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Problem Statement

To ***increase*** the convenience of collection of medication for patients with chronic illnesses and reduced mobility and ***reduce*** the time and need to travel to a polyclinic

Understanding the problem

Inefficiency and potential redundancy in polyclinic visits which may lead to:

1. Congestion and long waiting times at clinics
2. Spreading/Contracting of easily transmissible diseases
3. Physical inconvenience for target audience
4. Opportunity costs incurred by healthcare staff

Overview of the Current Drug Collection Process

Step 1

> Physical or virtual consultations with healthcare professionals to get diagnosis/ updates on status of patients.

Step 2

> Booking of appointment via My HealthBuddy for follow-up or to collect prescription

> Registration for the PILBOX service/ Booking of refill collection via PILBOX

Step 3

> Trip to the clinic for follow up/collect medication

People with physical immobility or chronic diseases



Reasons for choosing such a target audience

1. Majority of patients at polyclinics are elderly/ patients with chronic diseases (diabetes, hypertension)
2. Proportion of population which is the most affected by the inconvenience of travelling down

Proposed Solution 1 - Delivery System

Solution 1:

MobileHealth: Utilising Singapore's current established delivery system an alternative to delivering medicine to home-bound patients

Rationale 1:

Reduces inconvenience of target audience substantially and lessens polyclinic crowds, in line with MOH's goals of moving beyond hospitals to communities

Rationale 2:

Target audience most likely homebound, patients would be home to receive package

Proposed Solution 1 - Delivery Artifacts

Description:

- PIMBOX (Prescription in Mail Box): Design of a “safe box” carrier for grab delivery drivers that provides the optimum storage conditions (2-8°C and tracking capabilities for the medication.
- Make use of federated lockers with different functionality for different medication
- Booking of delivery slots and procurement of prescription done via platforms such as SingHealth or HealthBuddy app

“Safe Box” Carrier for Grab Drivers



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Current Design of
Medicine Transport Box

Pre-existing system of
Grab Delivery Riders

Hot Section for food

Cold Section for medicine

Insulated Section for medicine

Proposed Solution 1 - Booking system

Description:

- During booking of delivery, patients will be prompted to choose their preferred mode of instruction: Language, hard vs soft copy, number of copies, who else can receive the package, etc.
- SMS, QR code and brief description will be provided together with the medication in the PIMBOX
- QR code leads the patient to HealthBuddy App where the usages and side effects are listed
- Upon receiving, confirmation can be done by the patient through Health Buddy

Proposed Solution 1 - Evaluations & Further Works

Evaluation 1:

May need to look at the feasibility of mass delivery due to the substantial economic costs

Evaluation 2:

Must ensure that our delivery system meets the stringent health protocols for medication delivery

Evaluation 3:

Question of liability in the event that there is loss/damage of medication during delivery

Thank you!