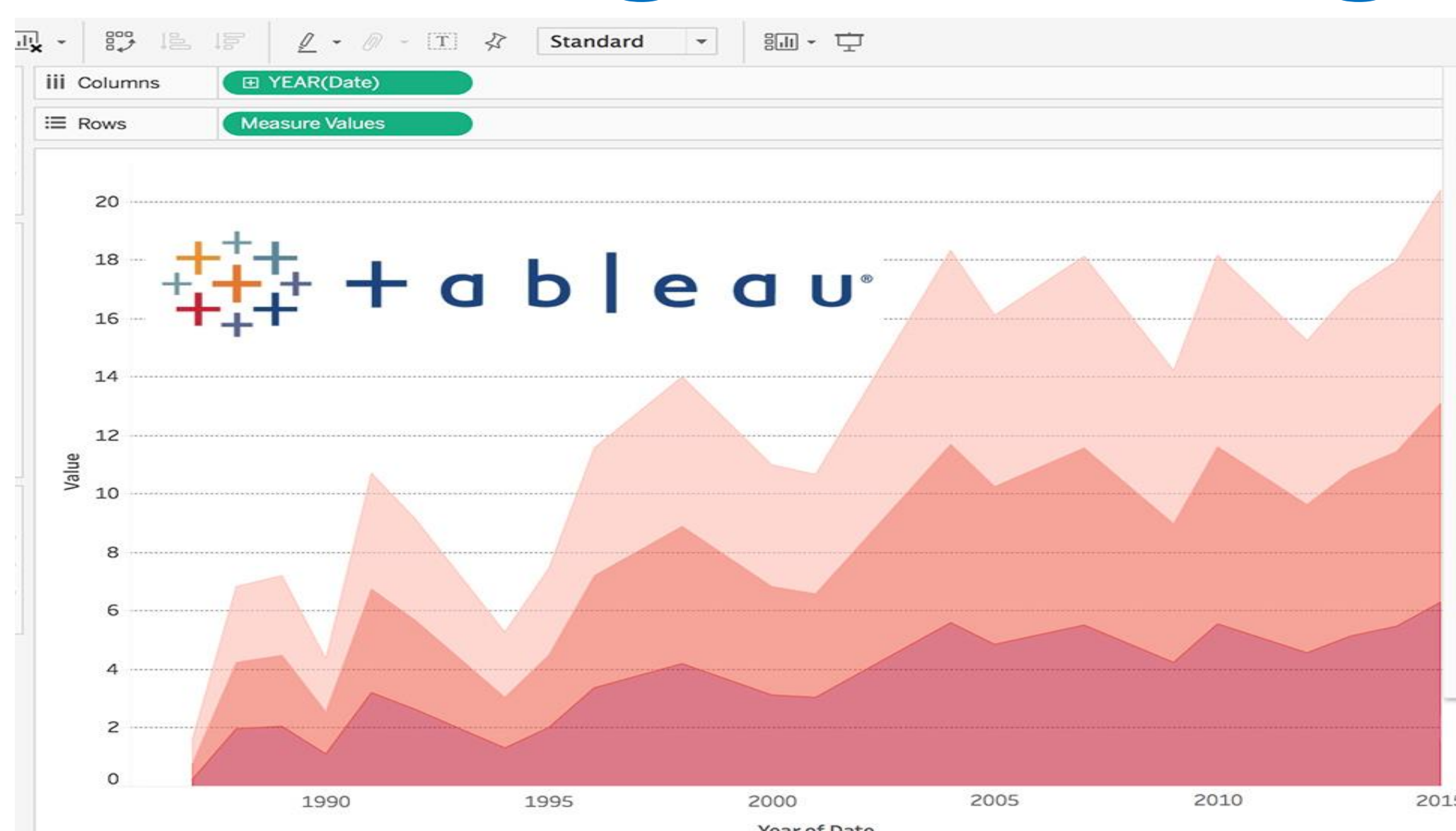




Singapore Healthcare
Management 2019

Designing Tableau Charts Discovering Data Insights



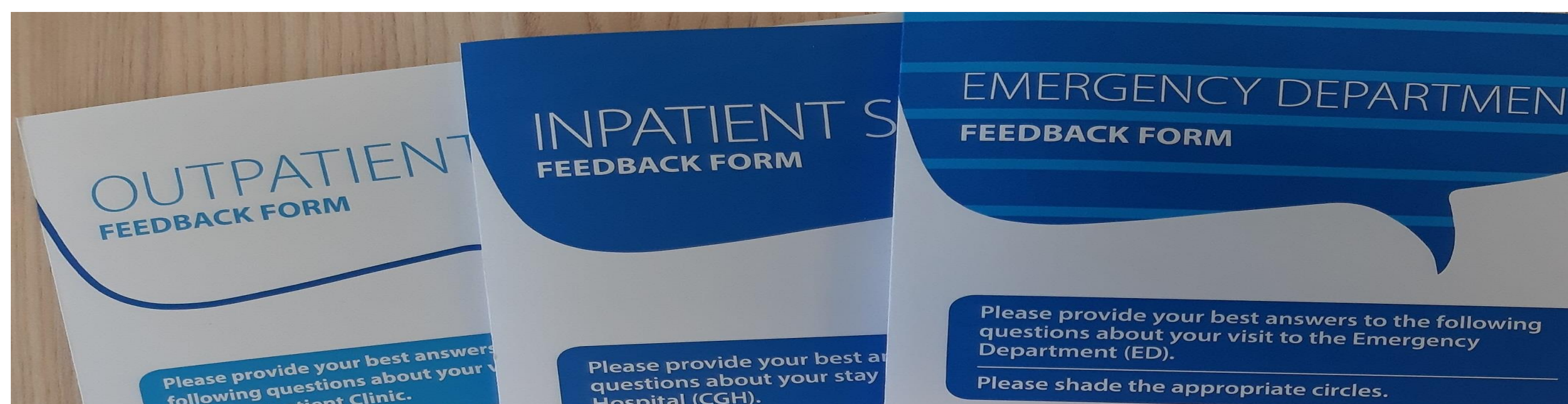
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Design, Build and Share Data Charts to Help Audience Uncover Insights

Introduction



CGH introduced new feedback forms in November 2017. The new forms follow the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey methodology, a format adopted by all SingHealth institutions. We rolled out three new forms (Emergency Department, Inpatient and Outpatient) and also introduced Chinese, Malay and Tamil versions.

Through the feedback forms, we garner patients' ratings, gauge their satisfaction and improve our service. We collect about 7,000 feedback forms monthly. These provide a rich trove of data for analysis.

We face a challenge of how to analyse and present the rich data.

Please shade the appropriate circles

Your Care from Nurses

- How often did the nurses treat you with courtesy and respect?
- How often did the nurses listen carefully to you?
- How often did the nurses explain things in a way you could understand?

Your Care from Doctors

- How often did the doctors treat you with courtesy and respect?
- How often did the doctors listen carefully to you?
- How often did the doctors explain things in a way you could understand?
- How often did you have confidence and trust in the doctors treating you?

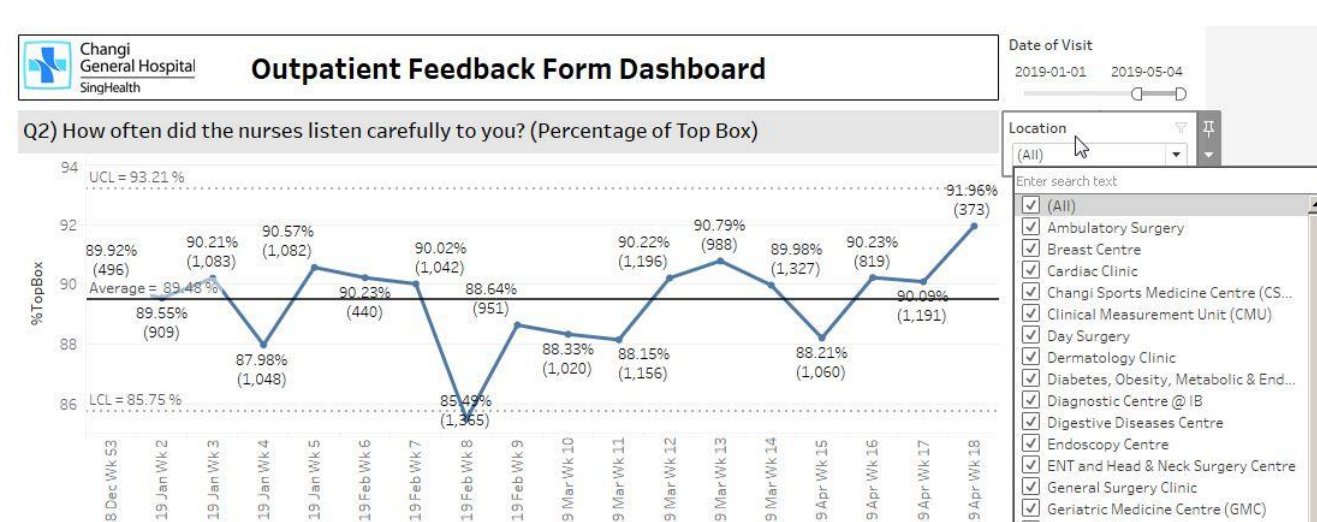
Always Usually Sometimes Never

Objectives

- To enable data sharing for data collaboration



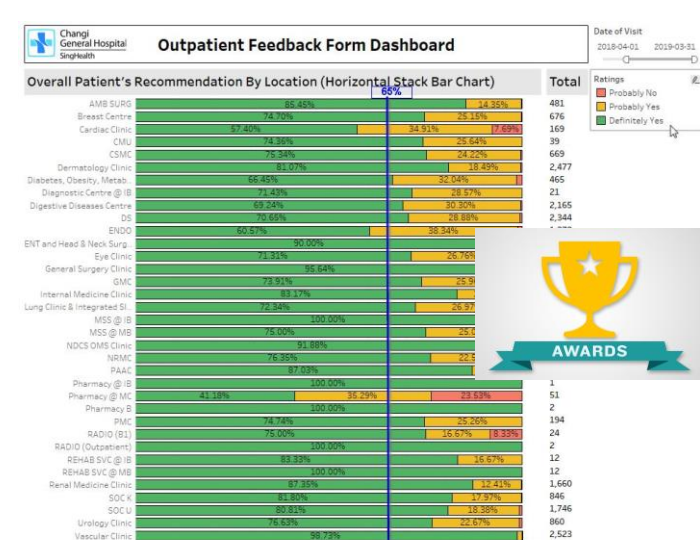
- To enable staff to track their performance weekly for quick response and quality control



- To empower staff to analyse data easily

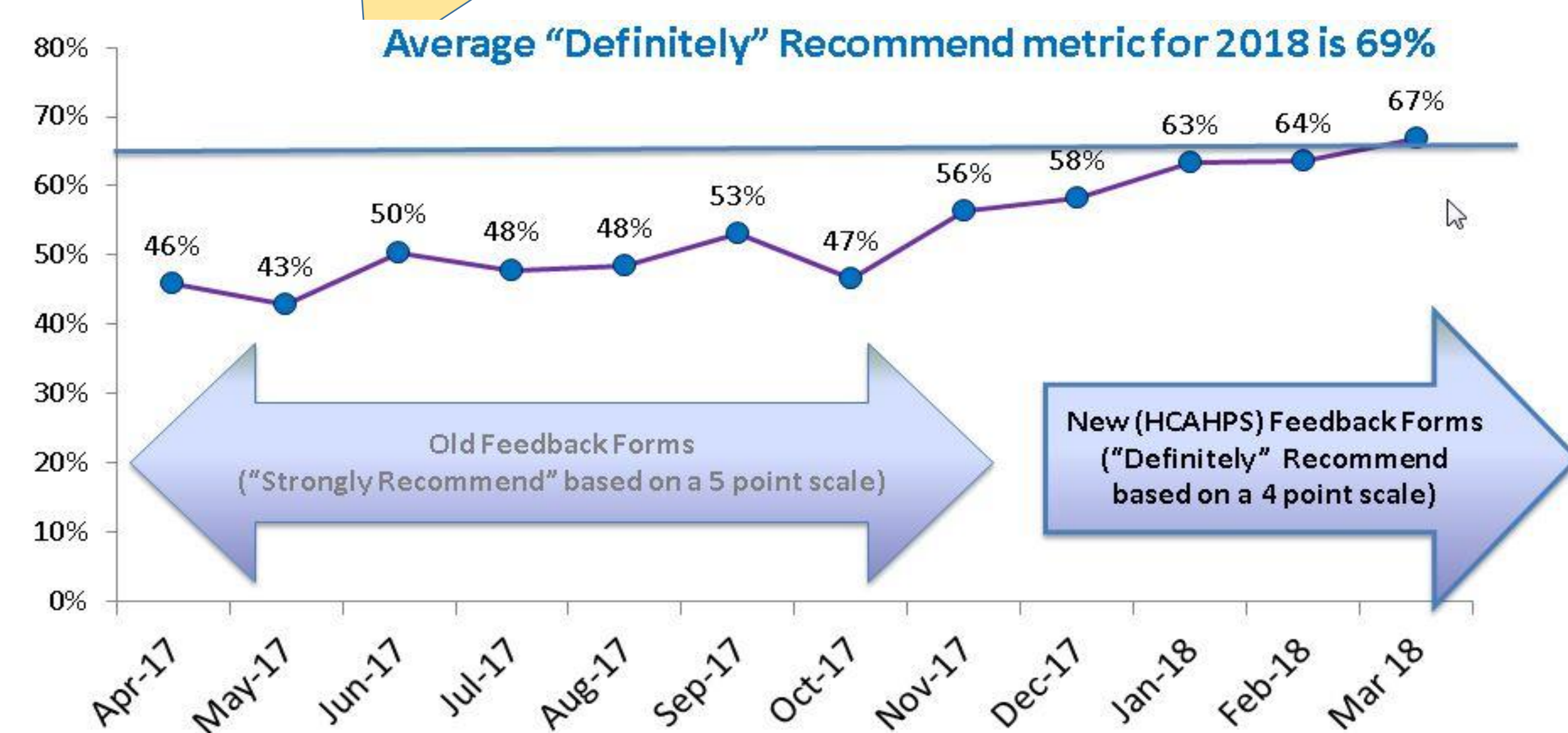
1 - Always	42 (10.30%)	57 (13.98%)	60 (14.67%)	23 (5.62%)	41 (10.00%)	29 (7.14%)	24 (5.95%)	293 (72.94%)
2 - Usually	49 (12.15%)	44 (10.80%)	57 (14.05%)	24 (6.05%)	39 (9.75%)	6 (1.51%)	9 (2.25%)	229 (57.94%)
3 - Sometimes	10 (2.50%)	10 (2.50%)	12 (3.00%)	9 (2.25%)	24 (6.05%)	3 (0.75%)	3 (0.75%)	69 (17.46%)
4 - Never	2 (0.50%)	2 (0.50%)	2 (0.50%)	2 (0.50%)	2 (0.50%)	2 (0.50%)	2 (0.50%)	8 (2.00%)
Blank	405 (100.00%)	518 (127.50%)	642 (160.50%)	642 (160.50%)	779 (194.75%)	466 (116.50%)	237 (59.25%)	8,572 (214.50%)
Total	506 (126.50%)	630 (157.50%)	782 (195.50%)	623 (155.75%)	835 (208.75%)	506 (126.50%)	271 (67.75%)	4,153 (1038.25%)

- To guide staff to improve patient experience and feedback score



Results

19% overall improvement in
“Definitely” Recommend
average score from
50% (2017) to 69% (2018)



The data charts enable clinics and wards to be ranked across the spectrum of high performing, middling performing and low performing. They enable initiatives to be rolled out in those lower-performing units to improve patient experience and consequent feedback score.

Conclusion :



Improvement across the ward, department
and hospital level.

Methodology

- Used Tableau software as a tool to present and share the data.
- Uploaded the Tableau data reports in the intranet and shared folder and granted rights to users to access reports.
- Published a user guide on how to install, view and use the Tableau data reports.
- Upload data weekly into Tableau reports.
- Embed control chart lines of “average score” as well as “upper and lower control limits” into data graphs to help staff to monitor quality.
- Build, design and craft our data charts by adopting the best practices of visual design as well as the best practices of visual data storytelling
- Communicate and share the reviews of data analysis with Department Heads.
- Meetings organised with staff (such as Nursing Department) to highlight the data insights for improvement
- Awards are given to encourage, recognise and reward staff of high performing clinics and wards.