HOME – Handing Over Medications Efficiently

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Background of the problem

The **Hospital to Home (H2H)** programme is a MOH-led programme that seeks to ensure smooth and safe transition of care from hospital to home, for patients with complex health and social needs, and a high risk of readmissions. Care provision includes a combination of telephone calls and visits to patients' homes by Nurses, Physicians, Allied Health Professionals (AHPs) and Care Coordinator Associates (CCAs).

Decision-Making Matrix

Problem Areas	Scores per Criteria				Total Score	Ranking
	Safety	Costs Savings	Time Savings	Resources Availability		
High rate of medication non-compliance	2	1	2	1	6	3
Many man-hours spent processing prescriptions from home visits	**3**	**3**	**3**	**3**	**12**	**1**
Large number of follow-up appointments needed	1	2	2	2	7	2

Project selection matrix scoring:
3 – meets criteria most, 2 – meets criteria moderately, 1 – meets criteria least

The purpose of the visits are to resolve acute or sub-acute medical conditions. Many patients enrolled under the programme present with issues pertaining to timeliness of administering medications.

H2H conducts an average of **421 home visits per month**. Common issues identified by team members are high rate of medication non-compliance, many man-hours spent processing prescriptions from home visits, and large number of follow-up appointments needed. Using the **Decision-Making Matrix**, our team selected reducing the many man-hours spent processing prescriptions from home visits as our main problem.

Mission Statement

To reduce the man-hours spent processing prescriptions from Hospital-to-Home (H2H) programme home visits by 50% (from 6 hours to less than 3 hours), within 6 months

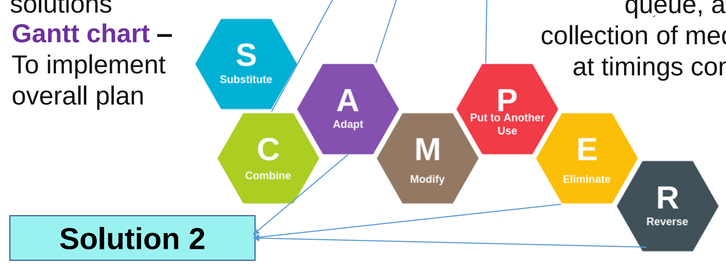
Initiatives

Tools used

- **Driver diagram - To** identify key drivers to address root causes
- **SCAMPER** technique – To **brainstorm** for ideas
- **Prioritisation matrix – To** rate the solutions
- **Plan-Do-Study-Act (PDSA)** cycle - To implement and refine solutions
- **Gantt chart –** To implement overall plan

Solution 1

BluPort lockers that were currently being used by Pharmacy to store supplied medications for staff prescriptions had their use extended to the H2H nurses. This allowed the nurses to bypass the main pharmacy queue, and also allows collection of medications 24/7, at timings convenient to the H2H nurses.

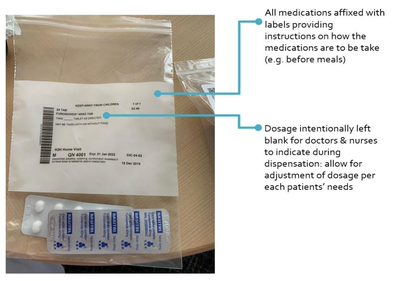


Solution 2

Home Medication Kits were created, allowing medications to be **given directly to patients during home visits**, bypassing the collection process.

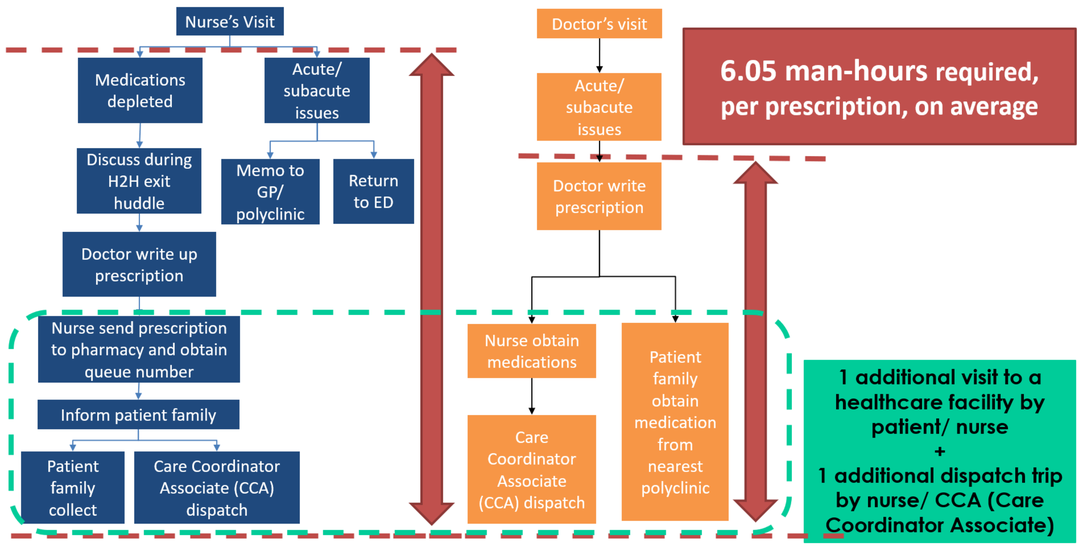
Home Medication Kits

This was adapted from existing workflows where medications were dispensed first, before a retrospective review by pharmacists e.g. use of emergency medications, protocolized treatments, which were exceptions to the Medication Use Policy. The idea was proposed and presented to the Medical Board, and approved as an exceptional workflow. To ensure safety, pharmacist review would be still done retrospectively within 24h, and immediate phone consults with a duty pharmacist could be made during the visit if necessary.

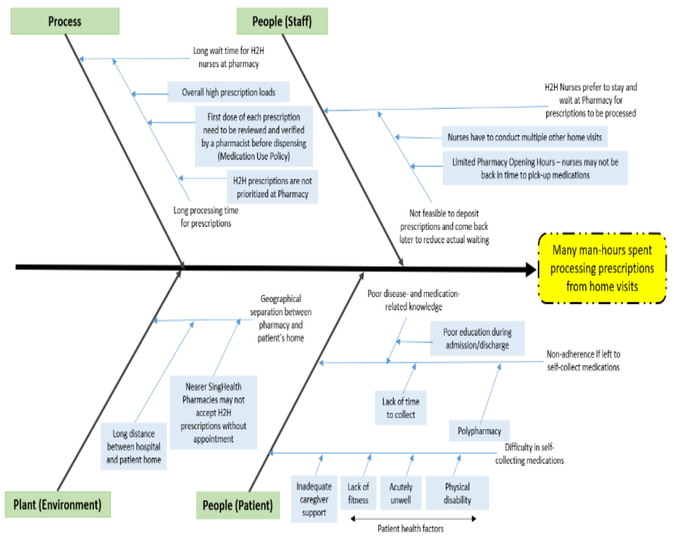


Methodology & Problem Analysis

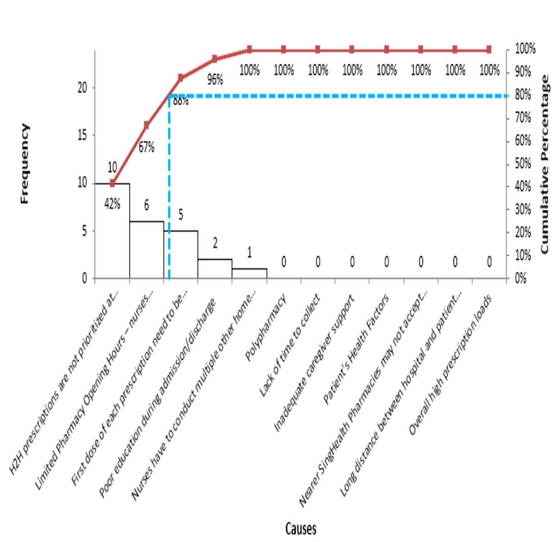
Mapping of current workflows



Cause and Effect Diagram
to identify root causes from the fine bones



Pareto Chart
to identify vital root causes to focus on



Final root causes identified were:

H2H prescriptions are not prioritized at Pharmacy

Limited Pharmacy Opening Hours – nurses may not be back in time to pick-up medications

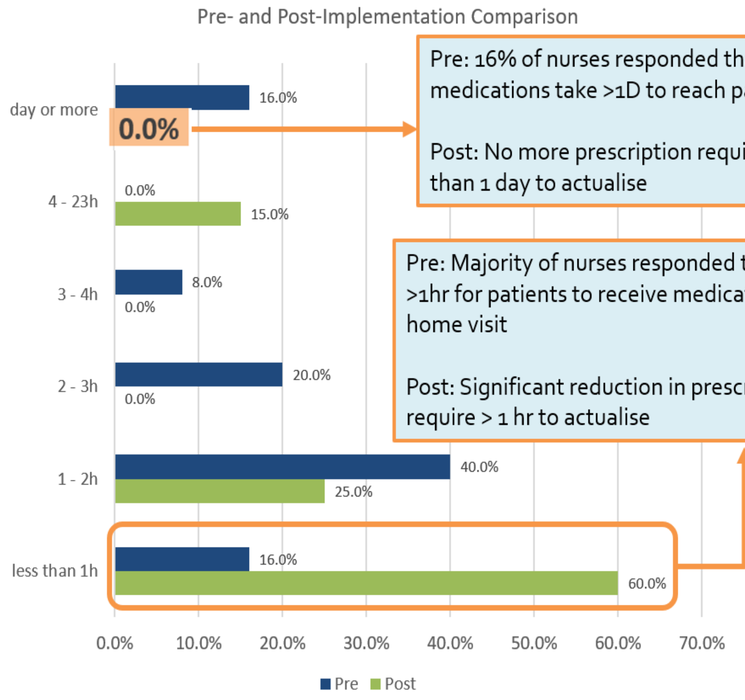
First dose of each prescription need to be reviewed and verified by a pharmacist before dispensing (Medication Use Policy)

Results

Significant reduction i.e. 80% in man-hours spent processing H2H home visit prescriptions!

Tangible Results – Primary Objective

Responses on ave. man-hour spent per prescription by nurses:
Pre- and Post-Implementation Comparison



Pre: 16% of nurses responded that medications take >1D to reach patients

Post: No more prescription requiring more than 1 day to actualise

Pre: Majority of nurses responded that it takes >1hr for patients to receive medications after home visit

Post: Significant reduction in prescriptions that require > 1 hr to actualise

MANPOWER
Average time spent per prescription:

Pre-Implementation:
6.05 hours

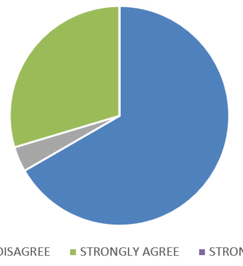
>50% reduction

Post-Implementation:
1.21 hours

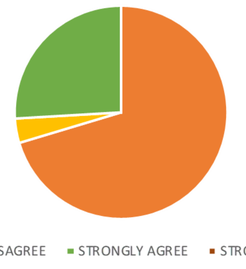
Time-savings: **4.84 hours**

Staff productivity & timeliness of medications

97% of clinicians agree that *delays in treatment were prevented* by using the kit



97% of clinicians agree that the medications prepared *addressed the medical issues faced at home visits*



Sustainability Plans

To ensure sustainability, these steps were taken:

- Workflows shared in shared drives for easy reference & access
- Monthly tracking and sharing of statistics
- Regular engagement of both H2H teams and pharmacy staff, with feedback gathered used to refine workflows