

To reduce home visit travel time for stable patients living outside the SGH Care Boundaries by 30%

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Background

The SGH Hospital to Home (H2H) program is a transitional care service. In FY18, there were a total of 5156 patients enrolled. As SGH serves an island-wide population, one of our biggest challenge in meeting the demands of the program is the travelling time taken for patients living outside the Care Boundaries (e.g. Woodlands, Yishun, etc). Using the Decision Making Matrix (Diagram 1), we voted on our project.

Diagram 1: Decision Making Matrix

Problem Area / Waste	Resource availability	Cost and time saving	Patient Safety	Total	Rank
Difficulty in contacting patient/caregiver post discharge	1	3	3	7	2
Too much time spent on waiting and travelling to outlier patients - distance limits the number of home visits/day	5	5	5	15	1
Time taken on non-clinical work - e.g. paperwork / documentation, stock check, cleaning homecare bag and equipment, etc	3	3	3	9	3

Systems	Home Care	2 points	3 points
Resource availability	Requires external funding from MSH for resources	Requires funding from SGH for resources	Use existing funding and resources
Cost and time saving	No impact on cost and time saving	Potential impact on cost and time saving	More impact on cost and time saving
Patient Safety	No impact on patient safety	Some safety on account of capabilities	High safety on transitional care is able to support

Mission Statement

To reduce H2H nurses travel time for stable patients living outside the SGH Care Boundaries by 30% within six months.

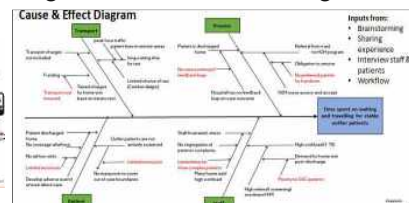
Analysis

This project goes in line with MOH care transformation vision of going beyond hospital to community; beyond quality to value; beyond healthcare to health. We identified our important stakeholders (care providers and care recipients) and reviewed our current work process to identify areas of waste and opportunities for improvement. We identified the most pressing issue was the nurses' time in waiting and travelling to outlier areas. A time motion study showed that an average time taken to travel to outlier area was 1.5 hours (Diagram 2). The Cause & Effect Diagram (Diagram 3), was used to brainstorm on possible root causes and the Pareto Chart helped us to identify the vital few root causes. Four vital few root causes were identified and plotted into the Tree Diagram and Prioritization Matrix.

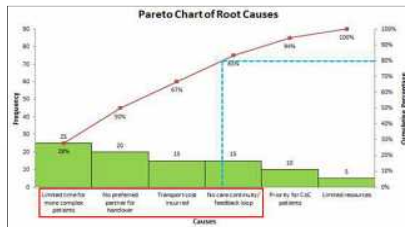
Diagram 2: Time motion study



Diagram 3: Cause & Effect Diagram



Graph 4: Pareto Chart



Interventions / Initiatives

The Tree Diagram was used to develop possible solutions and the Prioritization Matrix was used to identify the final solution selection using SCAMPER as highlighted in the yellow box (Diagram 5). From the solutions identified, we could discern 2 main concepts; 1. H2H extension with a private service provider (concept of outsourcing) for stable outlier patients and 2. More transport options.

Diagram 5: Prioritization Matrix

All stakeholders were engaged throughout the solution selection process and their feedback/ concerns were addressed. This project was implemented in February 2019 in 4 phases of the PDSA cycle (Diagram 6)

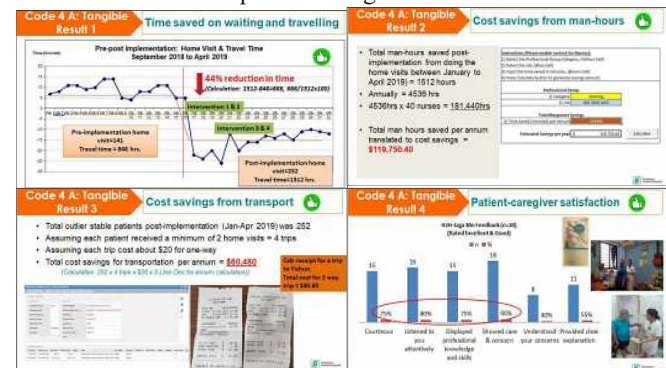
Diagram 6: PDSA Cycles of Interventions



Results

Several tangible and intangible results were achieved:

- Result 1: There was a 44% reduction in the nurses travelling time.
- Result 2: Man-hours cost savings: \$119,750.40.
- Result 3: Transport cost savings: \$60,490.00
- Result 4: Increased patient/ caregiver were satisfied



Sustainability Plans

Future plans for sustainability and scalability includes extending the service island-wide and extended afterhours and weekend support for all H2H patients.