

National Quality Improvement Conference

Improving the Awareness, Knowledge and Attitudes Towards Value-Based Costing at Tan Tock Seng Hospital

Mr Allister Tham
Ms Rae Quek
Ms Teo Kaiting
value@ttsh.com.sg



Problem Statement

It is **difficult for care teams to account for the true costs incurred by their services** due to **existing accounting systems** that are built around departments, and the **complex healthcare ecosystem** now require care delivery in service lines across multi-disciplinary settings. Despite the existence of a cost catalogue (a document detailing the norm cost of key cost elements e.g. manpower, supplies etc.), there was a **low utilization rate** of the tool amongst unit managers. A survey on staff's awareness and attitudes towards value-based costing was conducted in 2020 found that:

Only **13%** of unit managers knew the true cost of their clinical service



While 67% surveyed heard of the cost catalogue, only **53%** utilized the cost catalogue.



Project Aim

To develop an **appropriate and user-friendly value-based costing methodology and tool** to enable care teams to calculate the true cost their clinical services with greater ease, leading to **increased awareness and appreciation of the cost of care delivery**.

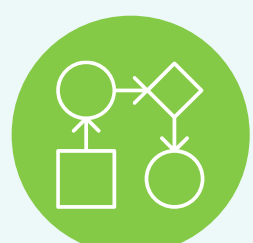
Lessons Learnt

- Change Management:** To ensure that teams would embark on their value-based costing journey and sustain these efforts, the project team actively engaged unit managers through **engagement sessions** to share the impetus of value-based costing and to **co-create the revised methodology and tool** based on the needs uncovered through root cause analysis. This created a culture of cost awareness and the need to own our financial models.
- Stakeholder Management & Partnerships:** The project team recognized the **need to understand the needs & constraints of each party involved**. To mitigate this, the project team partnered Finance and unit managers to ensure clarity on the purpose of existing templates, e.g. charge code forms vis a vis the cost calculator and tailored the cost calculator to meet the needs of all parties.

Potential Solutions



The Value Management Unit (VMU) in partnership with Finance developed a **cost calculator** for teams to **simplify translation of process steps to cost** by providing a template and guide on cost calculation, e.g. mapping of care activities and auto-population of costs drawn from the cost catalogue for greater ease of calculation.



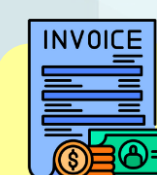
The team evolved the value-based costing methodology from a pure time-driven activity-based costing (TDABC) to a **hybrid methodology to ensure efficiency in calculation and scalability** whilst ensuring that the cost derived is as accurate as possible. The hybrid methodology employs the following tools in combination:



1. Time-Driven-Activity-Based Costing (TDABC)



2. Staff Interviews



3. Bill as Proxy to Cost

This methodology was piloted on a use case from Apr – Jun 2021: VMU partnered the Inpatient Rehab Stroke team to cost their care service and evaluate the effectiveness of the cost calculator and methodology.

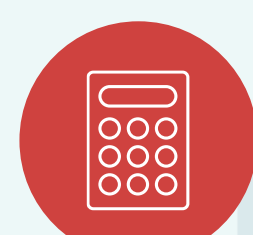
Outcomes & Impacts

- With the roll-out of the cost calculator:

Reported an **increase from 53% to 80%** of unit managers who had improved understanding of value-based costing & utilisation of costing tools



- Care teams had **successfully employed the hybrid methodology** to cost other conditions. This enabled the teams to get a quick sensing of their cost status vis a vis the care outcomes delivered to patients.
- This exercise also enabled teams to **better identify areas for process improvement, cut waste** and find opportunities for **job redesign**.
- In 2023, our team embarked on the 2nd phase of this change to further scale the value-based costing effort across the hospital:



1. Enhanced the **cost calculator to be more user-friendly and comprehensive**; most flexibility for customization and allow for the conversion of bill to cost through cost adjustments.



2. Developed **digital learning materials on value-based costing and patient payment models** to deepen knowledge and develop capability.