

## **Project Title**

OT Optimisation (Starting Surgeries on time – Ophthalmology pilot)

## **Project Lead and Members**

Project lead: Dr Ng Chew Lip, Joanna Tan

Project members: Dr Grace Chew, Wang Lili, Shomala Thevarajah, Trish Woon, Yoyo Lui, Christine Wu, Kelvin Lew, Tammy Wong

## **Organisation(s) Involved**

Ng Teng Fong General Hospital

## **Healthcare Family Group Involved in this Project**

Medical, Nursing, Administration

## **Applicable Specialty or Discipline**

Ophthalmology, Surgery

## **Project Period**

Start date: 01 Mar 2021

Completed date: Jul 2022

## **Aims**

Reduce the percentage of 1st elective surgeries that start late in all elective OR from 37% to 25% and the median duration of delay per surgery from 20 minutes to 10 minutes by 30 April 2022.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Lessons Learnt**

1. Power of data – Leveraging the power of data to identify keys areas to reduce wastes and improve efficiency.
2. Breaking down Silos – Enabling communication between different departments to improve collaboration and teamwork.
3. Engaging and empowering Staff – Staff are empowered to share issues faced and solutions.
4. Importance of Piloting – Celebrating quick wins from our pilot on Ophthalmology with the intent to scale across other specialties.

## **Conclusion**

See poster appended/ below

## **Project Category**

Care & Process Redesign

Quality Improvement, Workflow Redesign, Job Effectiveness, Productivity, Cost Saving, Time Saving, Operational Management, Data Analytics, Resource Allocation

## **Keywords**

Starting Surgery on Time, Ophthalmology, Time Saving, Process Redesign, Resource Allocation, Resource Optimization, Data Analytics

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# OT OPTIMISATION (STARTING SURGERIES ON TIME – OPHTHALMOLOGY PILOT)

MEMBERS: DR NG CHEW LIP, JOANNA TAN, DR GRACE CHEW, WANG LILI, SHOMALA THEVARAJAH, TRISH WOON, YOYO LUI, CHRISTINE WU, KELVIN LEW, TAMMY WONG

- ✓ SAFETY
- ✓ QUALITY
- ✓ PATIENT EXPERIENCE
- ✓ PRODUCTIVITY
- ☐ COST

## Define Problem, Set Aim

### Problem/Opportunity for Improvement\*

Between Jan 20 to Aug 21, 37% of 1st elective surgeries started late.

This had resulted an inefficient use of OT resources which translated to approximate of \$245,838 in terms of cost incurred over the same period.

For ophthalmology, 51% of 1st elective surgeries started late

\* This project is part of the bigger scope in the OT Optimisation project. Starting Surgeries on time was one of the key area of focus and ophthalmology was identified to be the pilot discipline to work on.

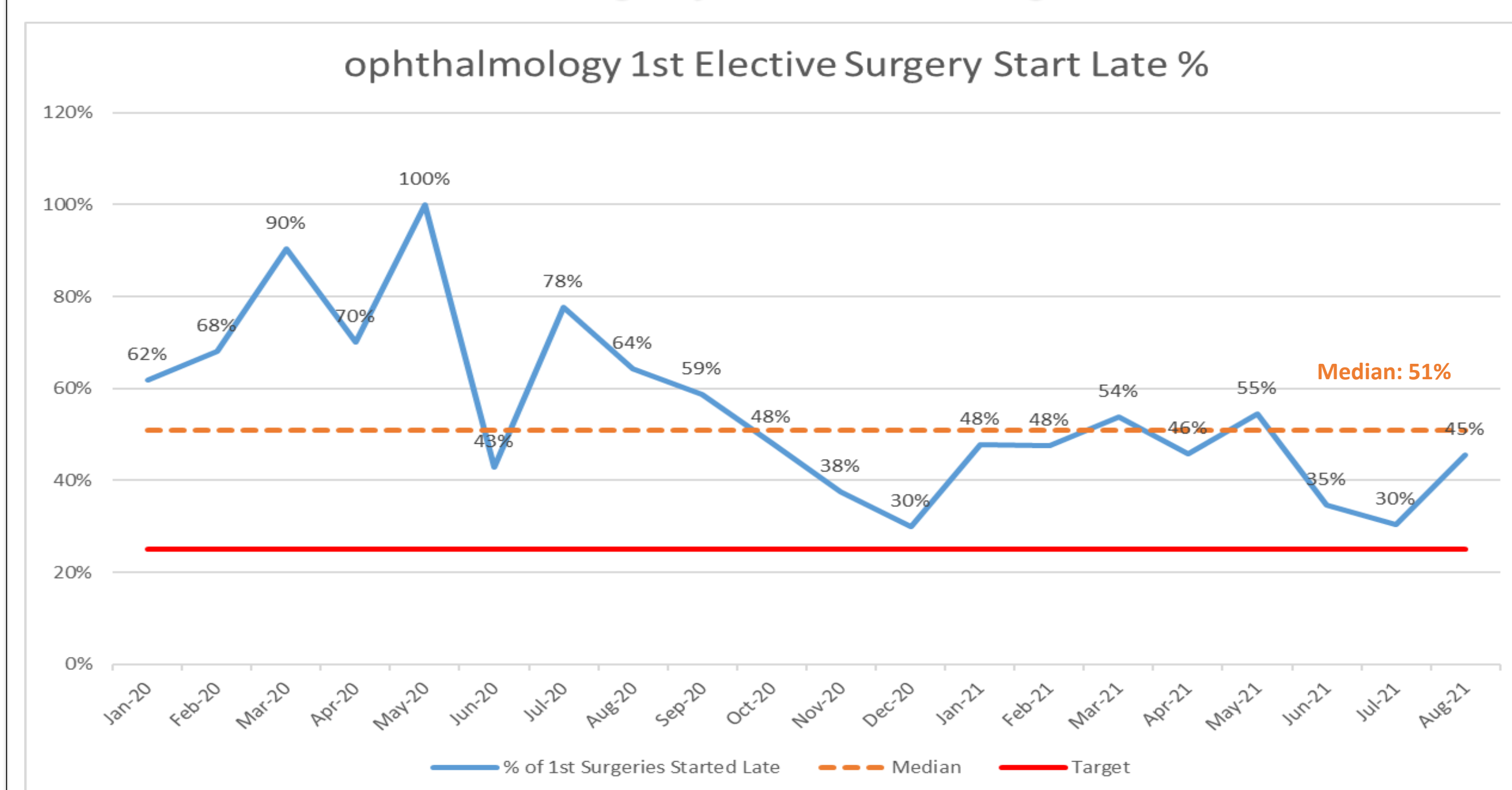
### Aim

Reduce the percentage of 1st elective surgeries that start late in all elective OR from 37% to 25% and the median duration of delay per surgery from 20 minutes to 10 minutes by 30 April 2022.

## Establish Measures

### What was your performance before interventions?

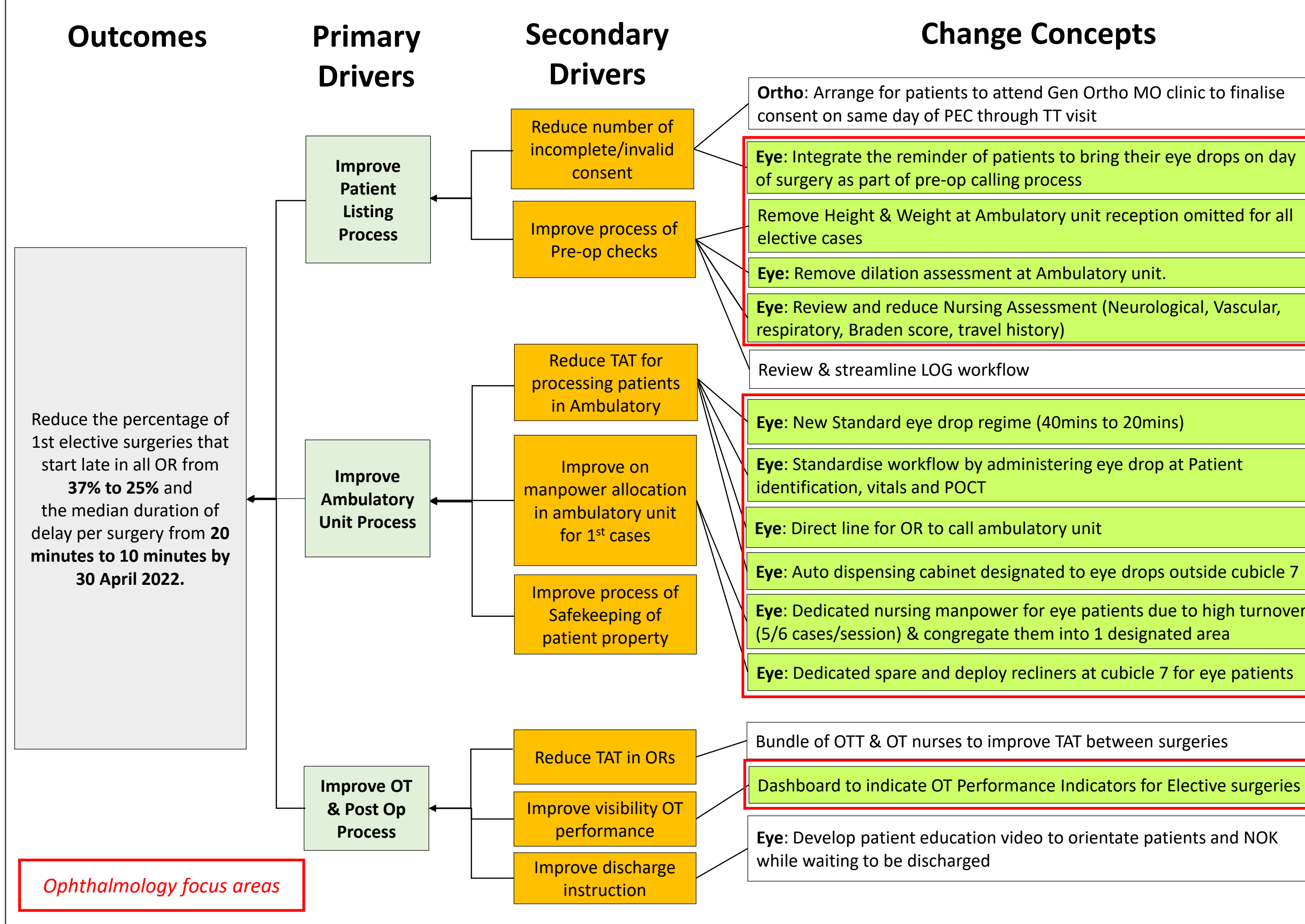
Outcome measures: Percentage of 1st Elective Surgeries That Started Late



## Analyse Problem

### What is your process before interventions?

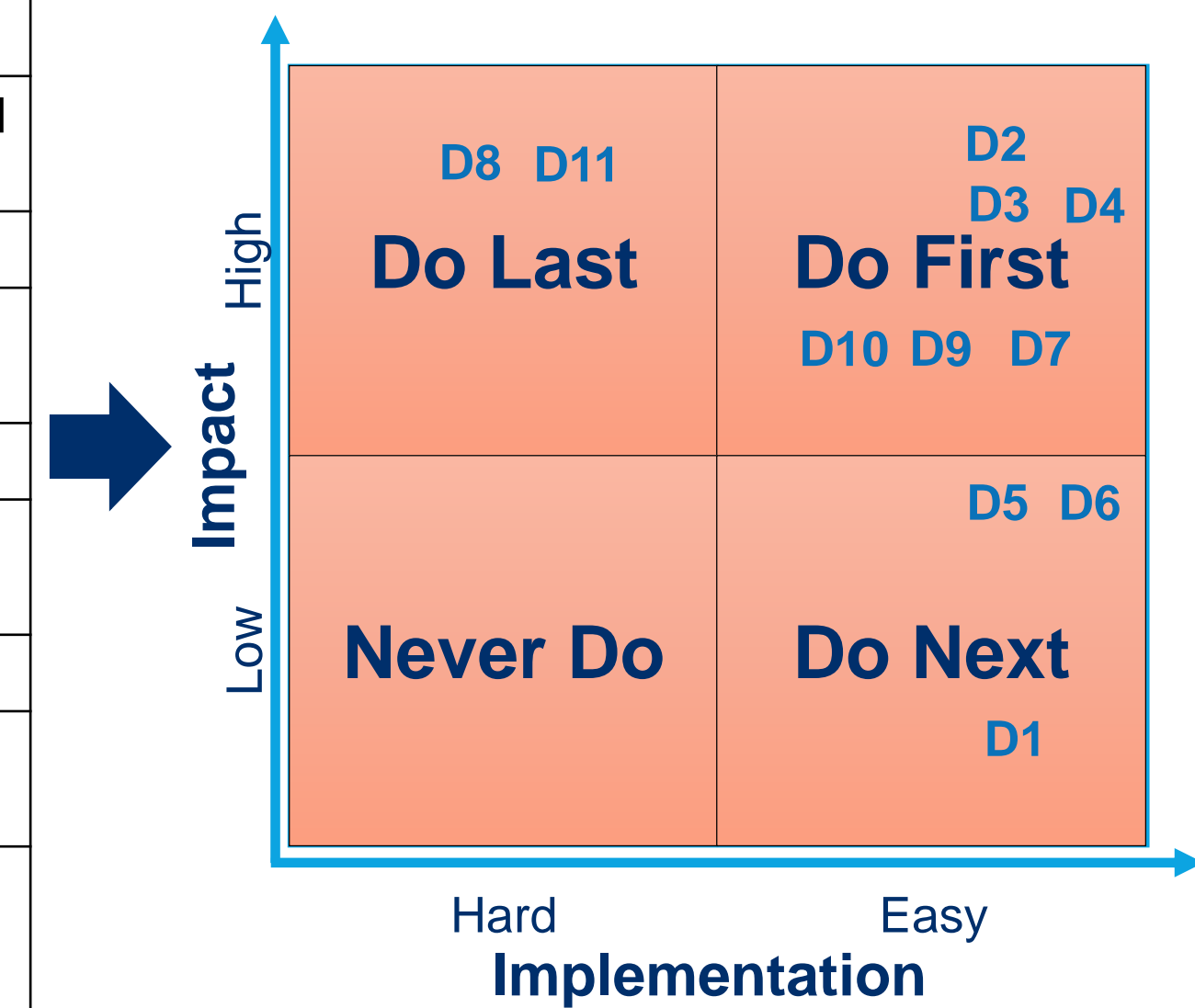
A deep dive process analysis was conducted by walking the ground, staff interview, collection of baseline data and the following key drivers were established as key drivers affecting starting surgeries on time



## Select Changes

What are all the probable solutions? Which ones are selected for testing?

Key Drivers Selected for Testing	
D1	Integrate the reminder of patients to bring their eye drops on day of surgery as part of pre-op calling process
D2	Remove Height & Weight at Ambulatory unit reception omitted for all elective cases
D3	Remove dilation assessment at Ambulatory unit.
D4	Review and reduce Nursing Assessment (Neurological, Vascular, respiratory, Braden score, travel history)
D5	New Standard eye drop regime (40mins to 20mins)
D6	Standardise workflow by administering eye drop at Patient identification, vitals and POCT
D7	Direct line for OR to call ambulatory unit
D8	Auto dispensing cabinet designated to eye drops outside cubicle 7
D9	Dedicated nursing manpower for eye patients due to high turnover (5/6 cases per session) and congregate them into 1 designated area
D10	Dedicated spare and deploy recliners at cubicle 7 for eye patients
D11	Dashboard to indicate readiness of patient status

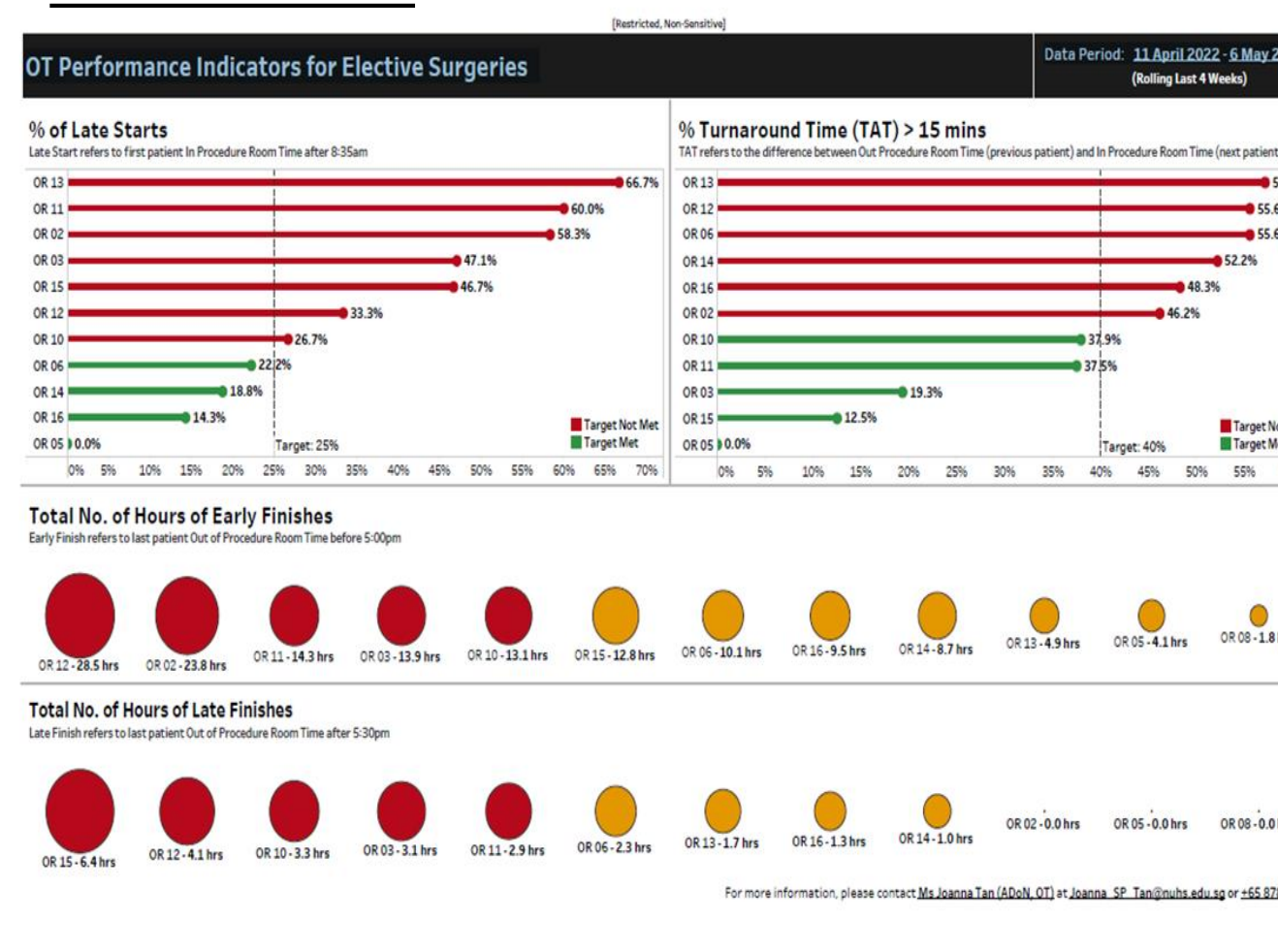


## Test & Implement Changes

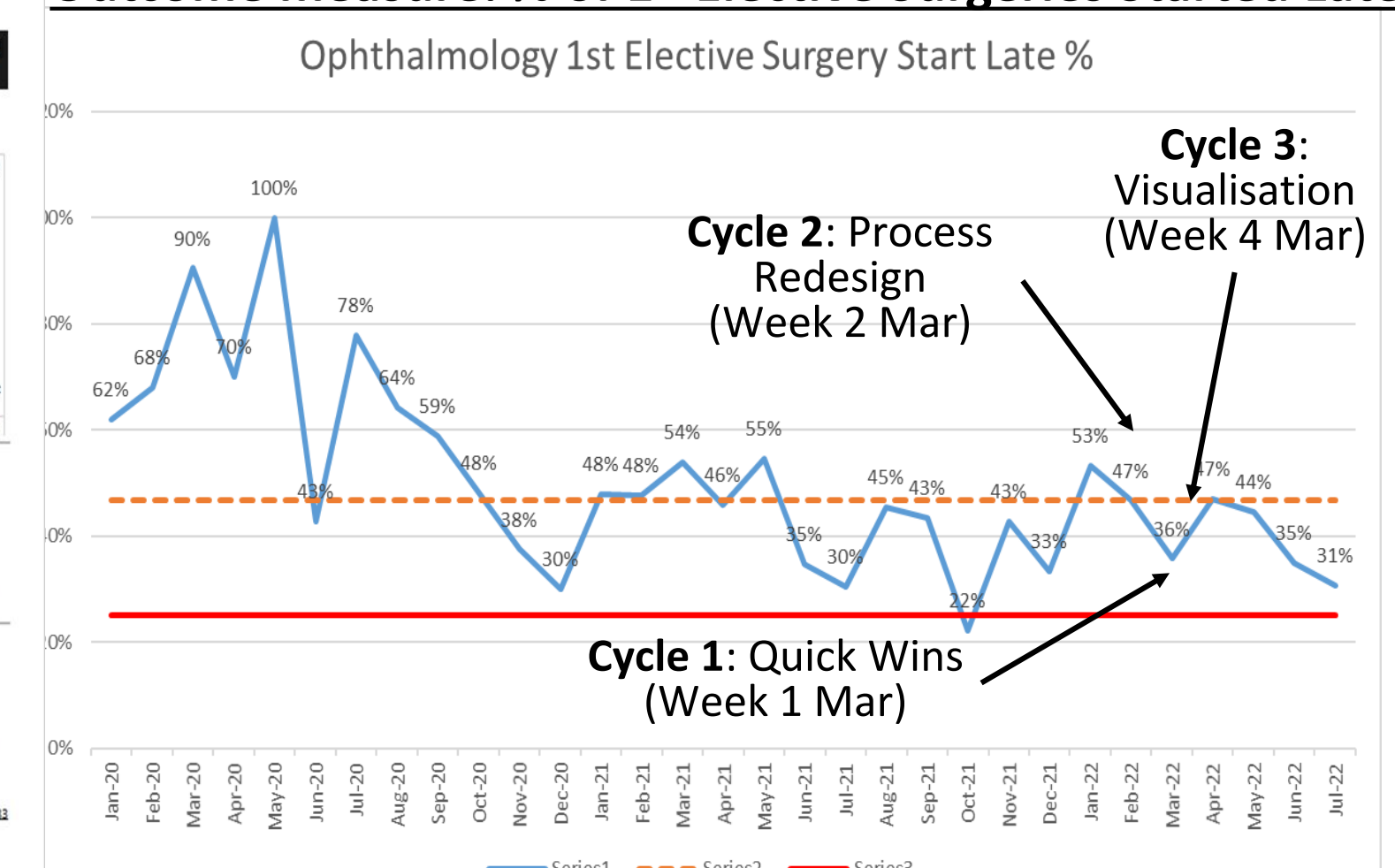
How do we pilot the changes? What are the initial results?

CYCLE	PLAN	DO	STUDY	ACT
1 (Quick Wins)	<b>Change:</b> The team focus on the low lying fruits: Simplify pre-op testing, ease of contact, dedicated space to facilitate assessment  <b>Prediction:</b> This arrangement will make coordination of care easier for Ambulatory Unit	<b>What Happen:</b> The team tested this on eye patients	<b>Observations Gathered:</b> Ambulatory staff were glad that non essential pre-op testing were removed which helps in reducing stress during the 1st case peak hour in the morning	<b>Adopt</b> this change.  <b>Plan for next cycle:</b> Team to redesign process of administering eye drops
2 (Process Redesign)	<b>Change:</b> The Ophthalmology team redesign the eye drop administration process and patients' instructions  <b>Prediction:</b> This arrangement will simplify the process without compromising patient care	<b>What Happen:</b> The team tested this on a small group of eye patients	<b>Observations Gathered:</b> Project team conducted a Time-motion study and observed that up to 24 minutes per patient was saved	<b>Adopt</b> this change.  <b>Plan for next cycle:</b> Team to work with QII analytics team to create dashboard
3 (Visualisation)	<b>Change:</b> QII Analytics team to design an OT dashboard so that immediate actions can be acted upon  <b>Prediction:</b> This work will allow performance in OT to be made readily available to OT team and acted upon	<b>What Happen:</b> The OT dashboard was developed and displayed at the OT pantry and OT Control room so that up-to-date performance is visible and appropriate actions can be taken where required.	<b>Observations gathered:</b> The dashboard is currently operational and OT team has been leveraging on this info for action in planning and implementation of work processes to cut wastes and improve efficiency.	<b>Adopt</b> this change.

### OT Dashboard



### Outcome measure: % of 1st Elective Surgeries Started Late



## Spread Changes, Learning Points

What are the key learnings from this project?

- Power of data** – Leveraging the power of data to identify keys areas to reduce wastes and improve efficiency.
- Breaking down Silos** – Enabling communication between different departments to improve collaboration and teamwork.
- Engaging and empowering Staff** – Staff are empowered to share issues faced and solutions.
- Importance of Piloting** – Celebrating quick wins from our pilot on Ophthalmology with the intent to scale across other specialties