

The delay in discharge process is known to affect hospital throughout; delaying admissions from the emergency department and elective cases, delaying the transfer of patients out from ICU to the general wards, and inadvertently causing cancellation of surgeries (Bazzoli et al, 2006).

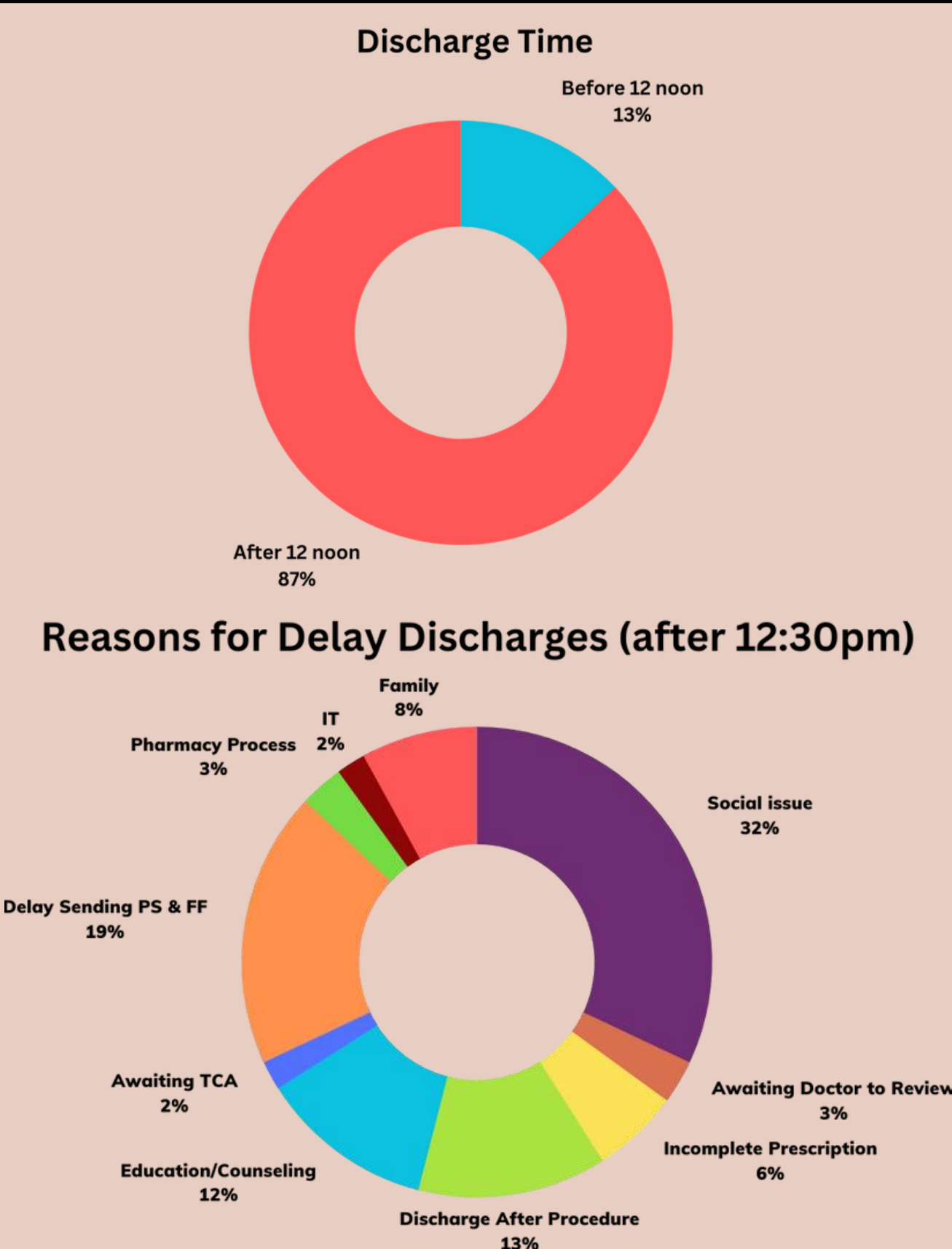
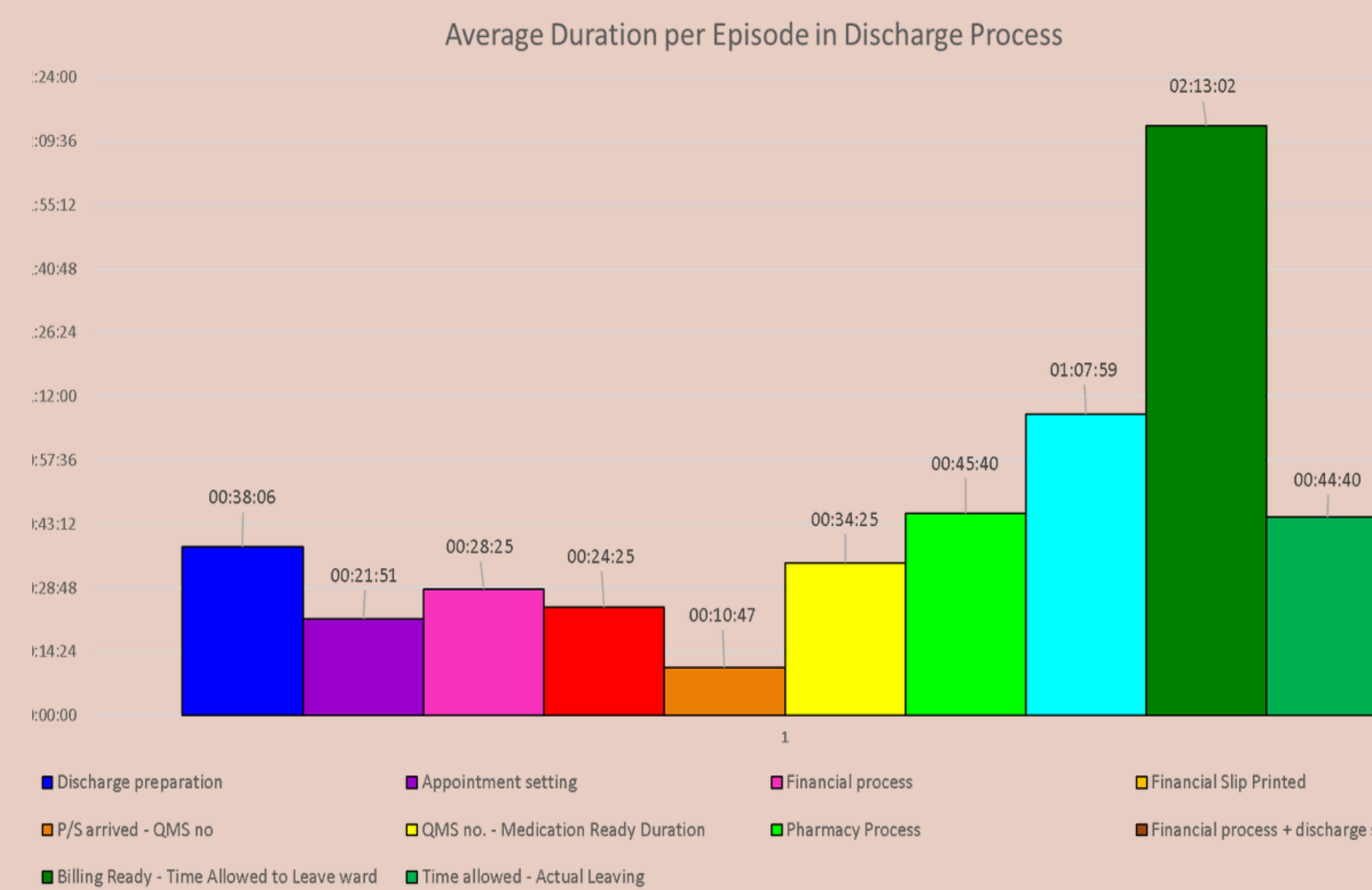
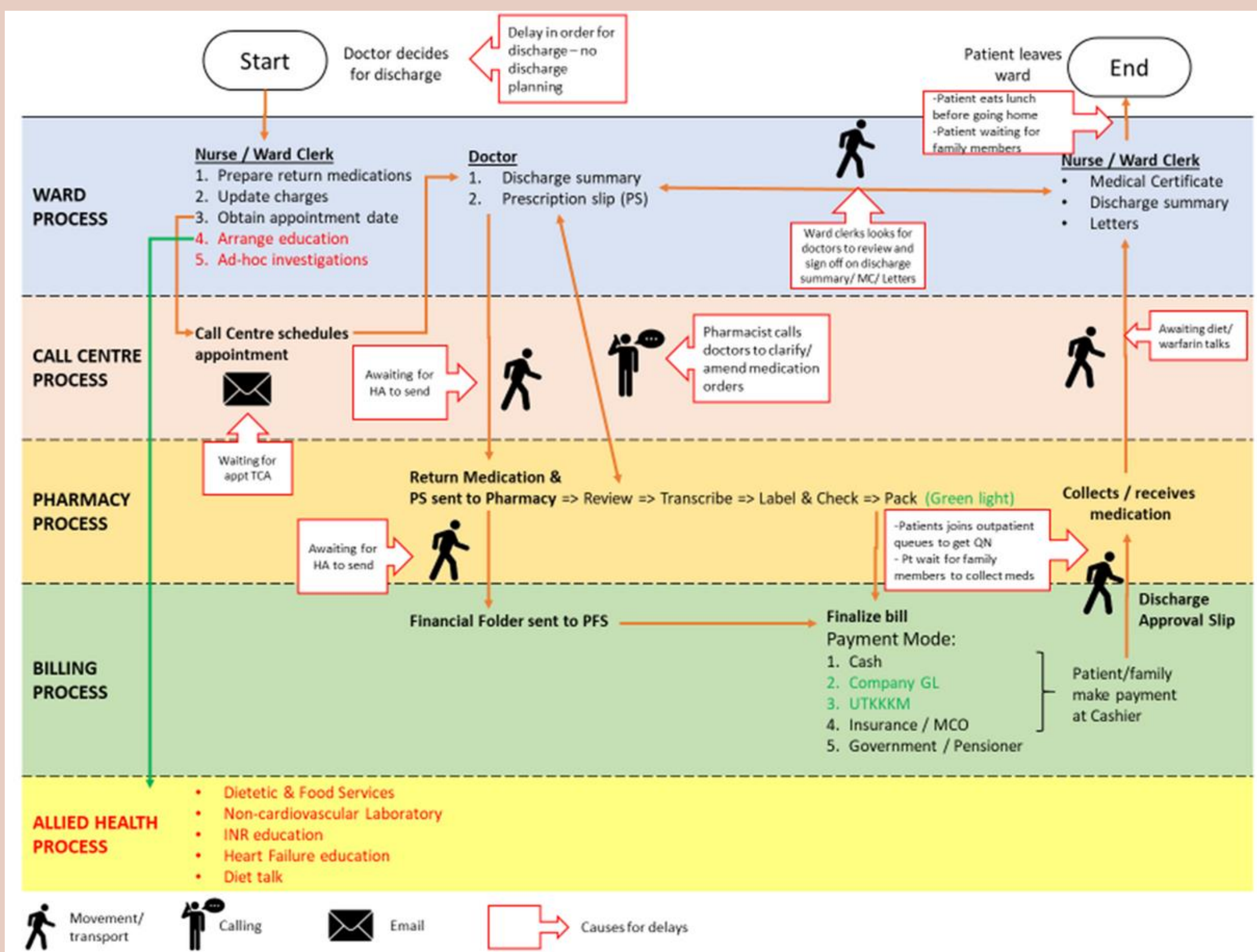
As part of an organization-wide initiative to improve efficiency in the hospital, a PDSA project was embarked to tackle the delay and prolonged inpatient discharge process. The discharge process was analyzed at a national cardiac center in Kuala Lumpur, Malaysia, to identify reasons for delays and subsequently improve the process.

Methods

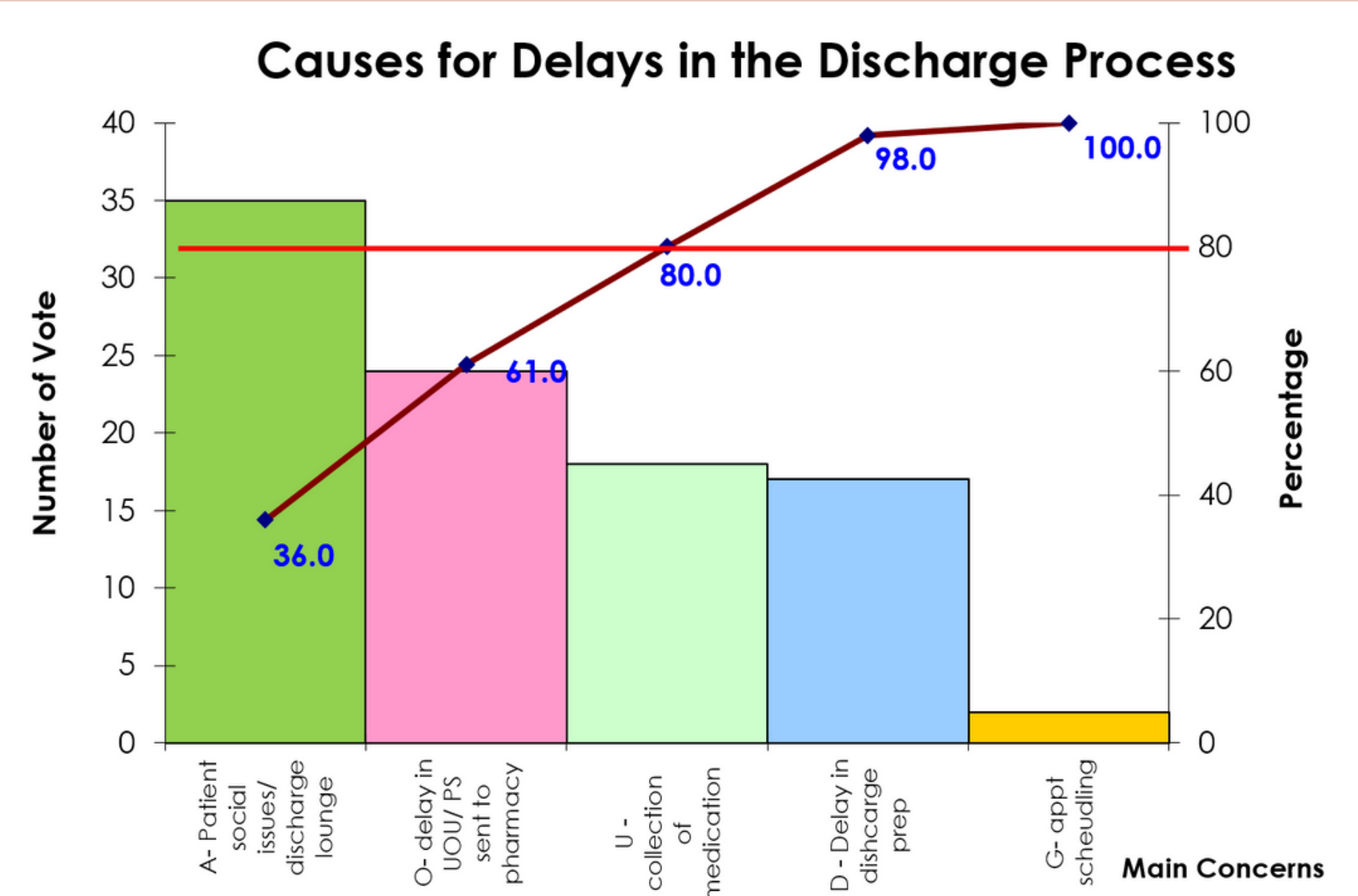
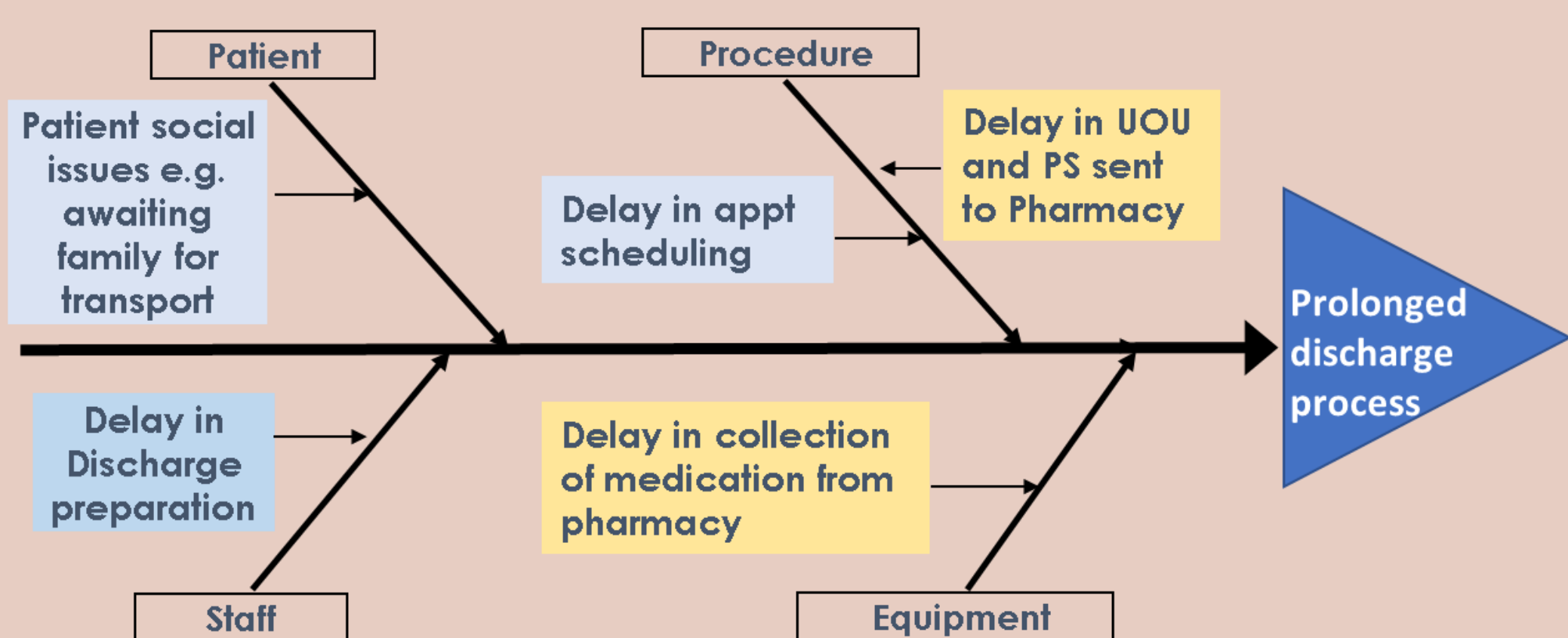
Inpatient discharge data of 4 wards were collected for 7 months in 2022. A PDSA (plan, do, study, act) quality improvement tool was used to improve the discharge process. A multidisciplinary team comprising relevant stakeholders involved in the discharge process was assembled to map out and review the current discharge process flow and discharge data. The team then identified all the reasons for the delay along the discharge process and categorized it using the Ishikawa diagram.

Multi-voting and the Pareto chart were used to narrow the focus on which root cause to tackle first. The team decided to focus on the patients' social aspects as data showed 47% of delays were due to patients waiting to be fetched by their family members, delaying bed turnover. The intervention planned was providing a discharge lounge for medication collection and patients awaiting to go home, developing a criteria for patient eligibility for discharge lounge, and educating patients and their family members on admission regarding the discharge lounge. Data was then collected and analyzed on the discharge lounge utilization, overall discharge process time and discharge timing.

PLAN



CAUSE AND EFFECT DIAGRAM



Aim:

To reduce overall discharge time to 20% within 6 months

Measures:

Process Measures:

- Percentage Patients Eligible for Discharge Lounge
- Discharge Lounge Utilization

Outcome Measures:

- Total Discharge Time (Discharge order to patient leaving ward)
- Patients leaving time (Patients allowed to leave to leaving ward)
- Percentage of patients leaving ward before 12.00pm

Secondary Outcome Measure:

- Percentage of Patients Admitted to General Wards within 90 minutes

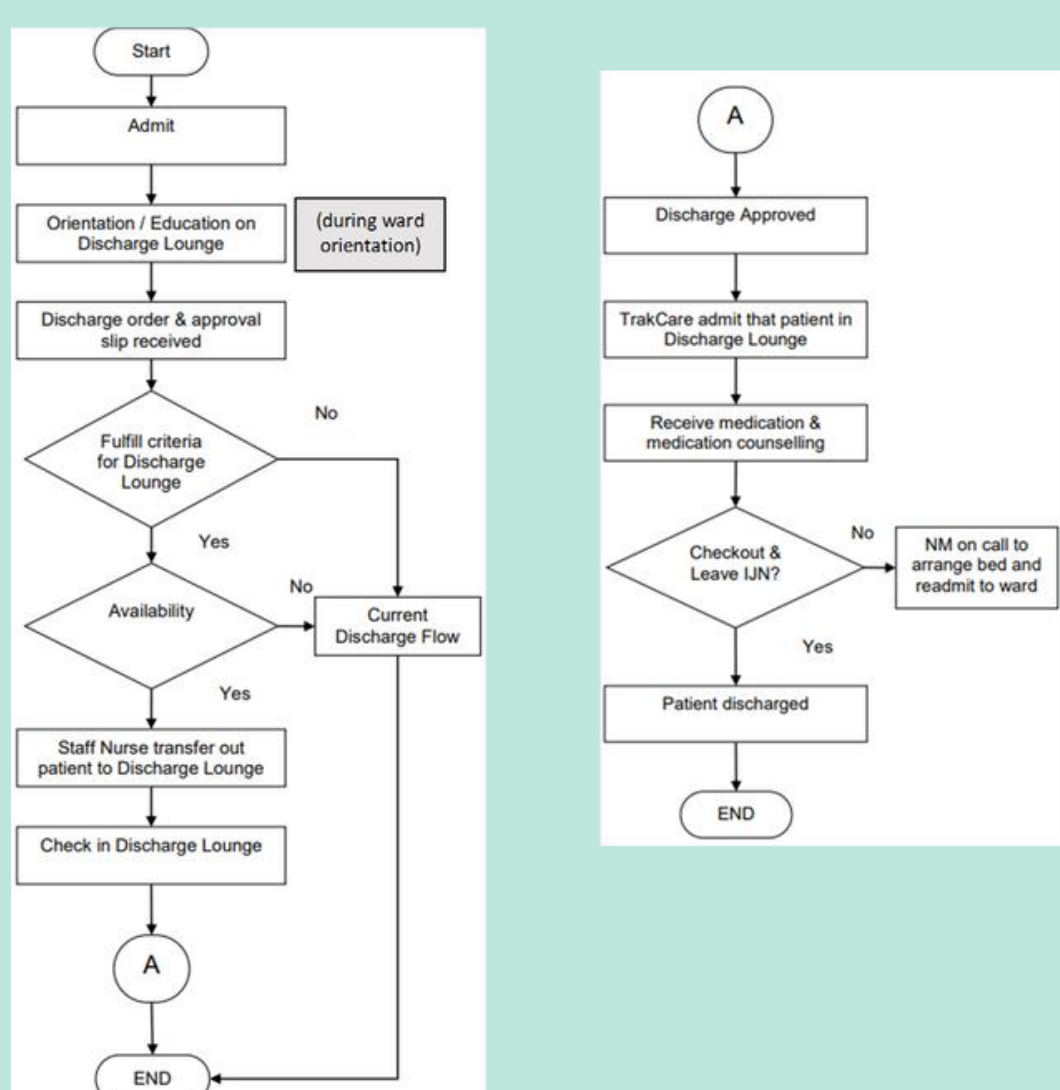
DO

Interventions:

- Develop Discharge Lounge Process

2. Patient Education Pamphlet

DISCHARGE LOUNGE PROCESS FLOWCHART



3. Establish Discharge Lounge



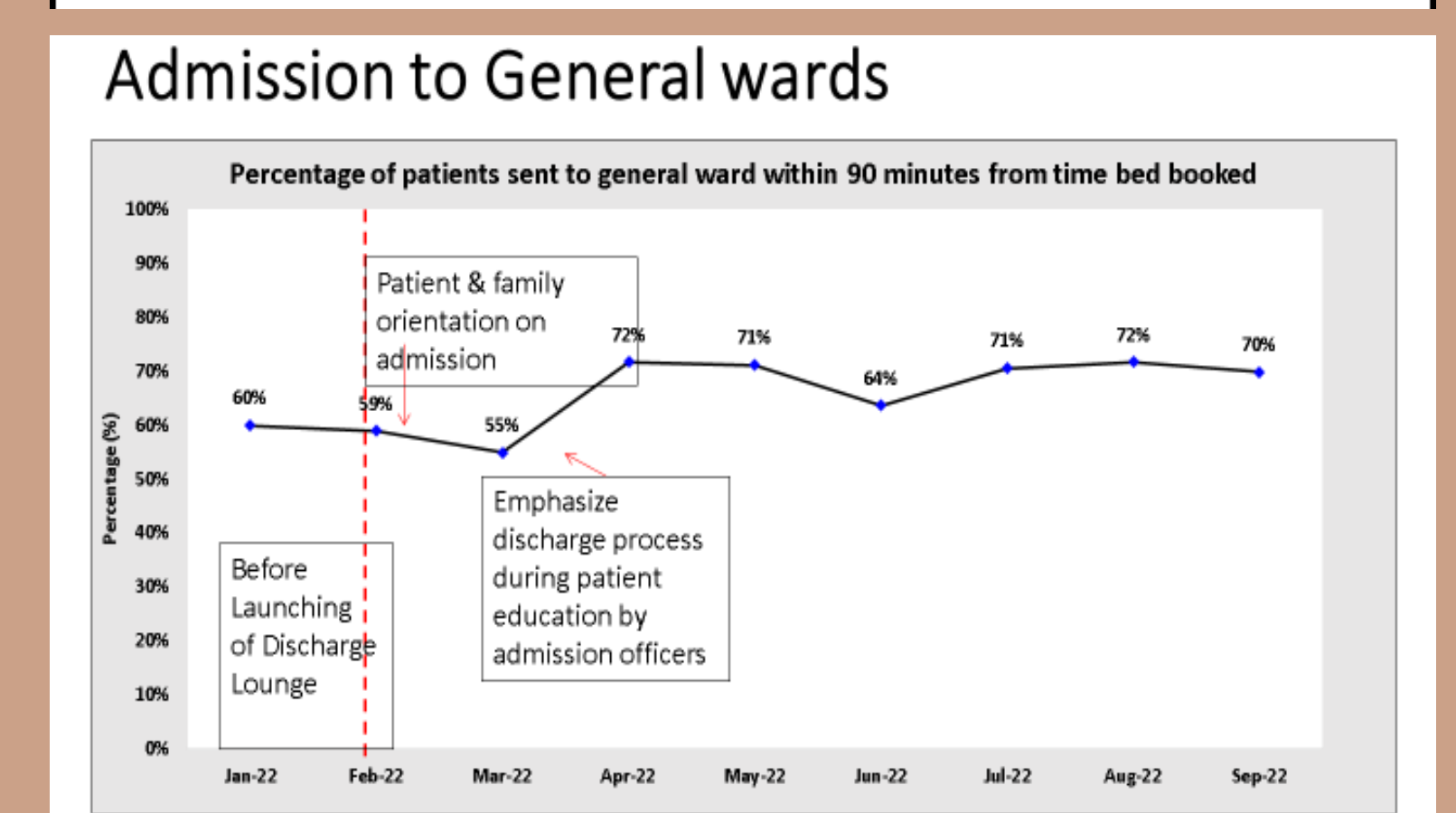
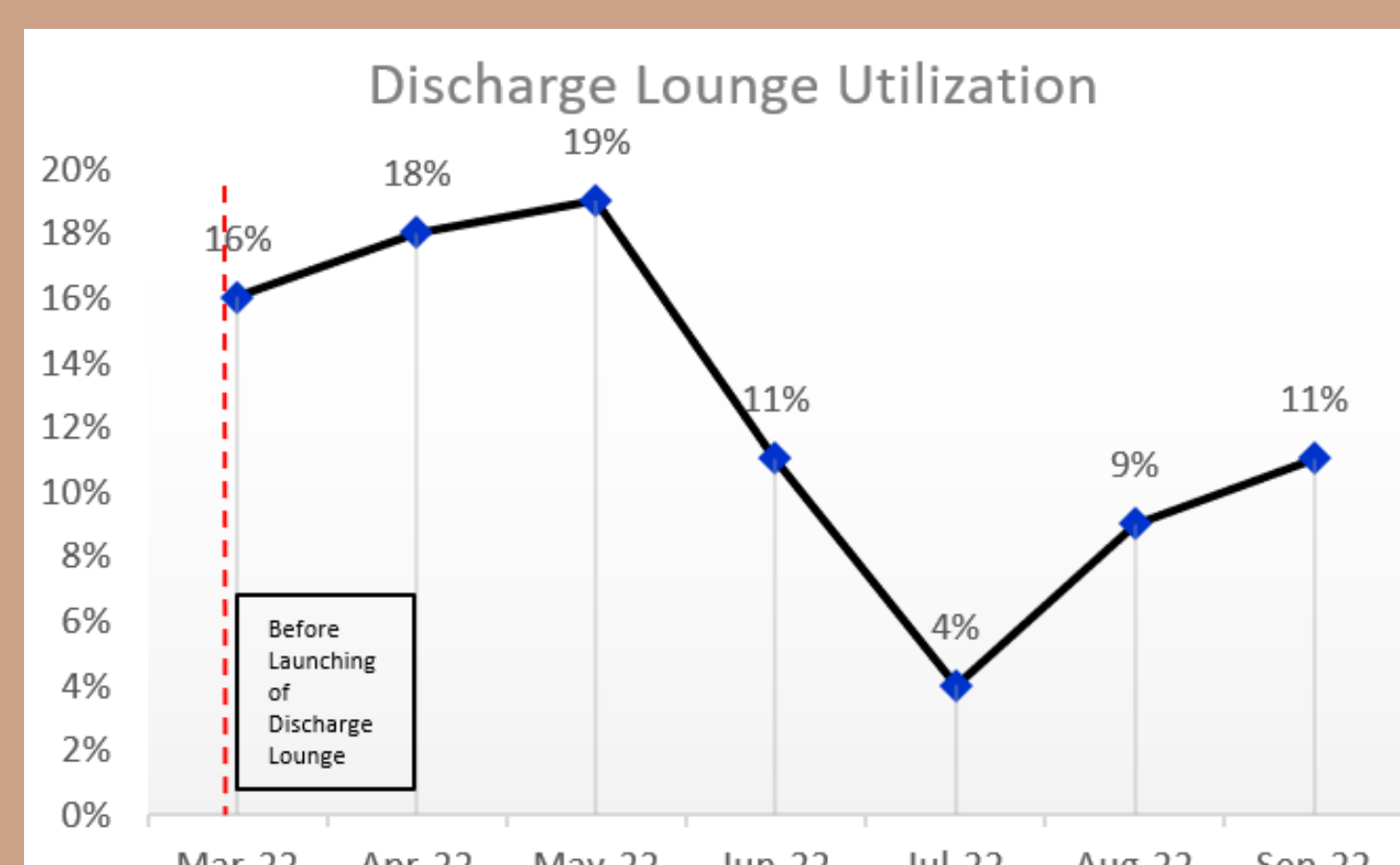
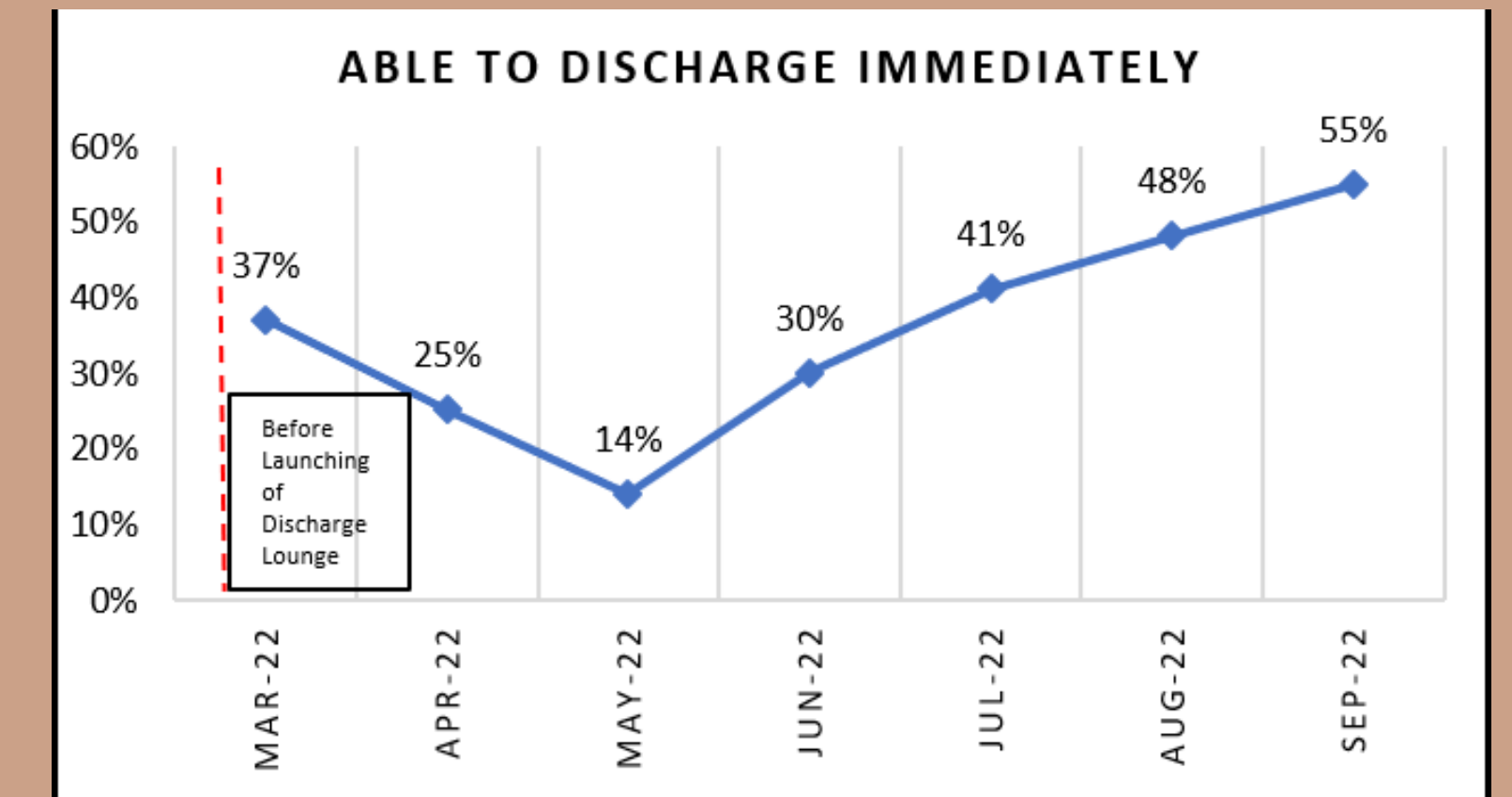
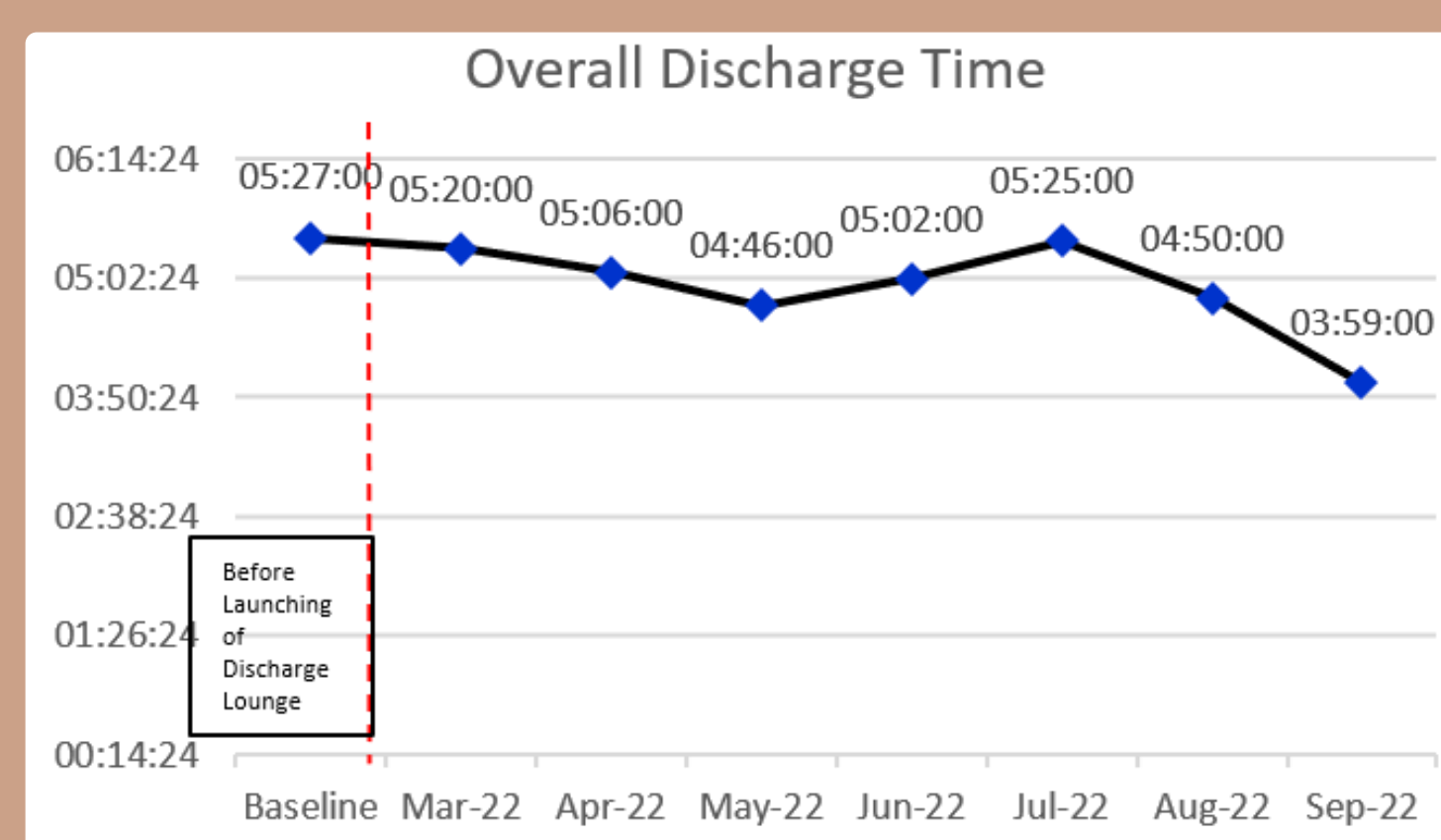
4. Pharmacist Send Medication To Discharge Lounge



STUDY

Results

- Overall discharge time steadily reduced from 5 hours 27 minutes to 3 hours 59 minutes.
- However, the discharge lounge utilization was relatively low.
- Interestingly, the number of patients leaving the wards immediately upon discharge dramatically increased from 37% to 55%.
- We can speculate the education given to the patients and family members on admission regarding the discharge lounge process encourages patients and family members to plan their transfer home. The intervention also increased the percentage of patients admitted to the general wards from the emergency department within 90 minutes from 55% to a median of 70%.



ACT

Sustaining improvement:

- Expansion of discharge lounge to all Adult, general wards
- Incorporate new process into current workflow
- Formalize the patient education pamphlet
- Education to all nurses and front office officers

What's next:

- To streamline the current manual processes and digitalize for improved efficiency

CONCLUSION

The intervention improved the overall discharge time by 88 mins (26.9%) within 7 months and admission waiting time to the general wards. Education regarding the discharge lounge process on admission enabled patients and family members to make the necessary arrangements for discharge. Although the discharge lounge utilization was low, establishing a discharge lounge is essential to encourage patients to go home rather than blocking beds and delaying bed turnover. This new discharge process will be incorporated throughout the wards.

References

Bazzoli, G. J., Brewster, L. R., May, J. H., & Kuo, S. (2006). The transition from excess capacity to strained capacity in U.S. hospitals. The Milbank quarterly, 84(2), 273–304. <https://doi.org/10.1111/j.1468-0009.2006.00448>.