *anxiety*. The QoL of the residents was assessed before the start of CC service (baseline).
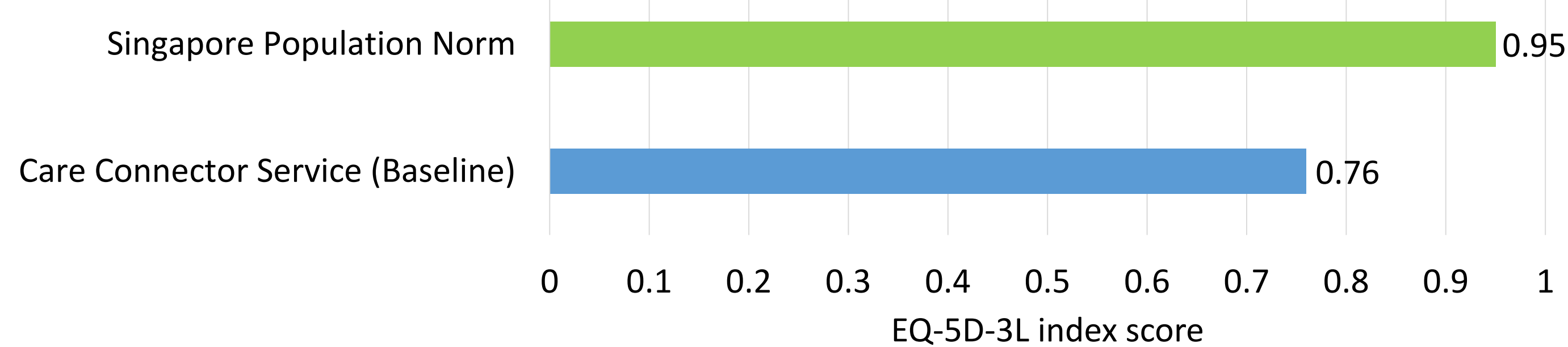
In June 2019, the average EQ-5D-3L index score at baseline was 0.76 (n = 87). This is lower than the Singapore population norm (0.95) [2].

Aim:
Community Operations aims to improve the average EQ-5D-3L index score of the residents by 10% (index score = 0.84) within 1 – 1.5 year of engagement.
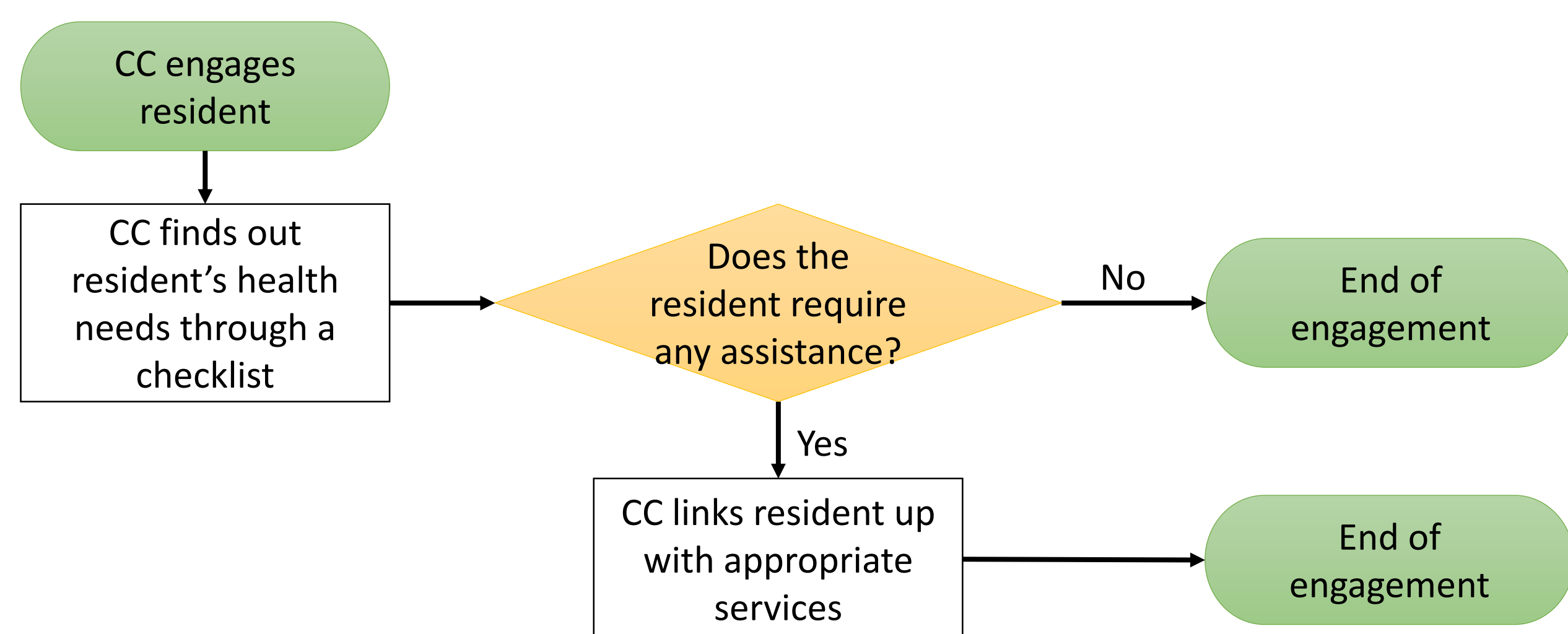
Establish Measures

Outcome measure: the QoL of the residents, assessed using the EQ-5D-3L index scores.

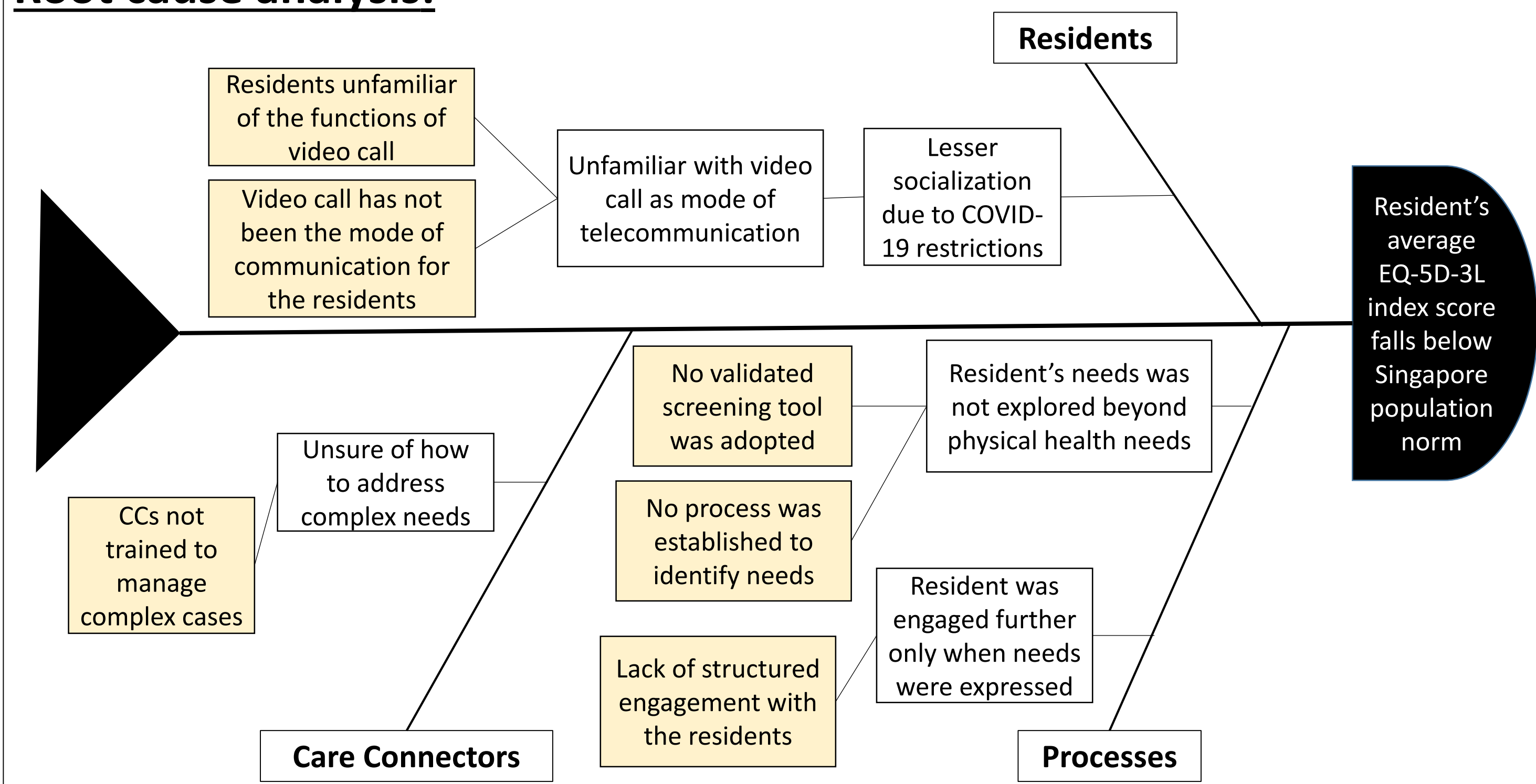**Singapore EQ-5D-3L index score vs Care Connector Service**

	EQ-5D-3L index score
Singapore Population Norm	0.95
Care Connector Service (Baseline)	0.76

(0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1)

Analyse Problem

Engagement process before the interventions:

CC engages resident → CC finds out resident's health needs through a checklist → Does the resident require any assistance? → No → End of engagement

Does the resident require any assistance? → Yes → CC links resident up with appropriate services → End of engagement

Root cause analysis:

Residents:
- Residents unfamiliar of the functions of video call
- Video call has not been the mode of communication for the residents
- Unfamiliar with video call as mode of telecommunication
- Lesser socialization due to COVID-19 restrictions

Care Connectors:
- CCs not trained to manage complex cases
- Unsure of how to address complex needs
- No validated screening tool was adopted
- No process was established to identify needs
- Resident's needs was not explored beyond physical health needs

Processes:
- Lack of structured engagement with the residents
- Resident was engaged further only when needs were expressed

→ Resident's average EQ-5D-3L index score falls below Singapore population norm
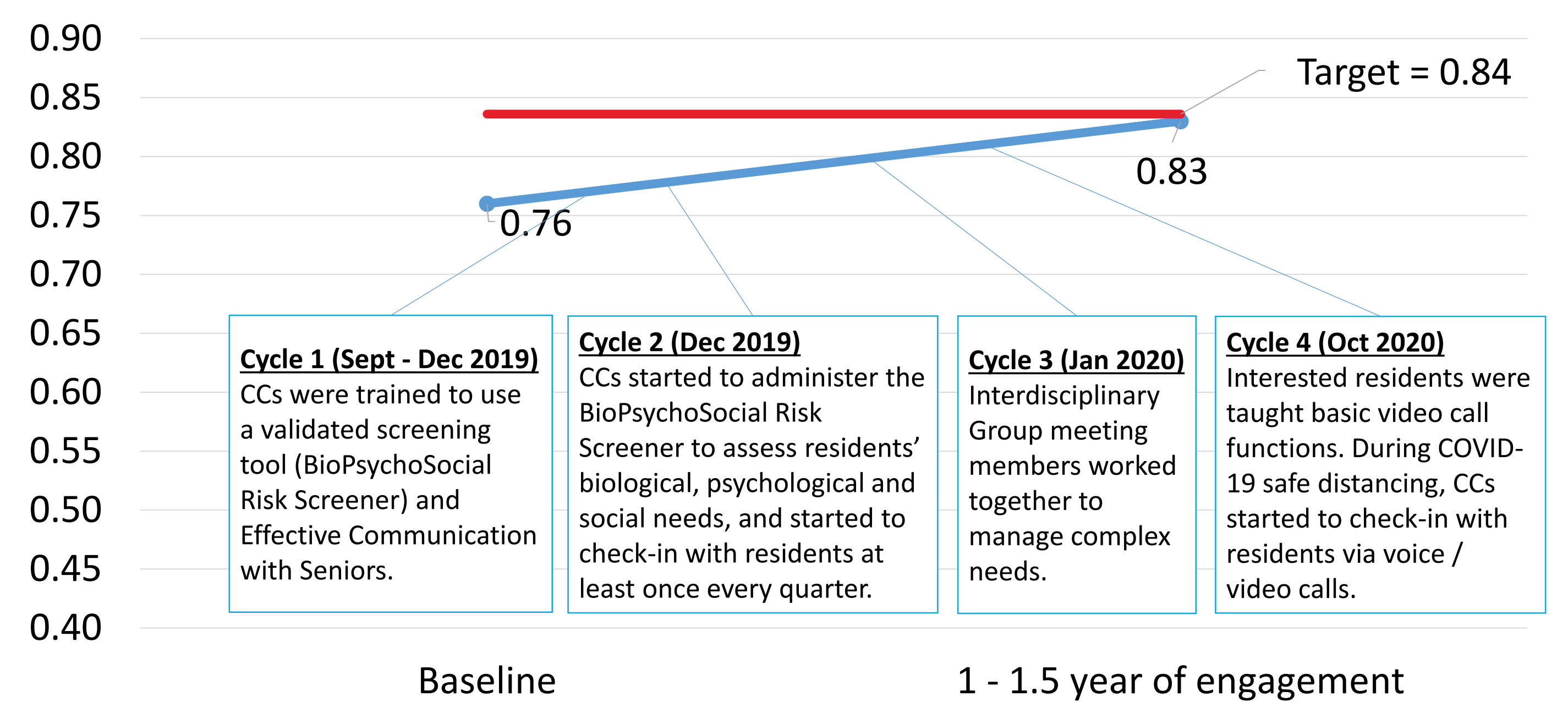
Select Changes

Root Causes	Potential Solutions
Residents were unfamiliar of the functions of video call	Residents to be taught basic video call functions
Video call has not been the mode of communication for residents	CCs to initiate video calls with the residents during COVID-19 safe distancing measures
CCs were not trained to manage complex cases	CCs to work in an Interdisciplinary Group to manage complex needs
No validated tool was adopted, and no process was established to identify needs of the residents	CCs to be trained to use validated screening tool to assess resident's overall wellbeing
Lack of structured engagement with the residents	CCs to build rapport and trust with residents by checking-in with them at least once every quarter

Test & Implement Changes

CYCLE	PLAN	DO	STUDY	ACT
1	CCs to be trained to use a validated screening tool (BioPsychoSocial Risk Screener[3]) and Effective Communication with Seniors.	CCs were trained to identify residents' needs beyond physical health needs, such as psychological wellbeing.	The trainings were good opportunities for CCs to improve their skills, they are more confident in carrying out their role in the community.	CCs will apply what they have learned when they are on the ground.
2	CCs to administer the BioPsychoSocial Risk Screener to assess residents' biological, psychological and social needs, and checking-in with residents at least once every quarter.	CCs have identified residents' needs beyond physical health, such as psychological wellbeing. Residents started confiding in the CCs.	CCs addressed residents' concerns directly or by connecting them to appropriate health and social services. However, CCs were not able to address complex needs.	CCs will work in an interdisciplinary group to address residents' complex needs.
3	CCs to work with Allied Health Professionals (Medical Social Workers), Clinicians, General Practitioners (GPs) and community partners (Senior Activity Centers) through Interdisciplinary Group meetings to address complex needs.	Interdisciplinary Group meeting members worked together to manage complex needs.	Residents' complex needs were addressed directly or by connecting them to appropriate health and social services.	The Interdisciplinary Group meeting will be carried out at least once every quarter.
4	Residents to be taught basic video call functions. CCs to check-in with residents during COVID-19 safe distancing via voice / video calls.	Residents were able to communicate remotely with CCs even though they were unable to meet face-to-face.	Residents' needs were addressed timely even when they were unable to meet face-to-face, they were comforted by CCs' virtual presence.	CCs will continue to check-in with residents virtually.

EQ-5D-3L Index Scores Post-Interventions

Target = 0.84

0.76 → 0.83

Cycle 1 (Sept - Dec 2019) CCs were trained to use a validated screening tool (BioPsychoSocial Risk Screener) and Effective Communication with Seniors.

Cycle 2 (Dec 2019) CCs started to administer the BioPsychoSocial Risk Screener to assess residents' biological, psychological and social needs, and started to check-in with residents at least once every quarter.

Cycle 3 (Jan 2020) Interdisciplinary Group meeting members worked together to manage complex needs.

Cycle 4 (Oct 2020) Interested residents were taught basic video call functions. During COVID-19 safe distancing, CCs started to check-in with residents via voice / video calls.

Baseline ... 1 - 1.5 year of engagement

Spread Changes, Learning Points

Result:
Through the interventions, Community Operations improved the average EQ-5D-3L index score of the residents by 9% (index score = 0.83). Although the target of 10% (index score = 0.84) had not been achieved, the changes implemented have shown effectiveness in improving the residents' QoL.

Key learning points:
QoL extends beyond the physical health aspects; psychological and social health affects one's QoL too. During this COVID-19 pandemic, it is important to pay attention to residents' overall wellbeing, especially for residents who may be living alone or isolated.

Spread changes:
Moving forward, Care Connectors will continue to apply the skills they have learned and experiences they have gained to benefit more residents. Community Operations will identify other residents who may benefit from this service in the other area of the community.

Ng Teng Fong General Hospital

Jurong Community Hospital

References:
1. The EuroQol Group *EQ-5D*. Available at: https://euroqol.org/
2. Abdin, E., Subramaniam, M., Vaingankar, J., Luo, N. and Chong, S., 2013. Measuring health-related quality of life among adults in Singapore: population norms for the EQ-5D. *Quality of Life Research*, 22(10), pp.2983-2991.
3. Hildon, Z., Tan, C., Shiraz, F., Ng, W., Deng, X., Koh, G., Tan, K., Philp, I., Wiggins, D., Aw, S., Wu, T. and Vrijhoef, H., 2018. The theoretical and empirical basis of a BioPsychoSocial (BPS) risk screener for detection of older people's health related needs, planning of community programs, and targeted care interventions. *BMC Geriatrics*, 18(1).