

Designed Strategies In Improving The Patient Bed Management Process Without Encumbering Staff Workload, Creating a Dynamic Work Environment

P232

M. K. Sookday Singh¹, N. Ismail¹, A. Elias¹, R. Karuppiyah¹, N. H. Ismail¹, R. Sundram¹

1 Institut Jantung Negara, Kuala Lumpur, Malaysia

INTRODUCTION

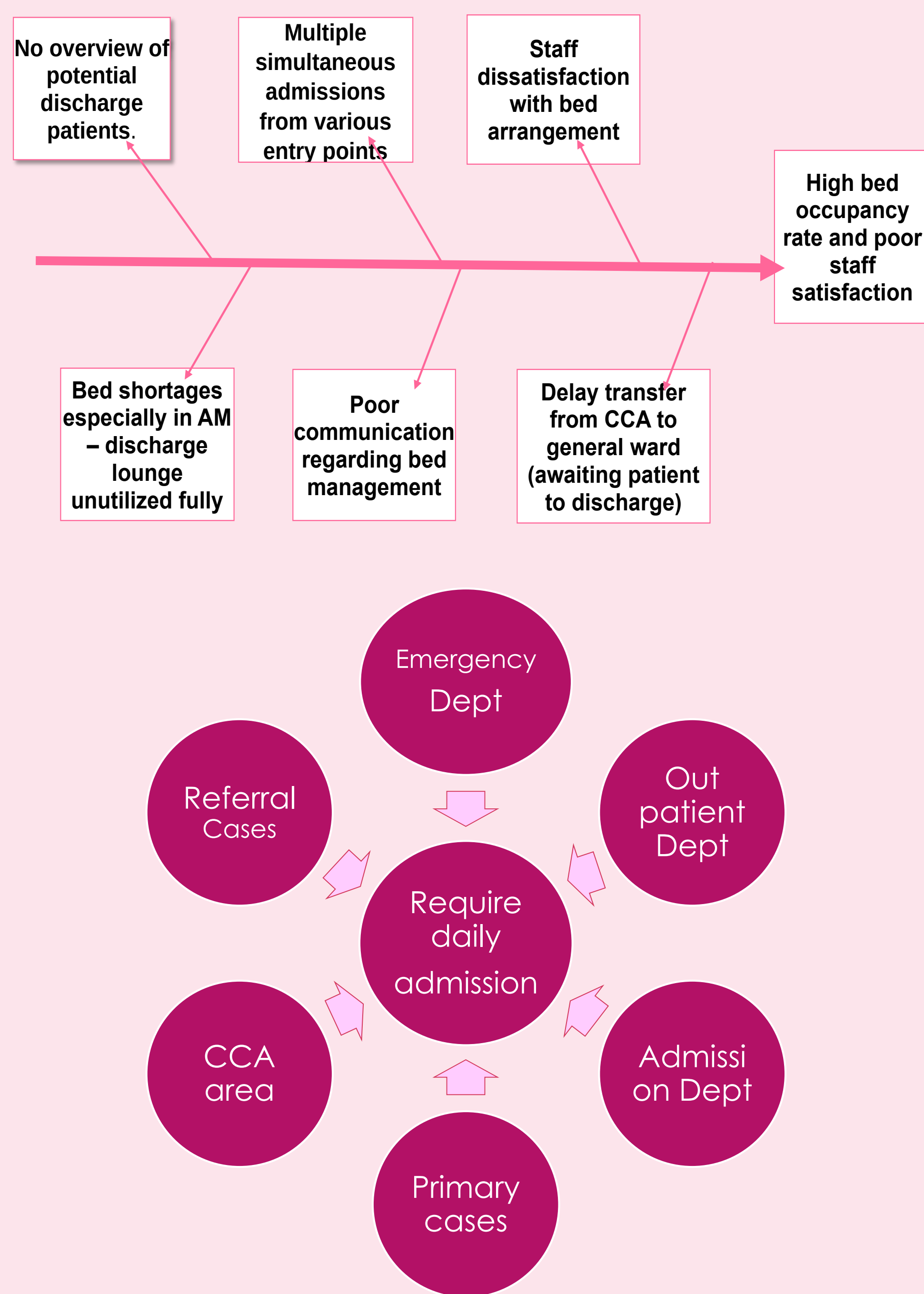
Efficient bed management is critical for healthcare institutions. Bed shortages with high ward occupancy rate pose a risk to patients and may result in overall delay in admissions, which leads to delay of intended treatment and may adversely affect patient safety and staff satisfaction¹. Institut Jantung Negara (IJN) is Malaysia's national, tertiary heart center with 421 beds and receives an average of 25% of its daily occupancy from elective and unplanned admissions. The role of bed coordinators in this institute is vital to constantly manage bed capacity for the smooth running of the healthcare institution. Therefore, this improvement project was vital in order to enhance the bed management process and improve staff satisfaction.

METHOD

This study utilized the Plan-Do-Study-Act (PDSA) methodology to improve the bed management process (BMP) by identifying the underlying contributing factors and designing strategies to enhance the overall process. The designed strategies includes assigning dedicated bed coordinators, implementing advanced technology, cultivating a culture of continuous improvement, promoting collaboration, fostering a dynamic work environment and improving discharge lounge.

PLAN

- Bed coordinators utilized the fishbone and identified various issues contributing to the poor bed management and devised strategies.
- Aim of the project was to ensure:
 - Sufficient beds for admissions
 - To ease, improve and hasten the process
 - Encourage cooperation from all staff, thus promoting a better working environment and increasing staff job satisfaction



DO

The 3 main intervention was :

1. Usage of “on call template” improvised the bed management system

[illegible]

3. Implementation and updating of daily rounds template in tablet made rounds easier, allowing coordinators to perform divided rounds



2. Improvement of Bed Management Process

Bed management flow in 2019	Improved flow in 2023
Start the day with routine rounds	Start the day with daily briefing – to get the latest update on bed status
Frequency of rounds - daily	Two rounds a day.
Covered area - general wards and CCU	Covered area – General wards, CCU, HDUCD, Admission, OPD and Emergency department
Inquiry – on vacant beds and total discharges	Inquiry – Discharge lounge, bed ridden patients, faulty beds, feedback on receiving cases from other dept and arranging patients entitlement
Communicating group – nurse manages and mentors	Nurse manages, mentors, senior nurses, cardiologist, consultants, Head of Cardiology
Communication topic – updates to STEMI groups	Updates in multiple group
Tools – Manually write down bed information	Tools – daily briefing template, daily rounds template and Tablet

STUDY & ACT

- This study was crucial to review BMP improvement after the strategies were implemented. Therefore, feedback from nurses and doctors were obtained in 2 different ways.
- Verbal feedback were noted from nurses during morning rounds. These feedbacks were then discussed in the monthly Manager's meeting to find the solutions. With these strategies, **number of complaints reduced from 7 to 0** in December (Figure 1).
- A Google survey was conducted among doctors to understand their feedback on the improvement in BMP. The survey revealed that more than **60% were indeed satisfied** with the new process (Figure 2).
- This overall **improves the waiting time in Emergency Department** (Figure 3).
- Feedback from the doctors regarding the template led to improvements in the Trakcare template format.

FIGURE 1: Nurses Feedback on BMP

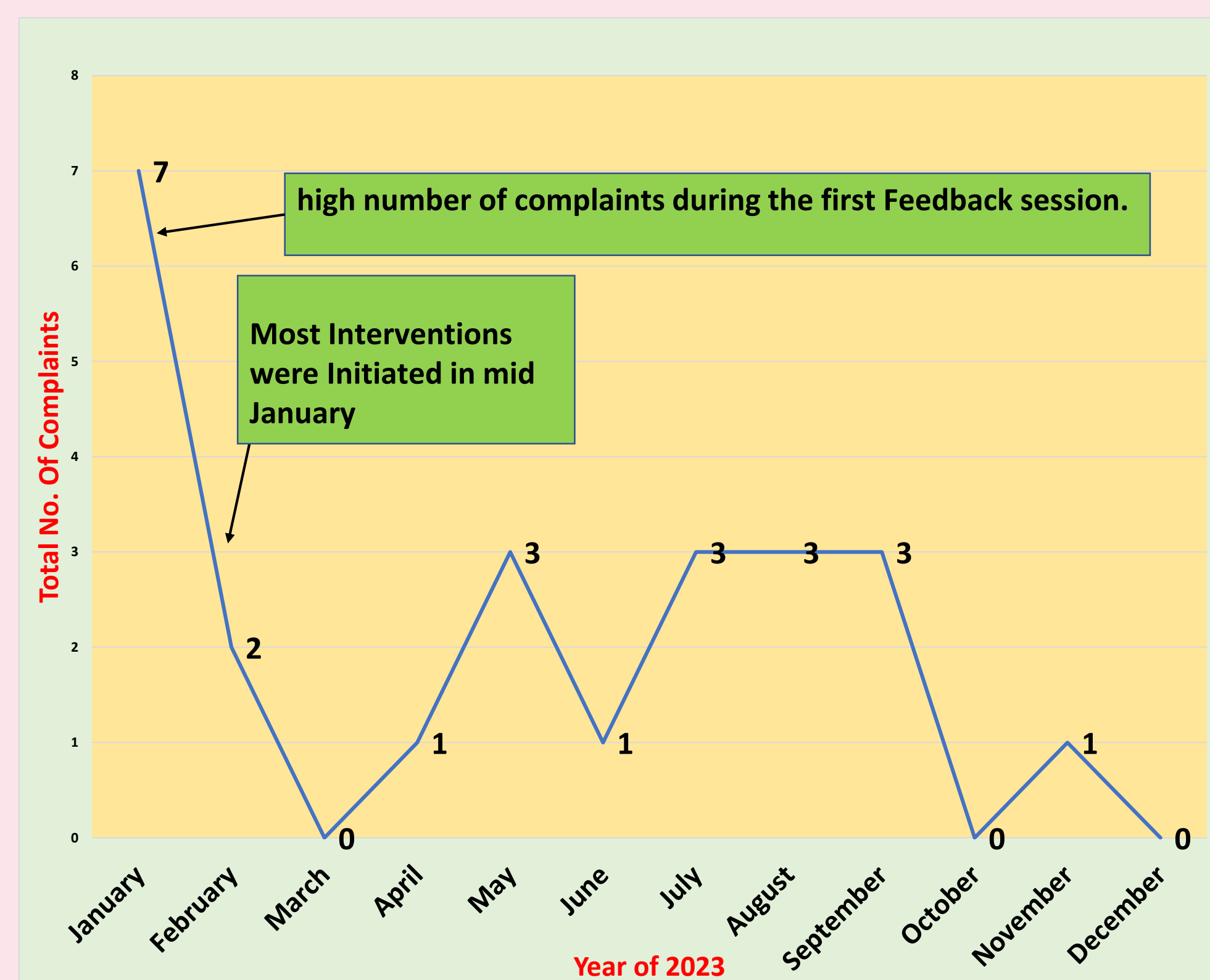


FIGURE 3: Waiting time in Emergency Department Improved

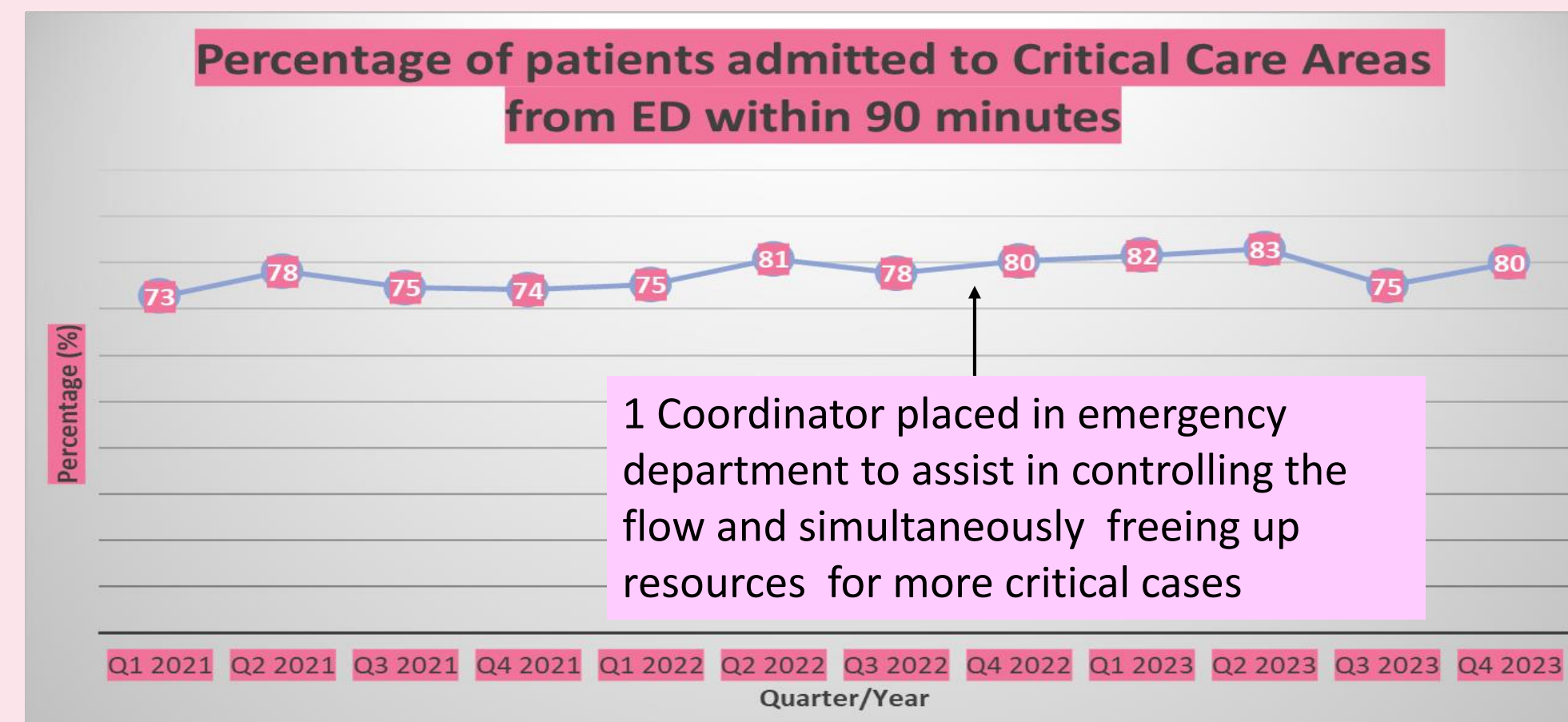
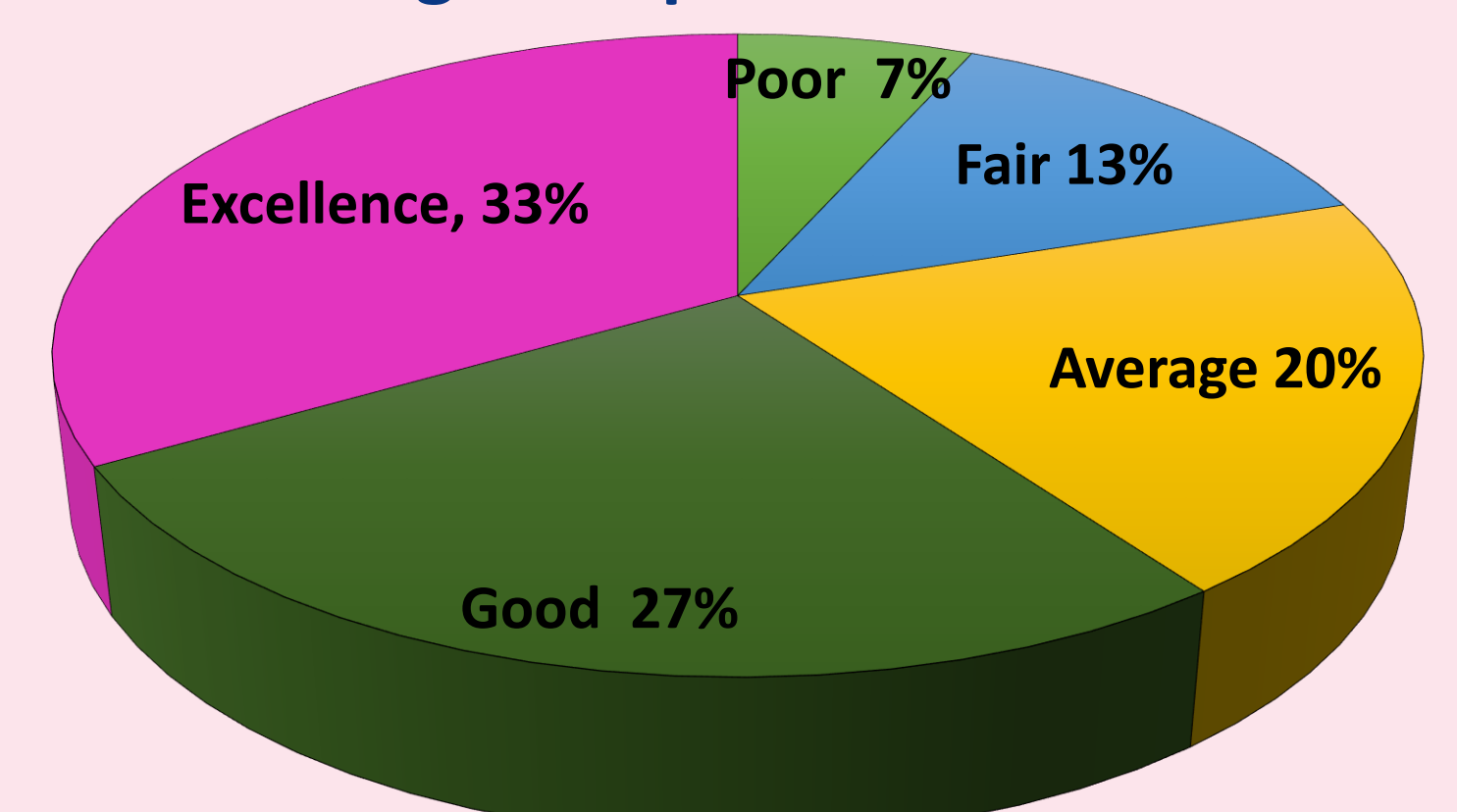


FIGURE 2: Doctors Survey on BMP

Bed Management Survey Among Doctors	From poor to excellent				
	1	2	3	4	5
Rate overall experience with our coordinator				9	22
Bed Coordinator demonstrates professionalism and they are now easy to approach				7	24
Rate your experience entering details in Trakcare template during accepting referrals		1	6	12	12
The Bed that I booked via Trakcare are accepted by Coordinators within 3 working days				12	19
Is the Bed Coordinator handling your concern well in every situation of referral				9	22
Is accepting primary cases are more flexible now?			1	12	18
Do you agree: The process of bed management has improved over these years?				8	23
Rate your communication with our coordinators				7	24
Total		1	7	76	164

Rating from poor To Excellent



CONCLUSIONS

With the implementation of the bed management template tool, utilization of mobile-based application technology, interdisciplinary collaboration and fostering a culture of continuous improvement, healthcare institutions can enhance bed management processes without encumbering their staff's workload. This in-return improves overall satisfaction of doctors, nurses and referring hospitals.

CONTACT INFORMATION

Melvinder Kaur Sookday Singh
Bed Coordinator
National Heart Institute
Melvinder@ijn.com.my
HP: +6017-3013321

REFERENCES

Jingui Xie, Gar Goei Loke, Melvyn Sim, Shao Wei Lam (2022) The Analytics of Bed Shortages: Coherent Metric, Prediction, and Optimization. *Operations Research* 71(1):23-46.
<https://doi.org/10.1287/opre.2021.2231>