

## **Project Title**

Evolution from Self-Registration Kiosk to Self Service Station (SSS)

## **Project Lead and Members**

- Zhuo Weichao
- Yang Hui
- Eugene Sim Junying

## **Organisation(s) Involved**

Singapore General Hospital

## **Aims**

To understand the relevance of the Self Registration Kiosk in current day SOC operations and propose alternative way for the setup while ensuring it is future proofed.

## **Background**

See poster appended / below

## **Methods**

See poster appended / below

## **Results**

See poster appended / below

## **Conclusion**

See poster appended / below

## **Additional Information**

Singapore Healthcare Management (SHM) Conference 2021 – 2<sup>nd</sup> Prize (Finance Category)

## **Project Category**

Automation, IT & Robotics

## **Keywords**

Automation, IT & Robotics, Cost Saving, Turnaround Time, Process Improvement, Specialist Outpatient Clinics, Healthcare Administration, Singapore General Hospital, Finance, Operations, Self Service Station, Self-Registration Kiosk, Future-Proofing

## **Name and Email of Project Contact Person(s)**

Name: Zhuo Weichao

Email: singaporehealthcaremanagement@singhealth.com.sg

*If you're experiencing problems submitting your content, please contact the CHILD Administrator at [CHILD@ttsh.com.sg](mailto:CHILD@ttsh.com.sg)*





**Singapore Healthcare Management 2021**

# Evolution from Self-Registration Kiosk to Self Service Station (SSS)

Zhuo Weichao,  
Yang Hui,  
Eugene Sim Junying



**Singapore General Hospital**  
SingHealth

## AIM

To understand the relevance of the Self-Registration Kiosk in current day SOC operations and propose alternative way for the setup while ensuring it is future proofed.

## BACKGROUND

Majority of the kiosk in the clinics are in service since 2011 and a number of them are breaking down quite frequently which have an impact on the ground operations. As such there is a need to replace them. However, as we proceed with the replacement, we have to keep in mind to ensure that the setup is future proofed.

## RELEVANCE OF SELF REGISTRATION KIOSK

As we push for the use of new technology (e.g. Mobile Registration) and the move to cut down of physical registration counters, there is still a need to cater the option for on site registration for the following groups of patients;

- 1) Elderly patients who are not tech savvy and are not familiar with the use of mobile apps
- 2) Patients who failed mobile registration
- 3) Patients who have issues with their SingPass login

Self Registration page on OAS is currently not mobile friendly. Staff will not be able to use a tablet/iPad to assist patient with their registration on OAS. The cost to revamp the solution on mobile platform is estimated to be about \$2 million. It is not practical as OAS is a sunset system, which will eventually be replaced by PM@SCM.

## EVOLUTION FROM SELF REGISTRATION KIOSK TO SELF SERVICE STATION (SSS)

The concept of the Self Service Station (SSS) was first piloted at Obstetrics and Gynecology Centre (OGC). The learnings gathered were important in the design of future SSS. Considerations were taken to maintain/lower the cost of setup and future proof to allow flexibility to convert the SSS to suit our needs when new technology (e.g. use of tablet for registration) becomes available.



Existing Self Registration Kiosk



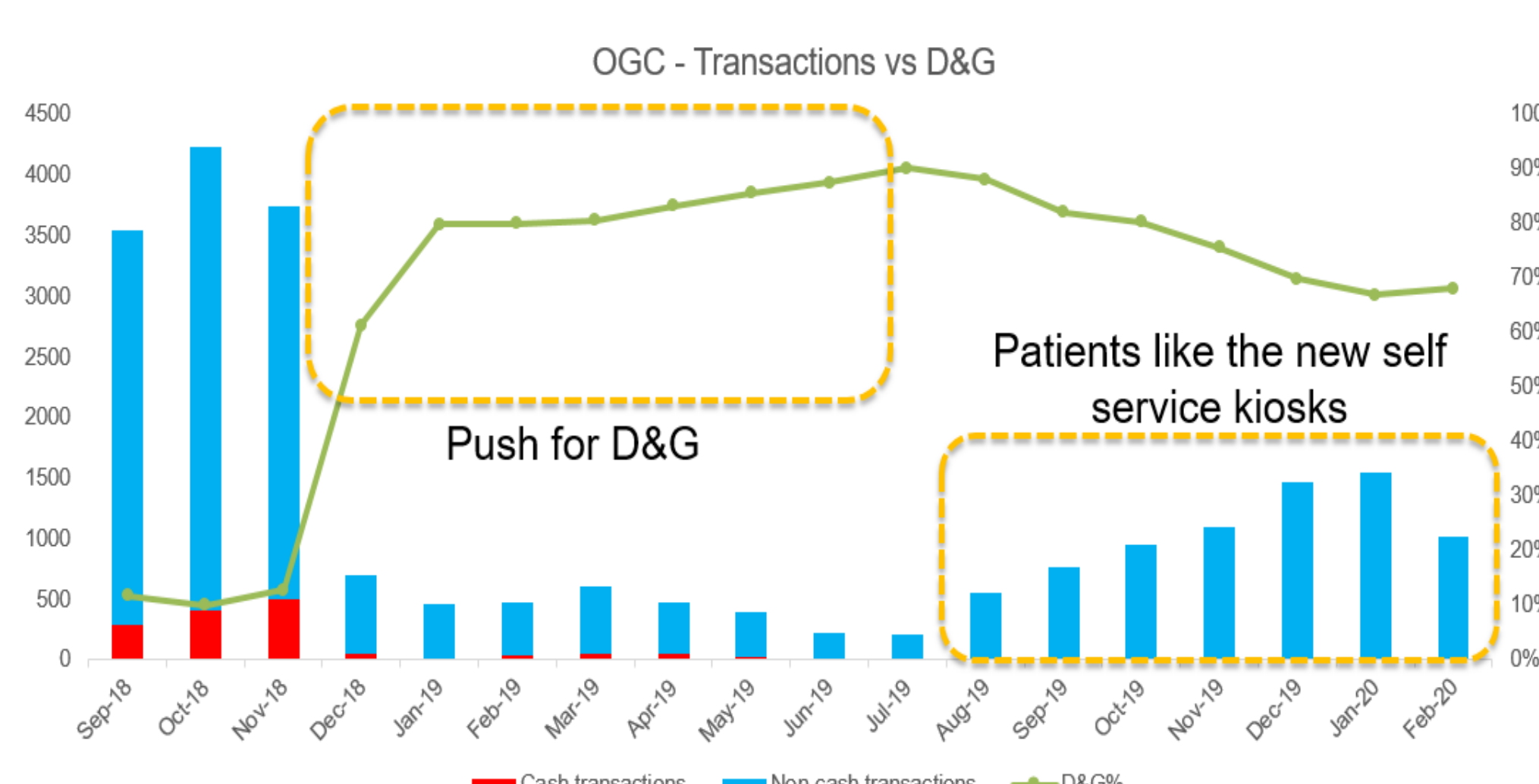
Self Service Station @ OGC



Future Proposed Self Service Station

	Self Registration Kiosk	Self Service Station (SSS)
Setup Cost	NCS Professional Fee (Self-Reg & Self-Pay): \$3,0000 Kiosk (Inclusive of PC, Ticket Printer, Barcode Scanner): \$10,000 <b>Total Cost: \$13,000</b>	NCS Professional Fee (Self-Reg & Self-Pay): \$3,0000 Kiosk (Inclusive of PC, Ticket Printer, Barcode Scanner): \$4,000 Carpentry: \$3,000 <b>Total Cost: \$10,000 (Savings of \$3,000)</b>
Servicing and Maintenance	\$1,500 to \$2,000 per kiosk per annum (Comprehensive coverage)	IBM on-site support for PC (Leasing)
Turnaround Time (Service Level Agreement)	Without Contract: 2 to 4 weeks With Contract: 3 to 5 working days	Within the same day
Advantages	<ul style="list-style-type: none"> <li>Easily transferred from 1 clinic to another</li> <li>One point of contact for support</li> </ul>	<ul style="list-style-type: none"> <li>Less costly (Setup)</li> <li>In-House IT Support</li> <li>Less dependency on fixed vendor for support</li> <li>Competitive pricing for accessories (e.g. barcode scanner) through ITQ</li> <li>Flexibility to re-purpose the self-service station for other usage (e.g. when advancement in technology allows us to deploy equipment like tablets/iPads. The existing leased PC can be de-leased to accommodate the tablets/iPads.</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>More Costly (Setup)</li> <li>Dependent on key vendor for support</li> <li>Limited flexibility to re-purpose the kiosk for other usage due to the kiosk chassis</li> <li>Maintenance cost likely to increase due to specific hardware requirements</li> </ul>	<ul style="list-style-type: none"> <li>Not easily transferred</li> <li>Require carpentry to support the equipment</li> <li>Multiple point of contact for repair/support</li> </ul>

## FUTURE PLANS FOR SELF SERVICE STATION



At OGC where the concept of SSS was piloted, the SSS was used for both registration and payment purpose. It has been observed that some patients preferred to pay on the spot using the SSS (drop in % of Drop & Go and increase in % of non-cash transaction). With enhancements to SSS to allow for MediSave billing, it would provide an alternative to patients who prefer to pay their bills and get their invoice on the spot.

## CONCLUSION

From an operational stand point, the SSS is relevant in handling the registration and payment process and can be further enhanced to handle different payment modes. From a financial stand point, a SSS is cheaper and easier to maintain and it caters for flexibility to meet the users' needs with changes in technology.