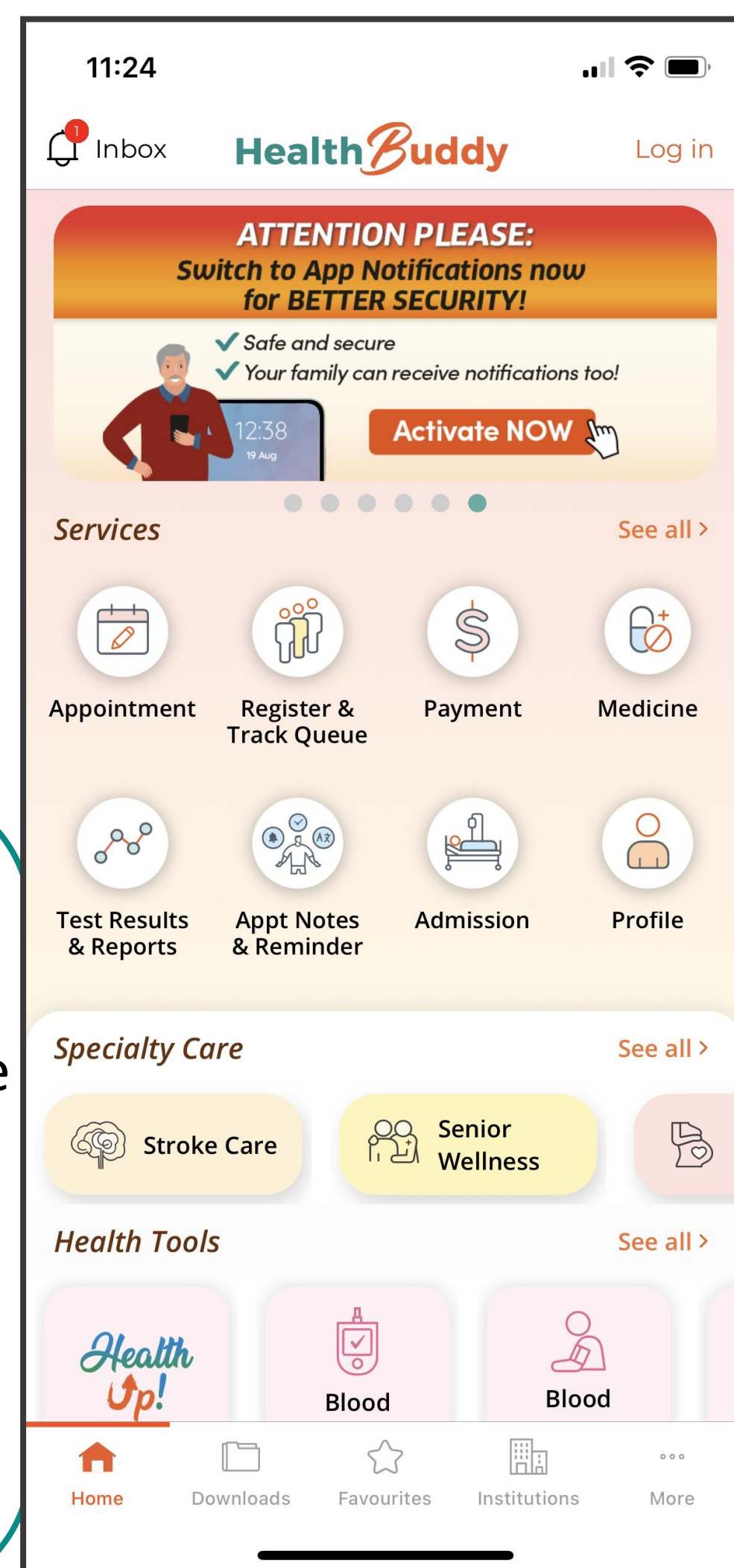SingHealth Polyclinics: Loke Chui Yee, Mildred Foo, Liu Shiying;
Group Marketing Communications: Kathryn Ng, Chan Fun Jui, Jane Ang, Nur Atiqah Ahmad, Gan Shoau Huay;
SGH: Shawn Poh; CGH: Tan Li Shan, Ngan Im Swan;
SKH: Tan Yeong Horng; KKH: Nur Adillah, Selena Ng;
NCCS: Agnes Ng; NDCS: Xu Jianxiong;
NHCS: Lin Jia Hui, Ron Ng; SNEC: Ong Ai Chen, Daren Teo;
IHIS: Sarah Chan, Justin Yeo, Ong Zheng Ying, Damin Ong;
Wong Keat Yung, Le Nhon Tranm, Nguyen Van Huan

Singapore Healthcare Management 2023

Secure Messaging and Cost Savings with Personalised Notifications on SingHealth's

HealthBuddy

BACKGROUND

- SingHealth incurs $3.6m in SMS costs a year sending messages to patients
- With the rise in SMS phishing, patients increasingly ignore our SMS messages
- SMS can only be sent to a single mobile number (patient/caregiver).
- SingHealth's Health Buddy (HB) app usage has reached a 50% adoption rate by Patients, Caregivers; which gives Management confidence to leverage the app as a core communication platform.

→ **Conceptualised Personalized Notifications on Health Buddy**

PROBLEM STATEMENT

- Urgent need to protect patients from SMS Phishing and Provide Trusted Messaging Mode patients will not ignore
- Avenue to save SMS cost by utilizing latest technology of Personalized Notifications (PN) on Health Buddy app
- Enable multiple caregivers to receive notifications for patient, to reduce no shows and missed messages, especially for seniors.
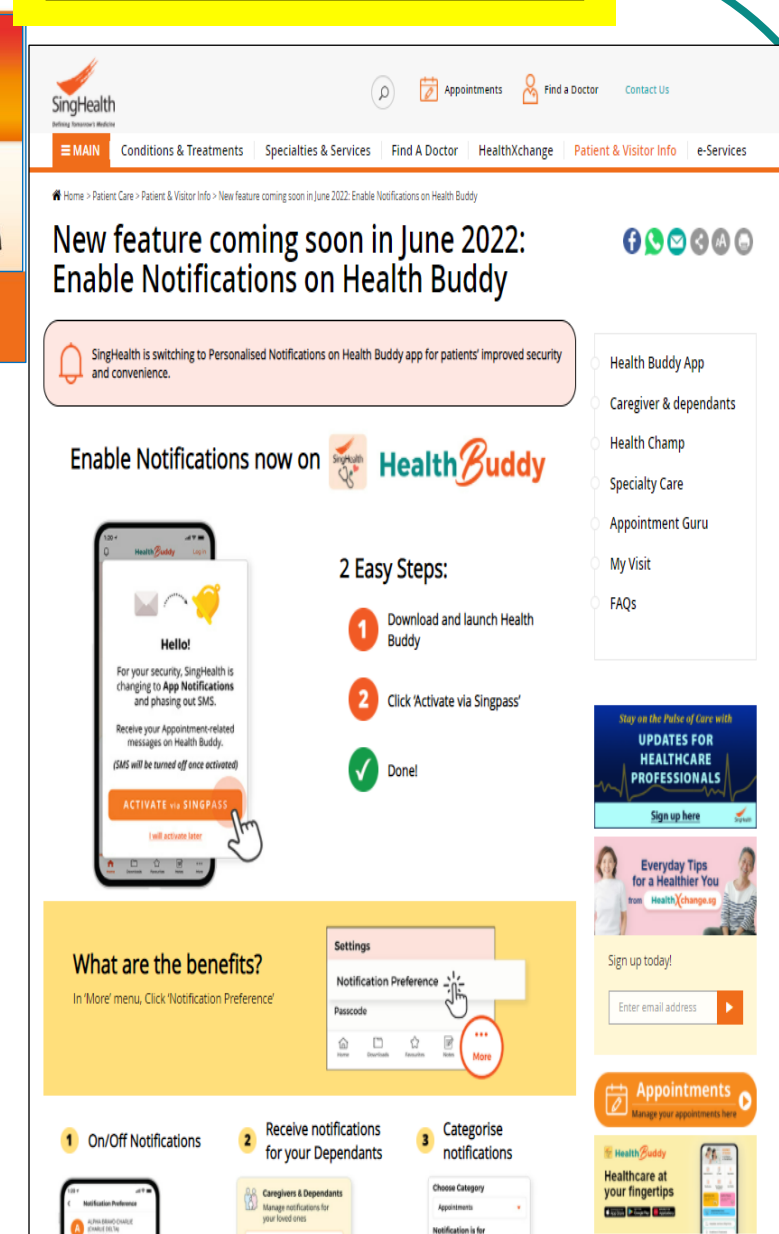
METHODOLOGY

1. Cross-functional cluster workgroup formed to formulate Personal Notifications solution to replace SMS
2. Team did benchmarking and feasibility review to confirm viability
3. Workgroup defined business logics, system and workflow specifications for system development
4. Thorough User Acceptance Testing was performed for validation and quality assurance
5. Phased rollout across institutions to spread system load as forward planning and risk mitigation
6. Institution Operations, Group Marketing Communications and Institution Communications promoted new service on multiple channels and platforms:- in-app, online, on-site and off site.
7. Post-implementation evaluation - feedback from patients, caregivers and staff on the usage and engaging IHIS to implement additional enhancements to further fine-tune and improve in Agile manner.
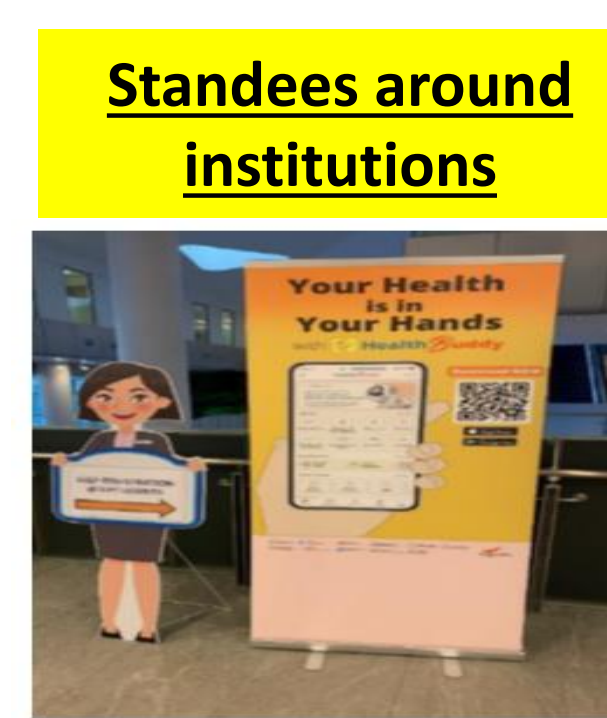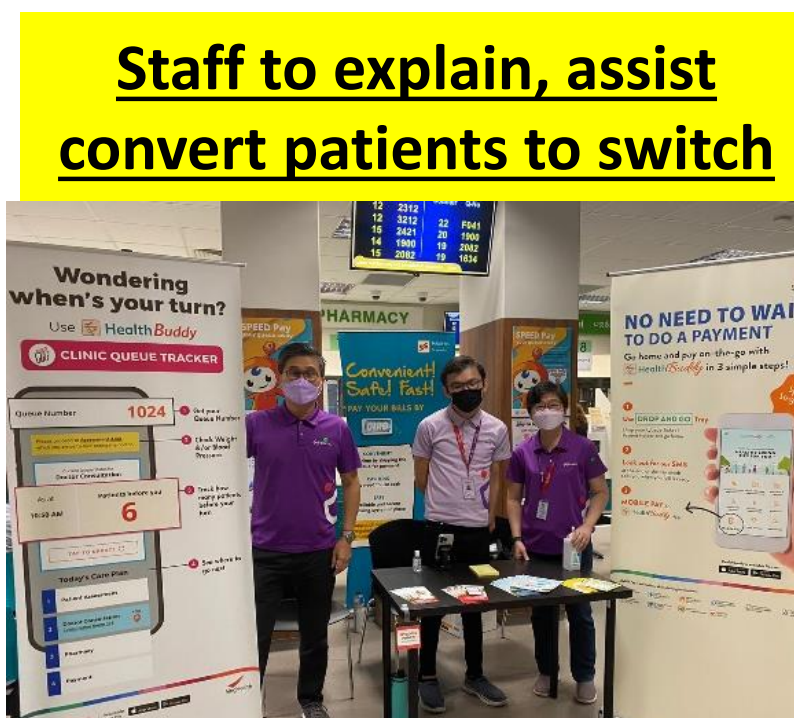
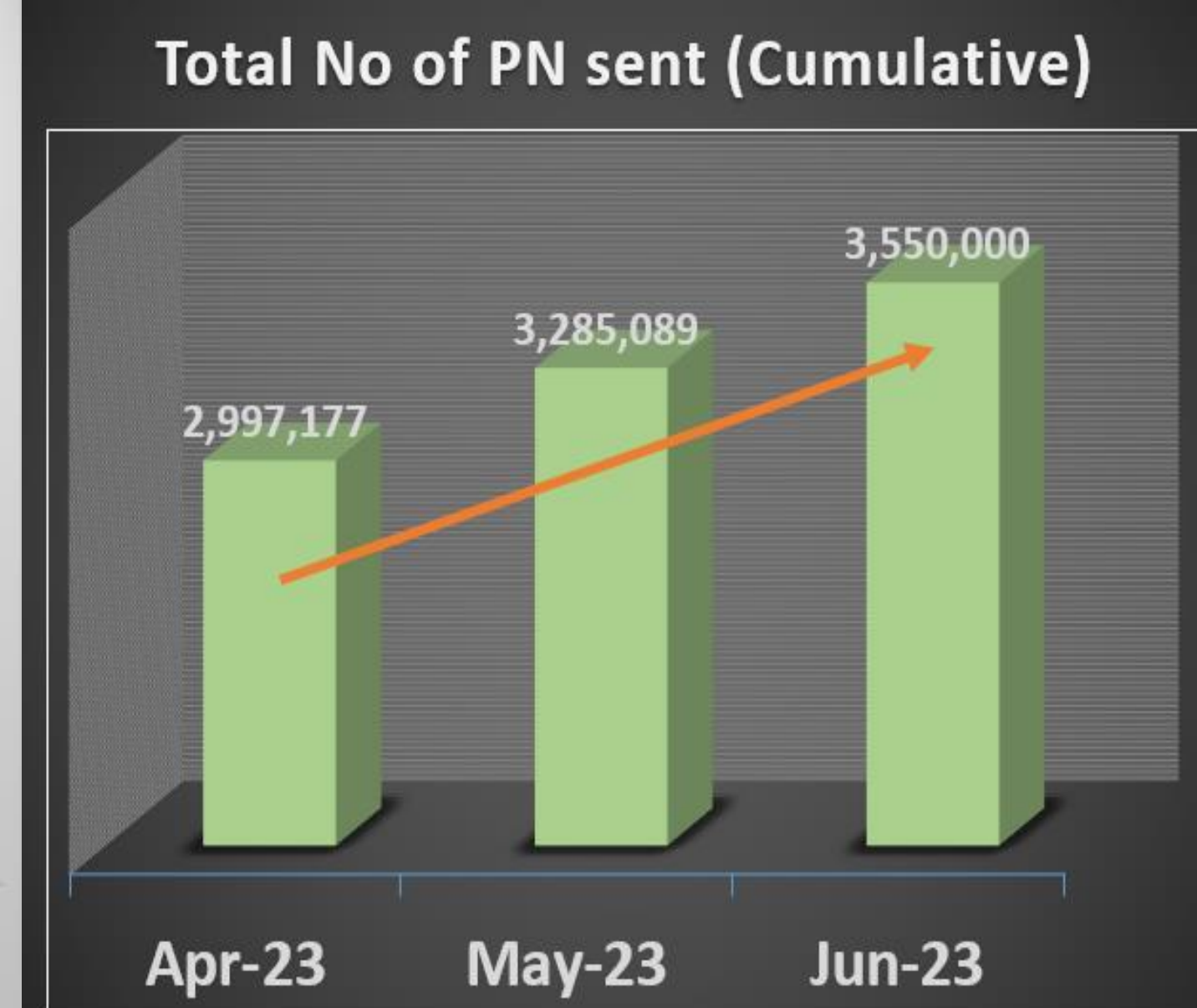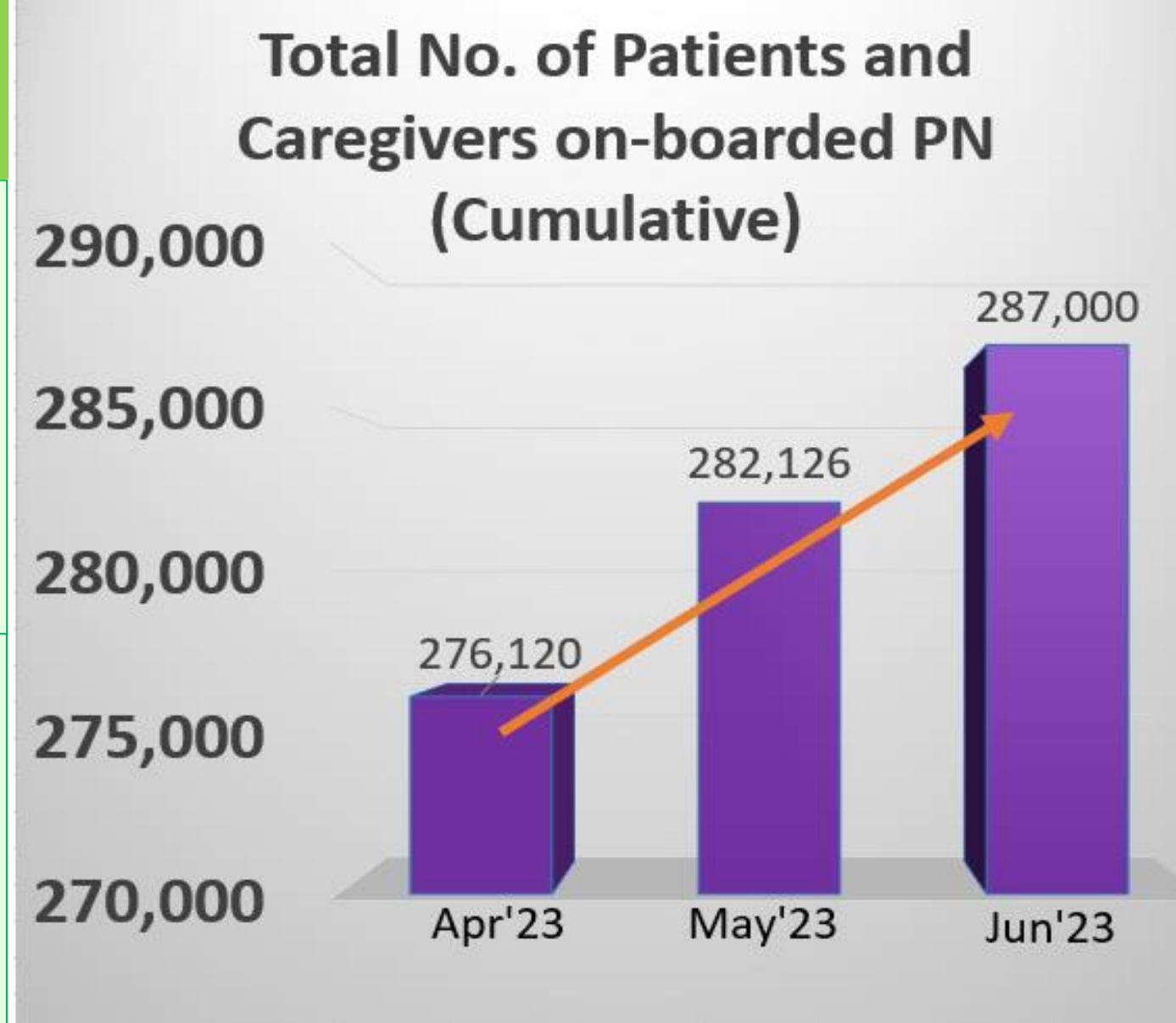**Onsite and Website Banners**

Website Info & FAQ

Walking 'Sandwich' Board

Staff to explain, assist convert patients to switch

Digital Service Executive promoting in the clinics

Digital Hub @ SNEC Main Centre L1

Standees around institutions

Stickers @ CGH Shuttle Bus

Community Outreach

RESULTS - full cost recovery within 1 year ! ☺

- ✓ PN was **launched in June 2022**. As at Jun'23, SingHealth successfully **on-boarded 287,000** patients and caregivers.
- ✓ Over **3,550,000 notifications** were sent in the same period.
- ✓ Achieved average monthly savings of **$68,000** for period Dec 22 to Apr 23
- ✓ **Full Development costs were recovered within year 1 of implementation**
- ✓ Feedback from patients and caregivers showed **majority were satisfied** as:
1. **Security was assured**
2. **More family members can get updated simultaneously on a patient's needs**
3. **Function to organize messages by category – new enhancement that SMS could not offer**

Total No. of Patients and Caregivers on-boarded PN (Cumulative)

- Apr'23: 276,120
- May'23: 282,126
- Jun'23: 287,000

Total No of PN sent (Cumulative)

- Apr-23: 2,997,177
- May-23: 3,285,089
- Jun-23: 3,550,000

Activation button
One direct login allows patients to switch easily from SMS to Personal Notifications

Safe and Secure
Hyperlinks can be accessed safely

Categorise messages
Patients can now better organize their healthcare messages and matters

Dependant's messages
Caregivers can see their dependant's SingHealth appointment-related messages neatly tagged.

Favourite important messages Patients can mark important messages in the inbox so they will not be missed out

ACHIEVEMENTS & SUSTAINABILITY

With Personalized Notifications on Health Buddy app, patients enjoy **improved security and assurance** that in-app messages are authentically from SingHealth. **More caregivers can now receive notifications** to care for their loved ones.

We **successfully onboarded 30% of users in the first year** of launch and **reaped $600,000 SMS cost savings.**

Thanks to the **great cluster-wide collaboration**, we have achieved **efficiency in operations** with cost savings for cluster.

→ Positive Outcomes and Momentum to onboard more patients, with **strong ground support received from all institutions** ☺