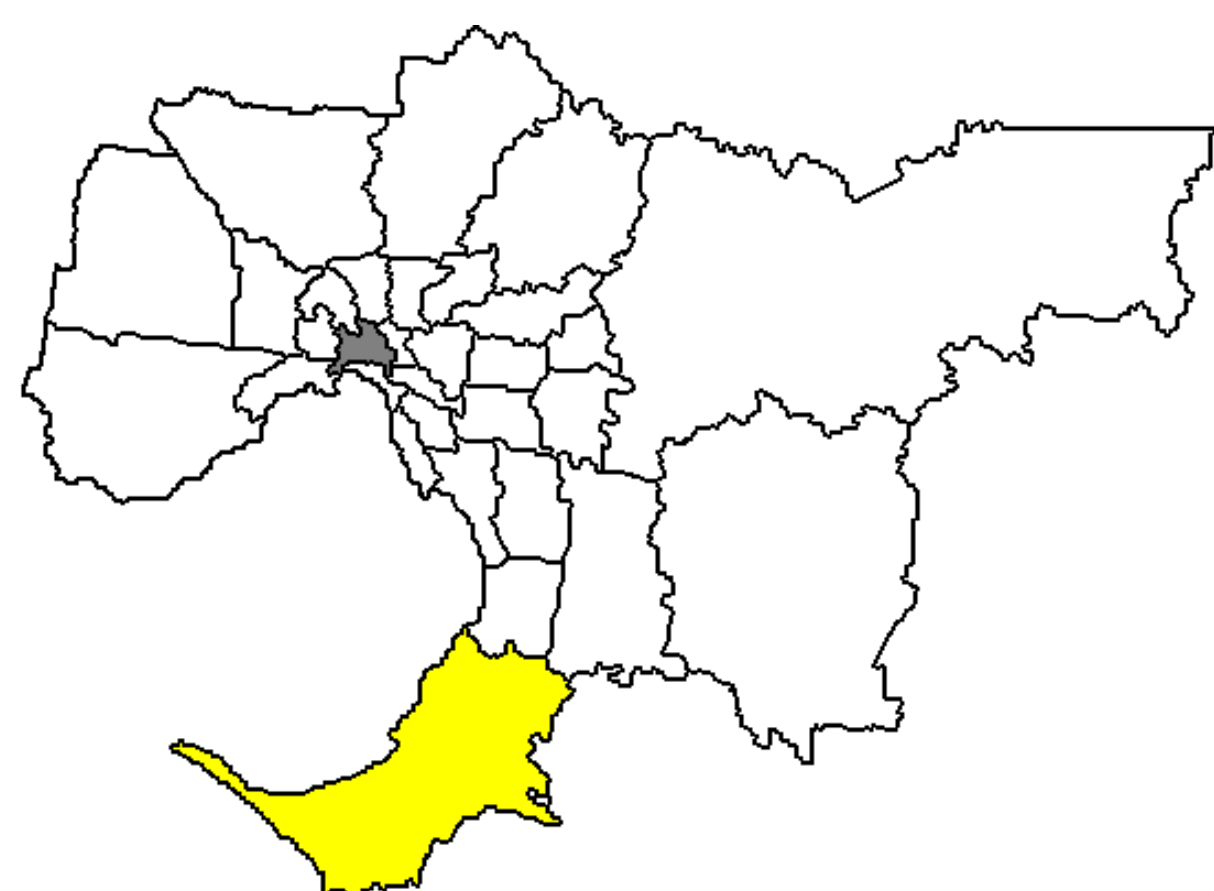


# Growing Into The 7-Day Clinical Pharmacy Service With Streaming Team

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## Background

Peninsula Health is a major metropolitan health service for Frankston and the Mornington Peninsula area. The health service cares for a population of over 308,000 people, as well as seasonal fluctuations in visitors, with over eight million domestic and international visitors to the area each year. Analysis of patient volumes highlights that approximately 20% of patient admissions and discharges occur over the weekend.



Combining emerging and growing evidence of increased morbidity and mortality for patients admitted to the hospital on Saturday and Sunday and an organisational focus on improving patient flow by reducing length of stay, an urgent need for change in pharmacy clinical services was required. Clinical pharmacists play an essential role in ensuring that medications are optimised and are free from unintentional error, so a "streaming pharmacy service" was explored to replace the existing skeletal centralised dispensing model for pharmacy services on the weekends.

## Objective

To develop and implement consistent, efficient and sustainable weekend clinical pharmacy services that prioritise activity at transitions of care for patients at risk of medication harm, facilitating early pharmacist intervention.

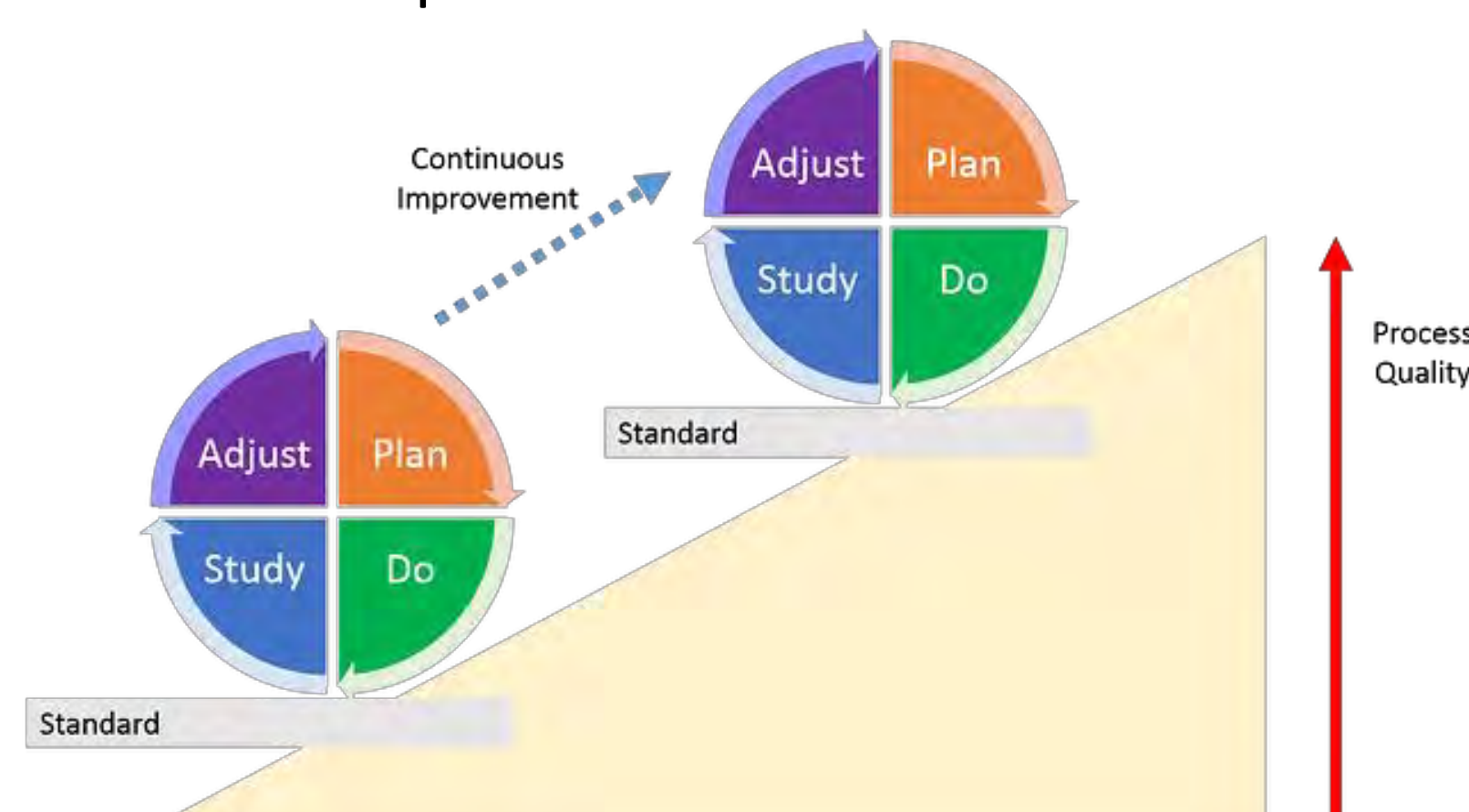
## Methods

Following planning around shifting the dispensary-based model to a streaming model, additional resources were approved to facilitate the expansion organisation wide, starting from the Emergency Department (ED) and then to the surgical, specialty, and general medicine wards. Pharmacists were assigned to their usual areas of service to ensure familiarity and efficiency. The scope of pharmacist activities and a standardised approach to workflow were developed to maximise contributions to patient care and medication safety on weekends.



## Evaluation

Over the 35 week study period, a total of 7 Plan-Do-Study-Act (PDSA) cycles were completed for continuous improvement.

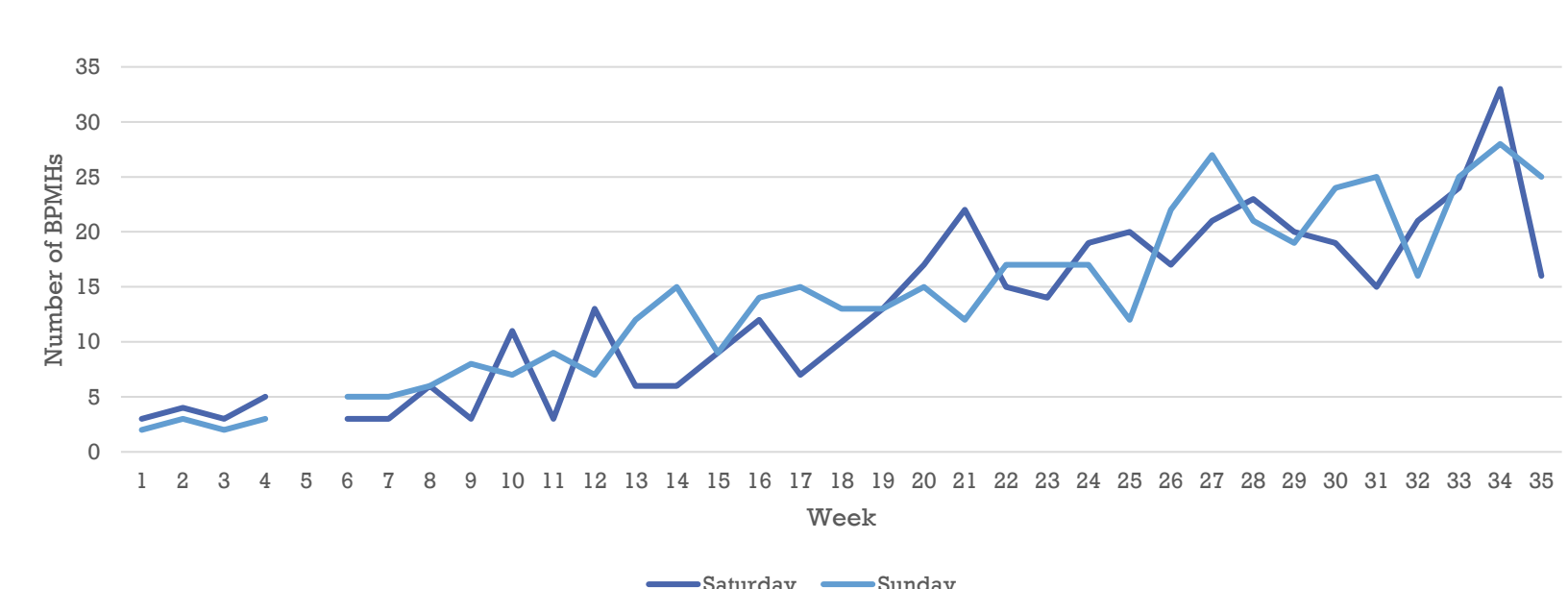


The key performance indicators of discharge and admission activity were closely monitored and shared with the whole streaming pharmacy team on a weekly basis.

In the last phase of the PDSA cycle:

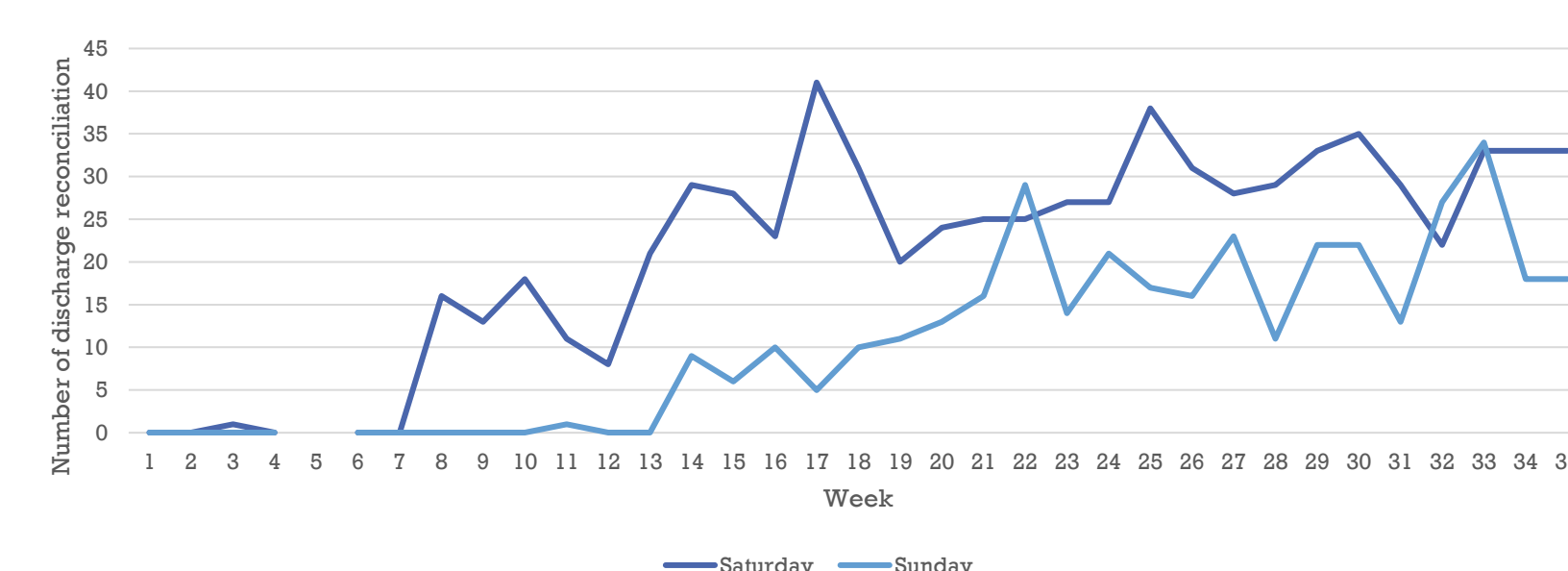
- An average of 23.5 best possible medication histories (BPMHs) were completed on Saturdays and Sundays - equivalent to 50% and 65% of all new admissions respectively (Fig1).

Fig1. Number of BPMHs done by streaming team on the weekends over 35 weeks



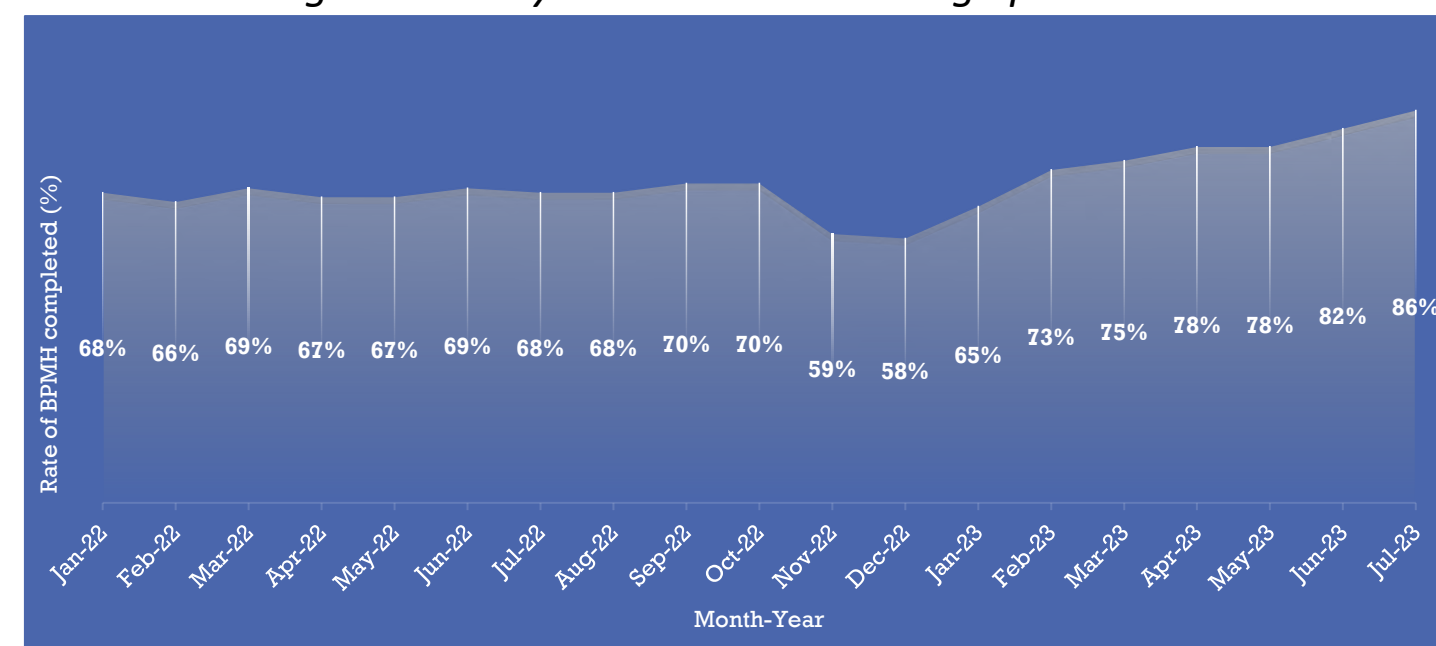
- A mean of 27 prioritised discharges were reconciled each day, equating to over 50% of all patients discharged on weekends (Fig2).

Fig2. Number of discharge reconciliations done by streaming team on the weekends over 35 weeks



Consequently, higher proportion of patients with a pharmacist BPMH was observed across 7 days, and clinical reviews, chart screening rates, and discharge reconciliation efficiency improved as a result (Fig3).

Fig3. Weekday BPMH rates - average per month



Furthermore, snapshot intervention data demonstrated that 63% were time-critical (Fig4), and 89% were moderate to high-impact interventions (Fig5).

Fig 4. Pharmacist Intervention: Time critical

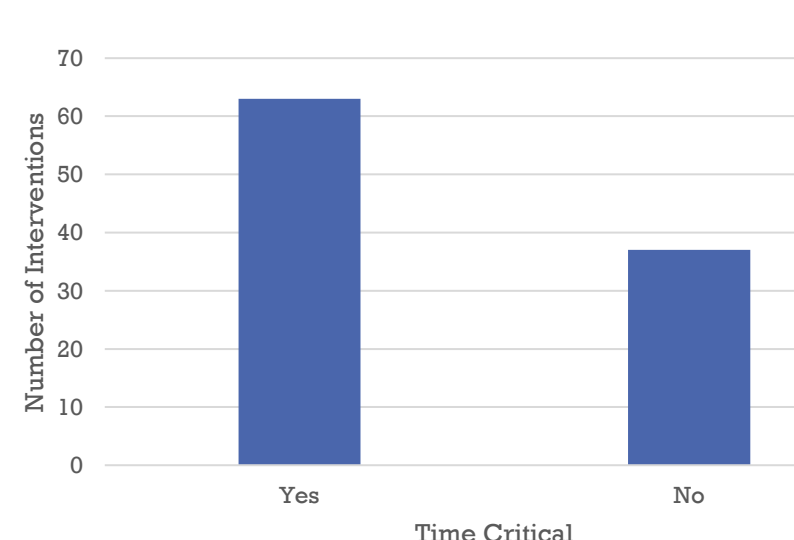
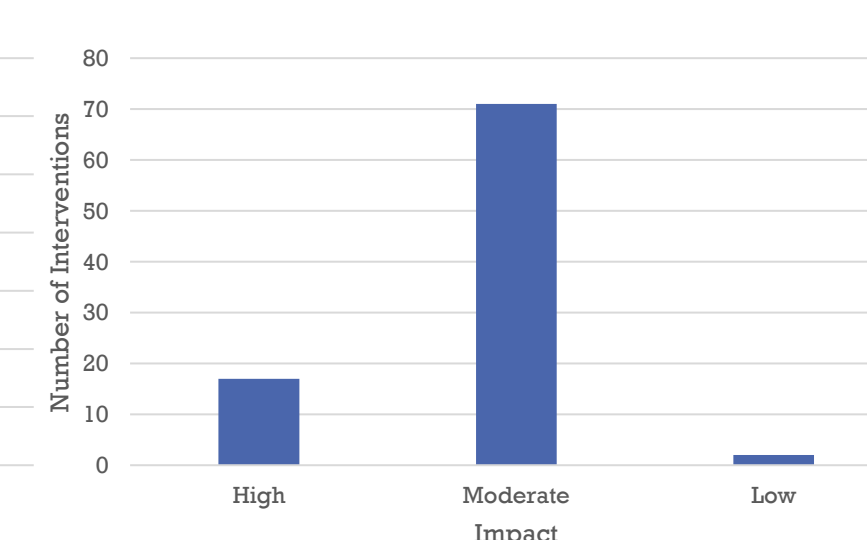


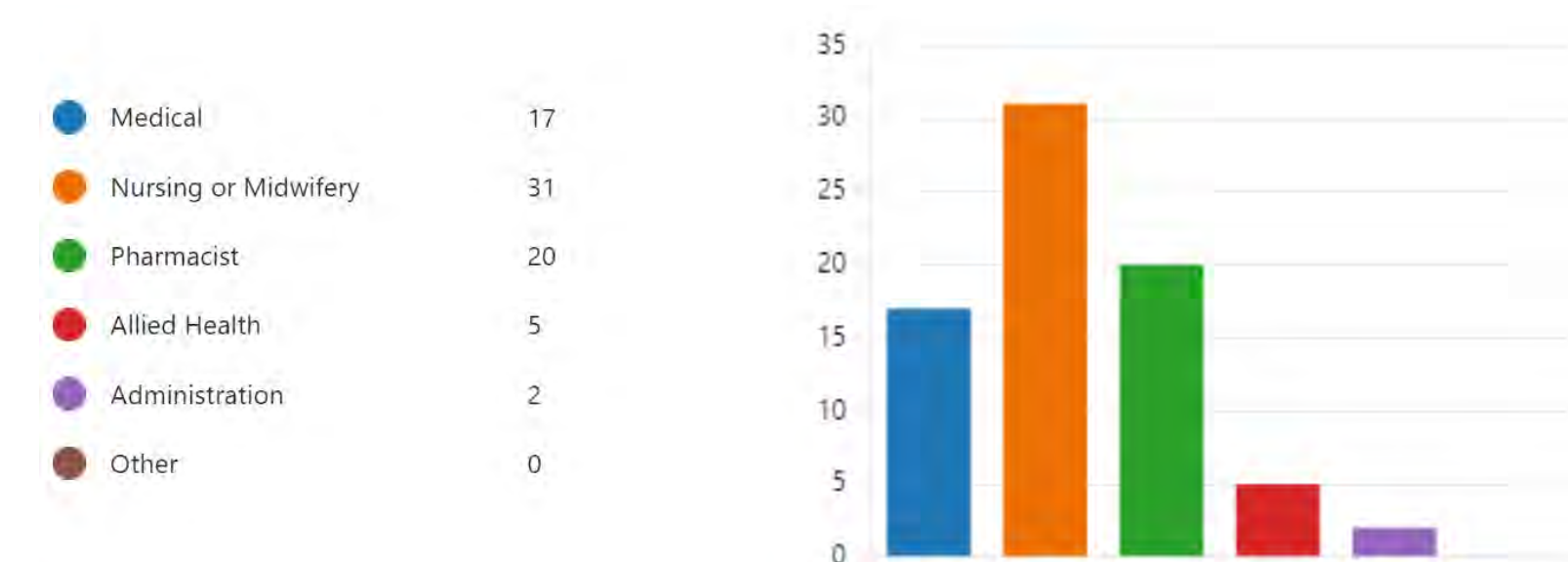
Fig5. Pharmacist intervention: Impact



## Survey & Focus Group

A multi-stakeholder survey was conducted following the completion of the study period.

Fig6. Weekend Clinical Pharmacy Service Multi-stakeholder survey demographic



At least 97% of respondents stated that they would like to be able to access a clinical pharmacist on the weekend (Fig7), with 92% either agreeing or strongly agreeing that the presence of a weekend pharmacist decreased the amount of time they spent on medication related issues for their patients (Fig8).

Fig7. Weekend Clinical Pharmacy Service Interest in Accessing the Service

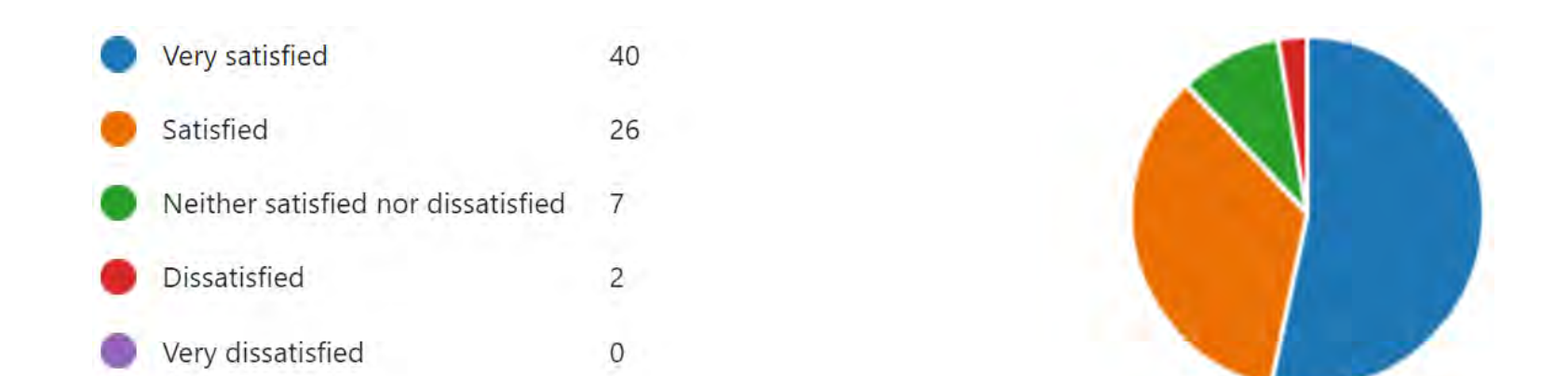


Fig8. Weekend Clinical Pharmacy Service - Decreased the amount of time I spent on medication issues



Over 88% of respondents were with satisfied or very satisfied with the weekend streaming service (Fig9).

Fig9. Weekend Clinical Pharmacy Service - Satisfaction



In addition, a focus group highlighted factors like high workload, lack of operational support and decreased or limited availability of the medical workforce as challenges of the service.

## Conclusions

The incremental implementation of weekend clinical pharmacy services in different acute areas of the hospital allowed both identification of service demands and allowed for the consolidation of clinical and dispensary resources. The seven-day clinical pharmacy service achieved improved provision of pharmacy services by focusing on optimising medication safety at the point of transition of care, especially on the weekends where there is limited support for junior clinicians and suboptimal discharge coordination on the wards. In addition to this, the seven-day clinical pharmacy service allowed timely completion of a best possible medication histories following admission and the early escalation of medication-related issues for inpatients. The key challenge for the model to sustain itself would be managing the increasing demand for service and the ability to maintain the right skill mix to provide safe and efficient clinical pharmacy service.