



## Singapore Healthcare Management 2019

# Transforming end-to-end refill / repeat medication order and delivery service to patients and their caregivers

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## Background

By 2030, a quarter of Singapore's population will be above the age of 65. With an ageing population and the rising burden of chronic diseases, more patients are expected to utilize the healthcare services. One of the service points that often encounters surge in workload at lunch hours and after office hours is pharmacy. Pharmacy is one of the last service points for patients to undergo medication counselling and collect their dispensed medications prior to leaving the healthcare institution.

Patients who require refill of balance medication may also visit the pharmacy at peak hours which usually coincide with lunch hours and after office hours. The limitation of the pharmacy capacity and additional workload have affected the experience of patients, their caregivers and staff. As it is not sustainable to keep expanding capacity of pharmacy to meet the rising demand from new and follow up patients, the SingHealth Pharmacy Taskforce conducted a survey involving close to 500 patients or caregivers, and conceptualized the idea of transforming the refill / repeat medication order delivery to eligible patients via a unified and user-centric platform.

## Methodology

A multidisciplinary team comprising personnel from Pharmacies, Marketing Communications, Information Technology and Office for Service Transformation was formed. The team utilised the iterative **Plan-Do-Check-Adjust** cycle for the purpose of developing new services for our patients.

**Plan:** Establish objectives and processes required to deliver the desired results. The SMART goal was defined, with current and future processes mapped out to identify areas of improvement.

**Do:** Execute the plan and gathered data. The team brainstormed and defined the future processes which were put to test. Relevant data were gathered to assess the future processes put in place.

**Check:** Execute the plan and gathered data. Data was gathered and compared to the expected outcomes, and determine the appropriate action plans to achieve the results.

**Adjust:** Identify issues with the processes. Root causes of issues were investigated and eliminated by modifying the process.

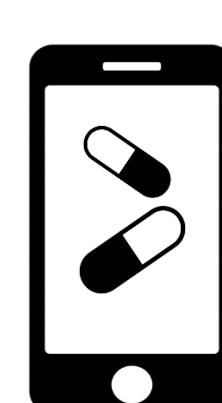
A survey to assess patient receptiveness to medication delivery and collection service was conducted. The insights showed that patients wanted a unified and user-centric platform for medication ordering as well as avenues for 24/7 medication collection at an affordable rate. The survey respondents also indicated the need to access patient education materials at their own convenience.

The team standardised the medication delivery services and patient education materials by putting the harmonised consent form and education materials on the intranet for inter-institution sharing. This approach enabled the team to refine the layout of consent form and materials prior to sharing them on mobile app and HealthXchange website that are accessible by members of the public.

A publicity plan for the cluster was conceptualized and adjusted to meet the profile of patients served by the respective institutions. Refined processes were also put in place, with proper documentation as the PDCA cycle reiterated.



## Results



Launched a unified platform for patients to order refill / repeat medication, access patient education materials and set medication reminders through a mobile app. All features within the app are made available to HealthXchange except for Quick-Response code and medication reminders.



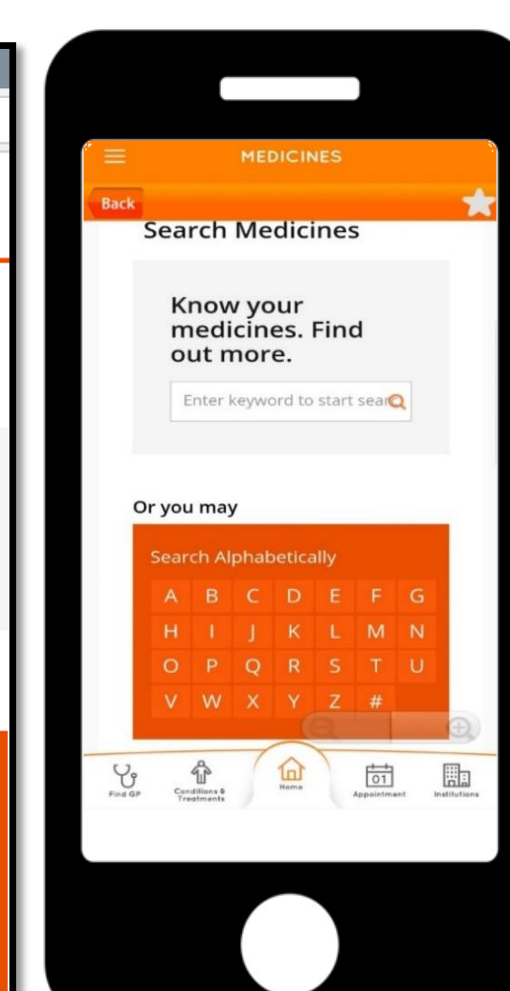
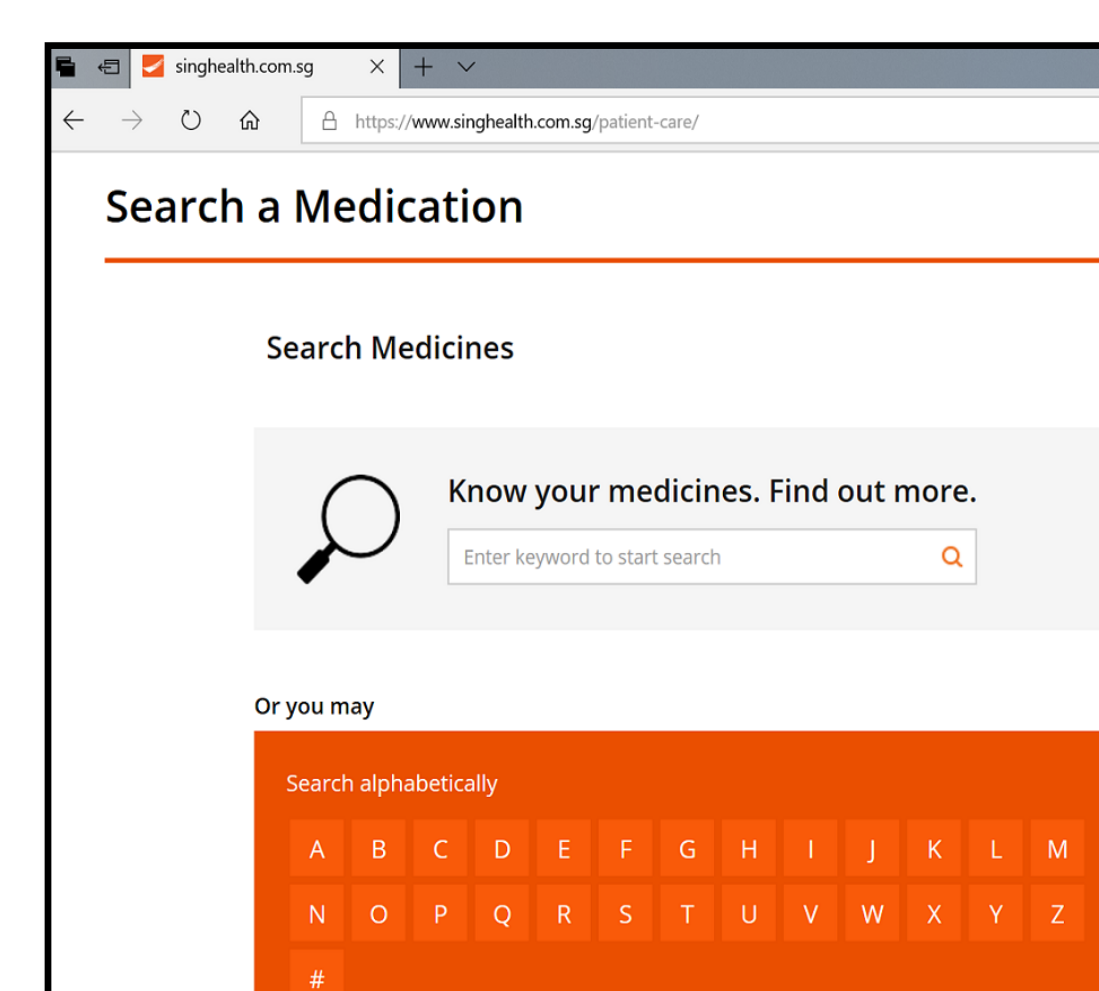
**1** harmonised consent form for the SingHealth cluster, including medication delivery / collection time and terms and conditions (instead of different consent forms used by respective pharmacy)



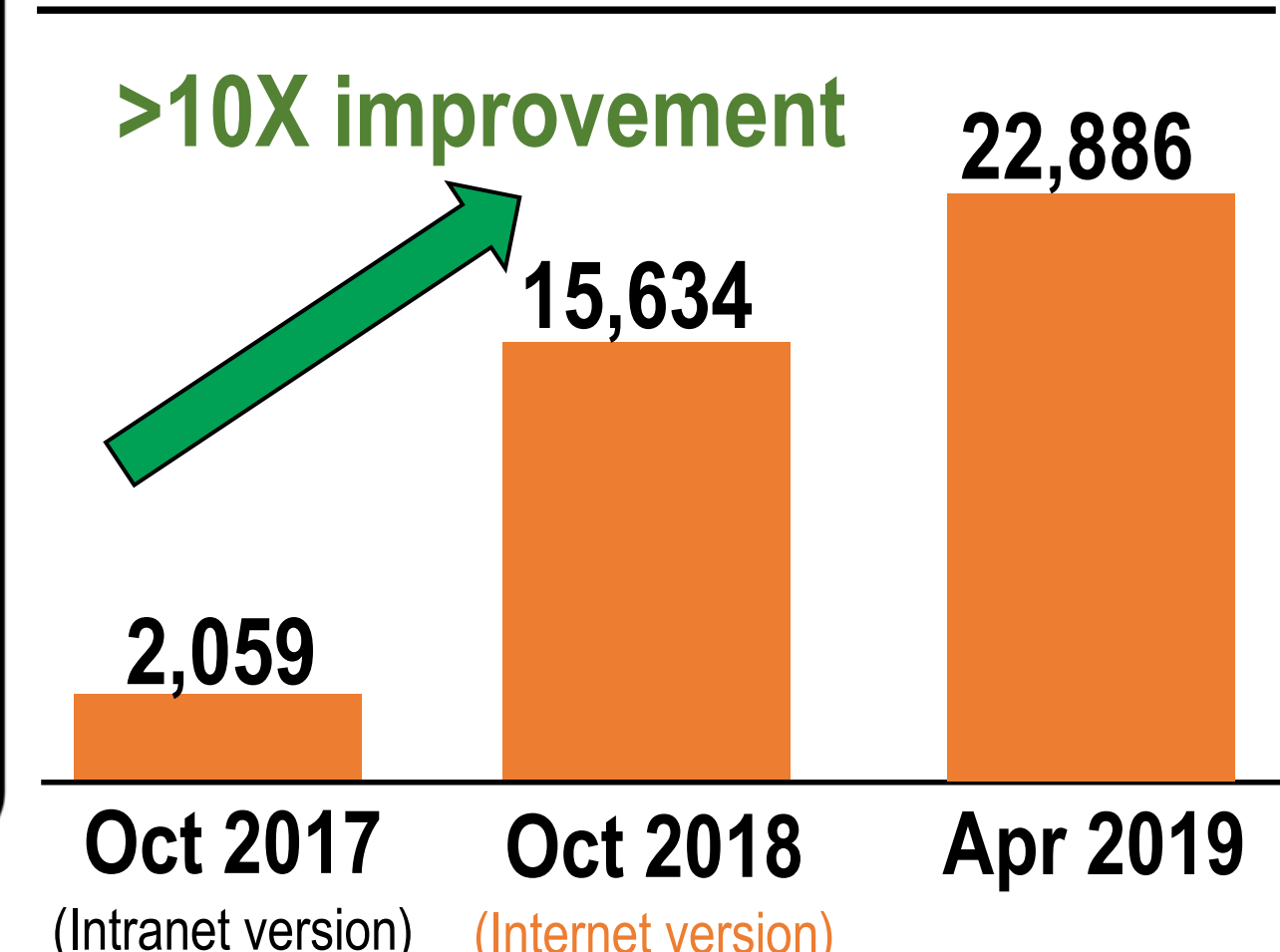
**462** harmonised patient education materials, of which **121** leaflets were in different languages, to better serve and empower patients. The materials could be accessed via HealthXchange or Quick-Response code feature embedded in mobile app to allow instant access of specific patient education material.



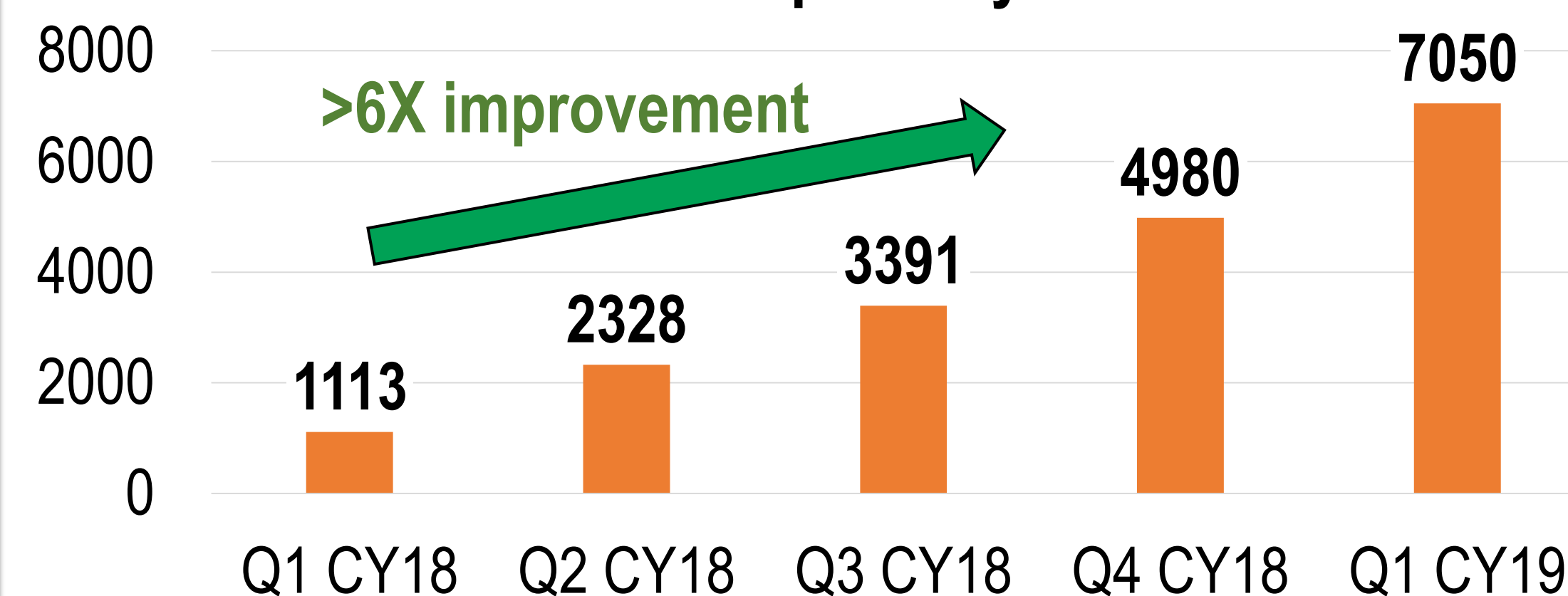
**2,963** patients used the medicine reminder feature in the mobile app.



### No of Unique Page Views for Medication Education Materials



### Total no. of medication delivery service fulfilled in quarterly basis



## Conclusion

The patient-centric medication delivery service and one-stop Medicines module within the mobile app has garnered positive feedback from patients and their caregivers, with **98%** of the respondents in SGH survey **rated "Good and above" for the service.**

Through utilization of the PDCA cycle, the multidisciplinary team adjusted the plan to meet the needs of patients and staff. The initiatives deployed achieved uniformity in medication delivery / collection across the SingHealth cluster achieving economies of scale that will benefit patients and improve uptake rate of the initiatives deployed eventually.



**Thank you** to those, including Pharmacy Patient Education workgroup, who have contributed to the deployed initiatives