Adapting cloud-based platform for real-time updates of surgeon's surgery preference card to achieve efficiency in surgery preparation

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#### BACKGROUND

In Operating Theatre, nurses use preference cards as a reference to preoperative preparations for various surgeries.

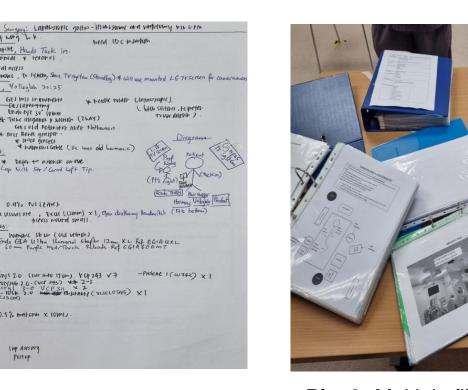
### **INTERVENTIONS**

A standard template on the cloud platform was created with access granted to all perioperative nurses:

Prior to this project, the perioperative nurses in SKH encountered several constraints when using the hard copy preference cards which includes the following:

- Only available to one person each time
- ✤ Notes were either handwritten or printed as hard copies (Pic 1 & 2)
- Usage of physical records tend to consist of outdated information
- High wastage of paper to keep information up to date (Pic 3)





Pic. 1: Staff used hardcopy preference file

Pic. 2: Handwritten preference (which was messy & unsightly)

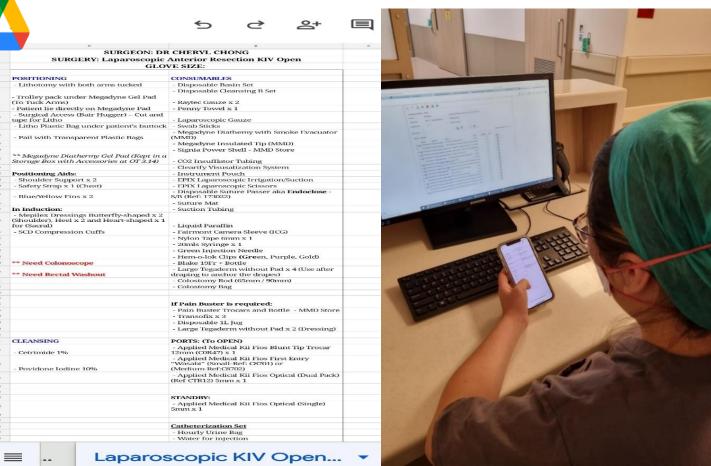
Pic. 3: Multiple files and paper were used

### **AIM / PROJECT OBJECTIVE**

- Surgical notes of new procedures or updates of current procedures are transcribed into the standard softcopy template (Pic 5).
- Project team members review, consolidate and update changes in the cloud-based platform.
- Nurses are able to access surgeon preference details in the cloudbased platform through their mobiles to prepare and order instrument sets needed for specific surgery (Pic 6).

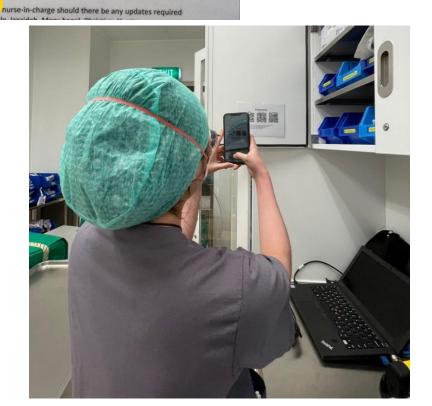
To further improve **accessibility** and **sustainability**:

✤ QR codes (Pic 7) linked to the relevant documents were generated and placed in convenient places for easy access (Pic 8). Documents uploaded are reviewed and updated according to new changes of surgeons' preference or new procedures.





**Pic. 7:** QR code placed in Sterile Core in the **Operating Theatre** 

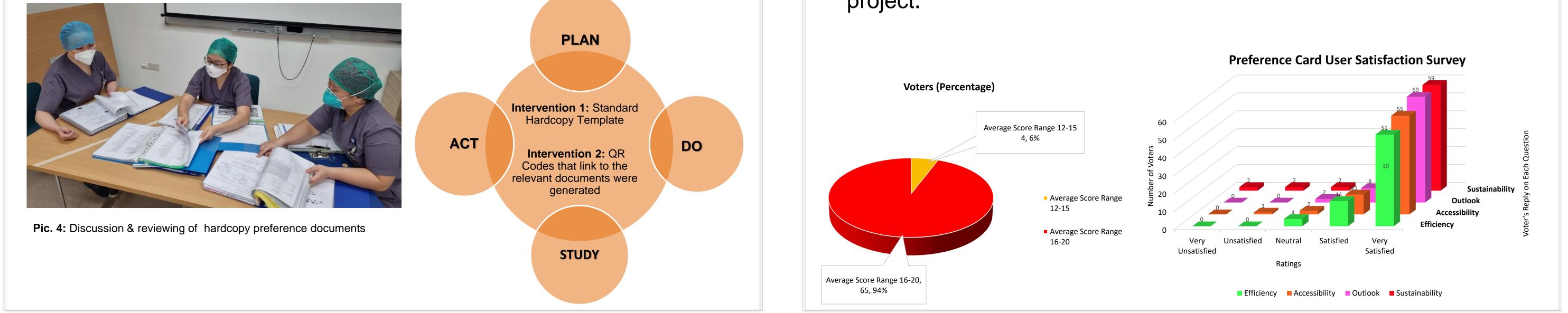


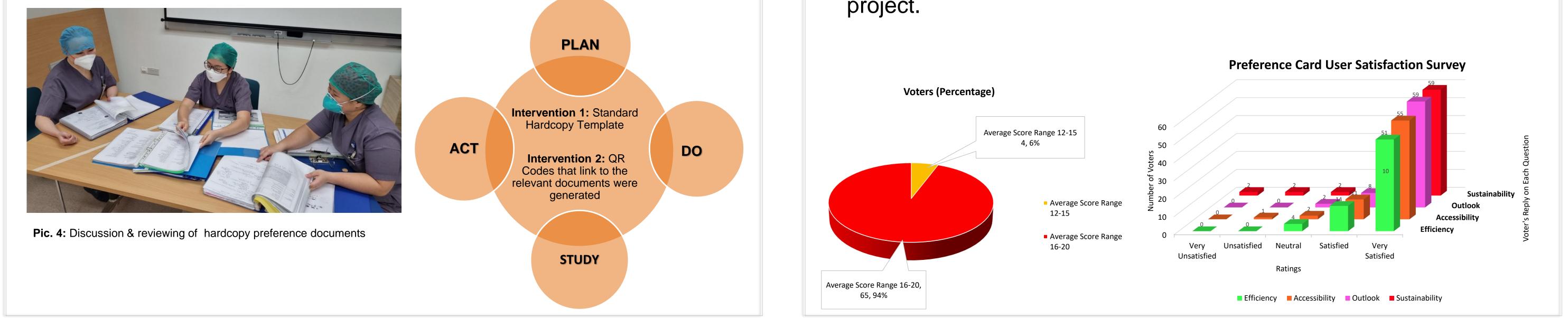
To improve accessibility and reliability of surgeons' preference cards to enhance efficiency and boost nurses' confidence in surgical preparations.

# METHODOLOGY

Through a focus group discussion (Pic 4) and a pilot trial, the team decided that the use of cloud platform would be beneficial to streamline the work process.

- After the trial period, a post-survey was conducted to gauge for staff's satisfaction and compliance rate.
- The initiation and review took a period of 6 months, with 100% usage amongst 142 scrub nurses by the end of 12 months.





**Pic. 5:** Sample viewing of Surgeon Preference

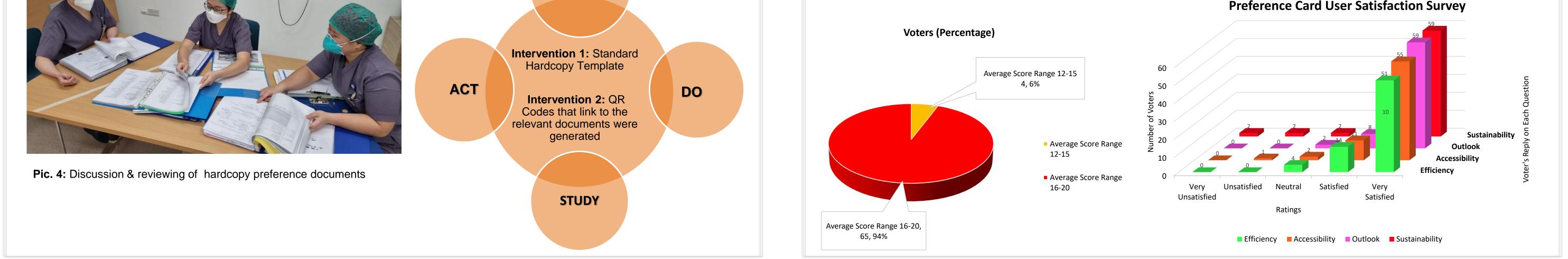
**Pic. 6**: Staff uses the Google Drive on her mobile for ordering of instruments on SKH Campus TimsWeb in SKH Infopedia.

Pic. 8: Staff scans QR Code to view Google Drive according to Discipline

# RESULT

A post survey was conducted amongst 142 perioperative nurses with 69 responses evaluated the four aspects of **Efficiency**, Accessibility, Outlook and Sustainability of the Cloud-based Surgeon Preference Card. Out of the 69 nurses:

✤ 65 nurses (94%) rated Satisfied / Very Satisfied across these four aspects which suggested a high level of satisfaction with this project.





The initiation of this cloud-based platform has produced a positive impact to its users.

In each discipline, a team of nurses are enthusiastic to upkeep and update these surgeons preferences as necessary for a timely 'real-time' update.

- $\Rightarrow$  > 600 preference cards have been created since its initiation with a high level of satisfaction.
- This platform has the capacity to include more detailed information for each surgery i.e. pictures of specific items.

Future versions and enhancement to this are always accessible & possible.