

## **Project Title**

Improving Healthcare Delivery through Innovation and Technology

## **Project Lead and Members**

- Mr Seow Seow Wei
- LTC Dr Joachim Yau
- ME2 Liew Shanzhi
- Muhd Shazali

## **Organisation(s) Involved**

ST Logistics Pte Ltd and SAF Medical Corps

## **Healthcare Family Group(s) Involved in this Project**

Healthcare Administration, Medical

## **Project Period**

Start date: Not Available

Completed date: Not Available

## **Aim(s)**

To develop end-to-end solutions focusing on (1) Medicine Dispensing and (2) Management of Medical Equipment Store to aim of enhancing safety, improving logistics efficiencies and overcoming manpower limitations.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Conclusion**

See poster appended/ below

## **Project Category**

Care & Process Redesign

Quality Improvement, Workflow Resign, Job Effectiveness, Productivity, Time Saving,

## **Keywords**

Automation, Medicine Dispensary System, Medbox, Go-BAG

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# Improving Healthcare Delivery through Innovation and Technology

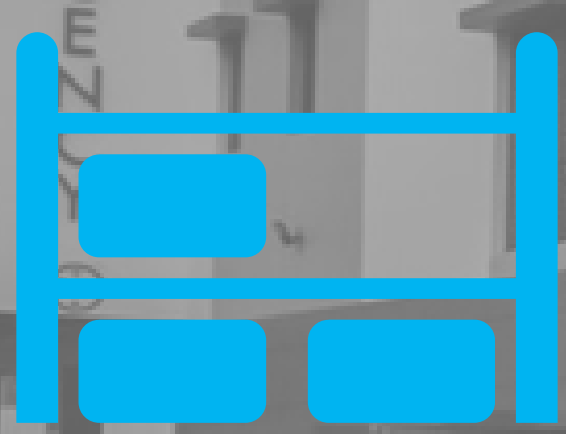
**Project Leads:**  
Mr. Siow Seow Wei, ST Healthcare  
LTC (Dr) Joachim Yau, SAF Medical Corp

## Introduction

In order to address SAF's evolving healthcare needs and meet rising healthcare demands of our service personnel in a sustainable manner, SAF Medical Corps must leverage technology and automation to transform our daily healthcare delivery, especially with tightening resource constraints.

SAF Medical Corps has partnered ST Healthcare to develop end-to-end solutions focusing on (1) Medicine Dispensing and (2) Management of Medical Equipment Store, with the aim of enhancing safety, improving logistics efficiencies and overcoming manpower limitations.

## Key Challenges



Manual Processes



Demand Optimization



Waiting Time



Manpower Limitations

## Solution



Medical Dispensary System (MDS)



MedBox



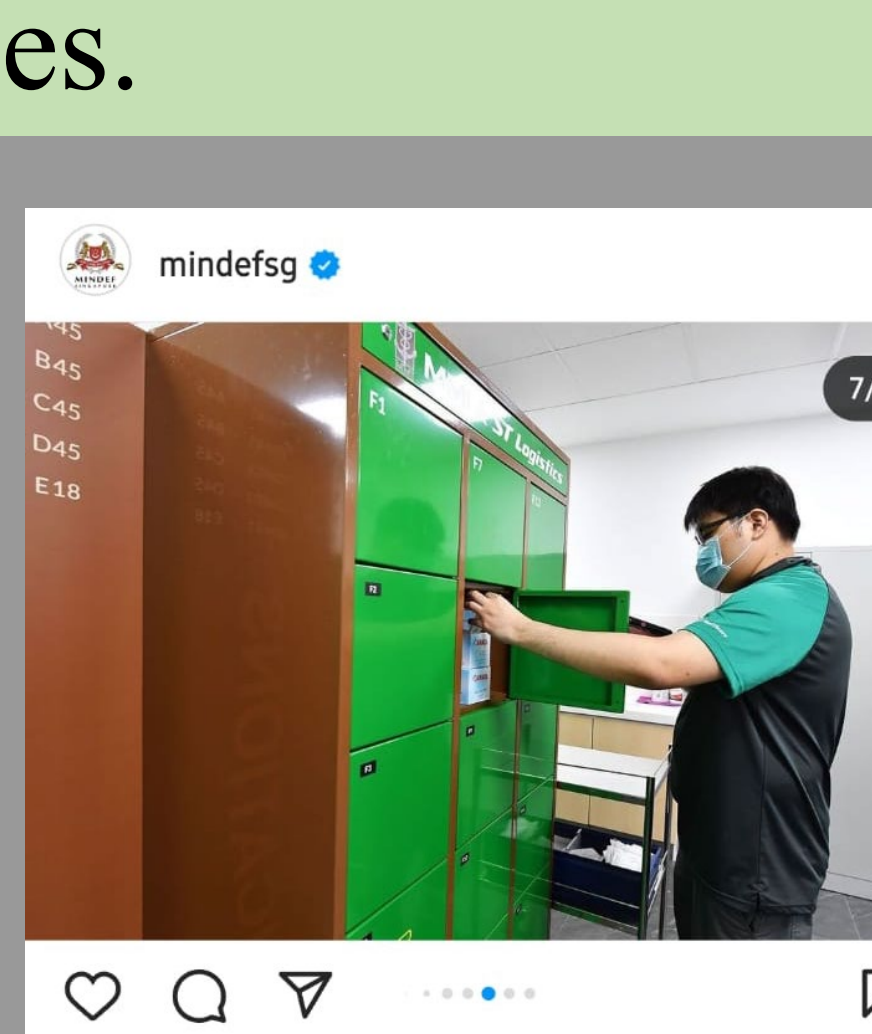
Go-Bag Locker

The integrated Medical Dispensary System (MDS) and MEDBOX (medication self-collection lockers) significantly reduced risk of medication errors, improved patient accessibility and convenience, enhanced logistics workflows, decreased drugs wastage, and reduced manpower demands. The Medic Go-bag system enhanced the operational readiness of peacetime medical cover stores and successfully reduced the logistics burden on SAF medics—allowing them to focus on their core clinical duties and saving lives.

## Achievements

### Medicine Dispensary System (MDS)

- Auto trigger for reordering and replenishment helps saving at least **5 man-hours per week for stock take and reordering process.**
- Digitalised and automated locker workflows reduced prescription picking time by **50% from 4-5mins to 2mins per prescription.** Every 30 prescriptions per day will translate to at least **1 man-hour saving daily.**
- The MDS managed to achieve **100% picking accuracy with zero medication errors**
- On the ground, this translated to a **reduction in about 2 medics manpower needed to run the dispensary each day.**
- By automating the picking process, the MDS managed to achieve a **45.6% reduction in drugs disposal wastage cost.**



### MEDBOX

- By removing the need for a return trip (average 30 minutes) and by cutting down waiting time in the medical centre (on average 20 mins previously), MEDBOX successfully **reduced waiting time by 96%** (only takes about 2 minutes for the serviceman to collect the medications from the MEDBOX lockers). Every **10 patients who collects the medication via MEDBOX will translate to 8 man-hours savings.**



### Go-BAG

- On average, by reducing the logistics burden and streamlining the workflow, the Medic Go Bag system managed to achieve **manpower savings of about 7 medics each day.**
- 100% equipment readiness at all times.**
- Allowed medics to focus on their core clinical duties and/or be-deployed to perform other clinical duties