



Background of the Problem

Urology Operating Theatre returns a high percentage of unused sterile instruments back to the Surgical Sterile Unit (SSU) at the end of the day. Besides requiring manpower to load and unload the instruments in respective areas, efforts to keep track of instrument movement is also unavoidable. Furthermore, the risk of instrument contamination increases with multiple handling of instruments during transportation and storage. Lastly, unused instruments cannot be utilized by other operating theatres in more dire needs.

Mission Statement

To reduce the percentage of unused instruments returned to Surgical Sterile Unit by Urology Operating Theatre from 55% to 20% in 6 months..

Analysis of Problem

Data from SSU showed that 55% of the total instruments ordered were returned as unused.

The team decided to use the 5 - Why Diagram to understand the problem and analysis the root causes.

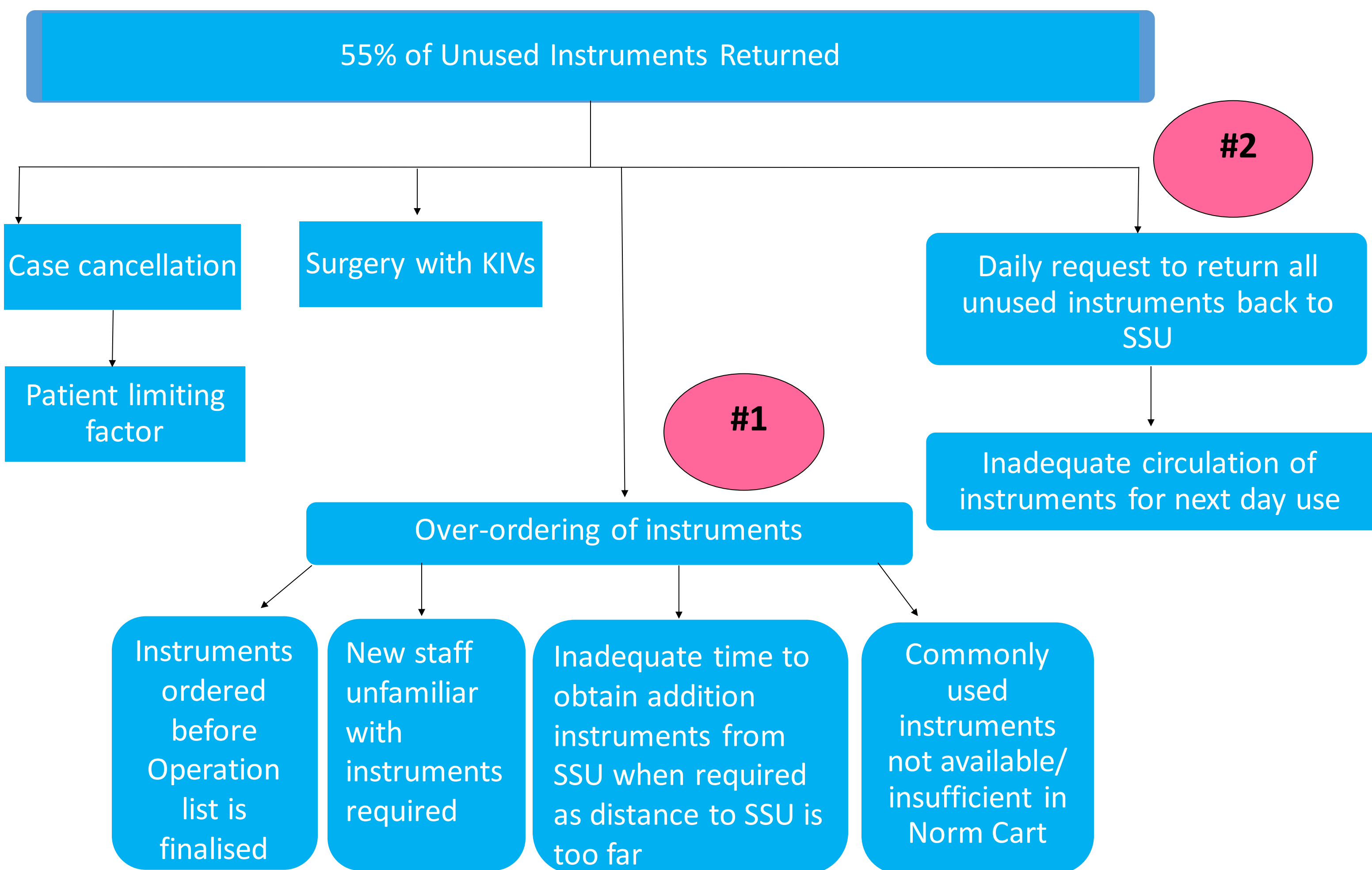


Figure 1: Tree Diagram

Pareto Chart was applied to prioritize/select the most significant root causes.

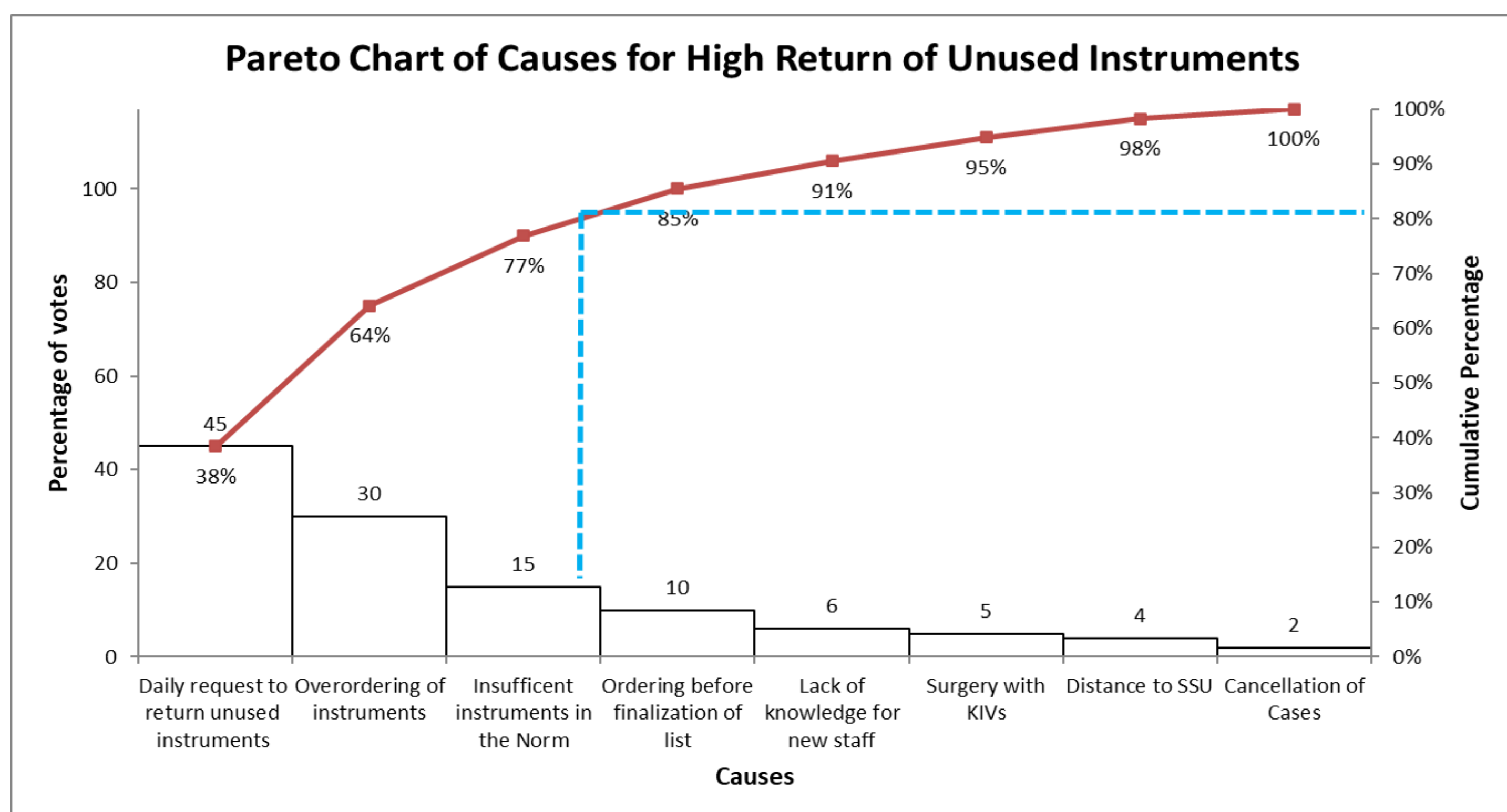


Figure 2: Pareto Chart

Interventions / Initiatives

The team used the Driver Diagram to develop and select solution for the root causes. 2 PDSAs were derived.

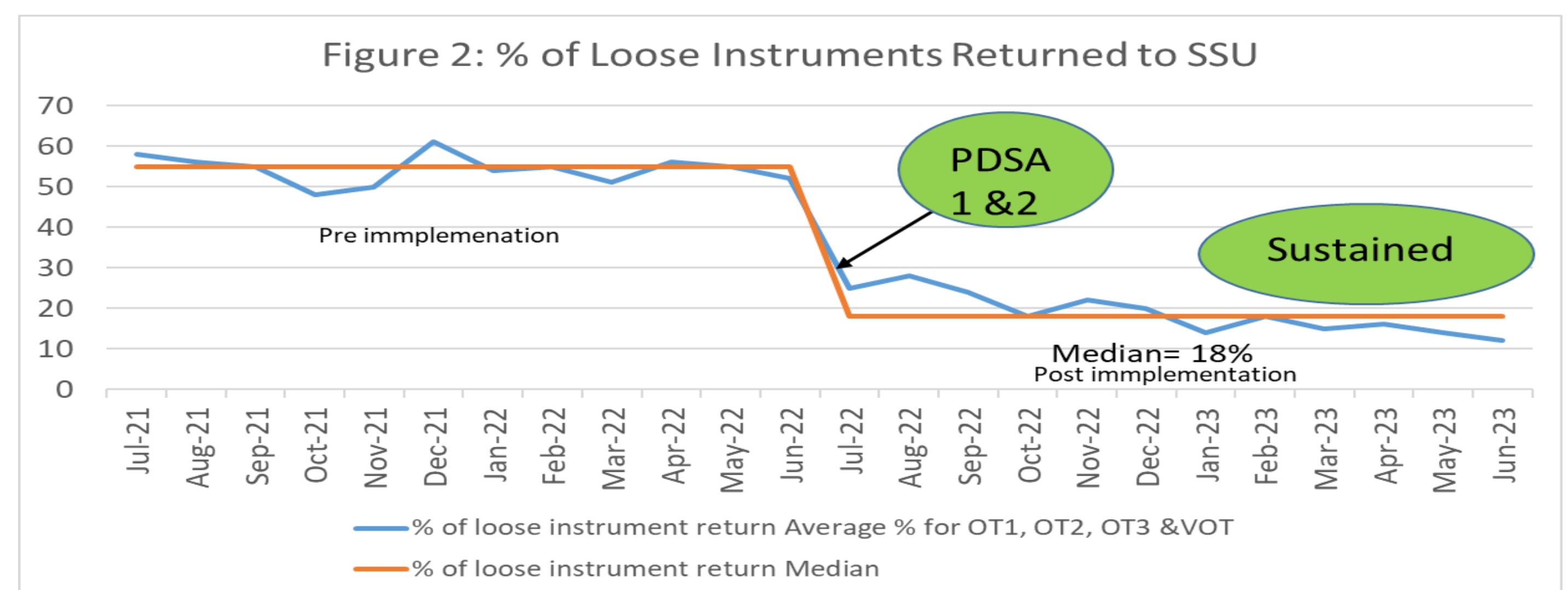
PDSA 1

- Standardize instrument ordering time at 2pm after finalizing of OT list
- Supervision of junior staff placing the order
- Norm is revised based on needs of the OT, increasing the type and number of instruments.
- Making use of Norm instruments as standby for surgery needs

PDSA 2

- To return URO specific instruments every Friday instead of daily
- To return other general instruments every Wednesday and Friday instead of daily
- This helps to minimize daily handling and transportation of unused instruments

Results



- ✓ Percentage of unused instruments returned to SSU decreased from 55% to 18% on average over a period of 10 months.
- ✓ With lower return of unused instruments, risk of instrument contamination during handling and transportation decreases therefore prolonging the shelf life of the instrument.
- ✓ Commonly used instruments will be readily available in SSU for use when needed by other operating theaters.
- ✓ Eliminates unnecessary loading, unloading and status checking of sterile instruments at URO OT and SSU, saving 360hrs of manpower per annum.

Sustainability Plans

The team will continue the practice of the current implementation. New ideas will be explored to further reduce the percentage of loose instruments returned to SSU.

