Project Title

Cost Benefit Analysis of Self-Service Station (SSS) Setup Across SGH

Project Lead and Members

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Organisation(s) Involved

Singapore General Hospital

Healthcare Family Group Involved in this Project

Healthcare Administration

Applicable Specialty or Discipline

Department of Informatic Technology

Project Period

Start date:

Completed date:

Aims

To evaluate the effectiveness of the Self-Service Station Setup as a futureproof solution for the organization by reviewing the operational and financial consequences that arose post deployment of the Self-Service Stations.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Project Category* (refer file attached for more info)

Technology

Product Development: Product Evaluation:

Keywords

IT Self-Service Station

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AIM

To evaluate the effectiveness of the Self-Service Station Setup as a futureproof solution for the organization by reviewing the operational and financial consequences that arose post deployment of the Self-Service Stations.

METHODOLOGY

Kiosk-related IT incident reports and cost of the repairs were extracted from the relevant database for the comparison studies. Feedback were obtained from both patients and staff through short interviews to understand the challenges of the current Self-Service Station setup and what could be improved for future iterations.

OPERATIONAL ADVANTAGES OF SELF-SERVICE STATION SETUP

Decline in time taken for kiosk-related IT incident to be resolved post-deployment of Self-Service Stations in SOC

Time Taken for Kiosk-related IT issues to be resolved (mins)
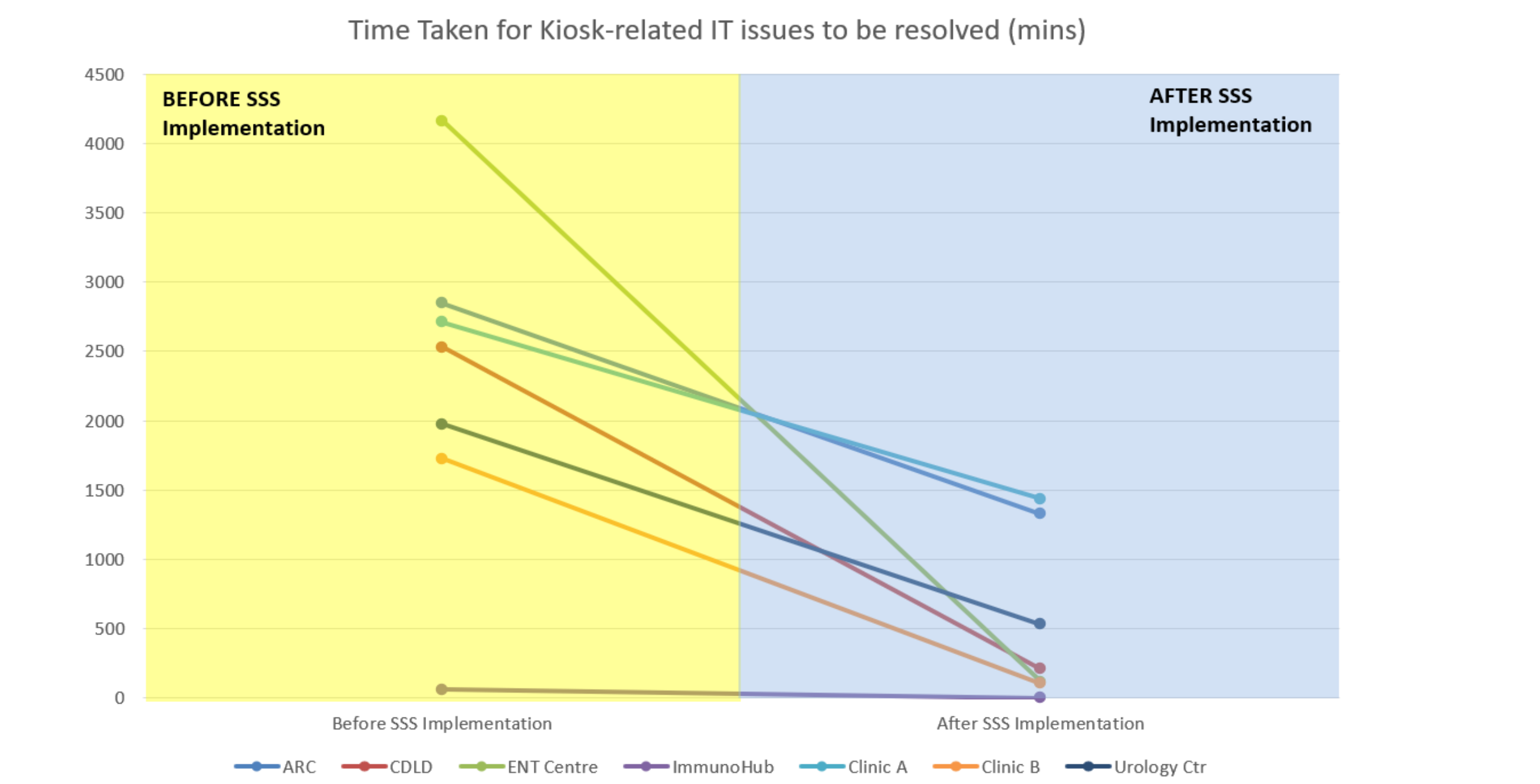
- New hardware hence lesser incidence of hardware issues
- Self-Service Station is setup using leased IT equipment which is covered under in-house IT support,
  - Less dependency on fixed vendor for support
  - Results in faster response time#

#As SGH does not have a maintenance contract with the kiosk vendor, there is no Service-level agreement on the response time expected from the kiosk vendor.

COST SAVINGS OF SELF-SERVICE STATION SETUP

With the shift towards Self-Service Station setup, it removes the organization's dependency on a single vendor for IT support and hardware, which brings about cost savings.

Kiosk Setup	Self-Service Station Setup	Savings	
Kiosk Barcode Scanner + Kiosk vendor on-site services* $600 + $500 = $1100	Barcode Scanner (DS9308) $117	$1100 - $117 = **$983**	
Kiosk Thermal Printer + Kiosk vendor on-site services* $1168 + $500 = $1668	Epson Thermal Printer (TM88VI) $486	$1668 - $486 = **$1182**	
Kiosk Motherboard + Kiosk vendor on-site services* $1267 + $500 = $1767	Motherboard $0 (Covered as part of leasing agreement for the AIO PC)	$1767 - $0 = **$1767**	
Assessment for hardware issues $500	Assessment for hardware issues $0 (Covered as part of leasing agreement for the AIO PC)	$500 - $0 = **$500**	

*As SGH does not have a maintenance contract with the kiosk vendor, the organization will be charged $500 every time the vendor is activated on-site for assessment or replacement of the hardware.

FEEDBACK FROM PATIENTS AND STAFF ON SELF-SERVICE STATION SETUP

The top 3 feedback gathered from patients and staff on the Self-Service Station setup

1) Cater option for payment on the Self-Service Station
2) Existing setup is not intuitive to patient that it is a Self-Service Station
3) De-clutter and hide equipment that is not used all the time

Payment option on the Self-Service Station

- Open and modular concept of the Self-Service Station provides flexibility to add a uPOS machine to cater for payment
- Allows patients, who prefer on-site payment, to pay for their bills
- Reduce the Accounts Receivables (AR) rate as a result of Drop & Go

Principles for Self-Service Station design
1) Modular, 2) Future-proof & 3) Minimal cost

(Top View of Self-Service Station)
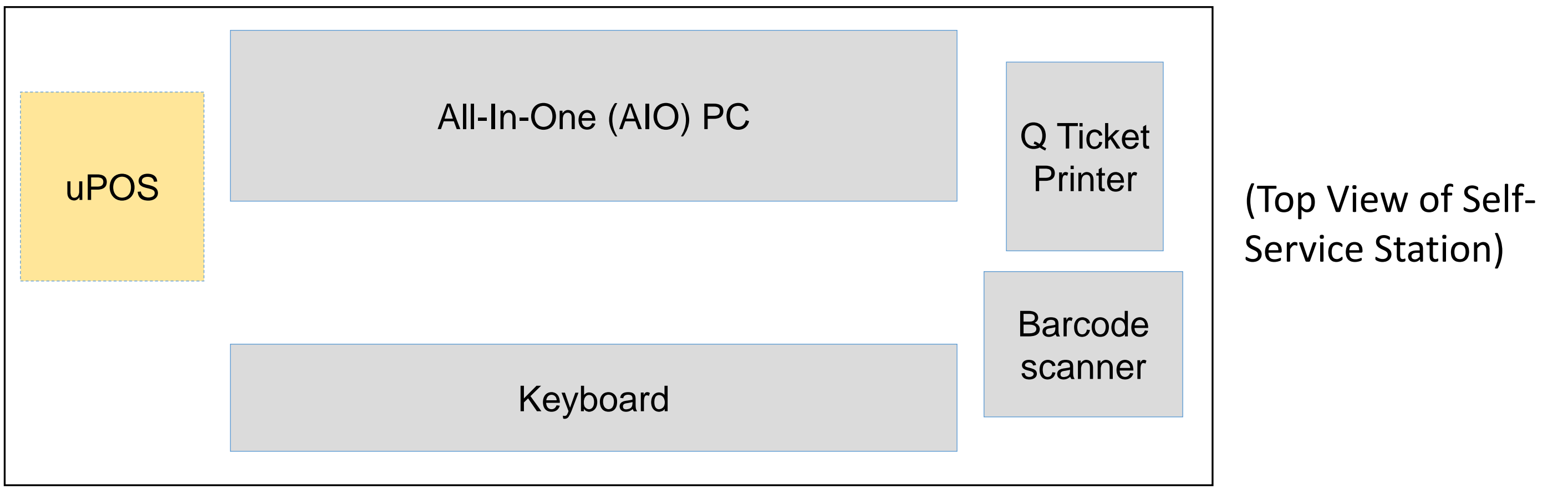
Signages to increase visibility of the Self-Service Station

- Standard logos used across SOC to indicate Self-Service Stations with registration and/or payment functions

REGISTRATION   **PAYMENT**

CURRENT   **PROPOSED SIGNAGE**
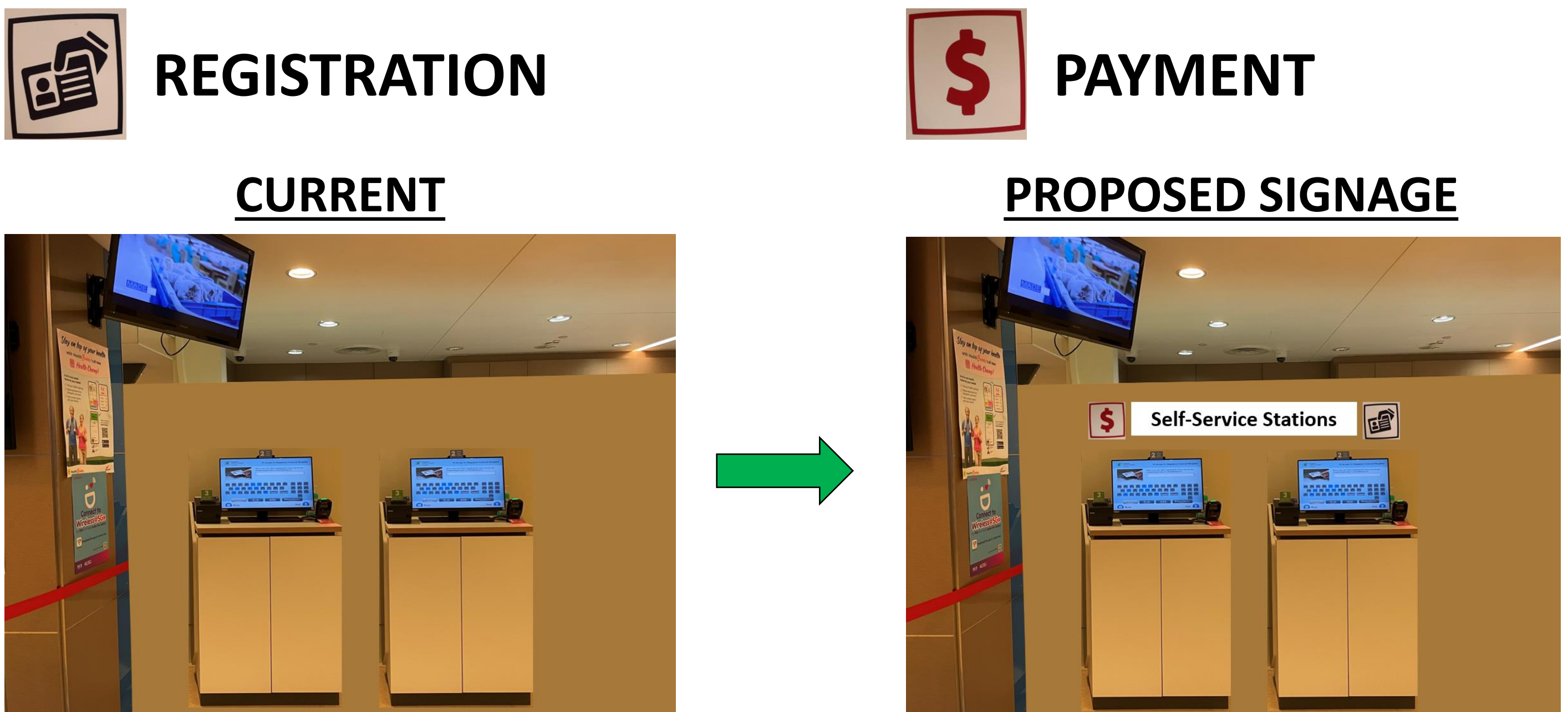
De-clutter the Self-Service Station setup

- Hide equipment, e.g. keyboard, that are seldom used
- Keep the Self-Service Station setup neat and tidy

CONCLUSION

The proposed Self-Service Station setup is shown to bring about both operational and cost benefit in contrast to the traditional Self-Registration Kiosk. Given the modular nature of the Self-Service Station setup, users have the flexibility to modify the current setup when new technology become available. Despite the benefits and encouraging responses from users, patient's motivation for self help continues to be one of the main challenges for the creation of self-service stations. Feedback received from patients and staff are important in forming the basis for design and UI/UX considerations for future iterations of the Self-Service Stations.