Enhanced Self-Service Function with Better Efficiency and Patient Experience

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Introduction

At Specialist Outpatient Clinics (SOCs) patients need to be registered prior to their appointments but only follow up appointments can be registered over the self-registration kiosks and via HealthBuddy (HB). FY21 Average new cases appointments per month in SOCs is 9,919 and each case would typically require 2mins to be completed over the counter.

Aims

This project aims to improve operational efficiency and achieve a consistent patient experience by enabling new case visits to be self-registered at kiosks and HB App instead of over the counter and to achieve 80% of new cases to be successfully registered via self-registration kiosks by Jun 2022.

It was to be implemented hospital wide, i.e. all SOCs and AHP clinics such as Radiology, Rehabilitative Services, Clinical Measurement Unit, and Medical Social Services.

Methodology

Brain storming, Data Analysis, & Process Mapping
New case self-registration was disallowed as staff needed to verify patient's identity, scan and save a copy of patient's identity card and collect patient's referral letter for doctors' review before consultation.

PLAN: Team was formed to review the new case registration workflow, test the new function in OAS UAT environment, work on the implementation plan, and perform simulation to ensure sufficient kiosks to support the increase in workload. The team agreed that patients with external referrals and/or expired/no identity data in Onbase system would be directed to the counter for document collection/checks.

DO: The system and staff readiness were checked before pilot rollout. The implementation was done in phases. additional kiosks need to be setup prior to the rollout at other phases.
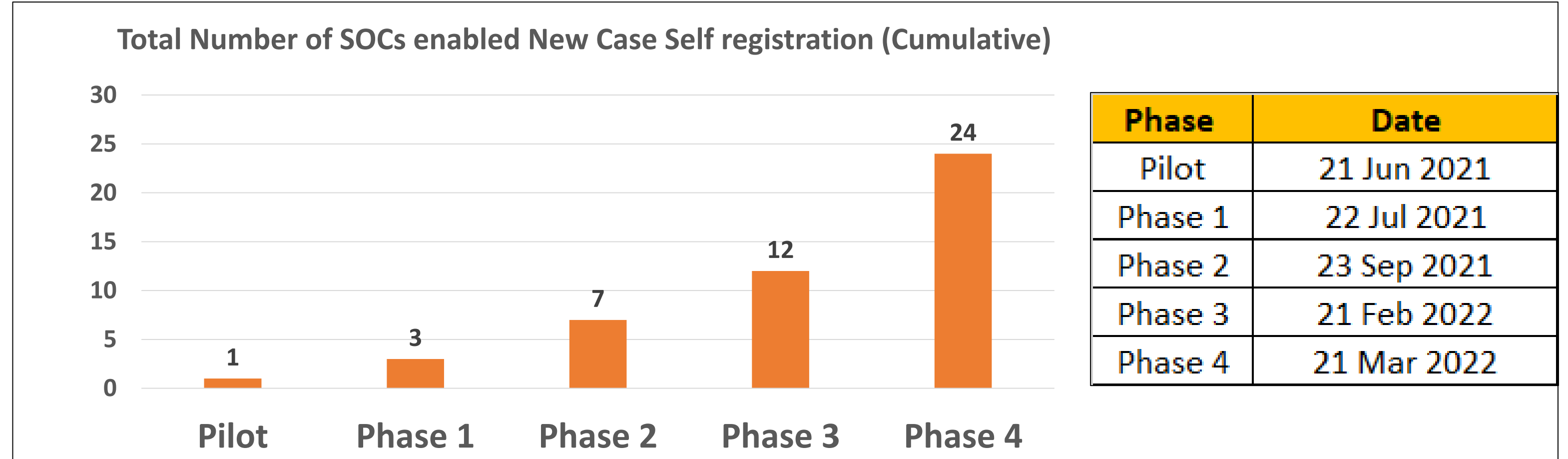
CHECK: Feedback were collected from staff and patient, and the number of new case patients who registered at the kiosks successfully were collated during each rollout. Statistic showed that only a handful of new case patients did not register at the kiosk successfully and there were no/minimal crowding at the kiosks based on daily observations for 1 week after each rollout.

ACT: The process flow was implemented to the other outpatient clinics in phases from 22Jul21 to 13Jun22. Staff were deployed to assist patients with NC self-registrations if necessary.

Results

All outpatient clinics (Total : 24 SOCs) enabled the new case self-registration function progressively from Jun21 to Mar22.

Total Number of SOCs enabled New Case Self registration (Cumulative)

Phase	Date
Pilot	21 Jun 2021
Phase 1	22 Jul 2021
Phase 2	23 Sep 2021
Phase 3	21 Feb 2022
Phase 4	21 Mar 2022

New Case Self-Registration Rate Met Target
The kiosk utilisation rate for new case registrations were gradually increased from 0.9% in Jun21 to 86.5 % in Jun22. Target of 80% new case self-registration rate was met since Apr22 which was earlier than the set target of Jun22.

New Case Kiosk Registration Utilisation
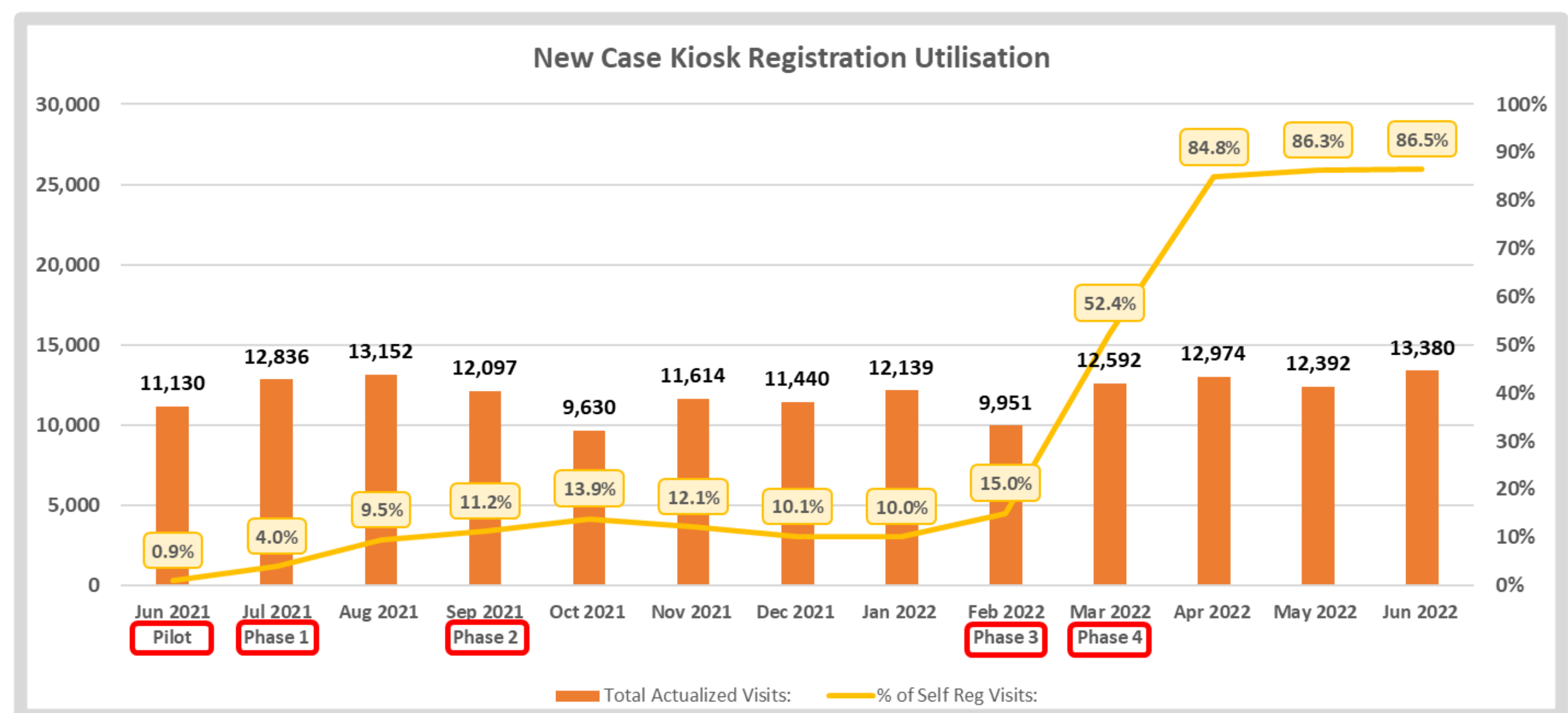
In FY22 (Apr22 to Mar23), the average monthly utilisation rate of self-registration at kiosks and MREG via Health Buddy (HB) App is 88%.

Estimated Time Savings per month at Outpatient Clinics after enabling new case self-registration function based on set target
Time savings = 2 minutes/transaction at counter X 80% (FY21 Avg. monthly new case workload = 9,919) of appointments registered at SSS = 15,870 mins/mth (~ 265hrs/mth, ~ 3,180 hrs/yr).

Conclusion

- Target to have 80% of new cases to be self-registered at kiosks was met in Apr22 and the result was sustained (as of Jun22). Operations efficiency was improved by reducing the time taken to perform new case registrations over the counters at Outpatient Clinics by ~265 hrs/mth after all clinics rolled out the new case self-registration workflow.

- Patients also experienced a more consistent registration process whereby they will be able to register their appointments via kiosk or Health Buddy app regardless of visit types.