Digitisation and Digitalisation of Bed Occupancy Ratio (BOR) Dashboard

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Problem Statement

As NTUC Health adapts to enabling hybrid work environments, we are redesigning our manual reporting processes on the Bed Occupancy Ratio (BOR) to be digitised and digitalised for easy access offsite, as well as across teams.
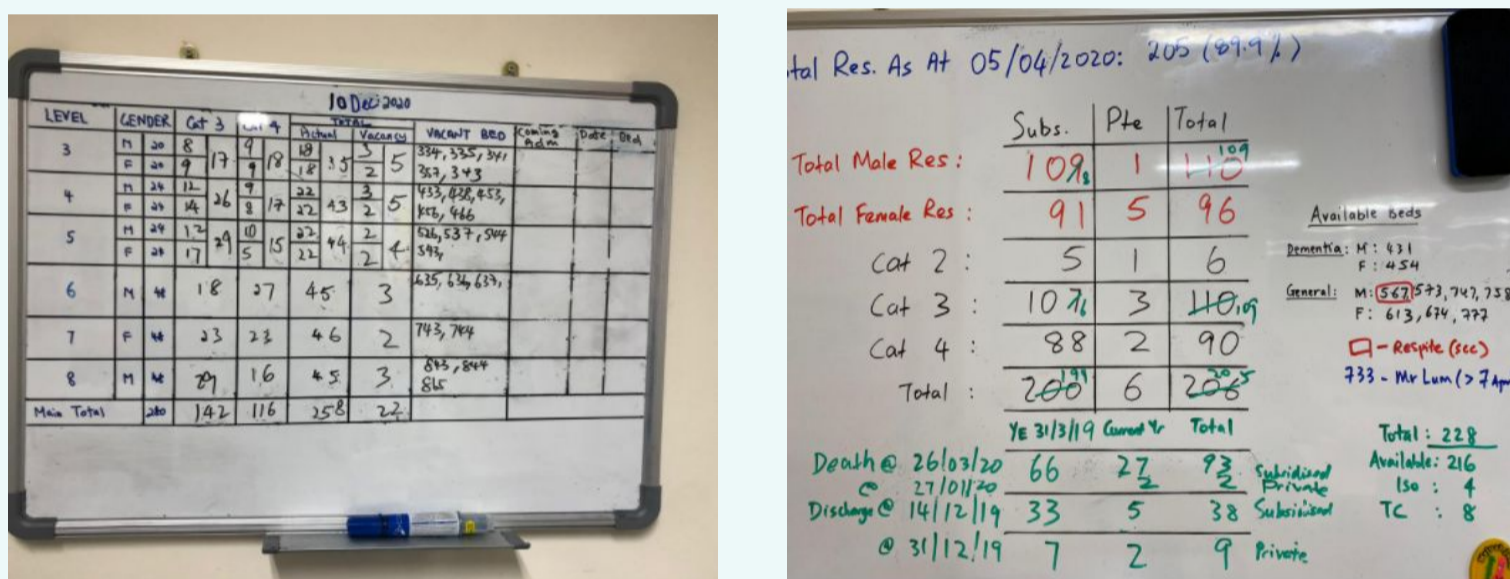

Figure 1: (Before) Manual BOR Reporting using office white boards

Project Aim

- Create a standardised BOR dashboard to provide timely information in bed allocation for new admissions.
- Develop an online BOR dashboard that is accessible anytime and anywhere.
- Facilitate organisational communication and care planning across teams in retrieving BOR related information on a timely basis.

Lessons Learnt

Piloting the prototype dashboard with 1 nursing home helped the team to better manage the change and refine the reporting process. The successful implementation also provided a good case study in convincing the other nursing homes to buy into the change.

However, one downside of this implementation method is that user requirements of the 5 nursing homes can be significantly different from each other, resulting in more rework for standardisation and scaling.

Potential Solutions

To reduce data duplication and unnecessary work, essential information required for regulatory reporting is entered into a master spreadsheet which is then imported via formula into the BOR dashboard. Information is aggregated via the dashboard and made accessible online to all staff.

A prototype of the BOR dashboard was piloted at Geylang East Nursing Home. Further enhancements were then made to the template to make it more user-friendly and intuitive.

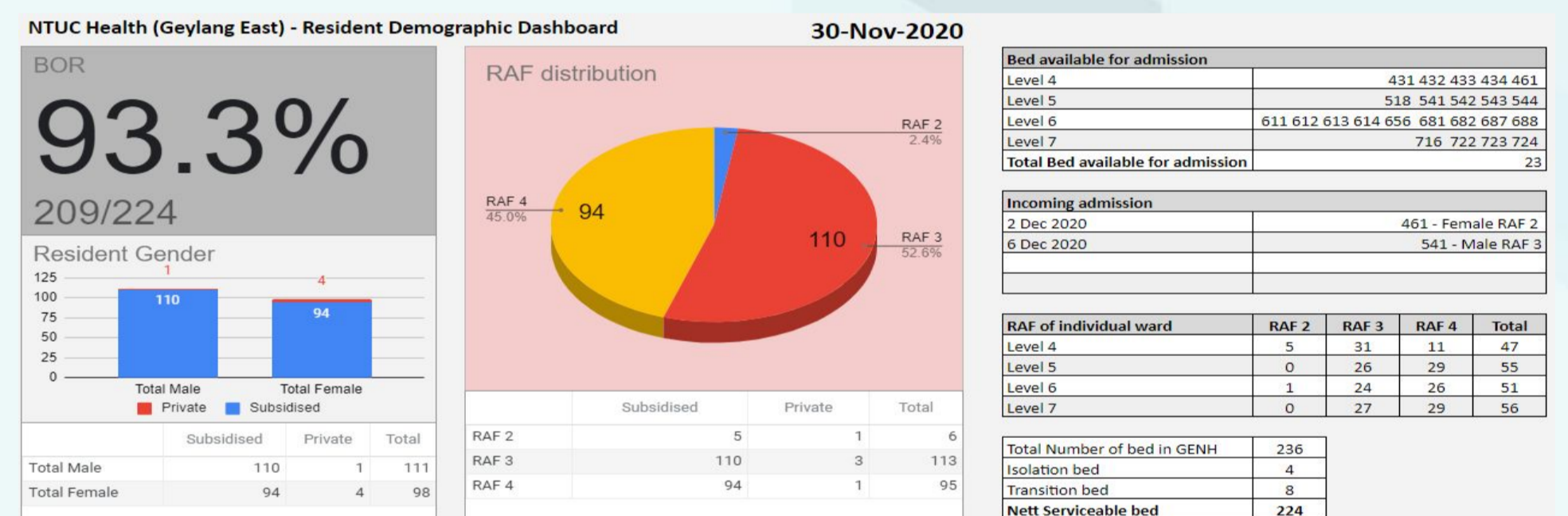The template was subsequently rolled out to the other 5 nursing homes.

Figure 2: Prototype Dashboard piloted at GENH

Outcomes & Impacts

A standardised BOR dashboard has been created and implemented across all 6 NTUC Nursing Homes. Colleagues are now empowered in retrieving timely information, reducing the turnaround time (TAT) for data requests from an average of 1 hour to less than 1 minute.

An overall dashboard was also developed to consolidate information across all nursing homes, including business intelligence on NTUC Health's resident profile and bed occupancy.
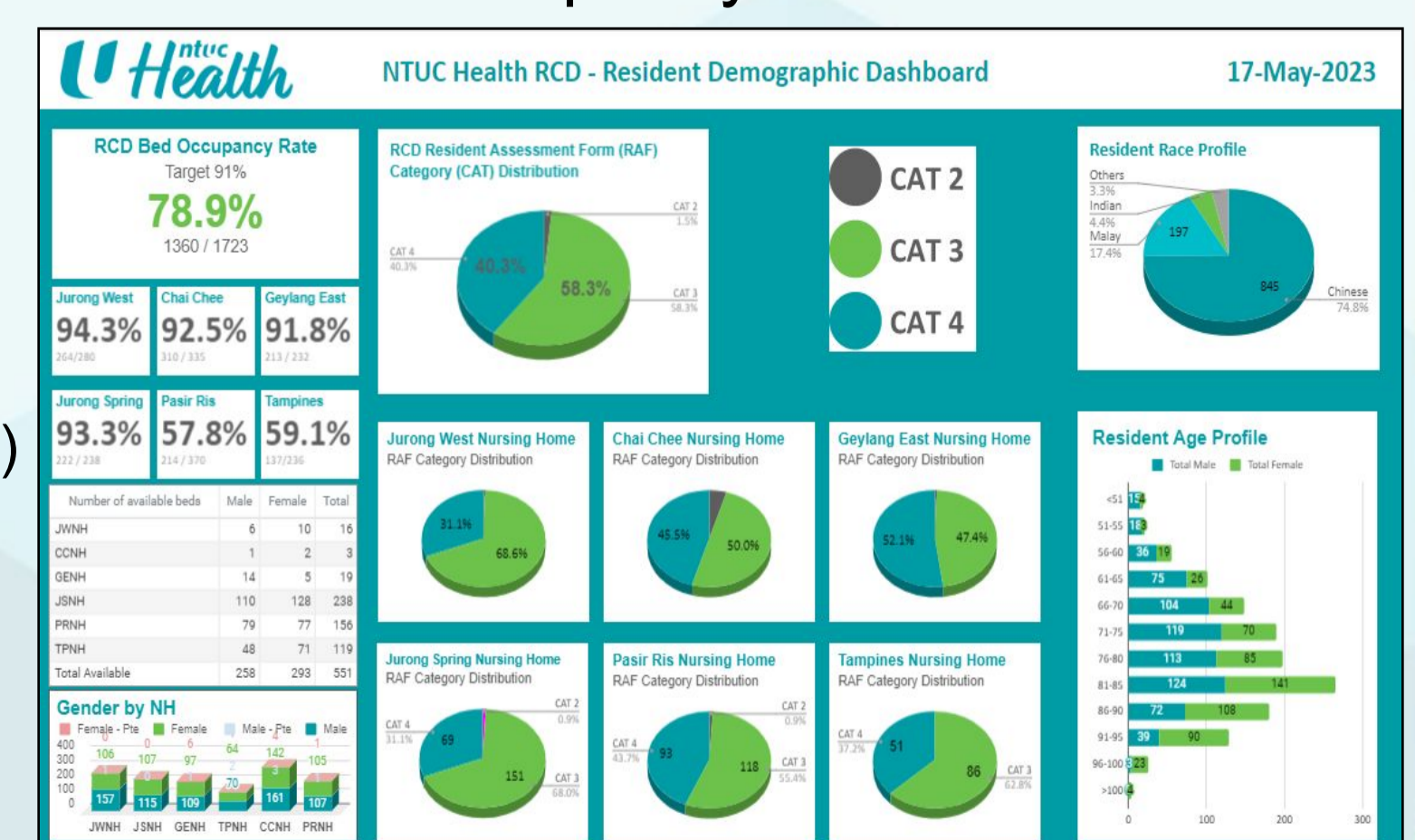

Figure 3: (After) BOR Report with Online Dashboard