

# Fostering Recycling Awareness in Inpatient Wards

**Opportunity showcased:**



**Engage everyone across all levels of the system**

Sustainability awareness engagement can take many forms and exist through different touchpoints.

For this to be effective, a comprehensive approach is needed so stakeholders can engage with critical content in a variety of ways, and thus be more receptive to sustainable messaging.

In this project, the NUS team devised a package of solutions to drive recycling awareness amongst nursing staff.

**Other opportunities shown:**

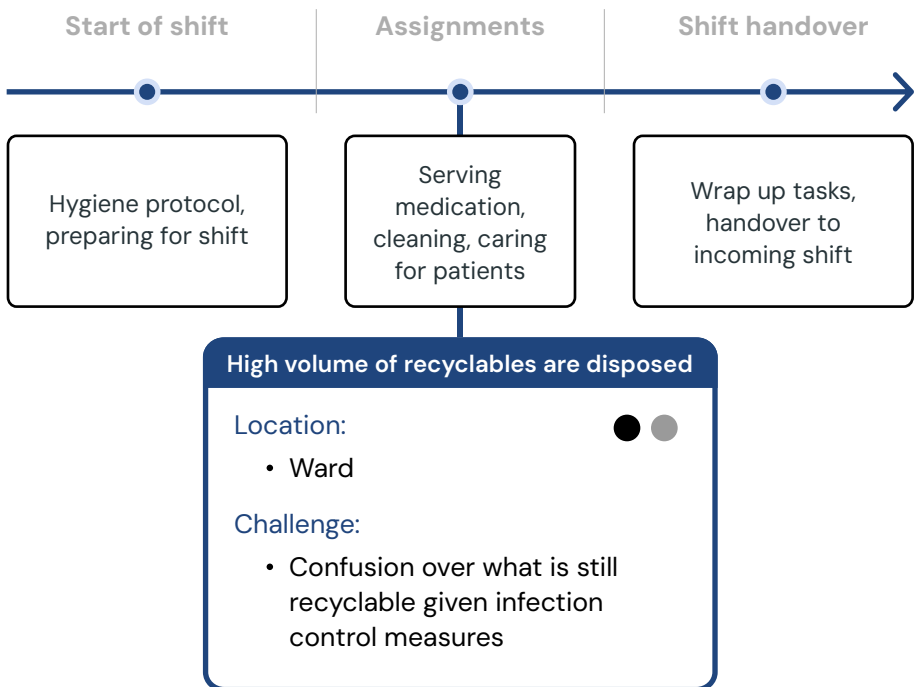
 *Seamless integration into workflow*

 *Streamline information distribution*

## PROJECT CONTEXT

A large proportion of waste generated in wards is conventionally considered recyclable (e.g., plastic/paper packaging). However, strict infection control measures coupled with a lack of recycling motivation drives nurses to dispose of these items after use.

## CURRENT WORKFLOW AND CHALLENGES



### Stakeholders involved

- Nurses
- Housekeepers



# Research Approach

EVERYDAY  
ACTION STEPS

ACTIVITIES DONE  
BY TEAM

INSIGHTS  
IDENTIFIED

Take a look  
around



Observed wards,  
hospital bin centre

High volume of plastic  
recyclables generated

Difference in type of  
recyclables collected at  
ward level, and what is  
accepted downstream

Talk to  
people



Interviewed nurses,  
housekeepers,  
recycling vendor

Lack of alignment on  
what types of waste  
are recyclable

Brainstorm  
together



Held a co-creation  
workshop with  
nursing staff

Build  
quickly

Gather  
feedback

Designed and  
tested solutions

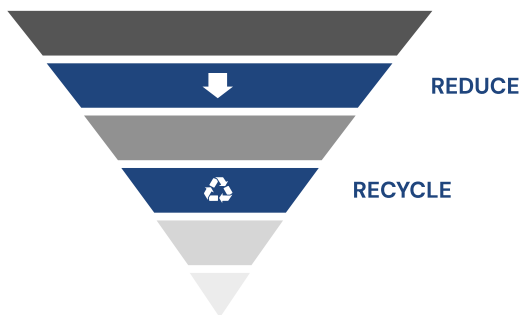
## Design Challenge

How might we engage ward staff holistically to impart greater knowledge of recyclables and recycling practices?

## Design Solution

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The team focused on a three-pronged approach to foster a culture of recycling awareness within the hospital.



Their initiative aims to **reduce** waste generated from discarded recyclables, and increase **recycling** rates within wards.

Design Solution 01

# Conversational Card Set

A conversational card set to be used during meetings, trainings, and co-creation sessions to spark discussions on sustainable practices.



## Consider this!

### Can you **Engage everyone across all levels of the system?**

Different people within the same department can have different levels of understanding on protocol, standard operating procedures, and sustainability practices.

It is important to engage all parties to ensure a shared, unified level of sustainability understanding across teams. The design solutions found in this feature aim to address that through a holistic range of sustainability engagement channels.

# Problem Addressed

The card set bridges gaps in understanding of waste management practice in wards, and resolves conflicting opinions on what can be recycled.

## How?

Each card's face contains a type of waste commonly found in wards, and a discussion prompt on the other side.

These cards aim to spark discussions that re-examine current practices around sustainability and ward waste, and thus provide an opportunity to improve and align recycling literacy.





### Consider this!

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

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

## Design Solution 02

# Satellite Recycling Bins

Satellite recycling bins with clear recycling instructions are attached to recyclable waste generation hotspots such as PPE (Personal Protective Equipment) booths and medicine trolleys, making recycling convenient and accessible.

### PROBLEM ADDRESSED

Recycling bins are now conveniently located around the ward, and nurses no longer have to detour to recycle items.

### OUTCOME

More types and larger volumes of recyclables are being collected from the wards, while prominent labelling of recyclable categories ensures a lower contamination rate.



Satellite recycling bin attached to ward trolley mock-up



Satellite recycling bin attached to PPE booth



**Consider this!**

Can you **Streamline information distribution**\*?

*\*Refer to pg. 46 to know more.*

Design Solution 03

# Tuesdays with Tong

Utilising internal digital messaging/newsletter systems to effectively share bite-sized content on sustainability topics.

**PROBLEM ADDRESSED**

Sustainability information is delivered in a targeted manner, compared to the current visual clutter of sustainability related posters on ward walls which are usually left ignored.

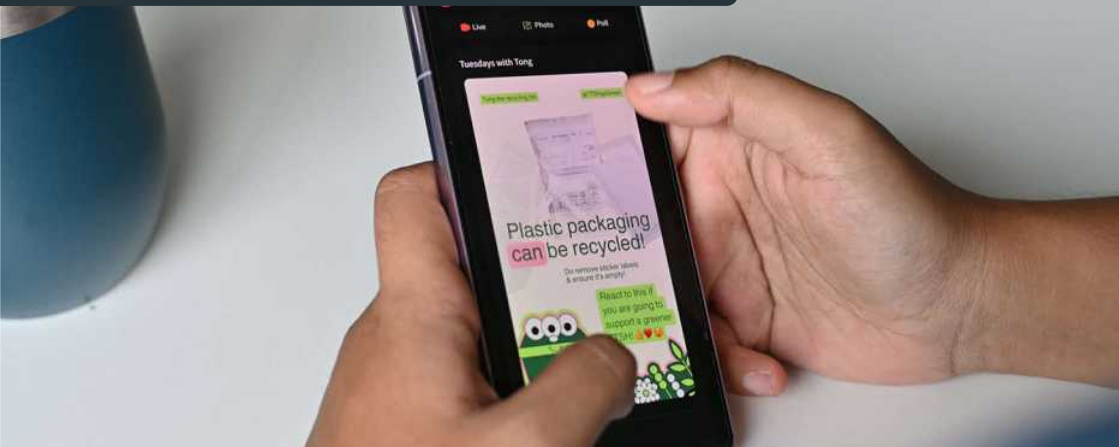


**Before:** Cluttered posters

**OUTCOME**

Consistent, easily understandable tidbits of information that aim to present sustainable actions in a more accessible way, thus nudging greener actions.

**After:** Bite-sized, digital sustainability content





# Testing

Ward environment: 2 week testing period

## Bridging sustainable knowledge gaps

### Conversational Card Set



*"Easy to use & fun tool! Can be used during meetings."*  
> Sister Mariam

Potential to increase recycling literacy and spark discussions on building sustainable habits.

## Increase in ward recycling rate

### Satellite Recycling Bins

Before: 5g  
After: 37g

INCREASE IN WARD RECYCLING RATE/SHIFT

**7.4x**

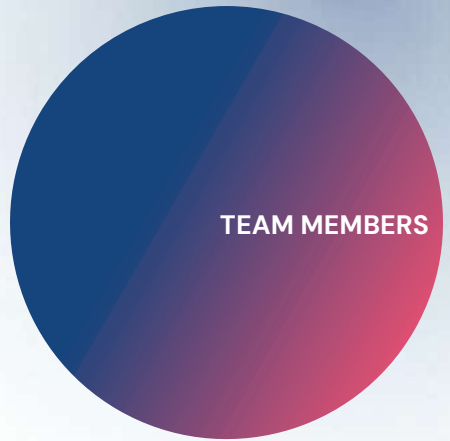
The satellite bins expanded the range of what was recyclable. This resulted in a significant increase of 340g recyclables collected over a period of 9 shifts compared to an initial, negligible amount (<5g).







## **FOSTERING RECYCLING AWARENESS IN IN-PATIENT WARDS**



### **GOH YU YAN**

Yu Yan is a design student that is passionate about integrating human experience with technology. Beyond the design realm, Yu Yan finds joy in exploring the humanities and fulfilment in orchestra music playing.

### **CHAN JIA YING**

Jia Ying is an industrial designer who fearlessly embraces being an amateur, approaching every experience with fresh eyes. With an inclination towards people-centric design, she enjoys delving into users' stories. As her skills evolve, she is eager to explore the realm of user experience. She also finds joy in photography.

### **WINA NASHITA RAKANA ADISETYA**

Wina is a dynamic & resourceful designer, who pushes material boundaries with innovation. Wina's designs reflect practicality, simplicity and thoughtfulness, all underpinned by a desire to leave a meaningful, positive impact. Her design philosophy emphasises the journey and creative process, valuing them just as much as the final outcomes.