

## **Project Title**

Amazing Makeover of Bed Status Dashboard

## **Project Lead and Members**

Project members: Sharon Faith Teo, Fong Wai Mung, Zhang Wan Jen, Chan Shi Ming,  
Brandon Teo

## **Organisation(s) Involved**

Sengkang General Hospital

## **Healthcare Family Group(s) Involved in this Project**

Healthcare Administration

## **Applicable Specialty or Discipline**

Healthcare Administrators

## **Aims**

- Easy access and quick appreciation of real time bed situation for all stakeholders.
- Improved work efficiency for BMU.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Conclusion**

See poster appended/ below

### **Project Category**

Care & Process Redesign

Quality Improvement, Workflow Redesign

Productivity, Time Saving

Care Continuum

Inpatient Care

### **Keywords**

Bed Management Unit (BMU), bed assignment, bed demand and supply, bed crunch, bed wait time, real-time dashboard

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

Name: Sharon Faith Teo

Email: [singaporehealthcaremanagement@singhealth.com.sg](mailto:singaporehealthcaremanagement@singhealth.com.sg)



## Amazing Makeover of Bed Status Dashboard

Sharon Faith Teo, Fong Wai Mung, Zhang Wan Jen, Chan Shi Ming  
Bed Management Unit | Pre-Operative & Admitting Services (POAS)  
Brandon Teo  
IHIS - Patient Ops - Patient Ops Proj-Delivery

Special thanks to stakeholders who helped to launch or provided inputs for the dashboard:  
CMB, Chairmen of Clinical Divisions, CN, Clinical HODs and Communications

### Background

The Bed Management Unit (BMU) performs daily bed assignment and monitors bed demand and supply to assess impact on bed wait time. To this end, real time bed data is collated at fixed points in time daily to take stock of current bed situation and to alert stakeholders when action needs to be taken to alleviate bed crunch or prolonged bed wait time. Previously, BMU had to refer to multiple sources for bed data such as the bed census, SCM-ED and SAP to assess the bed situation, and thereafter manually update the stakeholders if necessary. The previous dashboard provided limited information on bed situation.

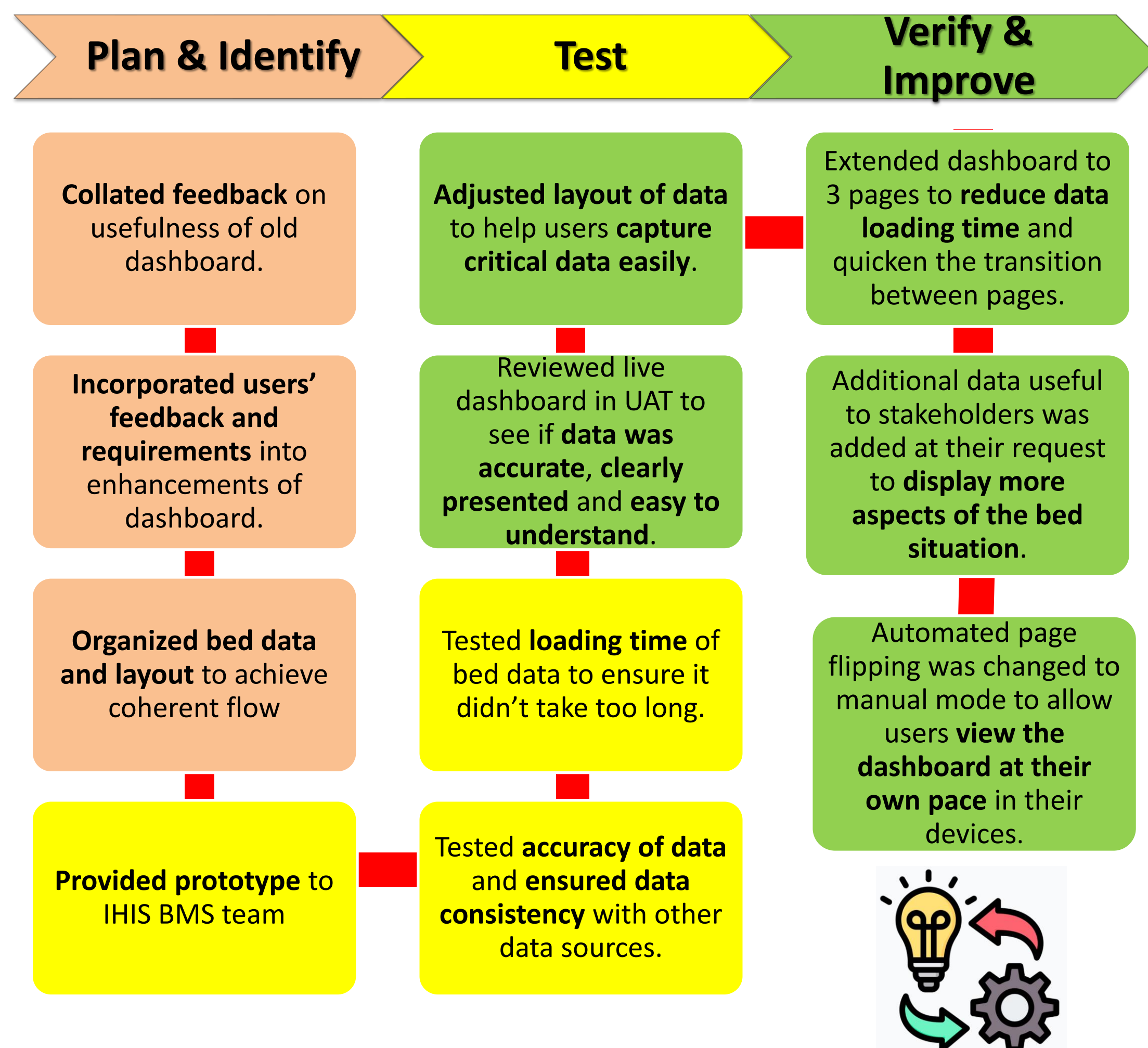
### Aim

- ✓ Easy access and quick appreciation of real-time bed situation for all stakeholders.
- ✓ Improved work efficiency for BMU.

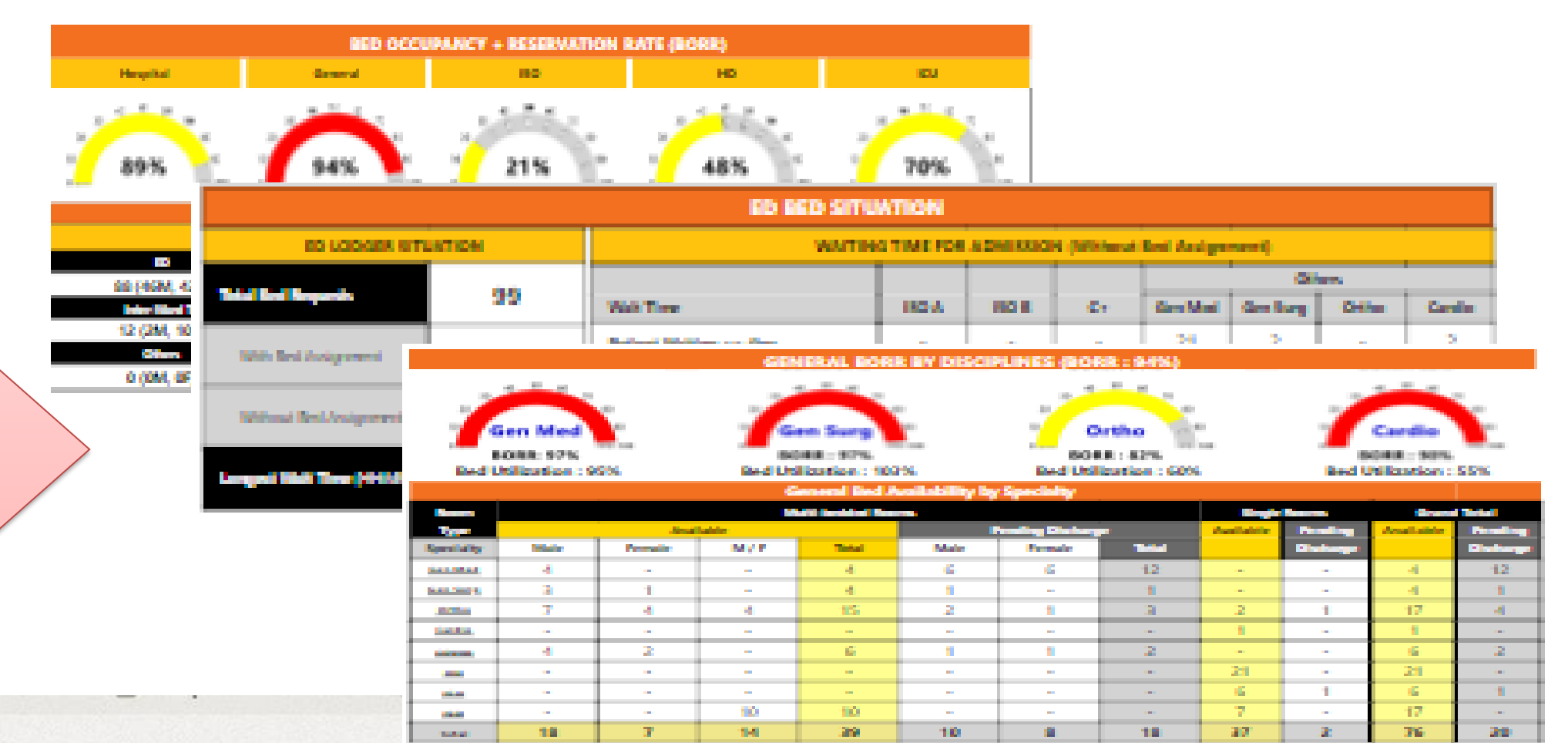
### Solution

Revamp the current dashboard by providing more comprehensive bed information – a one-stop visual display of important and organized bed information, easily accessible by all stakeholders.

### Methodology



3-page dashboard with pertinent information including:  
1. Bed Occupancy Rate, Bed Demand & Pending Discharge  
2. ED Lodger Situation  
3. Bed Availability by Specialty



Easily accessible via Infopedia  
Went live on 24 May 2022.

### Scalability

- Requested IHIS BMS Team to avoid hard coding for the dashboard as bed assignment workflows are always evolving. This is to allow shorter lead time to change bed data logic.
- Trending charts will also be added to cater to the needs of HODs and Senior Management.

### Results



#### Time Saving

Improved productivity with **elimination of manual collation** of bed stats for assessment of bed situation.

**135min/day**  
equivalent to ~0.3 FTE (PSA) or ~\$11,500 / year

**100%**  
reduction in data error due to manual collection



#### Quick Insights

- Bed Status Dashboard is available on intranet main page that **easily accessible by all stakeholders**.
- Stakeholders are able to **self-help** to access real-time data to **take timely action to ease bed crunch** and **manage patients' expectation regarding bed wait time**.
- Stakeholders found the revamped dashboard useful and requested to **make it accessible** to teams on the ground. It has been uploaded to SKH Infopedia home page and will be made available at the office of clinical departments, including A&E, on wall-mount TVs. Fewer ad-hoc requests for bed information were also received from stakeholders.



#### Staff Satisfaction

With **savings in time and effort** for BMU, staff no longer need to worry about errors or race against time to collate real time stats for quick bed situation assessment, thus achieving more staff satisfaction and joy at work!

### Conclusion



The management of hospital beds is a crucial element in the overall hospital operations and all departments are in some way dependent on bed availability. Having a highly accessible Real-time Bed Status Dashboard empowers all levels of staff and stakeholders to be able to make informed and timely decision that can impact bed availability and overall patient flow. It is built as a tool to bridge communications on bed availability – real-time, 24/7 – so as to pull all stakeholders together for collective efforts in managing hospital bed crunch situation. The dashboard is a practical solution, meets the aim and relatively inexpensive to implement.