

# VALUE-BASED HEALTHCARE CONFERENCE 2024

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Sengkang  
General Hospital  
SingHealth

## The SKH Continuous Hip Fracture Improvement Project

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### Background / Aim

**Early surgery (within 48 hrs)** in hip fracture patients confers lower mortality risk, fewer complications and shorter hospital stays.

Causes for delays include:

- 1) Patient conditions
- 2) Surgical/anaesthetic processes
- 3) Available hospital facilities



“CHIP aims to improve key metrics such as inpatient length of stay and time to surgery.”



### Methods

Detailed analysis for causes of delays in surgery was performed and were found to cluster around specific patient groups and patterns.

A series of quality improvement initiatives was introduced by **orthopaedic surgery, nursing, anaesthesiology and geriatric medicine** in a coordinated fashion.



The initiatives were conducted over **3 PDSA cycles** from 2021 to 2024.

PDSA Cycle 1  
July 2021

**CHIP #1: Incorporating earlier preoperative anaesthesia assessment** into the surgical pathway enabled longer lead times to conduct medical optimisation and specialist review / risk stratifications before surgery.

PDSA Cycle 2  
March 2023

**CHIP #2: Increased situational awareness and sense of urgency** was achieved by frequent broadcast of a patient dashboard to all surgeons and stake-holders, detailing individual patient metrics & cohort statistics.

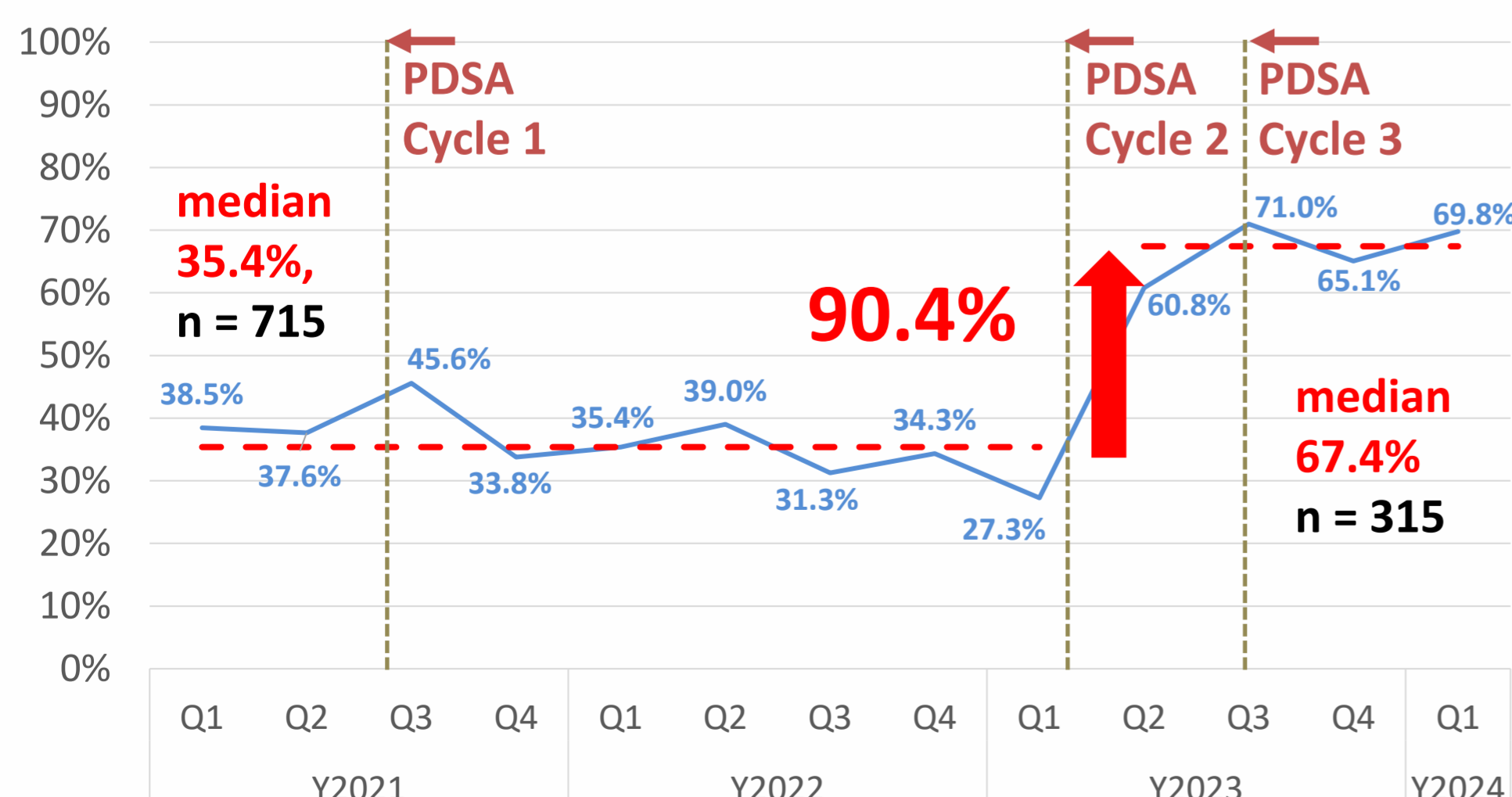
PDSA Cycle 3  
July 2023

**CHIP #3: Physical cohorting** of hip fracture patients enabled standardisation, streamlining and colocation of care processes and personnel. This included timely post-operative patient right siting of care.

### Results

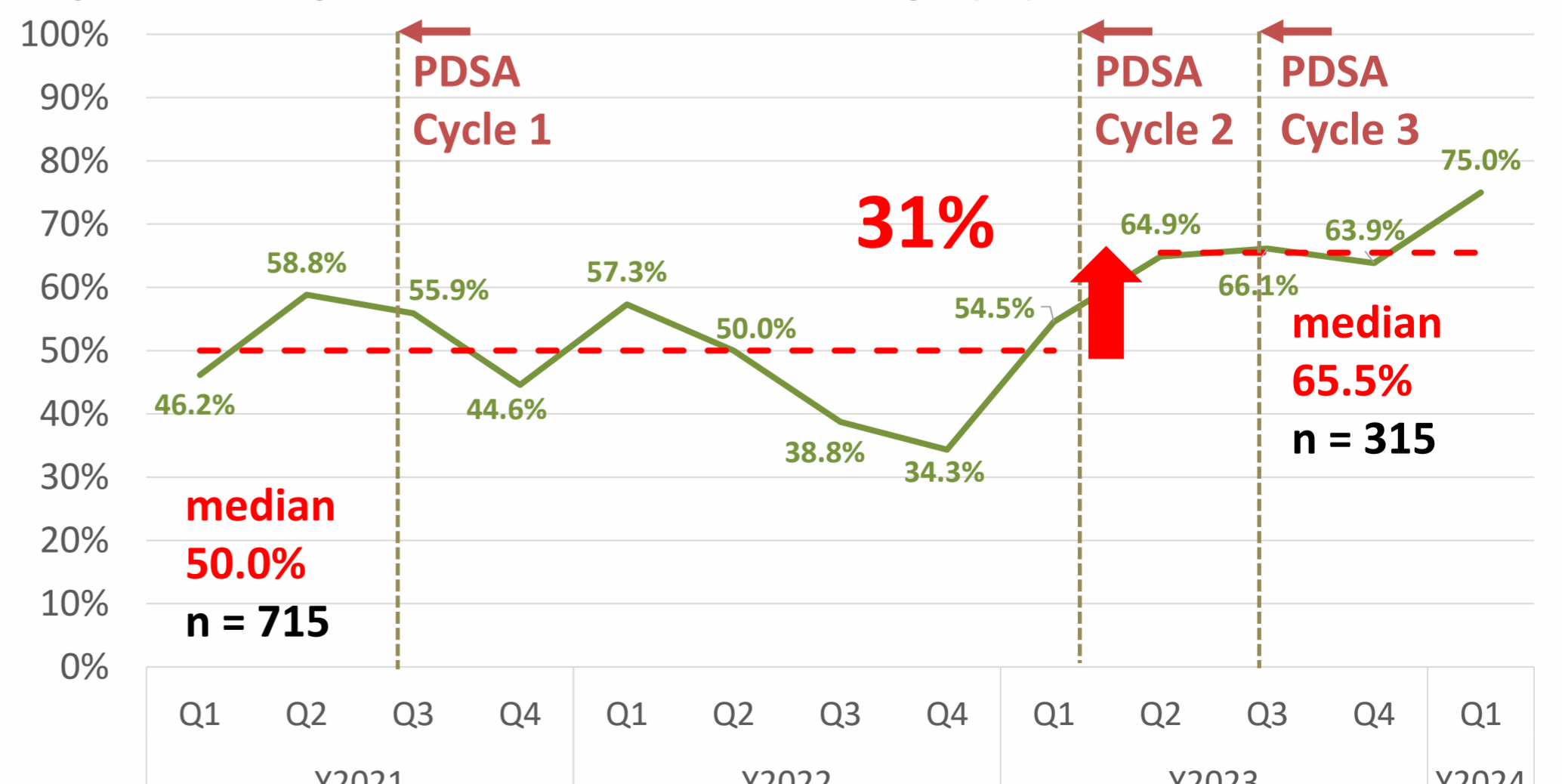
Patients undergoing hip fracture surgeries within 48 hours **improved by 90.4%**, from pre-implementation median of 35.4% to 67.4% post-implementation.

Hip fracture surgeries performed within 48hrs (%)



Significant improvement (**31%**) in the proportion of patients with hospital length of stay of < 10 days was also reported, from pre-implementation median of 50% to post-implementation of 65.5%.

Hip fracture patients with LOS ≤ 10 days (%)



### Conclusion

**Targeted interventions and a multidisciplinary team approach to hip fracture management ensures timely surgery, improved perioperative care outcomes, early discharge & lower cost.**