

Development of an Easy-to-Understand Reporting Tool to Demonstrate Clinical Pharmacists' Value in Private Hospital Settings

Jason Chan¹, Brianna Seeto¹, Luke Newman¹, Choi Batten², Syed Tabish R. Zaidi¹

¹HPS, EBOS Group, Australia; ²Healthscope Corporate, Australia



Background

- Clinical Pharmacy Services, unlike surgical, medical and laboratory services, are amongst a handful of services in private hospitals that are not billed to Medicare or Private Health funds.
- Due to ever-increasing stringent accreditation requirements, private hospitals must invest significant capital in clinical pharmacy services to meet the National Safety and Quality Health Service (NSQHS) standards.
- Likewise, pharmacy providers to private hospitals must demonstrate value for money in delivering a targeted clinical pharmacy service directed towards the Medication Safety Standard (MSS), Standard 4 of the NSQHS standard.
- HPS and its approved network of HPS Pharmacies is the national leader in pharmacy services to private hospitals. Its proprietary clinical pharmacy application (ClinPod™) allows clinical pharmacists to document clinical activities in real time.
- Healthscope is one of the largest groups of private hospital providers across Australia and a significant client of HPS and HPS Pharmacies. In a collaborative effort, both organisations realised the need for better reporting of clinical pharmacy services in a format that is readily understood by healthcare managers and clinicians.

Objectives

- To develop an easy-to-understand reporting tool to demonstrate the value of clinical pharmacy services to healthcare managers and clinicians working in private hospitals.
- Implement an education and training program to encourage clinical pharmacists to document their clinical activities accurately and effectively.

Method

- In June 2022, a working group, comprising representatives from HPS' Professional Service Unit and Healthscope, was established to address the demand for an improved reporting tool. The working group followed the four stages of design thinking process: Clarify, Ideate, Develop, and Implement. (Figure 1)
- Monthly meetings were held to identify areas for improvement in the existing clinical pharmacy reports, focusing on creating a more user-friendly format. Workshops were conducted to analyse evidence to synthesise time measures for various clinical activities performed by clinical pharmacists. Six quality measures were developed.
- A specialised taskforce comprised of HPS' Digital Health and Informatics Officer, National Contract Manager, and Healthscope's National Pharmacy Manager, developed a Minimum Viable Product (MVP) of the reporting tool, and refining it based on user feedback from clinicians and pharmacists.
- The tool was trialled in a major 300-bed private hospital in Queensland, where the pharmacy manager effectively used the tool to showcase clinical pharmacy delivery and the resulting improvements in healthcare service. By December 2022, the tool's design and format were finalised.

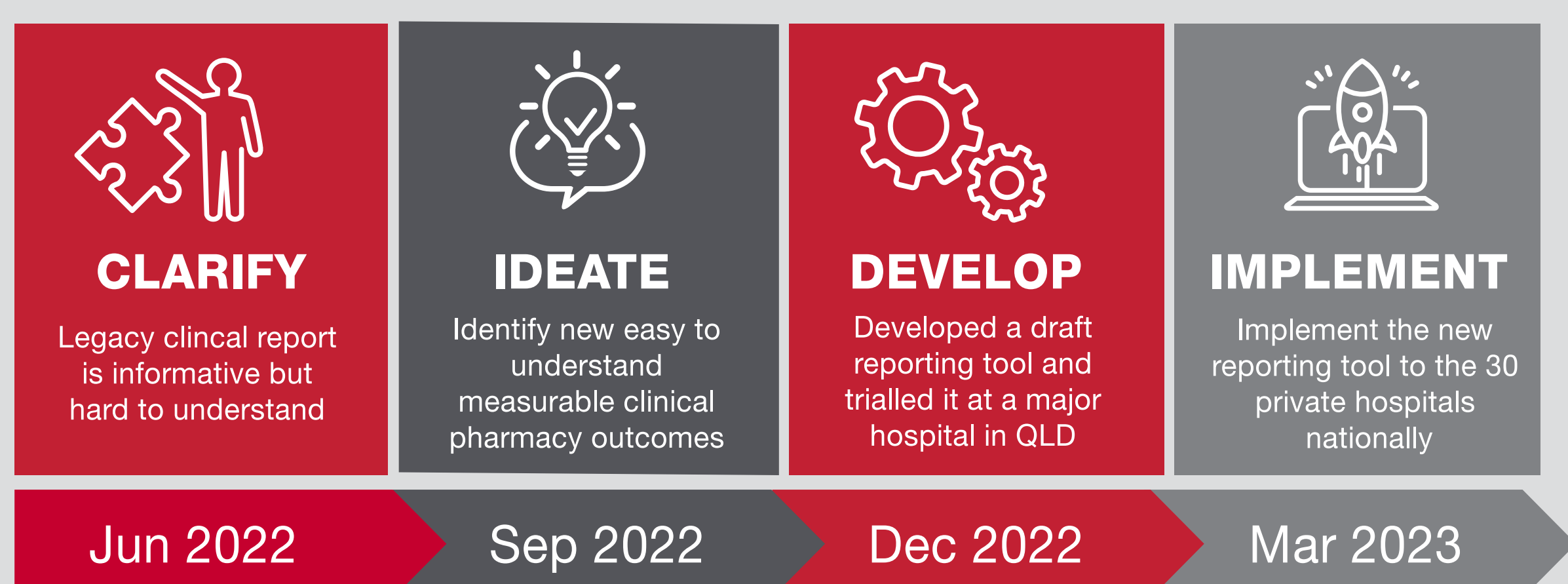


Figure 1 – Four Stages of Design Thinking Process

- In March 2023, the reporting tool was implemented at 30 Healthscope hospitals nationally, allowing pharmacy managers to present monthly clinical service delivery to hospital executives. Hospitals offering clinical pharmacy services were held accountable for meeting contracted hours and demonstrating an adequate level of clinical activities.
- In March and April 2023, a nationwide education and training initiative was launched to introduce the concept of an accountable clinical pharmacy service. The training also covered several practical examples of accurate and effective documentation in ClinPod™. Weekly audits and feedback sessions were introduced to identify specific improvements at the site level.
- Data on pharmacist clinical activity from May to July 2022 was compared with the data from May to July 2023 to measure the impact of the reporting tools and in-house training programs aimed at enhancing documentation practices. Independent samples t-Test was used to measure the significance of any observed differences.

Result

- A comprehensive set of six clinical pharmacy measures was established by the working group. These measures, including Accountability, Productivity, Patient Care Impact, Timeliness, and Confidence and Service Balance provided a multifaceted view of clinical pharmacy service delivery. The measures were designed to incorporate both quantitative and qualitative measures, aligning with best practices in clinical pharmacy to ensure the timely delivery of continuity of care. (Figure 2)
- Pharmacy managers found the Clinical Service KPI report and the six clinical measures easily understandable. This report served as a valuable tool, enabling ongoing clinical pharmacy service improvement and guiding health services to align with national best practices. The quality improvements and results displayed in the reporting tool provided evidence of compliance with NSQHS standards, signifying a significant stride towards ensuring the highest standards of care.
- The education and training sessions conducted for clinical pharmacists and pharmacy managers received positive feedback from those involved in the project. These sessions were well received, indicating a successful knowledge dissemination process and the readiness of the staff to embrace the changes brought about by the reporting tool.

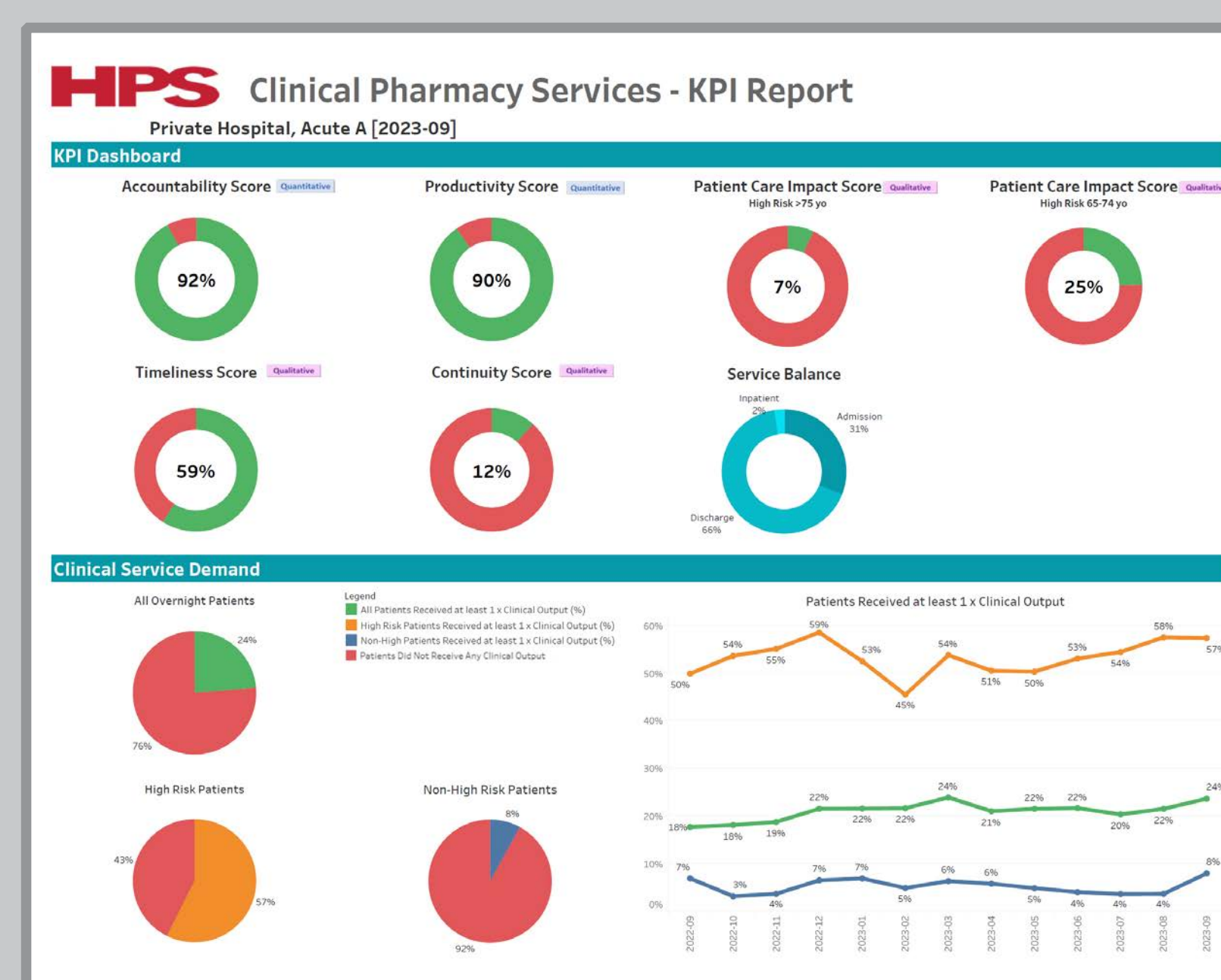


Figure 2 – Example of HPS Clinical Pharmacy Services KPI Report

- Following the completion of education and training sessions between March and April 2023, there was a remarkable 59% increase in the total number of activities documented by clinical pharmacists (Table 1). Specifically, the documented clinical activities surged from 36,063 during the same period last year (May to July 2022) to 57,285 during the corresponding months in 2023. This substantial increase underscores the tool's efficacy in encouraging thorough documentation and active engagement of clinical pharmacists in delivering services.

Year	Month	No of Clinical Activity Documented by Clinical Pharmacist	30-month average
2022	May	37,151	Mean = 3,6063
	June	35,405	
	July	35,633	
2023	May	54,250	Mean = 5,7285 (+59%)
	June	62,388	
	July	55,217	

Table 1 – Documented Clinical Activity Comparison over 3-month period between 2022 and 2023

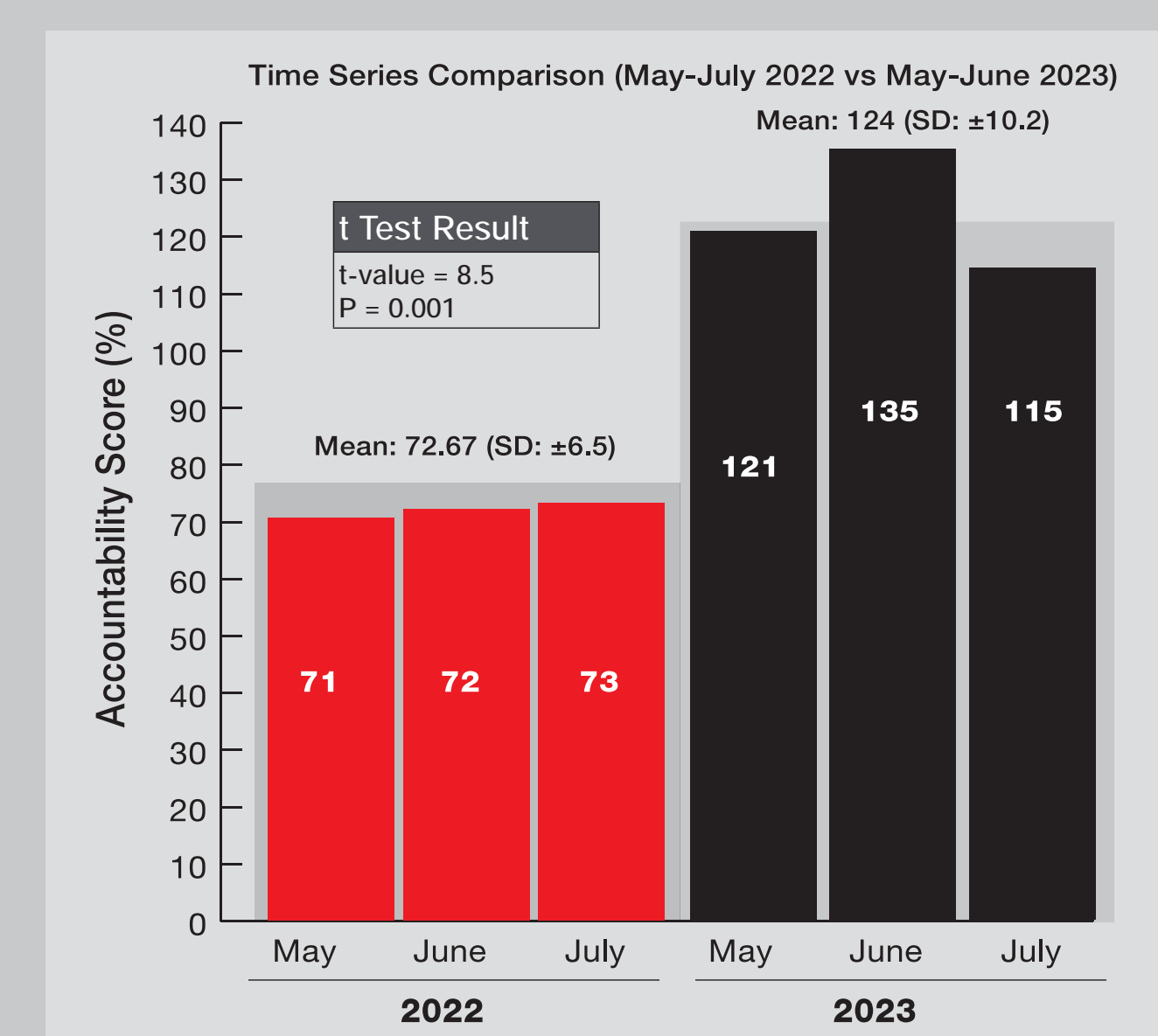


Figure 3 – Time Series Comparison of Accountability Score between May and July 2022 versus 2023

- The baseline average accountability score three months before the implementation of the accountability tool was 72.67 (SD: ±6.5). Following the tool's implementation and implementation of quality improvement strategies, the accountability score significantly increased to 124 (SD: ±10.2) (t-value= 8.5, p= 0.001) (Figure 3).

Discussion

- Pharmacy providers must demonstrate clinical pharmacy as a value-accretive service to ensure ongoing funding in the current inflationary environment where all healthcare providers seek cost efficiencies.
- A collaborative accountability tool supported by an audit and feedback strategy can be used to demonstrate the value of clinical pharmacy services in private hospitals.
- The reported tool can be used by the pharmacy managers to convince healthcare administrators in public and private hospitals for additional clinical pharmacy resources.
- Further research is needed to standardise time allocation for various clinical activities performed by pharmacists in private hospital settings.

Limitations

- Self-Reported Activity Data:** The activity data was self-reported by the clinical pharmacists. Despite efforts to cross-reference and validate the documented activity data against patient admission records, the inherent bias of self-reporting may not be eliminated and should be considered when interpreting the results.
- Time Estimates of Clinical Activities:** Time estimates were derived from O'Leary et. al. research.¹ While extrapolation of this study's findings is a good starting point, a time-in-motion study to validate these allocations in private hospital settings is urgently needed.

Conclusion

The newly developed clinical accountability tool is a first of its kind initiative by a pharmacy provider to the private hospitals. The tool gives hospital executives, clinicians, and auditors an objective measure to assess the value of clinical pharmacy services. Furthermore, this tool may assist private hospital providers to make improvements to clinical pharmacy services design and visibility of their compliance with MSS and NSQHS.

Organisations interested in implementing similar initiatives should not underestimate the importance of education, training and an active formative feedback cycle with clinical pharmacists as critical success factors. Additional research using time-in-motion studies is urgently needed to validate the time estimates for clinical activities in the context of private hospitals.