

# OPTIMIZING OUTPATIENT PHARMACY WORKFLOW TO ENHANCE EFFICIENCY WITH DISPENSING WITHOUT COUNSELLING (DWC)

MEMBERS: GOH SHIXU, TEOH WEN TING, SIM SIEW NGOH

## Define Problem, Set Aim

### Problem/Opportunity for Improvement:

In 2024, Ng Teng Fong General Hospital (NTFGH) Outpatient Pharmacy (OP) serves approximately 600-700 patients daily. All patients were given medication counselling, even when not needed, resulting in long queues, inefficient Pharmacy resource allocation, and reduced patient satisfaction. This also contributed to lowered patient compliance and limiting time for patients with complex medication needs.

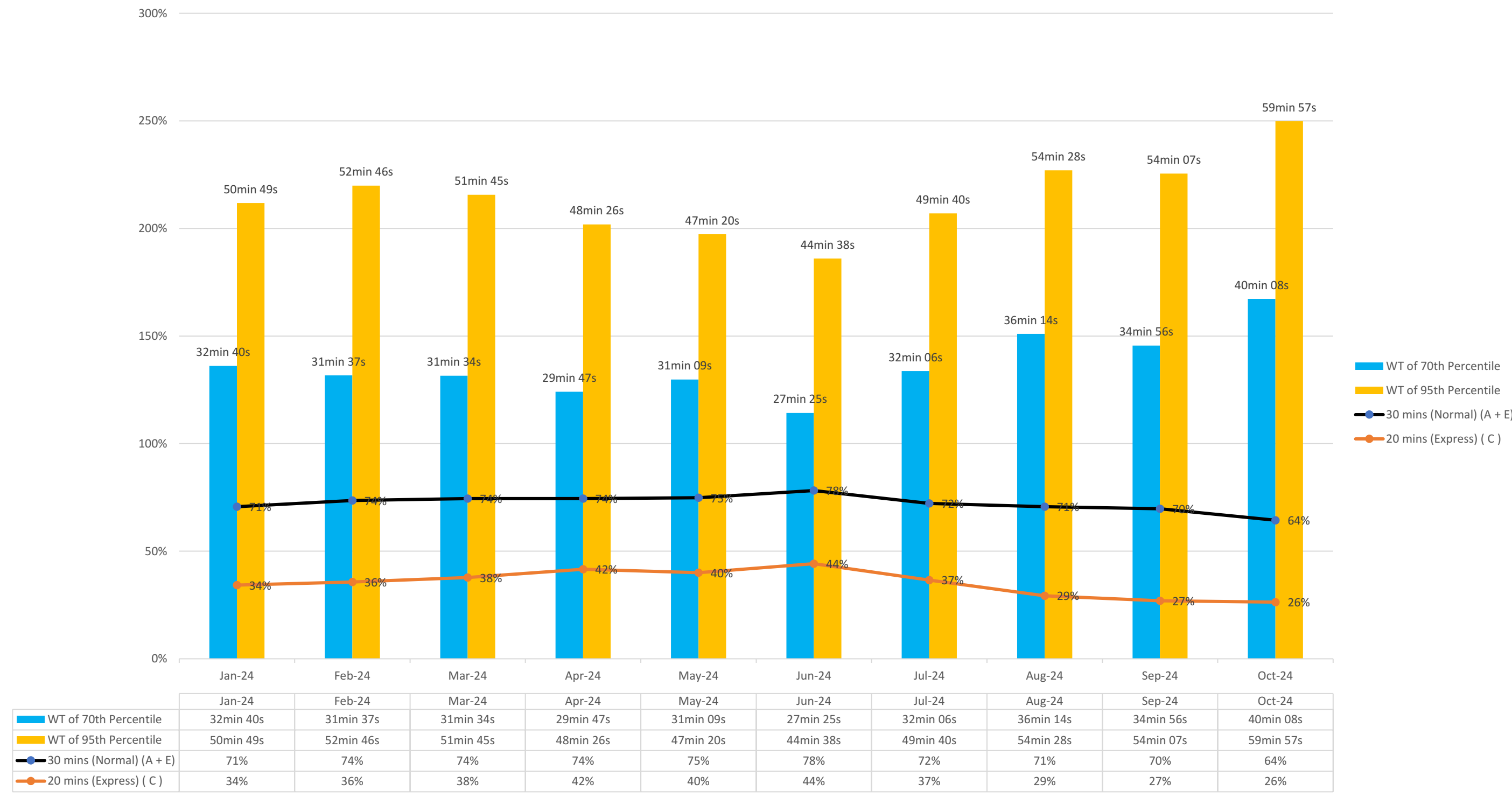
### Aim:

To reduce the average queue time and improve service efficiency for patients at NTFGH by implementing a Dispensing Without Counselling (DWC) workflow for eligible patients while maintaining patient safety and satisfaction.

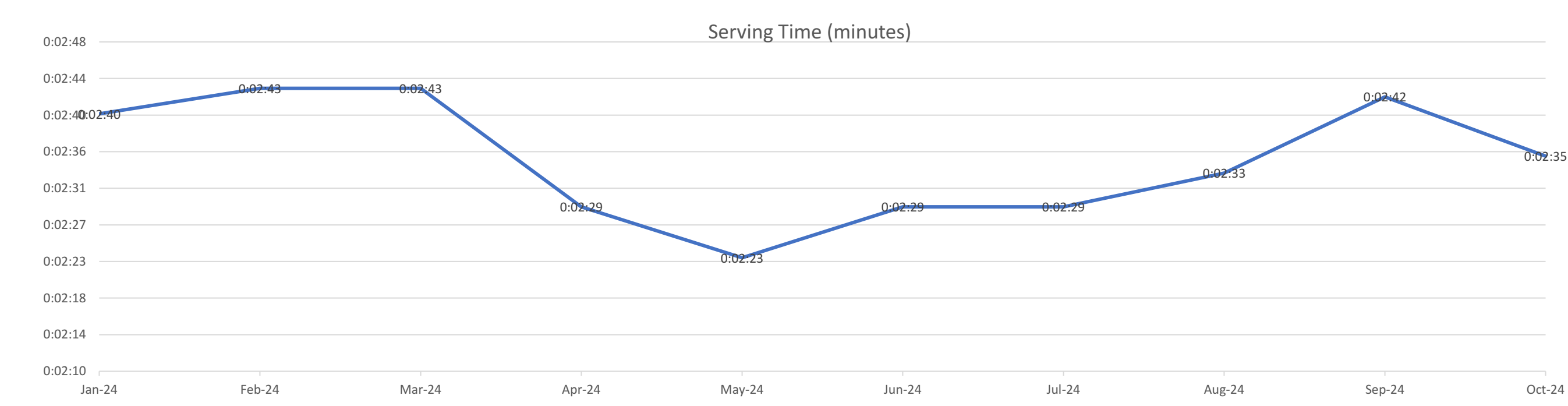
The goal is to achieve a DWC adoption rate of at least 30%, reduction of average wait time of 70<sup>th</sup> percentile by 10% and average serving time by 20% before end 2025.

## Establish Measures

Before the implementation of the DWC workflow the average queue time was 40-60 minutes. Approximately 34% of patients with 3 or less medications (C Queue) received their medications within 20 minutes. Around 70% of all other patients (A+E Queue) received their medications within 30 minutes.



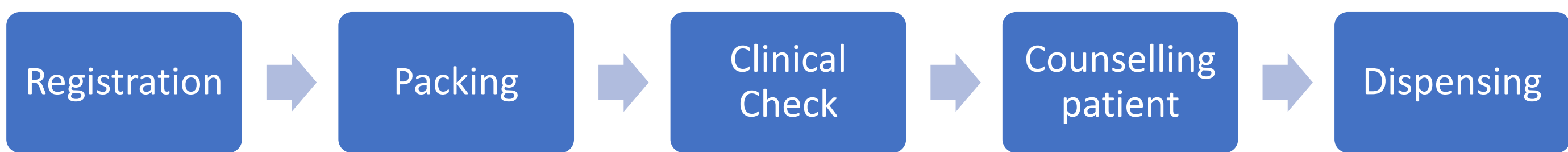
The serving time which was the amount of time spent on patient counselling was on average 2.35 minutes.



## Analyse Problem

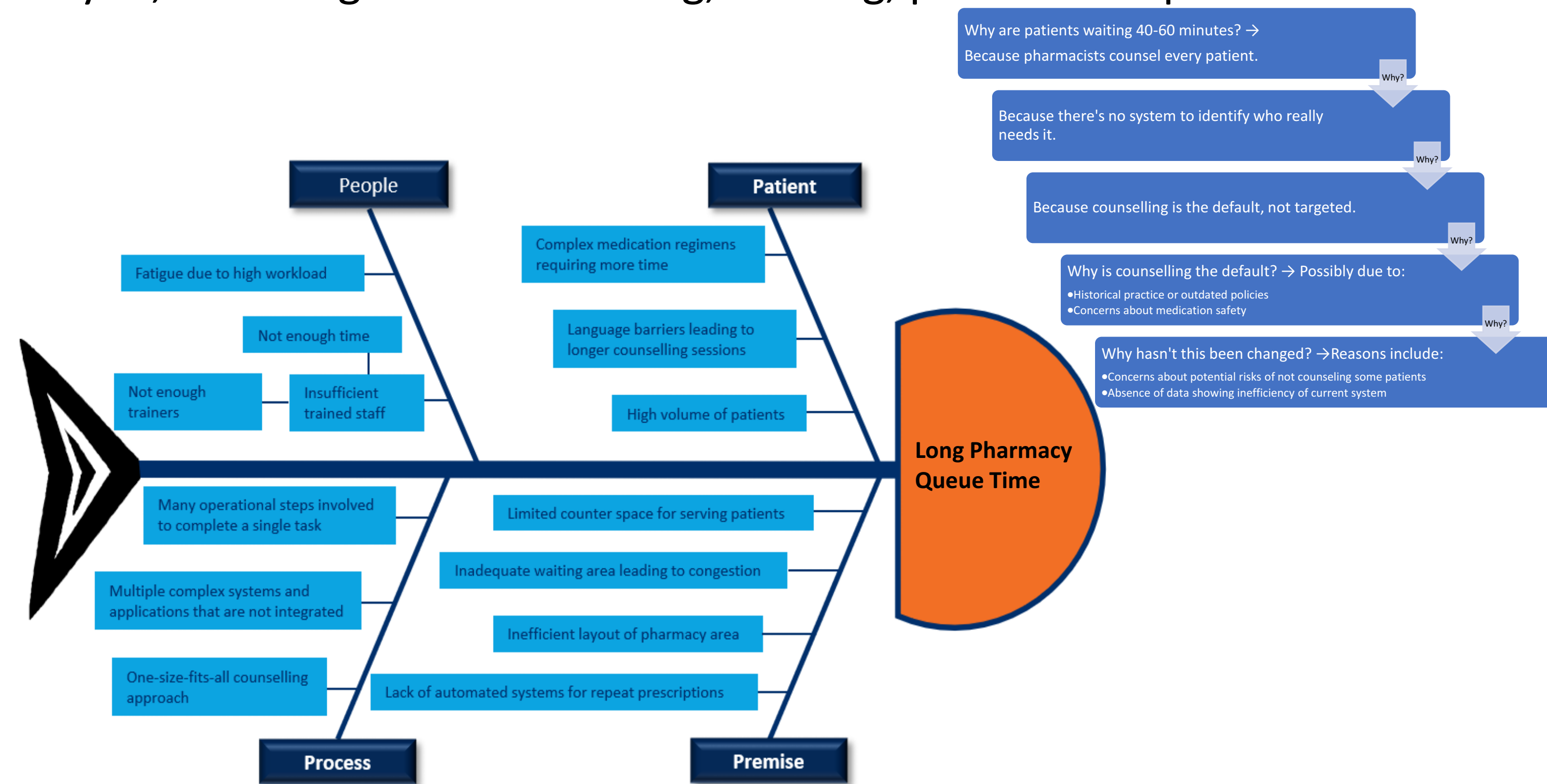
### What is your process before interventions?

Prior to DWC, all patients were counselled regardless of need, creating unnecessary bottlenecks. A review of the process showed no system to identify or triage patients for simplified or no dispensing. Pharmacy staff also faced competing tasks, leading to inconsistent patient communication.



### What are the probable root causes?

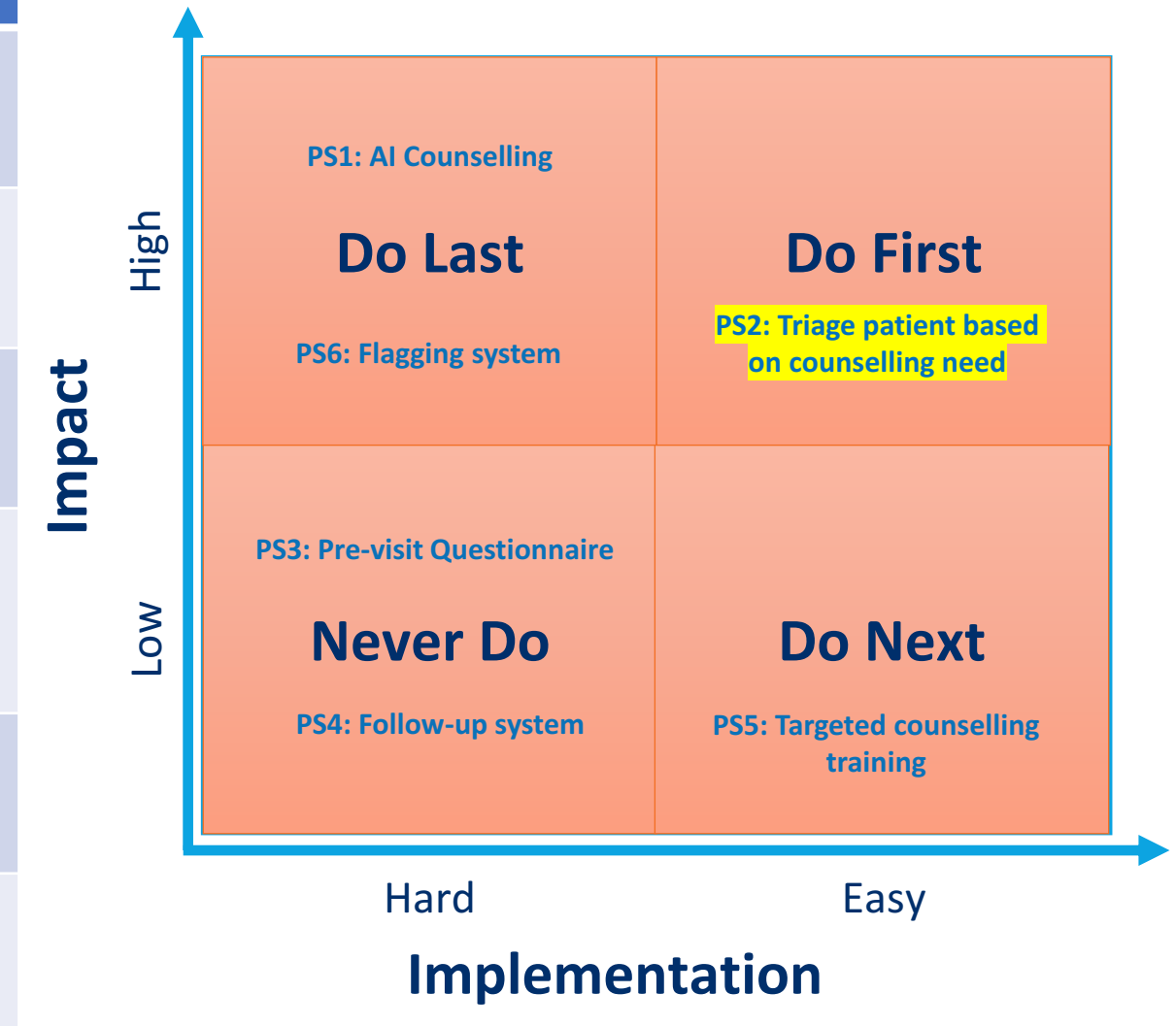
The root causes were mapped using a fishbone diagram and 5-Whys analysis, revealing issues in staffing, training, process and patient factors.



## Select Changes

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

Root Cause	Potential Solutions
One-size-fits-all counselling approach which is not optimal resource utilization	1 Personalized AI counselling sessions through mobile apps or in-pharmacy kiosks
	2 Develop a triage system to identify patients who need counselling vs. those who don't
	3 Implement a pre-visit questionnaire to assess patient's counselling needs
	4 Establish a follow-up system (e.g., phone calls or digital check-ins) for patients who receive minimal counselling at pickup
	5 Train staff on targeted counselling techniques to optimize time spent with each patient
	6 Develop a system to flag new prescriptions or changes in existing prescriptions that require counselling



## Test & Implement Changes

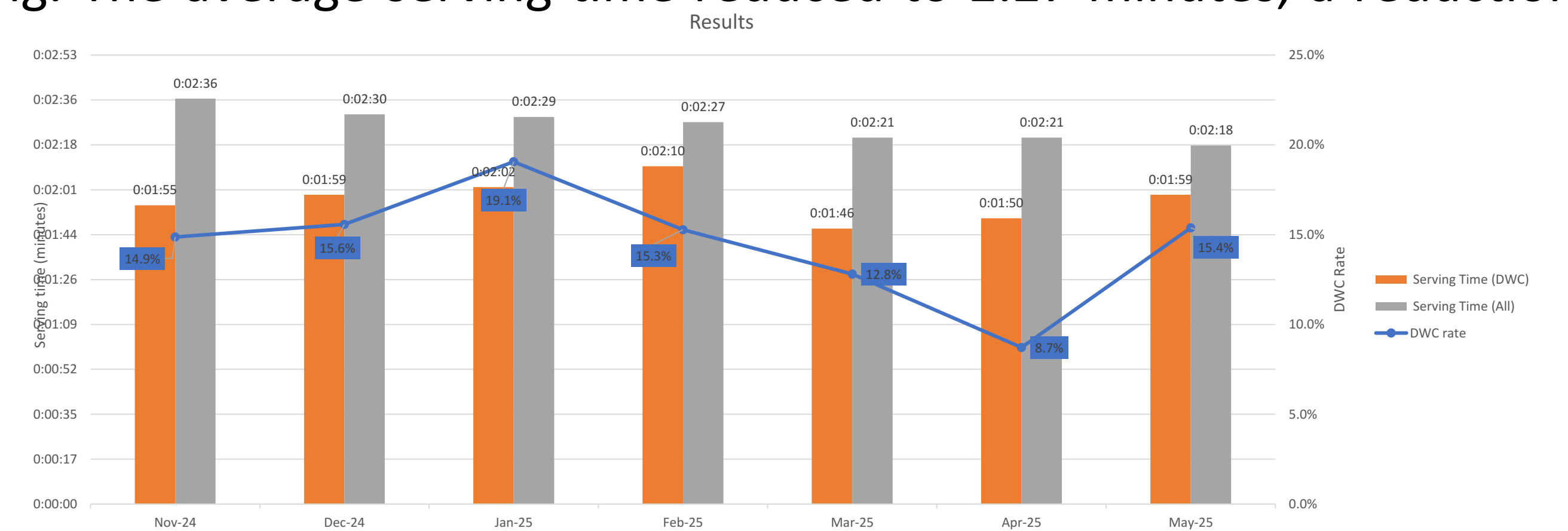
### How do we pilot the changes?

CYCLE	PLAN	DO	STUDY	ACT
1 (Nov 24 to Jan 25)	<b>Aim:</b> Implement DWC workflow and familiarise staff with it <b>Preparation:</b> Define DWC eligibility criteria, draft initial workflow, train staff.	<ul style="list-style-type: none"> <li>Established criteria and implemented DWC workflow for eligible patients.</li> <li>Trained staff on new process and eligibility screening</li> <li>Obtained verbal consent from patients and documented the DWC acceptance in Excel during registration</li> </ul>	<b>Results:</b> Adoption rate of DWC: <u>16.8%</u> <b>Learning points:</b> Staff inconsistently offered DWC option, Language barriers affected patient understanding, High peak hour workload impacted implementation, Patients expected shorter wait times with DWC	<b>Plan for next cycle:</b> Identify patient group(s) that can be defaulted into DWC, Develop standardized script and visual aids for explaining DWC, Conduct survey to get feedback with the inconsistency of staff offering DWC option.
2 (Feb to May 25)	<b>Aim:</b> Increase the uptake of DWC to 30% <b>Preparation:</b> Identified patient collecting balance medications as group to DWC without consent, Designed poster for patient publicity	<ul style="list-style-type: none"> <li>Staff informed on changes in eligibility and default inclusion patient group.</li> <li>Poster put up in several locations in Outpatient Pharmacy to create awareness on DWC.</li> <li>Conducted interviews with Pharm Techs to get reviews on DWC workflow.</li> <li>More frequent updates on the uptake rate to team</li> </ul>	<b>Results:</b> Adoption rate of DWC: <u>12.3%</u> <b>Learning points:</b> Some staff still not compliant to the workflow, Publicity poster did not yield significant patient initiated DWC encounters, Patients who opt for DWC do not get priority queue	<b>Plan for next cycle:</b> Implementation DWC workflow to satellite Pharmacies, Redesign, relocate or increase the number of publicity posters, Speak to individuals not compliant to find out underlying cause, To explore the possibility of having priority queue for patients who opt for DWC.



### What are the initial results?

There were no significant improvement with patient queue time post implementation, confounded by factors such as increase patient and training load, staff turnover. However, the data showed that DWC patients had a significantly shorter average serving time of about half a minute as compared to the general patient group. The significant time savings from DWC implementation were spent on patient's that needed more in-depth counselling. The average serving time reduced to 2.27 minutes, a reduction of 3.5%



## Spread Changes, Learning Points

### What are/were the strategies to spread change after implementation?

- Developed standardized responses and quick guides for staff
- Created Poster for patients to educate patient on the DWC option
- Formed subgroups in team for "marketing" and workflow refinement

### What are the key learnings from this project?

- Process Consistency:** Standardized scripts and procedures are crucial for ensuring all eligible patients are consistently offered the DWC option.
- Staff Engagement:** Regular feedback sessions and involvement in refinement processes enhance staff buy-in and improve implementation.
- Adaptive Implementation:** Continuous monitoring and willingness to adjust processes based on timely feedback leads to better outcomes.