

# Scaling Value-Based Care across NHG through Data-Driven Decision-Making and Organisational Transformation

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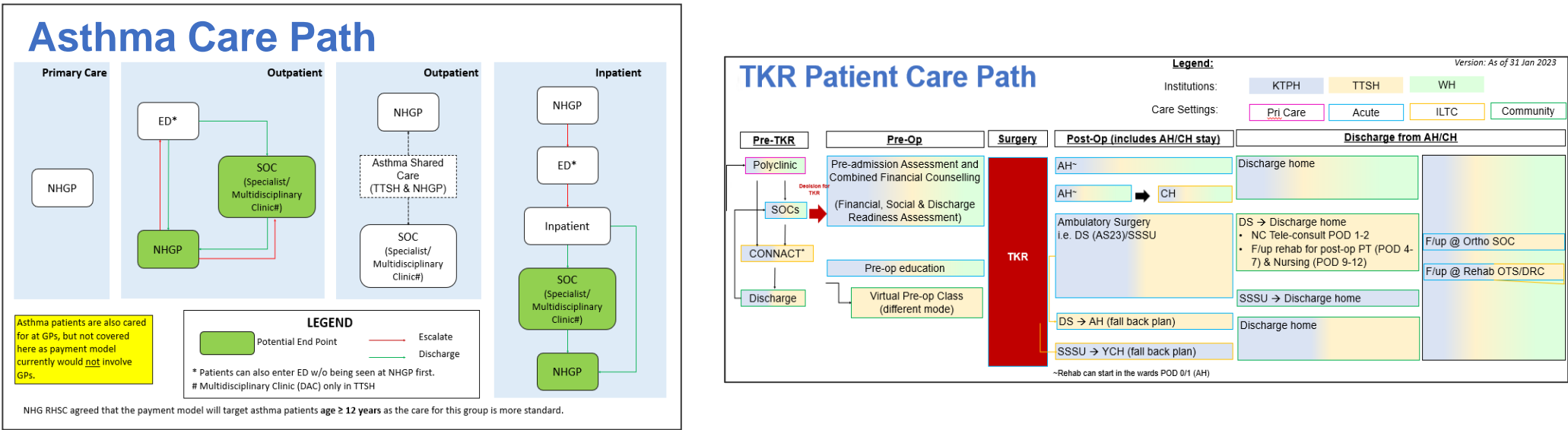
## Introduction

Value-based healthcare (VBHC) implementation requires a structured methodology that engages stakeholders across the care continuum. As a healthcare cluster, National Healthcare Group (NHG) is well-positioned to deliver integrated care through its network of healthcare facilities. However, variations in clinical practice and outcome measurement approaches have hindered VBHC implementation in NHG.

This poster demonstrates the versatility and effectiveness of NHG's VBHC methodology in enhancing patient outcomes and care processes across hip fracture (HF#), total knee replacement (TKR), and asthma pathways through systematic, cross-institutional collaboration.

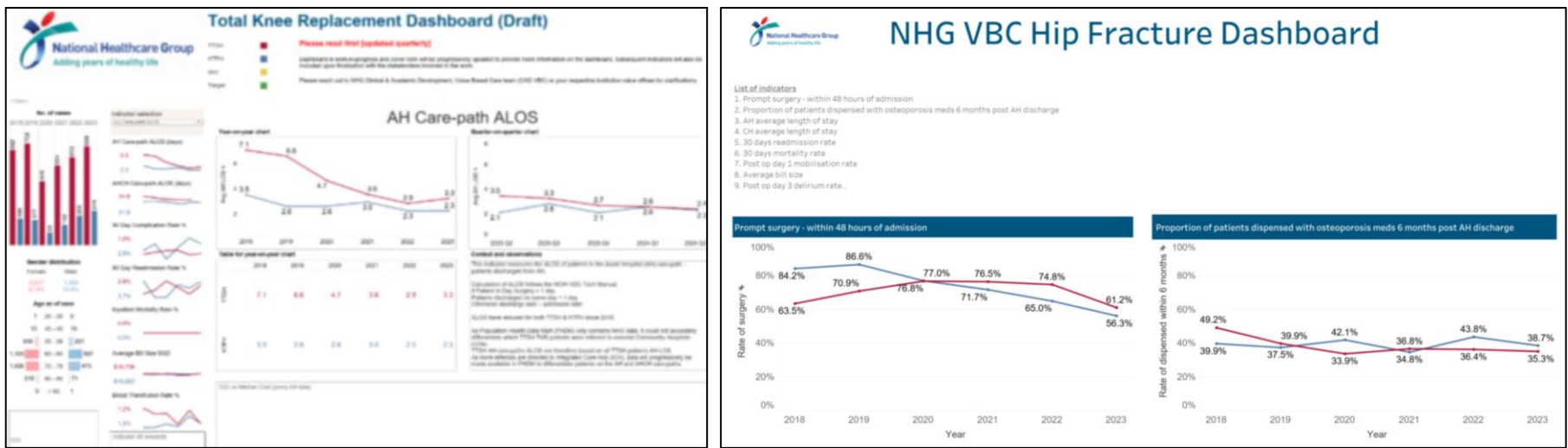
## Methodology

### Care Path Mapping



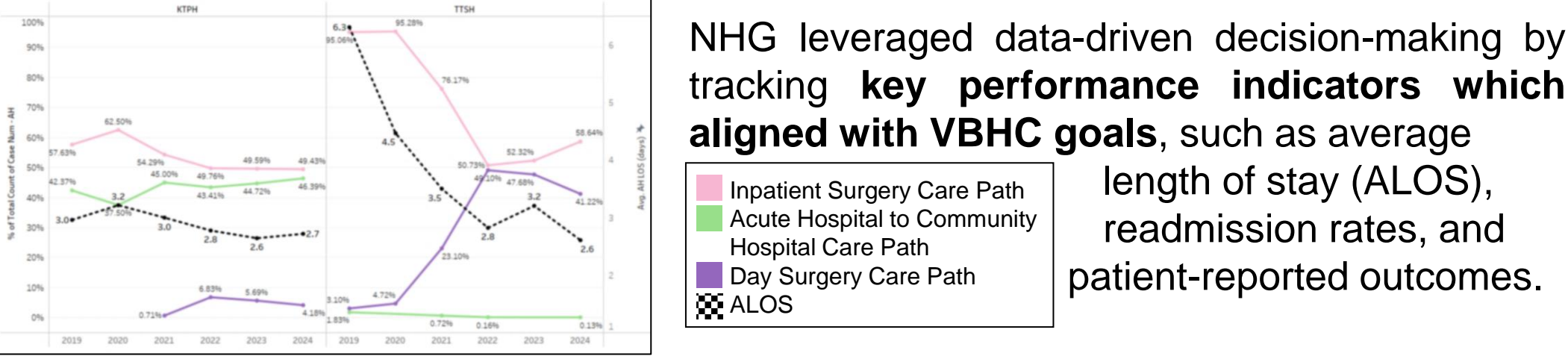
- **Cross-institutional, multidisciplinary teams** collaborated on **mapping patient journeys across the care continuum**.
- This allowed us to **identify critical touchpoints and find potential care gaps** from our patients' perspective across care settings.

### Alignment of Measurements, Targets and Benchmarks



- **Harmonised clinical, operational and patient-reported metrics** were tracked across institutions using dashboards marked with **ambitious but achievable targets**.
- This enabled meaningful comparisons between institutions, facilitating **data-driven discussions** on care improvement and resource optimisation.

### Data Analytics for Improvement Opportunities

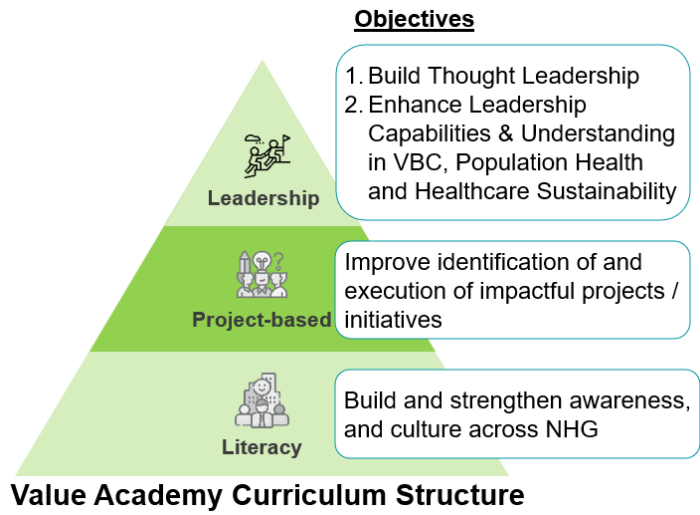


*For example:* Upon comparing the clinical outcomes and ALOS of TKR patients enrolled in the standard inpatient care path and Day Surgery (DS) care path, we found that day surgery could reduce ALOS without compromising patient outcomes, prompting efforts to convert more patients to the DS care path.

### Sharing and Scaling of Best Practices



Value-Based Healthcare Roadshows

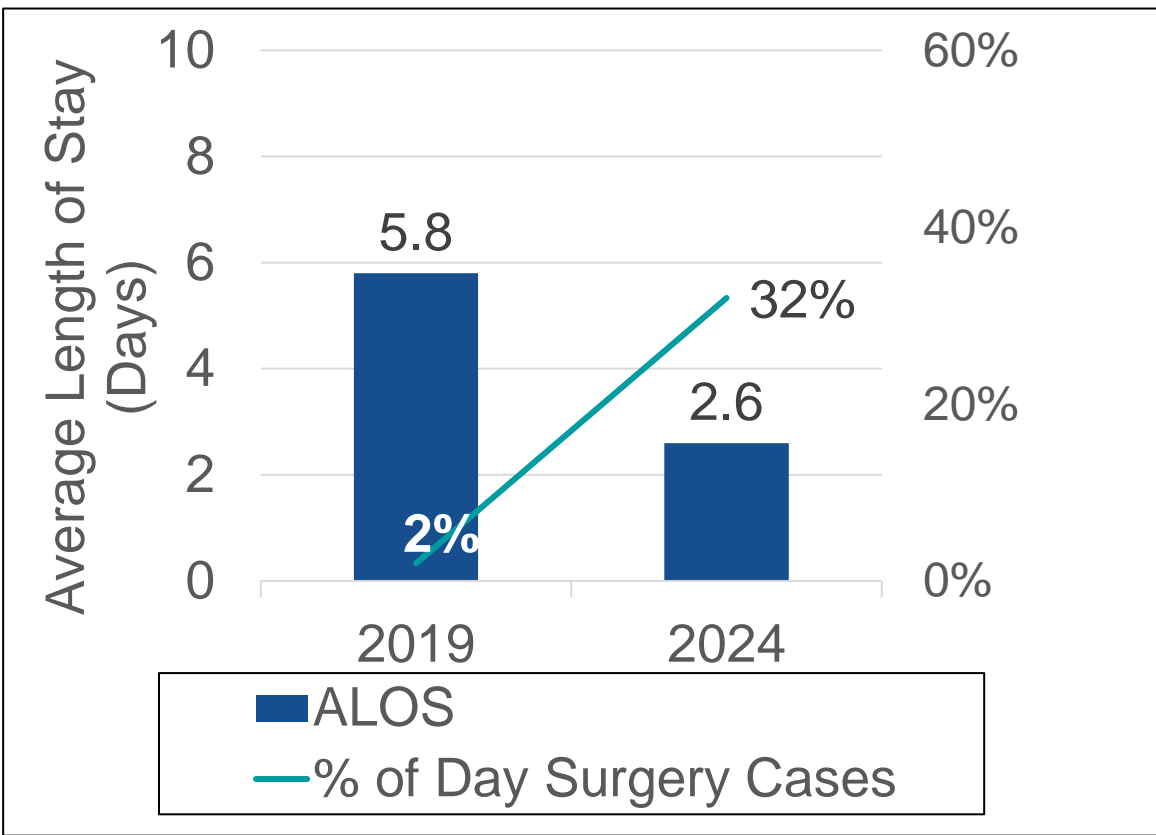


We fostered a culture of continuous improvement through platforms for **cross-institutional learning** and **sharing of successful strategies and tools**. This empowers staff to **take ownership of VBHC transformation** through shared learning and innovation.

## Results

### Total Knee Replacement

- Increased % of patients enrolled for Day Surgery from **2% to 32%** from 2019-2024.
- Decreased ALOS of TKR patients across the cluster from **5.8 to 2.6 days**.



*Other Improvement Projects Initiated from NHG VBHC Methodology*

- Remodelling of post-op care path by increasing allied health support to facilitate more **timely discharge to primary care**.
- Scaling up of **Home Rehab and Nursing** to facilitate smoother transition back to community.
- Scaling up AIC and TTSH-ICH Pilot for DRC Referral and **reduced turnaround time for DRC placement of post-op TKR patients** to improve functional outcomes.

## Conclusion

Our VBHC experience highlights the importance of cross-institutional collaboration and data-driven decision-making to address care gaps, and strong stakeholder engagement to drive adoption. While each condition has unique needs, maintaining a consistent focus on data-informed insights and patient-centred outcomes enables meaningful and sustainable transformation across diverse clinical contexts.

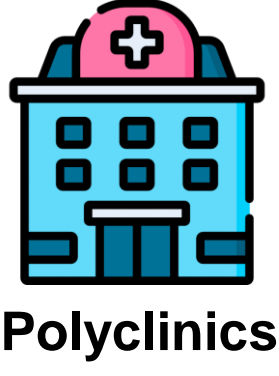
### Acknowledgement

We would like to thank our partners, including but not limited to the NHG Institution VDC Offices, the NHG Institution VBC Leads for TKR, Hip Fracture, and Asthma, Group and Institution Finance Teams, as well as all individuals involved in advancing value-based healthcare across NHG.

### Hip Fracture



**146** patients right-sited from SOC to polyclinics for Denosumab administration from Oct'24 to Feb'25



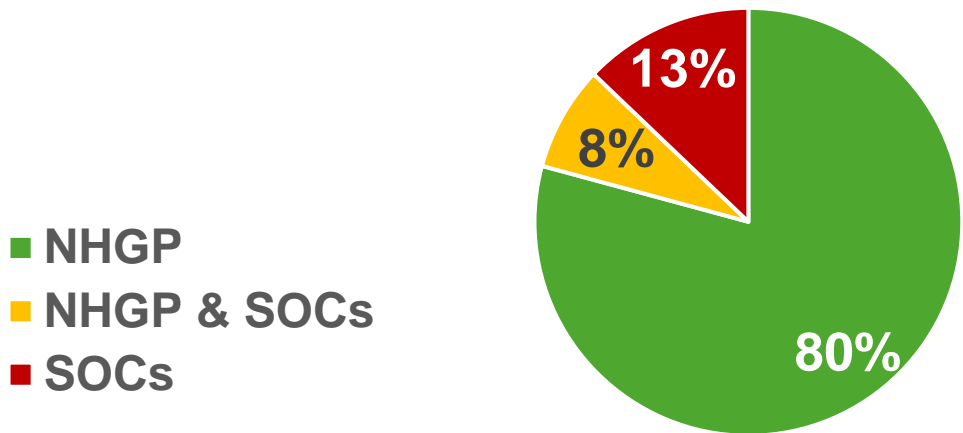
- Through care path mapping and data analysis, we found that HF# patients were often retained in acute care for osteoporosis management.
- This catalysed efforts to **train more polyclinic nurses in administering denosumab**, enabling **more timely patient discharge to primary care**.
- Since 2024, the service has expanded across multiple disciplines and institutions. **Estimated savings from this initiative amount to 2,397 SOC visits.**



Increasing capacity for dental clearance to reduce delays in initiation of osteoporosis management.

### Asthma

Proportion of Asthma Patients Visiting NHG PHIs



- **Standardised referral and discharge guidelines** reduced practice variation and acute care burden through shared care models.
- Patient-reported outcomes was collected through the Global Initiative for Asthma (GINA) Questionnaire and incorporated into the harmonised discharge guidelines.
- **~80%** of asthma patients are managed at polyclinics, with **~95%** of acute exacerbations resolved there without escalation to A&E.