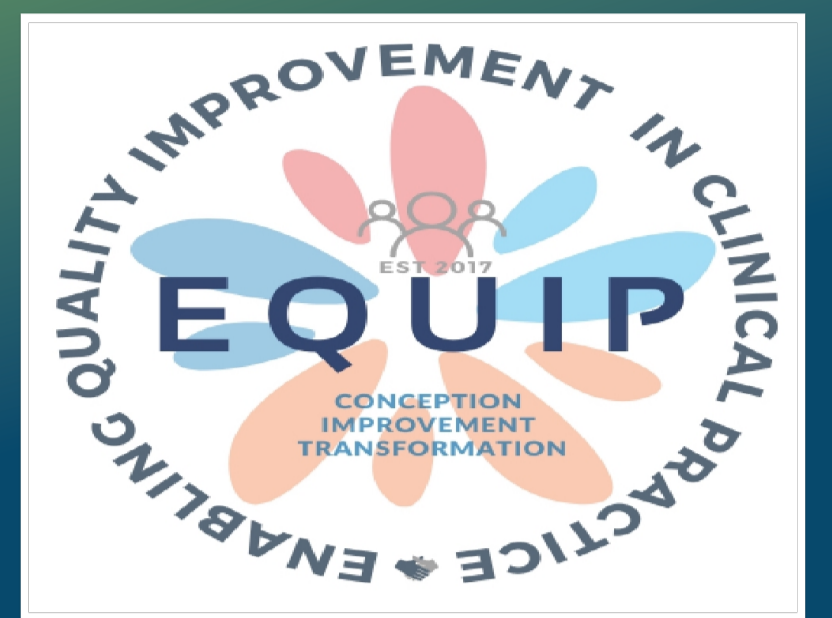


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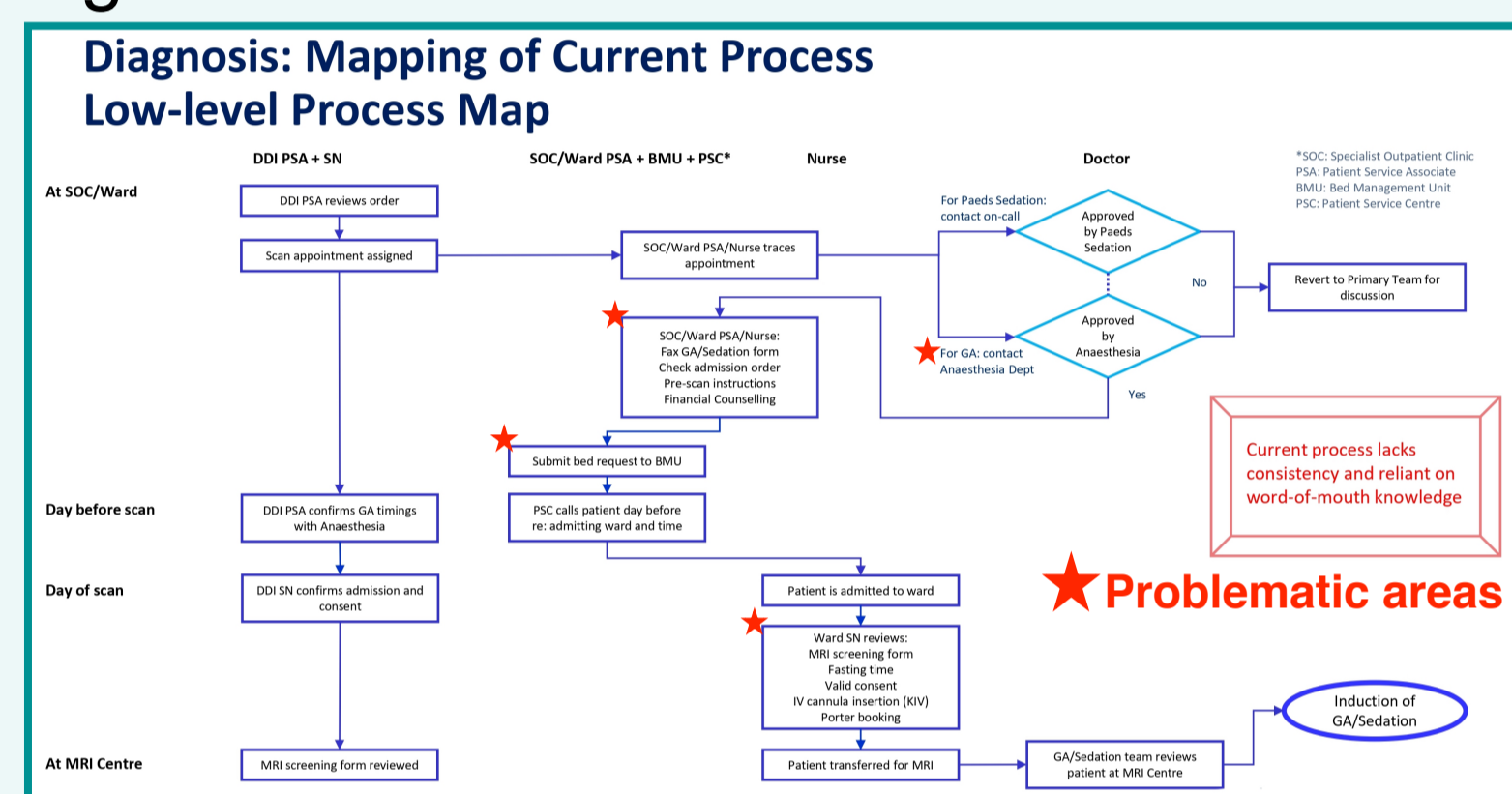
Reducing delays in starting magnetic resonance imaging scans under sedation and general anaesthesia

Eunice Lee, Sophia Ang
eunice_lee@nuhs.edu.sg



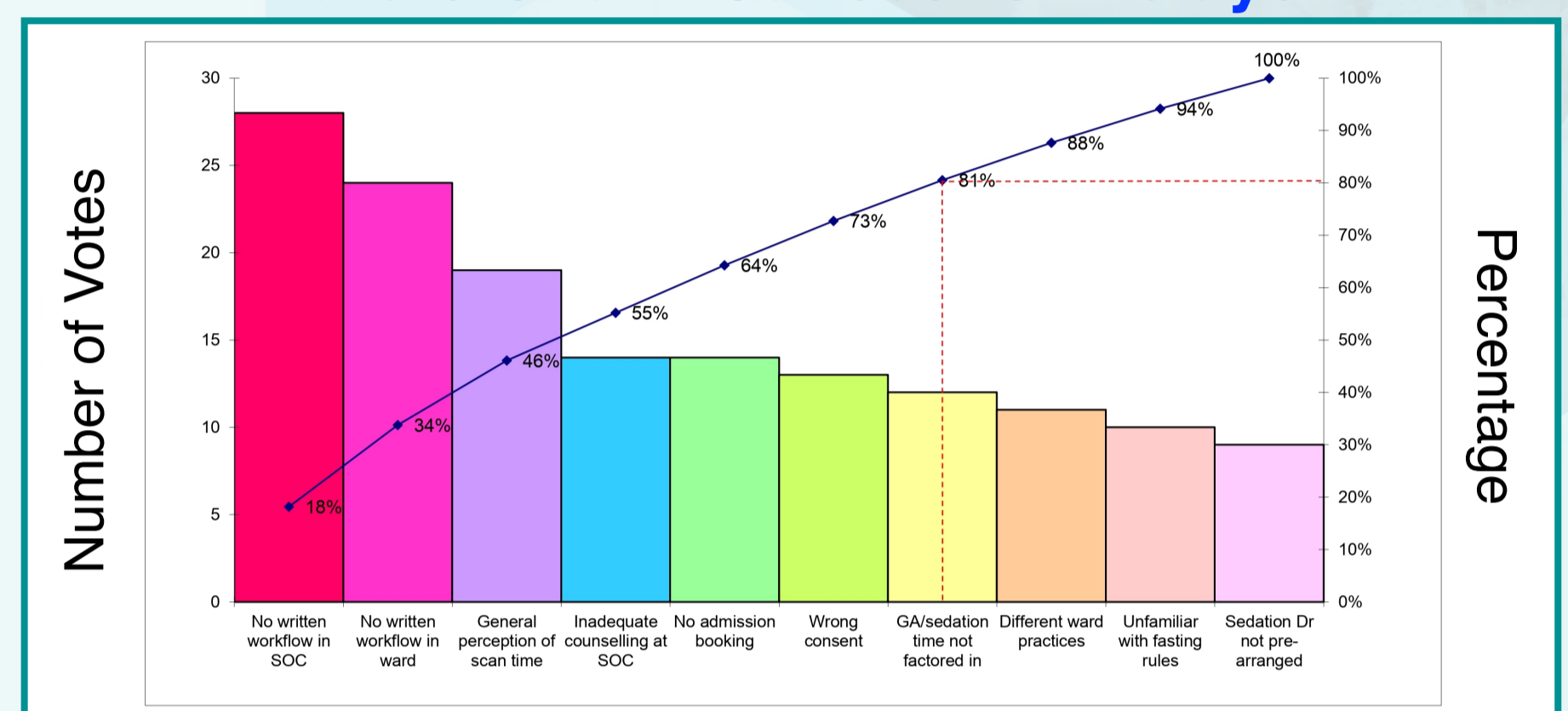
Problem Statement

Delays in scheduled elective magnetic resonance imaging (MRI) scans requiring sedation or general anaesthesia (GA) lead to diagnostic and treatment delays, prolonged hospitalisation, and rescheduling logistical burden.



Potential Solutions

Pareto Chart: Causes for Delays



Root Causes

- No written workflow
- No booking for admission
- Inadequate pre-scan counselling
- Perception of scan time
- Sedation/GA preparation time not factored in
- Wrong consent

Interventions

- Implement institutional workflow
- Educate staff
- Provide guidelines and checklist for pre-scan counselling
- Educate clinicians to allocate preparation time
- Instructions and references incorporated into workflow

Project Aim

To **increase** the proportion of MRI scans that achieved a sedation or GA time of induction within 15 minutes of the scheduled scan time from a baseline **median of 30% to 45%** within six months at National University Hospital.

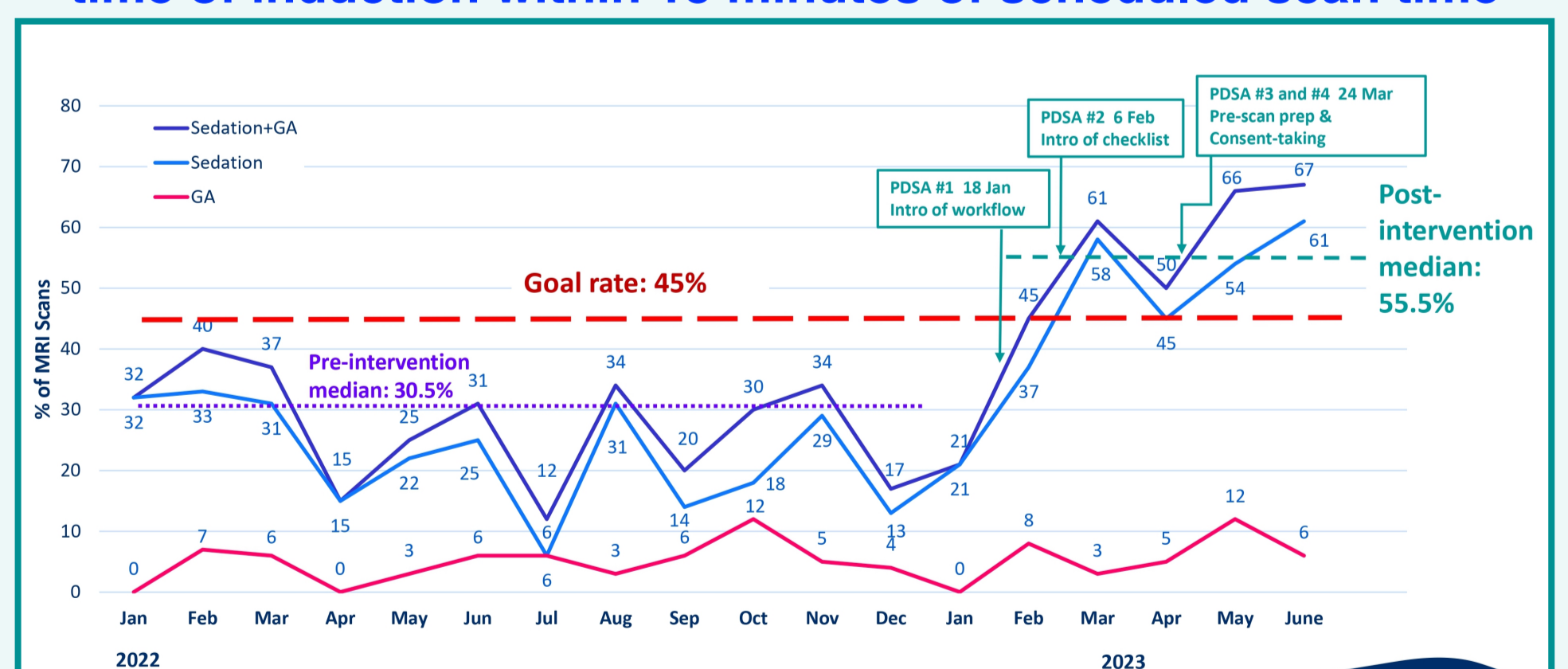
Lessons Learnt

Challenges and Strategies

- Due to the multidisciplinary nature of this project, **coordination** between different departments was one of the logistical hurdles.
 - Continuous engagement via various communication channels paved the way for a concerted effort in implementing this change.
- The relative scarcity of MRI scans requiring sedation/GA (average 40 to 50 per month) implied lower **exposure** to the new workflow.
 - Regular reminders to department heads, nursing and ward managers, with subsequent dissemination to all staff, reinforced compliance to the workflow.

Outcomes & Impacts

Percentage of MRI scans under Sedation/GA with time of induction within 15 minutes of scheduled scan time



Future Plans

- Applying workflow to other hospitals under the same healthcare administrative organisation.
- Embedding workflow into hospital-wide electronic medical records system to aid retrieval and reference.
- Transition from phone-call based coordination system between anaesthesia and other departments into computerised scheduling network.