

Hand in Hand: Equipment Donation Matching Platform

Opportunity showcased:



**Simplify adoption
with existing platforms**

Utilising existing platforms allows for:

- Low barriers to implementation in terms of speed and cost,
- Low barriers to adoption as there is less need to retrain staff,
- A more sustainable solution as less 'new' waste is created.

Therefore, designing sustainable solutions is often more efficient and impactful when we build upon existing systems instead of starting from scratch!

In this project, the NUS team was able to quickly learn and **build solutions on existing digital platforms** to address **resource management gaps** faced by the Community Health Team (CHT).

Other opportunities shown:



Tackle systemic waste at its roots

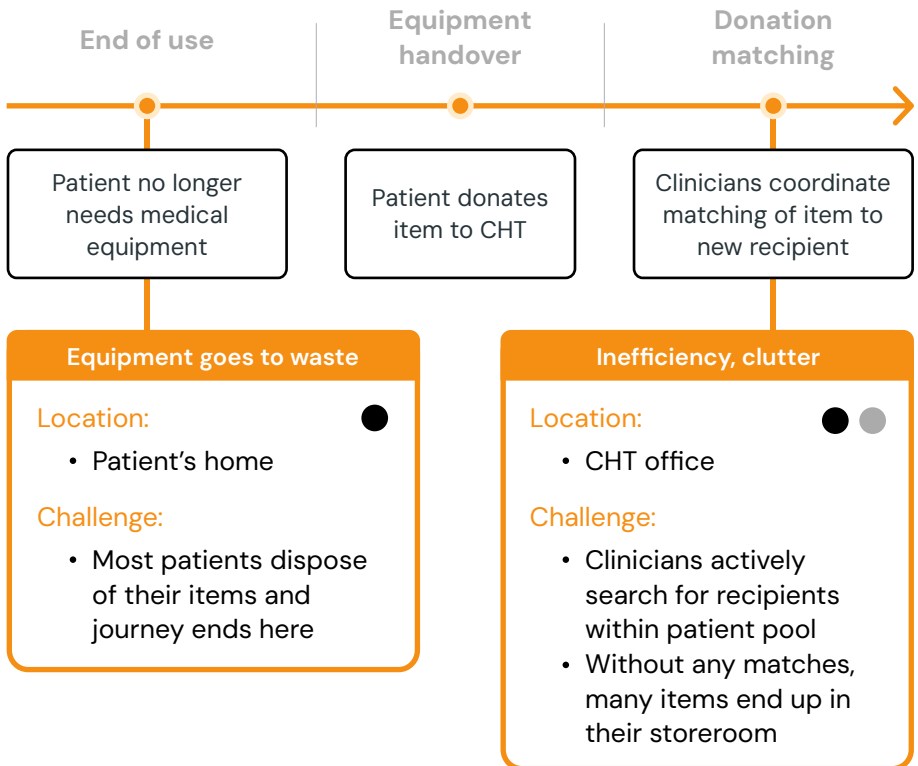


Seamless integration into workflow

PROJECT CONTEXT

Currently, CHT facilitates medical equipment donation between patients on top of their daily duties. However, there are difficulties faced in inventory tracking and many missed donation opportunities.

CURRENT EQUIPMENT DONATION TIMELINE



Research Approach

EVERYDAY ACTION STEPS

ACTIVITIES DONE BY TEAM

INSIGHTS IDENTIFIED

Take a look around



Observed CHT's patient home visits

Many of the patients struggle financially; medical items can be a huge cost burden

Patients are unaware of how to donate/request for medical equipment

Talk to people



Interviewed nurses

CHT fears that their department will become a 'waste disposal centre'

Brainstorm together



Conducted a co-creation workshop to focus on patient generated waste

Clinicians go beyond their job scope to facilitate equipment donations between patients

Clinicians have no efficient way to track inventory

Build quickly

Gather feedback

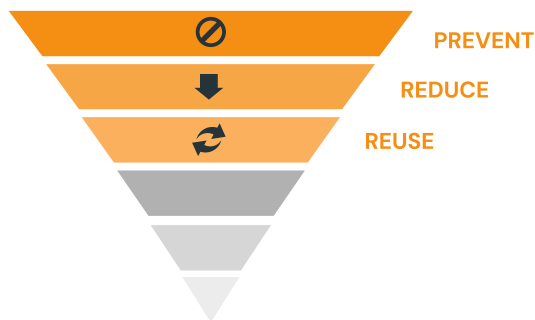
Designed and tested solutions

Design Challenge

How might we encourage equipment donations from patients while optimising CHT clinicians' workload?

Design Solution

The design team came up with **Hand in Hand**, a programme that aims to create sustainable life cycles for used equipment by streamlining donation processes for both patients and CHT nurses.

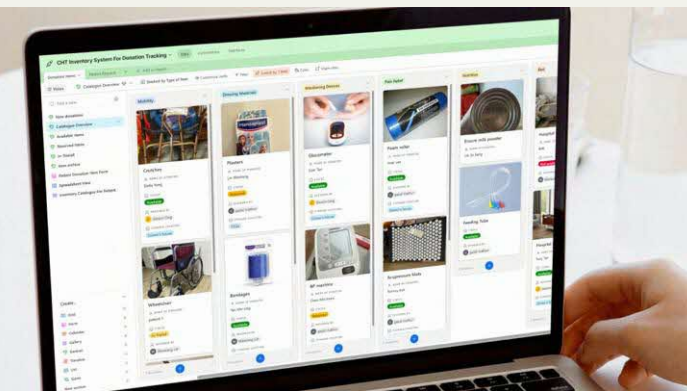


This solution **prevents** the need for new equipment, **reduces** the amount of waste from discarded equipment, and **reuses** functioning equipment from patients.

Design Solution 01

Digitised Inventory Management System

An online inventory management system built on *Airtable* – an **accessible, free, cloud-based software** – allows clinicians to track patient requests and donated items in their inventory.



Consider
this!

Can you **Simplify adoption with existing platforms?**

Adapting existing digital systems, apps, or software within the organisation saves time and resources while reducing waste. It removes the need for staff retraining, and minimises complications associated with introducing completely new infrastructure.

Alternatively, finding commercially available platforms can also help speed up implementation. Avoid creating digital platforms from scratch unless there are features unavailable to the mass market.

Problem Addressed

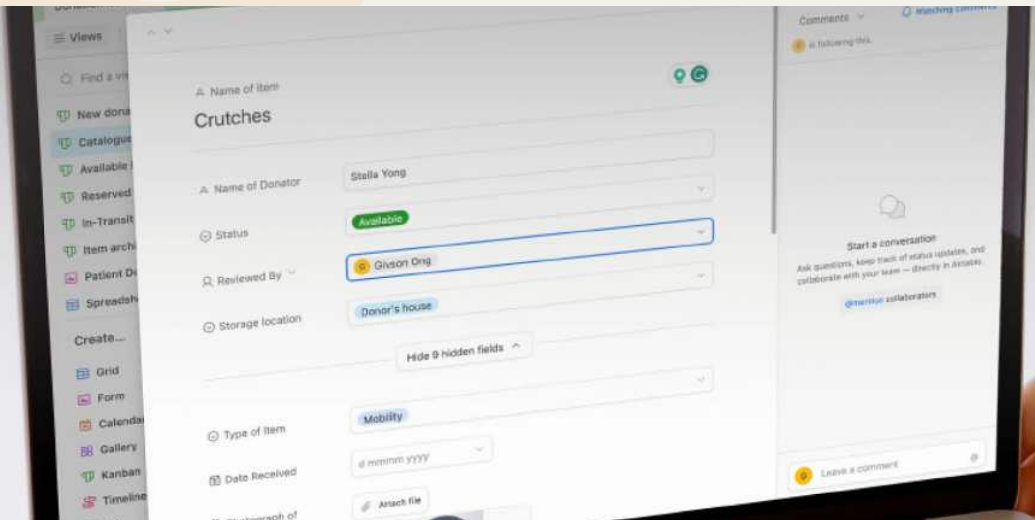
Clinicians no longer have to physically check the storeroom upon each request to determine the serviceability of items.



How?

Airtable's simple interface allows clinicians to:

- Easily access an online inventory via a mobile app or computer
- Easily enter donated items into the inventory
- Set status tags (e.g., Available/Reserved) to track inventory
- Reduce manual accounting of the storeroom items as donated items can be accounted for through the online inventory



Design Solution 02

Educational Pamphlet on Donation Process

Educate patients on donation and reuse process through multilingual pamphlets.

PROBLEM ADDRESSED

More patients will be informed that they can donate their used equipment through CHT.

OUTCOME

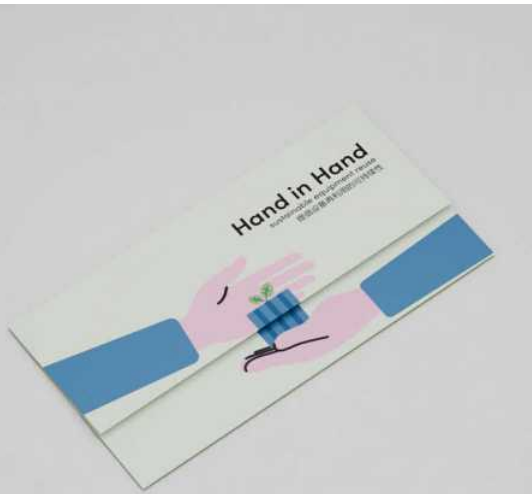
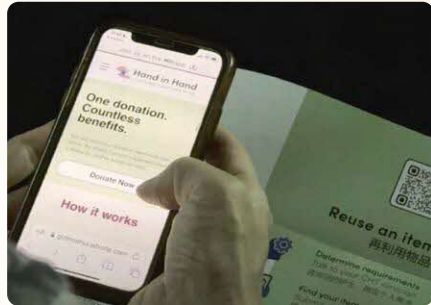
Patients/next-of-kin (NOK) are more inclined to donate used equipment, thus **preventing** unnecessary disposal.



Consider this!

Can you **Tackle systemic waste at its roots*?**

**Refer to pg. 72 to know more.*



Design Solution 03



Consider this!

Can you **Seamlessly integrate your solution into existing workflows*?**

**Refer to pg. 20 to know more.*

Website to Facilitate Equipment Exchange

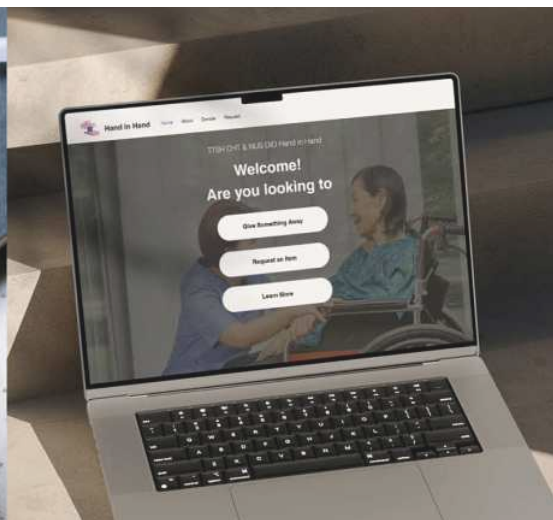
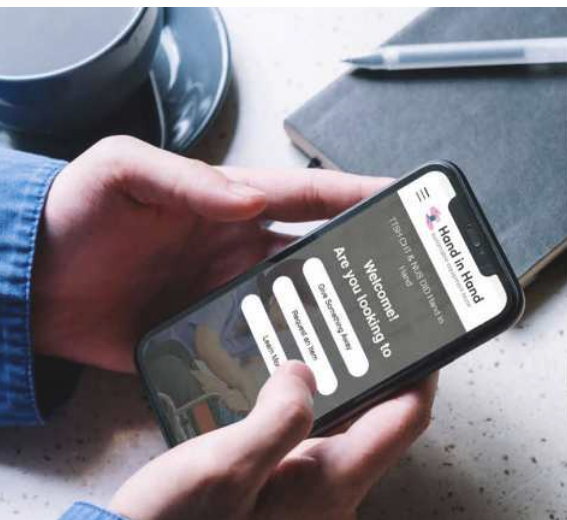
A website built on WIX – a freemium, no-code website builder – that provides information to patients/NOK on how to properly donate used equipment that is still usable, or request for items.

PROBLEM ADDRESSED

Clinicians can efficiently match donated equipment to patients and spend less time doing so.

OUTCOME

Used equipment is sourced and matched more effectively, thus driving **reuse** in donation pools.



User Testing

To validate the potential of the *Hand in Hand* programme in its entirety, the three key touchpoints were tested over a 2 week period with CHT nurses, stakeholders, as well as patients and next-of-kin (NOK).

1



Patients/NOK are introduced to *Hand in Hand* through pamphlet

Educational pamphlet on donation process

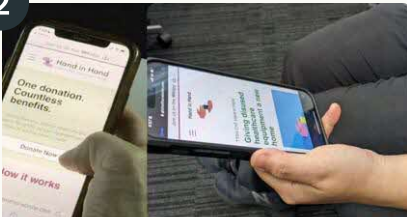
Patients and NOK found the pamphlet easy to understand.

"Chinese translations made it easier for me to explain everything to my elderly mom."
> Mrs. D. (NOK)



Scanning a QR code brings users to the *Hand in Hand* info website

2



Details on the donation process are found here, including an online donation request form

Website to Facilitate Equipment Exchange

Nurses accessed the WIX-based website on their laptops and smartphones and gave positive feedback regarding the content and accuracy of information.

3



Incoming donation requests show up on CHT's Airtable inventory database

Digitised inventory management system

Nurses were given hands-on time with an *Airtable* prototype of the inventory management system to test out the donation matching concept.

"The Airtable inventory streamlines the process of matching donations with patients more efficiently compared to our WhatsApp chat groups."
 > Nurse E.

STAKEHOLDER FEEDBACK:

Finally, the entire *Hand in Hand* concept was tested with other stakeholders. The NUS team was able to get support from healthcare executives involved in running donation matching programs of their own.

“

We are already doing informal donation matching at our AAC, and this platform would help us. We'd like to implement this in our centre.

”

> Tan Shi Min, Assistant Executive,
Active Ageing Centre



HAND IN HAND: DONATION-MATCHING PLATFORM



TEAM MEMBERS

LIN WENKANG

Wenkang is a 2nd year DID student who is very interested in user research. He enjoys getting to know the perspectives of different people and works toward building empathy in his design work.

GIVSON ONG

Givson is a 3rd year undergraduate with dual majors in ID + iDP whilst pursuing interdisciplinary studies at NUS College. He is adept in the design process and excels in interdisciplinary collaboration where design is integrated within technical and business constraints to drive improvements and change for humanity.

GAZAL MATHUR

Gazal is a junior studying industrial design at Georgia Tech. She believes in creating products that delight and connect with people through a user centered design approach.