

# ENHANCING ENVIRONMENTAL SUSTAINABILITY: REDUCING HOSPITAL WASTE GENERATION

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## 1. PROBLEM Statement

Mount Elizabeth Novena Hospital (MNH) generated ~1332 tons of waste in 2022 and incurred high disposal cost. The amount of waste and cost of disposal are projected to increase over the next few years as the hospital expands our medical services and bed number.

With an expanding waste footprint, Addressing this issue now can help avoid financial strain and improve long-term sustainability.

## 3. AIM Statement & TARGET

MNH aims to reduce the hospital's waste footprint per Inpatient (IP) day within 12 months by:

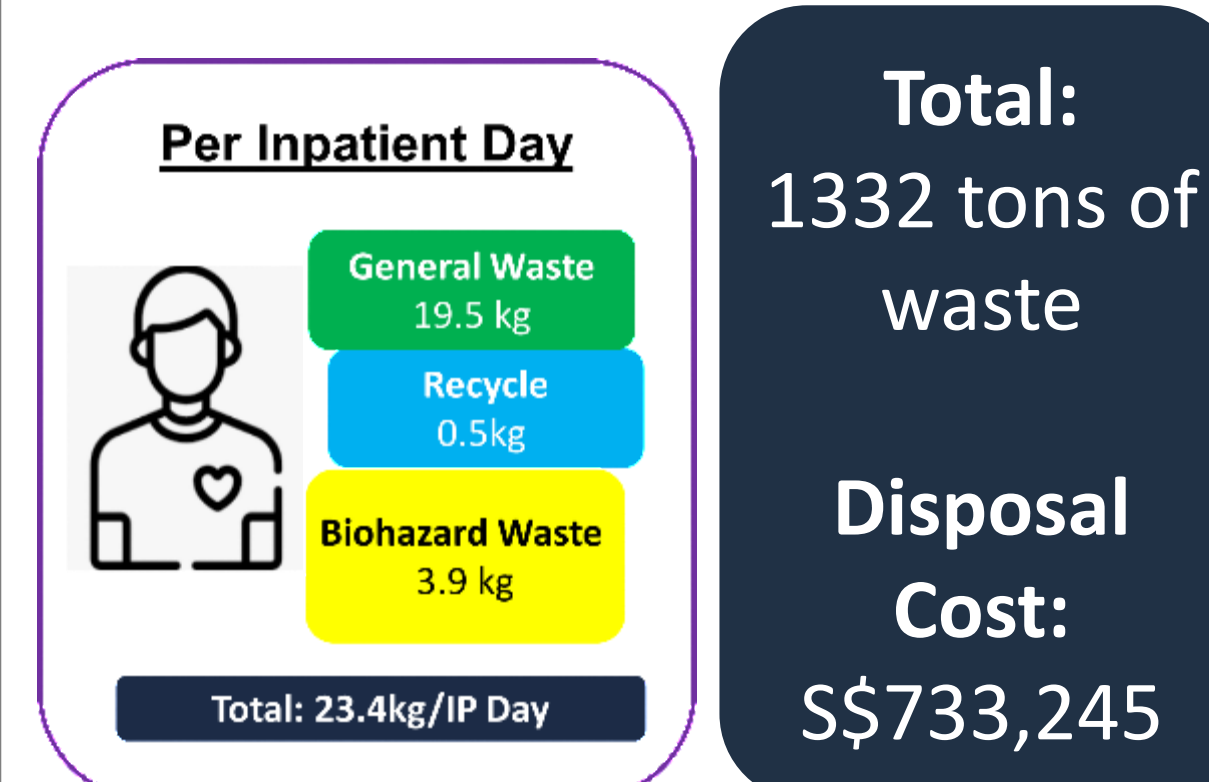
- Reducing General Waste per IP day by 20%
- Increasing Recyclable Waste per IP day by 30%
- Reducing Biohazard Waste per IP day by 20%
- Saving Disposal Cost by 20%

## 2. BACKGROUND Information

The growing volume of waste requires more manpower for effective management. Additionally, limited licensed waste collectors and disposal sites increases the demand for waste disposal services and significantly drives up costs. This highlights the importance of integrating waste reduction and management strategies into healthcare practice

## 4. MEASURE & INDICATOR

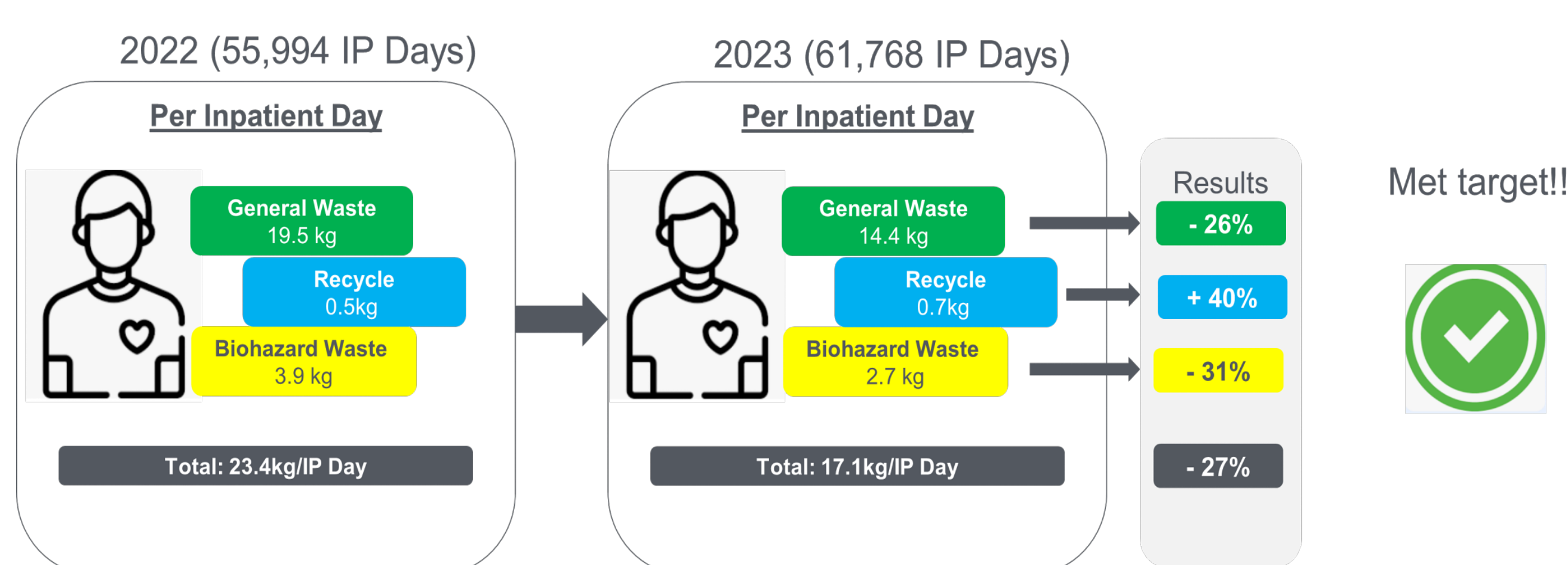
2022:



## 5. CHANGE STRATEGY

| General Waste Reduction Efforts  | Recyclable Waste Efforts  | Biohazard Waste Reduction Efforts  |
|--|---|--|
| <b>#1: Discontinue Disposal Plastic Cultery and Encourage Bring Your Own Culture</b><br> | <b>#1: Replace plastic and glass bottles in Inpatient rooms</b><br> | <b>#1: Proper bin usage education</b><br>  |
| <b>#2: Eliminate single use plastic</b><br>  | <b>#3: Upcycling condemn linen</b><br>                              | <b>#2: Proper bin usage size and location</b><br><p>During the Gemba Walk, the team observed that the previous bins size were small and were placed further away from users. Due to convenience, the waste were not placed into the appropriate bins</p> |

## 6. RESULTS



In 2023, MNH achieved a saving of S\$308k (27%) from the projected S\$1.13m. MNH is on track to reap further benefits in 2024, projecting another S\$333k of saving by the end of 2024.

## 7. LESSONS LEARNT

Through this project, the team learnt that regular updates, training, and feedback helped build trust and ownership. Building relationships with internal departments and external partners facilitated knowledge sharing, resource optimization, and innovative solutions, while being adaptable allows for proper response to unforeseen challenges and new opportunities, which was essential for success.

While the project achieved success, a greater emphasis on behavioral change strategies might have led to even more profound and lasting impacts on waste management practices.