## Project Title

Project TeleHEAL (Heal, Embrace And Love): The Implementation of Telemedicine at Dover Park Hospice Home Care

## Project Lead and Members

Project Lead(s): Dr Yee Choon Meng

Project Members:

- Katherine Lim
- Dr Mervyn Koh

## Organisation(s) Involved

Dover Park Hospice

## Healthcare Family Group(s) Involved in this Project

Medical

## Applicable Specialty or Discipline

Home Care, Palliative Care

## Project Period

Start date: May 2020

Completed date: On-going

## Aim(s)

- To implement, expand and sustain the use of Telemedince during and beyond the pandemic
- To continue providing quality care for patients, using a hybrid home care consultation model

## Background

See poster appended/ below

## Methods

See poster appended/ below

## Results

See poster appended/ below

## Lessons Learnt

The concerted dedication and willingness by the home care team to embrace change, in adopting telemedicine in Palliative Home Care, has augmented the current care model to enhance the care experience for both patients and their loved ones. This has also improved the efficiency of care, during and after-office hours, while providing an alternative to face-to-face care to a selected group of patients.

## Conclusion

See poster appended/ below

## Additional Information

Winner of AIC Community Care Excellence Awards (CCEA) 2022: Productivity Improvement Silver Award

## Project Category

Technology,

Digital Health, Telehealth, Tele-Monitoring

Care Continuum

Intermediate and Long Term Care & Community Care, Home Care, End-of-Life Care, Palliative Care

## Keywords

Video Consultation, Hybrid Consultation Model, Quality Improvement

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# Project TeleHEAL (Heal, Embrace And Love): The Implementation of Telemedicine at Dover Park Hospice Home Care

CommunityCare EXCELLENCE AWARDS 2022

## DOVER PARK HOSPICE

DOVER PARK HOSPICE
Every Moment Matters


Dr Yee Choon Meng, Katherine Lim & Dr Mervyn Koh


## Background and Introduction

Agency for Integrated Care (AIC) granted support for the use of Telemedicine (TM) for Disease Outbreak Response System Condition (DORSCON) Yellow, Orange and Red during the COVID-19 pandemic in Singapore in April 2020 (circuit breaker). Dover Park Hospice Home Care (DPHC) continues to provide essential home visits for patients with life-limiting illnesses. With the emergence of COVID-19, TM has been catapulted into the role of a critically essential service for patients to help mitigate the spread of patients under palliative home care. Recent publication also suggested steps in the setup of TM service for palliative home care (PHC) patients[1] and the local guidelines (written by Singapore Medical Association)[2] for the use of telemedicine during COVID-19.

## Goals / Objective

The objectives are to (a) implement, expand and sustain the use of TM during and beyond the pandemic, and (b) continue providing quality care for patients, using a hybrid home care consultation model.

## Problem Analysis

Prior to COVID-19, none of the PHC services in Singapore provided TM via a structured process. This is a novel idea among PHC providers, as we care for sicker patients with life-limiting illnesses and their loved ones, who may have more complex physical, psycho-social and spiritual issues. While TM reduces the need for physical home visits by the clinical team, reducing risk of contracting COVID-19, there were concerns about the usefulness, effectiveness and patients' / family's experience with telemedicine. Our project highlights the process of structured implementation and quality improvement (QI) indicators for TM in a PHC setting.

## Implementation Plan

At the implementation phase, we only included more stable patients for Video Consultation (VC), identified based on the Subacute and Non-acute Phase (SNAP) [Table 1].

### Table 1: Subacute and Non-acute Phase (SNAP)

| SNAP Phases | Description |
|---|---|
| 1A (Stable-stable) | Stable, asymptomatic and able to ambulate independently |
| 1M (Stable-Active) | Active disease in patients who are stable, mild symptoms who may not need attention within 24 hours |
| 2 (Unstable) | Patients with a) Acute symptoms, b) Caregiver stress, c) Critically ill patients, d) Acute psycho-social issues |
| 3 (Deteriorating) | Patient is gradually declining physically (expected) with controlled / mild symptoms: More frail, lethargic, poor intake, and less conversant |
| 4 (Terminal) | Patient is dying (death expected within short days) |
| 5 (Bereaved) | Bereavement follow up |

"Who, where, what" are described based on the Inclusion / exclusion criteria [Table 2].

### Table 2: Inclusion and Exclusion Criteria

| Inclusion Criteria | Exclusion criteria |
|---|---|
| • SNAP 1A, 1M<br>• Have capabilities to check basic parameters and report symptoms (e.g. respiratory rate and pulse rate)<br>• Home / Nursing home / respective facilities: who have information technology (IT) support capabilities<br>• Care giver / Nurse / Care takers who knows how to operate IT equipment given<br>• Patient who can communicate verbally in a comprehensible language (English / Mandarin / Malay / Dialect) | • SNAP 2, 3, 4, 5 (patients who are unstable, deteriorating, or terminal)<br>• Patients or institutions who do not have IT support capabilities / knowledge to operate equipment<br>• Patient or family who have hearing impairment or unable to communicate verbally<br>• Does not satisfy inclusion criteria<br>• Patient or care giver reject to join VC |


**References**

1. Brook Calton, MD, MHS, Nauzley Abedini, MD, MSc, and Michael Fratkin, MD; Telemedicine in the Time of Coronavirus; https://doi.org/10.1016/j.jpainsymman.2020.03.019
2. https://www.sma.org.sg/UploadedImg/files/ncov2019/LeveragingTelemedicineInfectiousDiseaseOutbreak20200212.pdf

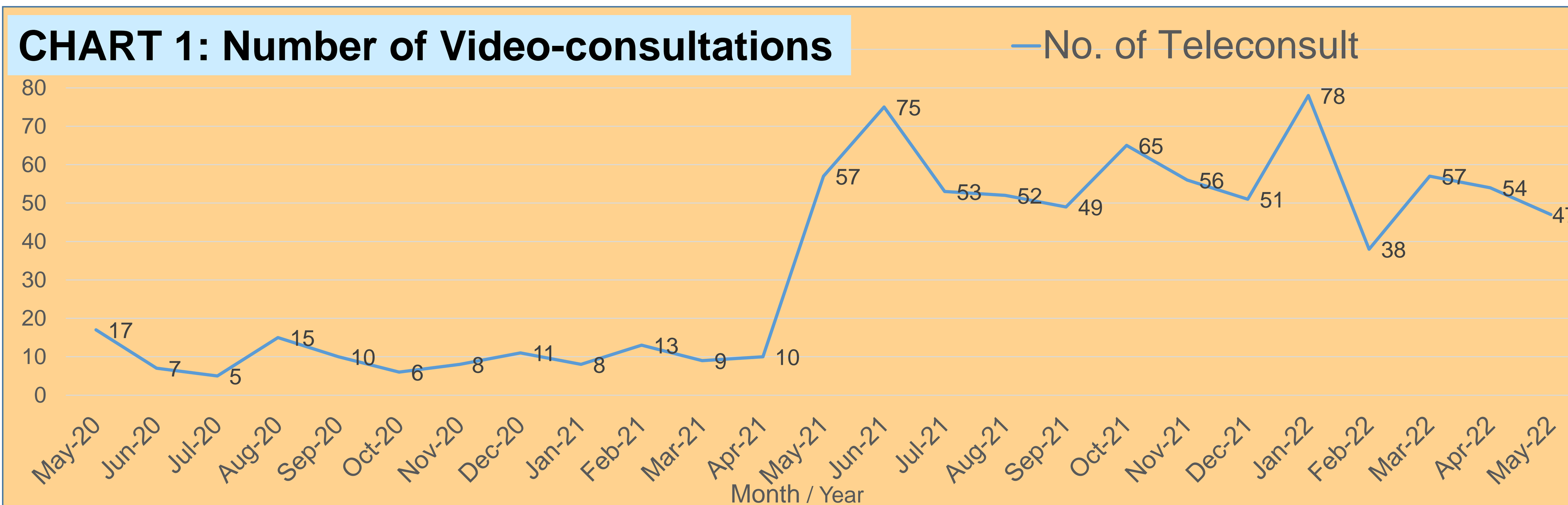

*Project Poster for Community Care Excellence Awards, Quality Productivity Forum 2022*
*Agency for Integrated Care*

## 5 areas of focus and Implementation framework [Table 3]

| Area of Focus | Implementation Framework |
|---|---|
| Medico-legal Framework | Consent including Personal data protection, privacy and patient confidentiality |
| | Institutional medical malpractice insurance |
| Staff competency and Training | Complete the following course by Singapore Medical Council (SMC): Teleconsultation: Use, limitations and implementation |
| | Instruction manual for staff and patient conducting VC |
| Information technology (IT) support | IT equipment (handphone / laptop) |
| | Availability, adequacy and reliability of broadband services |
| | Platforms with end-to-end encryption (e.g. WhatsApp / Zoom) |
| | Modification of current IT system to capture VC consult data |
| | Technical support from IT staff during and after-office hours |
| Quality Improvement assessment | Survey post-VC session, to assess the technical quality, effectiveness and usefulness of VC and patient's experience |
| Future expansion | Future funding for long term VC beyond pandemic |

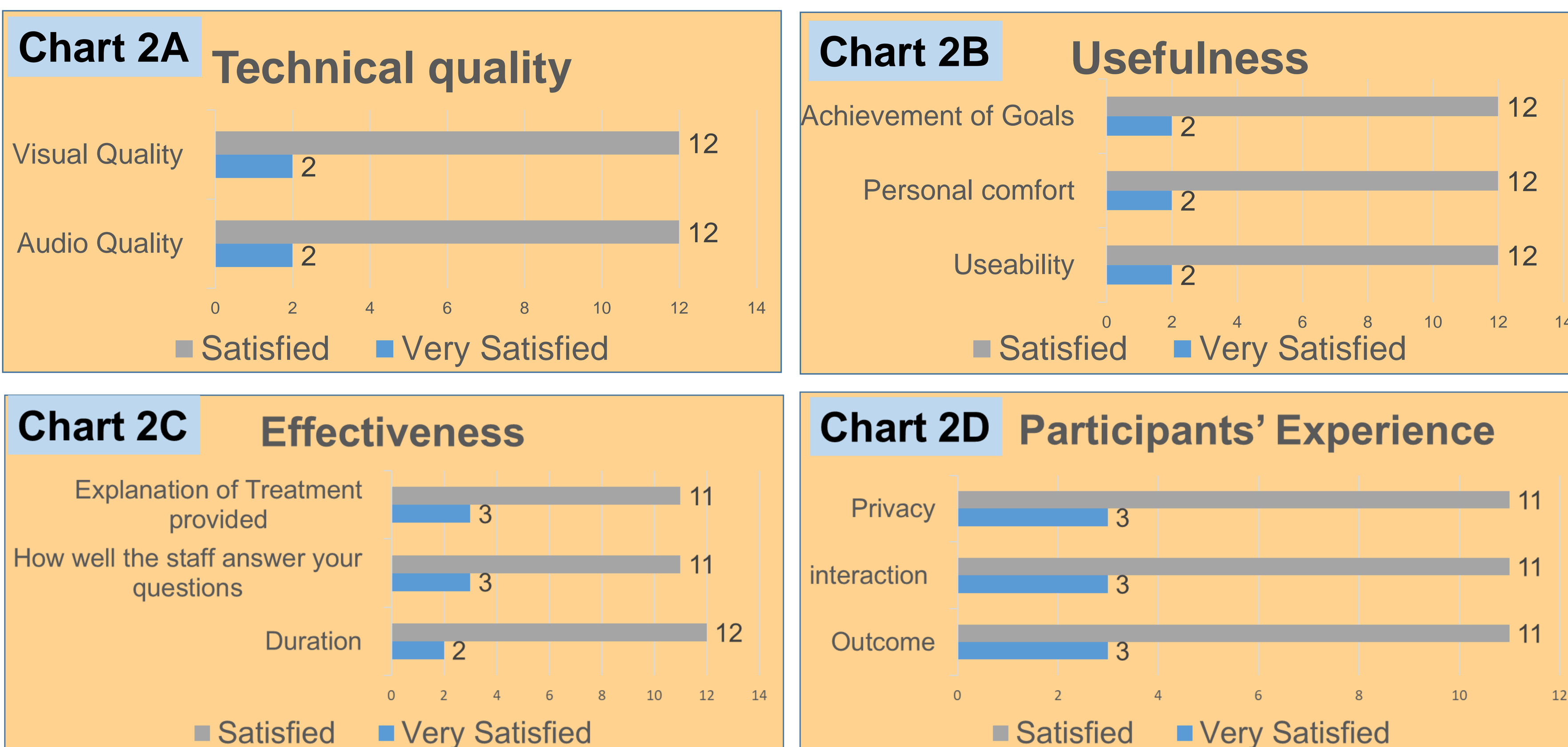
## Results

Since May 2020, we have conducted 804 unique VCs. **There was a 4.8 fold increase in number of VCs** done over the same period of time from May 2020-April 2021 (119 VCs) to May 2021-April 2022 (685 VCs) [Chart 1]. The inclusion criteria was revised in September 2020 to include patients from SNAP 2-4 and VCs are permitted after-office hours, with feedback from staff and patient's family. There was also an increase in TM uptake during COVID-19 Delta wave outbreak at TTSH in April 2021 and increased adoption by the home care staff in 2021.




## Survey Results

A questionnaire was administered at the end of each VC, accessing the four domains: 1) Technical quality, 2) Effectiveness of VCs, 3) Usefulness of VCs, 4) Participant's experience. A 4-point Likert scale (Very unsatisfied, unsatisfied, satisfied and very satisfied) was used. 14 of 17 (response rate of 82%) patients recruited from the first month of VCs, responded to the survey. Results are shared in Charts 2A-2D. All patients and family surveyed were **either satisfied or very satisfied with the 4 domains assessed.**




## Sustainability and Reflection

DPHC applied and received monetary support from **Community Silver Trust (CST) Grant** in April 2021 to sustain and expand the TM service for the next 4 years. We have since piloted TM services to include other allied healthcare workers like Art and Music Therapist, upgraded our IT equipment, and collaborated with external IT vendors to enhance the delivery of TM. QI methodology to identify gaps to improve the hybrid consultation model in the PHC setting was also reviewed, with the aim to **HEAL**: **H**eal the divide (between human-touch versus IT), **E**mbrace the innovation **A**nd infuse our care with **L**ove.