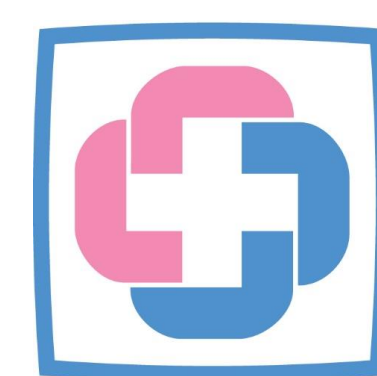




Singapore Healthcare
Management 2019

Who's your Biggest Debtor?



KK Women's and
Children's Hospital
SingHealth

Sim Ching Yee
Rubina Mohd Kutty
Goh Bee Keow
KK Women's and Children's Hospital

Introduction



The KKH Business Office (BO) is required to present the latest Outpatient AR (Accounts Receivable) reports to the management on a monthly basis.

Current process is tedious and error prone due to the complexity of the data obtained. Data is obtained from several sources and manual processing is required to clean and formulate the report, resulting in delay in report delivery.

Hence, Data Analytics Office (DAO) and BO decided to work together in this project to improve the process flow.



Aims

1. To **reduce processing time** to create monthly Business Office AR report by streamlining the data preparation steps.
2. To represent and appreciate the **trending** of AR status through appropriate visualisations.
3. To **allow deep-dive** into outstanding AR in the various areas of concern through the usage of interactive dashboards.

Methodology

01 Identify areas of improvement in the current report preparation process.

02 List and rectify data sources and formatting issues with IHIS.

03 Re-engineer the process of data preparation for ease of dashboard updating.

04 Design and build an interactive dashboard using Tableau.

05 Review and gather feedback with colleagues from Business Office for suggestions to enhance the dashboard.

Results

- Standardisation in the data structure allowed users to **reduce time taken for data formatting**.
- By shifting the reporting platform from MS Excel to Tableau, trending graphs can be created to give users a more **holistic view and flexibility for deep dive** towards data driven decision making. This was not possible when using MS Excel due to the large data file size.
- **Simplified instructions** given to allow users to update the dashboard easily.
- Time taken to roll out the report has been **significantly reduced by more than 40%**.

Graph 1: Time Taken to Generate the Monthly AR Report (min)

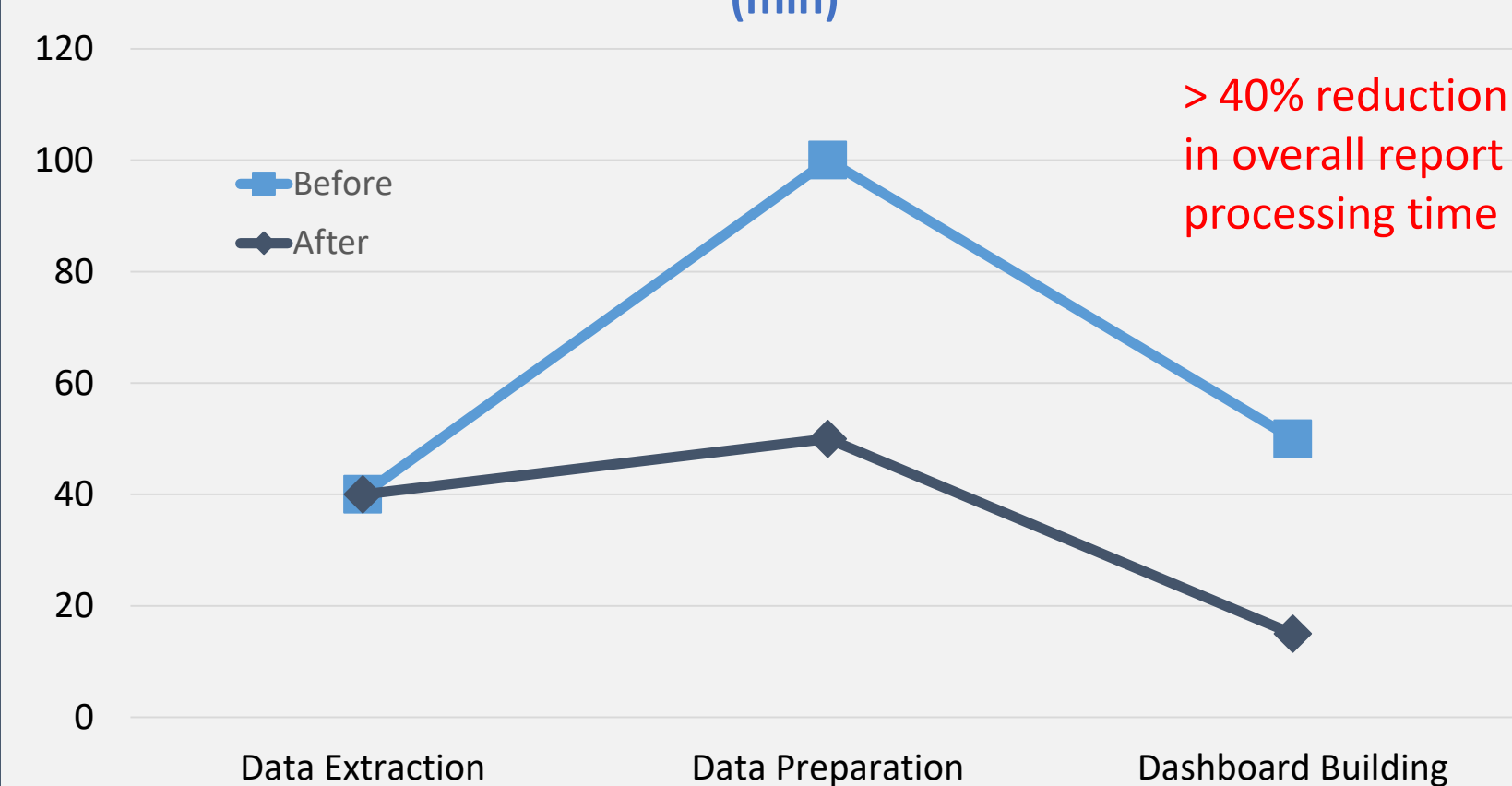


Fig 1: Monthly Overview and Breakdown by respective Areas of Concern

Pros of using the Business Office Outpatient AR Dashboard

- ✓ Visual Story-telling, top areas of concern identified at an instant
- ✓ Operational Efficiency due to ease of processing report
- ✓ One-time set-up of the visualisations
- ✓ Ability to handle large data files compared to MS Excel.

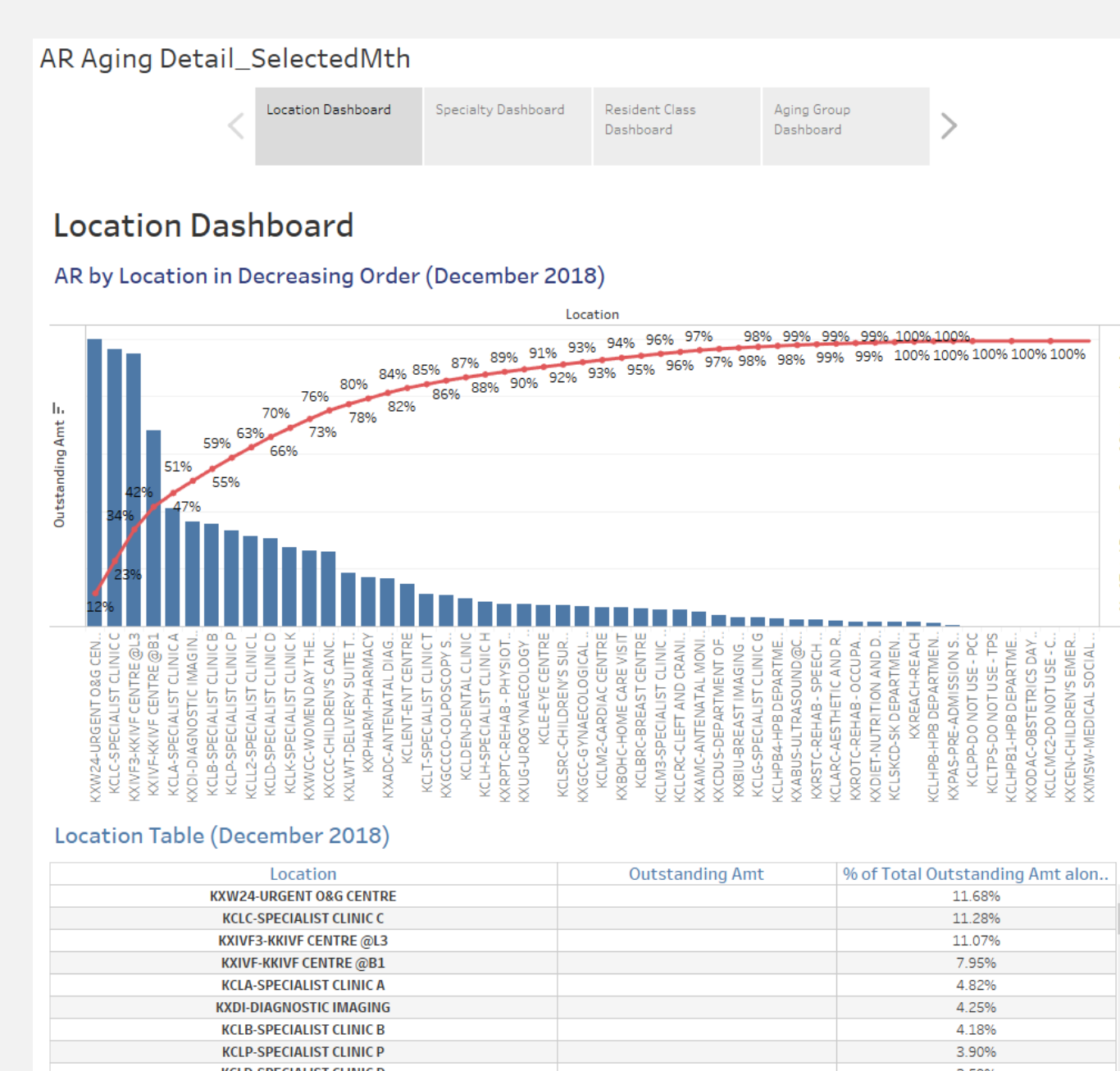


Fig 2: Detailed Breakdown by respective area (Month view)

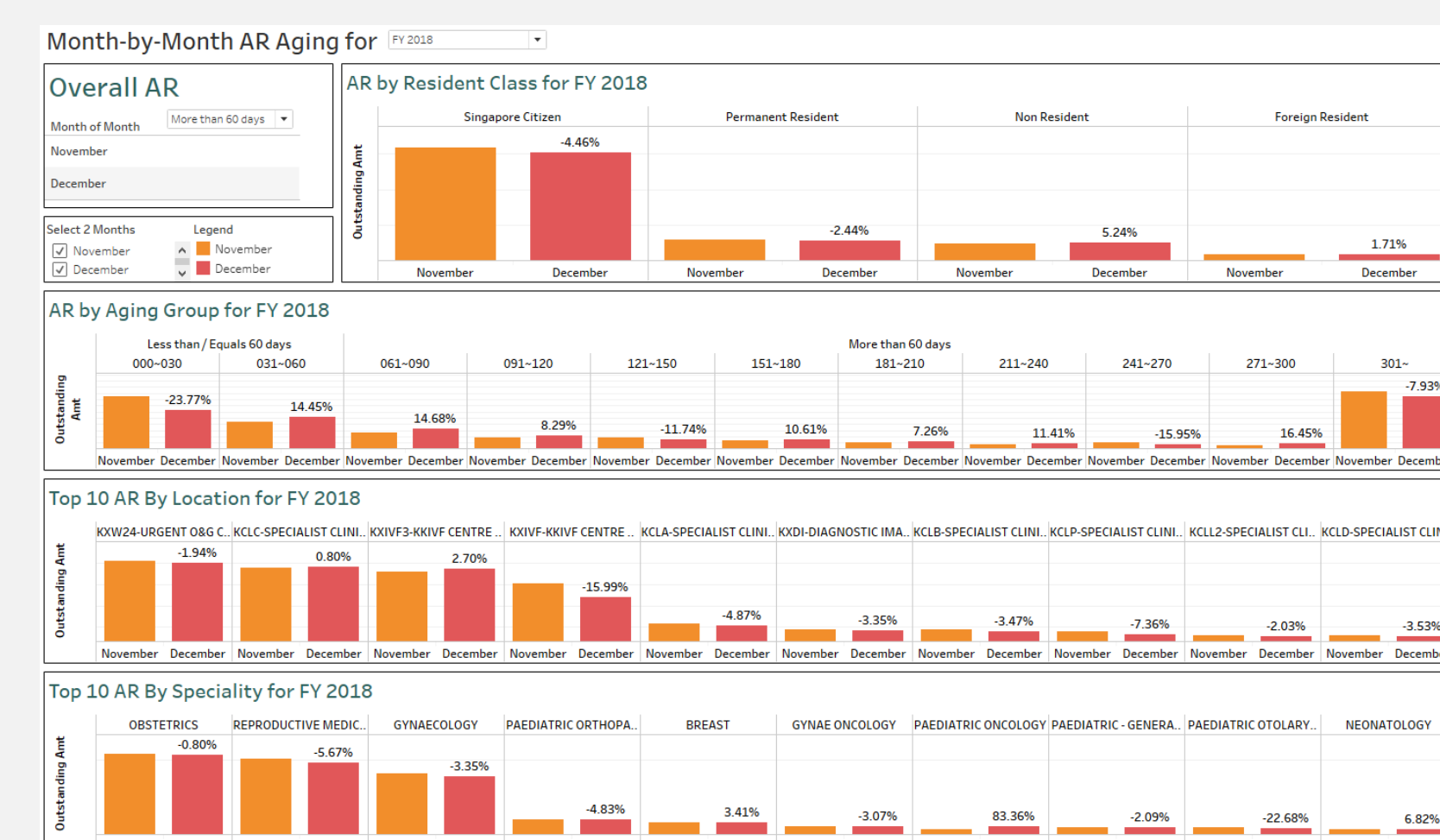


Fig 3: Month-to-Month Overview and Key Areas of Concern

Conclusion & Future Works

With the **time savings gained** in rolling out the Business Office Outpatient AR Dashboard, more time can be allocated for analytics work. The update guide also allowed colleagues to pick up the usage of Tableau easily and a good start in **promoting quality usage of data visualisation tools** in the institution.

The **interactive features of the dashboard** gives users the **ability to deep-dive** and **make data driven decisions easily**.

This dashboard serves as an excellent **kick-start to enhancing data analytics capabilities within the department**, opening up unlimited possibilities for future inter-department collaborations.



Acknowledgements

The project was made possible with the support and guidance from the following KKH colleagues from Business Office:
Mr Lee Hui Quan (Senior Manager) and Ms Joanne Wee (Assistant Manager)