

# Optimizing Waiting Time for Standard Assessment Room and Nurses Treatment Room in Geriatric clinic

# Project Team Member

Name	Designation	Role
Mazura	SSN	Leader
Hui Chi	ANC	Member
Yiting	PSAE	Member
Fara	PSAE	Member
Maggie	PSAE	Member
Pearly	PSAE	Member

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Title: Optimizing Waiting Time for Nurses Treatment Room in Geriatric clinic  
 Project Owner(s): Centre for Geriatric Medicine  
 Admin Leader: Mazura

Facilitator: Sister Xiuhua  
 Project Sponsor(s): Sister Xiuhua

1 2 3 4 5 6 7 8 9

Start Date: 1st April 2025  
 End Date: 31st Oct 2025  
 Current Date:

### 1. Reason for Action

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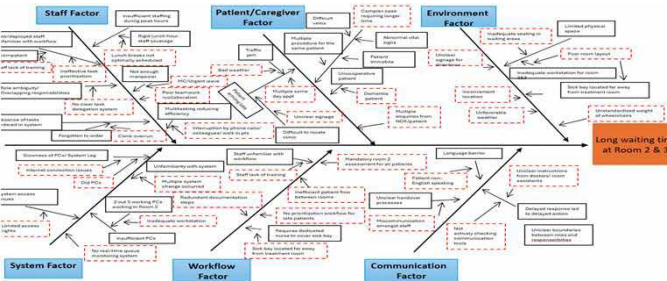
**Problem Statement:**  
 The department experiences extended waiting time in Standard Assessment Room and Nurses Treatment Room, causing compromised service delivery and operational bottlenecks.

**Scope:**  
 CGRM Staff

**Aim:**  
 Shorten Standard Assessment Room and Nurses Treatment Room waiting times in Geriatric clinic.

### 4. Gap / Needs Analysis

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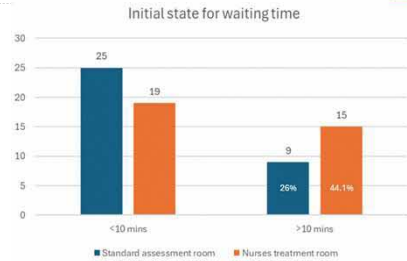
### 7. Completion Plan

Go No Go

Action	By Who	By When	Status
Deploy peak hour coverage optimization for Standard Assessment Room	PSA Supervisors	April 2025	Completed
Implement wheelchair weight standardization process	PSAS & HA	April 2025	Ongoing
Assign dedicated team lead for FVLate patient queue management	PSA Supervisors	April 2025	Completed
Fix PC 3 and add additional workstation in Standard Assessment Room	IT Support & Facilities	May 2025	Completed
Deploy Standard Assessment Room traffic controller with queue oversight responsibilities	Designated Senior PSAs	May 2025	Completed
Assign senior staff as traffic controller for Nurses Treatment Room queue management	Senior Nurse	April 2025	Completed
Implement First Visit priority system for Nurses Treatment Room	Nurses Treatment Room Nurses and NCs	April 2025	Completed
Establish late arrival protocol directing patients to Nurse Clinicians	PSAs, Nurses and NCs	April 2025	Completed
Conduct performance monitoring and data collection	Project Team	Ongoing	Completed
Achieve Standard Assessment Room target: 10% patients waiting >10 minutes	All Standard Assessment Room PSAs	October 2025	EXCEEDED (100% reduction achieved)
Achieve Nurses Treatment Room target: 20% patients waiting >10 minutes	All Nurses Treatment Room nurses	October 2025	NOT MET (38% current) - Will have follow up project 2 & 3

### 2. Initial State

Go No Go



### 5. Solution Approach

Go No Go

Solution Approach - Standard Assessment Room			Solution Approach - Nurses Treatment Room		
Case/Problem	Intervention Plans	Date of Implementation	Case/Problem	Intervention Plans	Date of Implementation
1. Case #1- Lunch breaks not optimally scheduled	Peak Hour Coverage Optimize staff deployment during high-volume periods	April 2025	1. Case #5B- No real-time queue monitoring system	Queue Management System Assigned senior staff as traffic controller to streamline patient flow	April 2025
2. Case #2- Unstandardized weight of wheelchairs	Wheelchair Weight Standardization Implemented consistent process for 170m wheelchair weight labelling to reduce unnecessary patient transfers	April 2025	2. Case #2B- inefficient patient flow between rooms	First Visit Priority Protocol Implemented FV queue prioritization to reduce waiting times	April 2025
3. Case #3B- No prioritization workflow for late patients	First Visit Late Patient Queue Management Assigned dedicated team lead to prioritize FV and late patient processing	April 2025	3. Case #3B- No prioritization workflow for late patients	Late Arrival Protocol Directorate use FV patients to Nurse Clinicians for immediate assessment with visual acuity testing and consultation	April 2025
4. Case #3B- No real-time queue monitoring system	IT Infrastructure Enhancement Fixed PC 3 and added third workstation with dedicated traffic controller	May 2025			

### 8. Confirmed State

Go No Go

**Standard Assessment Room Performance:**  
**Final Result : 0%** of patients waiting > 10 minutes  
**Improvement from Baseline: 100%** reduction (from 26% in March)

**Nurses Treatment Room Performance:**  
**Final Result : 38%** of patients waiting > 10 minutes  
**Improvement from Baseline: 13.8%** reduction (from 44.1% in March)

Month	Standard assessment room	Nurses treatment room
Mar	9 (26%)	15 (44.1%)
July	2 (5.9%)	10 (29.4%)
Oct	0	13 (38%)

### 3. Target State

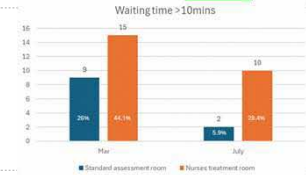
Go No Go

Reduce the percentage of patients waiting more than 10 minutes from 26% to 10% in Standard Assessment Room, and from 44.1% to 20% in Nurses Treatment Room within 3 months.

### 6. Rapid Experiments

Go No Go

**Target Achievement July 2025**  
 Standard Assessment Room: Reduce patients waiting >10 minutes from 26% to 5.9% (**exceeded target of 10%**)  
 Nurses Treatment Room: Reduce patients waiting >10 minutes from 44.1% to 29.4% (**approaching target of 20%**)



Reflections:

### 9. Insights

What are the fundamental lessons of the event & improvement cycle?

Go No Go

Actions for Spread?	What went well?	What did not go well?
<ul style="list-style-type: none"> <li>Replicate successful Standard Assessment Room model in other clinic areas.</li> <li>Create best practice guidelines for peak hour management across departments.</li> </ul>	<ul style="list-style-type: none"> <li>Standard Assessment Room achieved 100% reduction in waiting &gt; 10 minutes.</li> <li>Minimum 2 staff coverage during lunch break schedules ensured continuous service delivery.</li> <li>IT infrastructure improvements had immediate impact on Standard Assessment Room efficiency.</li> <li>Standardised wheelchair weight labels to hospital wheelchairs minimised patient transfers and improved efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>Nurses Treatment Room failed to meet target (38% vs 20% goal) and showed regression from July improvements.</li> <li>Treatment room operations more complex than anticipated.</li> <li>Sustainability measures insufficient for Nurses Treatment Room.</li> </ul>
	<ul style="list-style-type: none"> <li>Management support for resources and IT infrastructure.</li> <li>Dedicated traffic controller roles for patient flow management.</li> <li>Strong team collaboration.</li> </ul>	<ul style="list-style-type: none"> <li>Complex patient cases requiring more time.</li> <li>Ongoing IT system limitations beyond hardware fixes.</li> <li>Nurses Treatment Room lunch break staffing reduced, impacting continuous service delivery.</li> <li>Limited resources for extensive Nurses Treatment Room modifications.</li> </ul>

# Problem Statement

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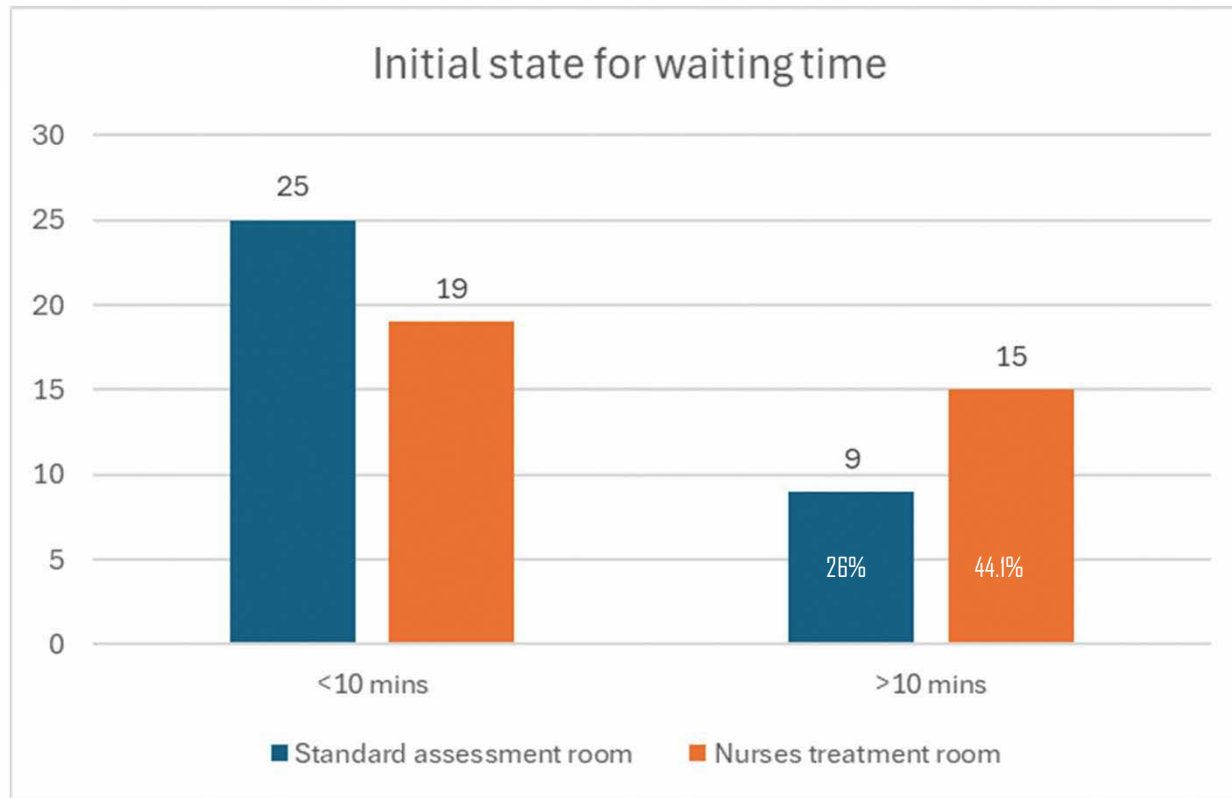
The department experiences extended waiting time in Standard Assessment Room and Nurses Treatment Room, causing compromised service delivery and operational bottlenecks.

# Aim

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Shorten Standard Assessment Room and Nurses Treatment Room waiting times in Geriatric clinic.

# Initial state for waiting time at Standard Assessment Room and Nurses Treatment Room – Mar 2025

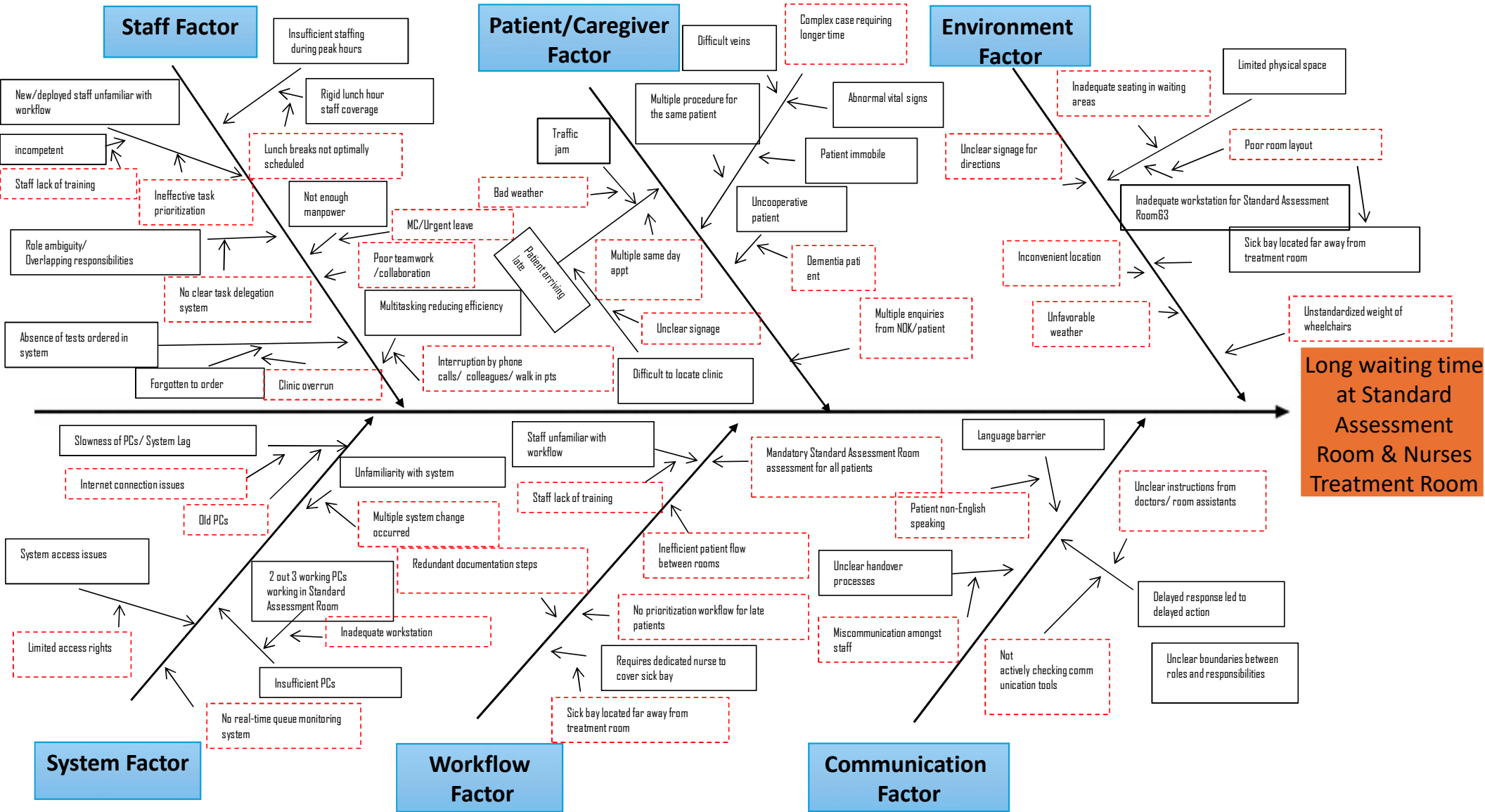


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# Target

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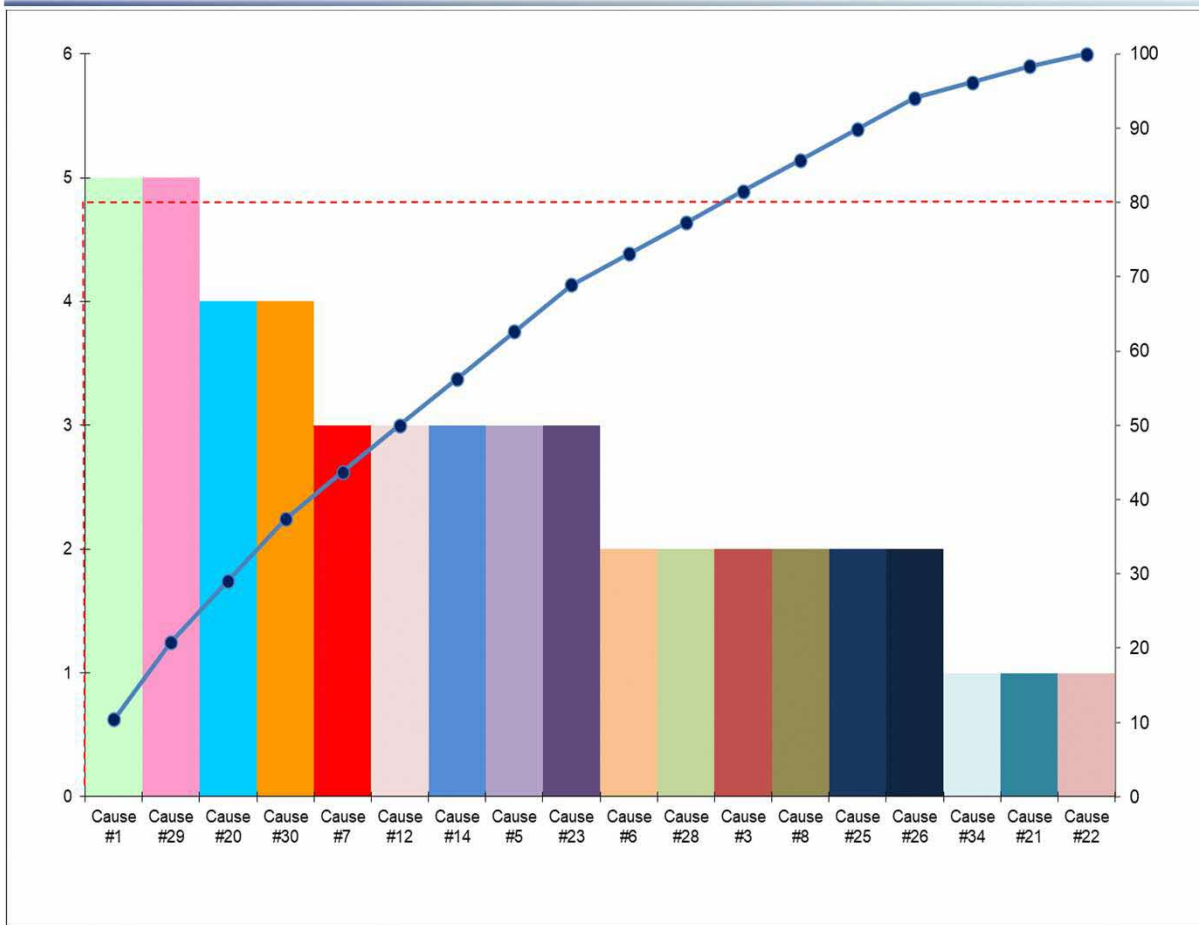
Reduce the percentage of patients waiting more than 10 minutes from 26% to 10% in Standard Assessment Room, and from 44.1% to 20% in Nurses Treatment Room within 3 months.



# Affinity Diagram

Staff Factor	Patient/ Caregiver Factor	Environment Factor	System Factor	Workflow Factor	Communication Factor
Ineffective task prioritization	Bad weather	Unclear signage for directions	Internet connection issues	Staff lack of training	Patient non-English speaking
Staff lack of training	Multiple same day appt	Inconvenient location	Limited access rights	Mandatory Standard Assessment Roomassessment for all patients	Miscommunication amongst staff
Poor teamwork / collaboration	Unclear signage	Unfavorable weather	Old PCs	Inefficient patient flow between rooms	Unclear instructions from doctors/ room assistants
Clinic overrun	Complex case requiring longer time	Inadequate seating in waiting areas	Multiple system change occurred	No prioritization workflow for late patients	
Lunch breaks not optimally scheduled	Dementia patient	Poor room layout	Inadequate workstation	Sick bay located far away from treatment room	
MC/Urgent leave	Multiple enquiries from NOK/patient	Unstandardized weight of wheelchairs	No real-time queue monitoring system		
Interruption by phone calls/ colleagues/ walk in pts					
No clear task delegation system					

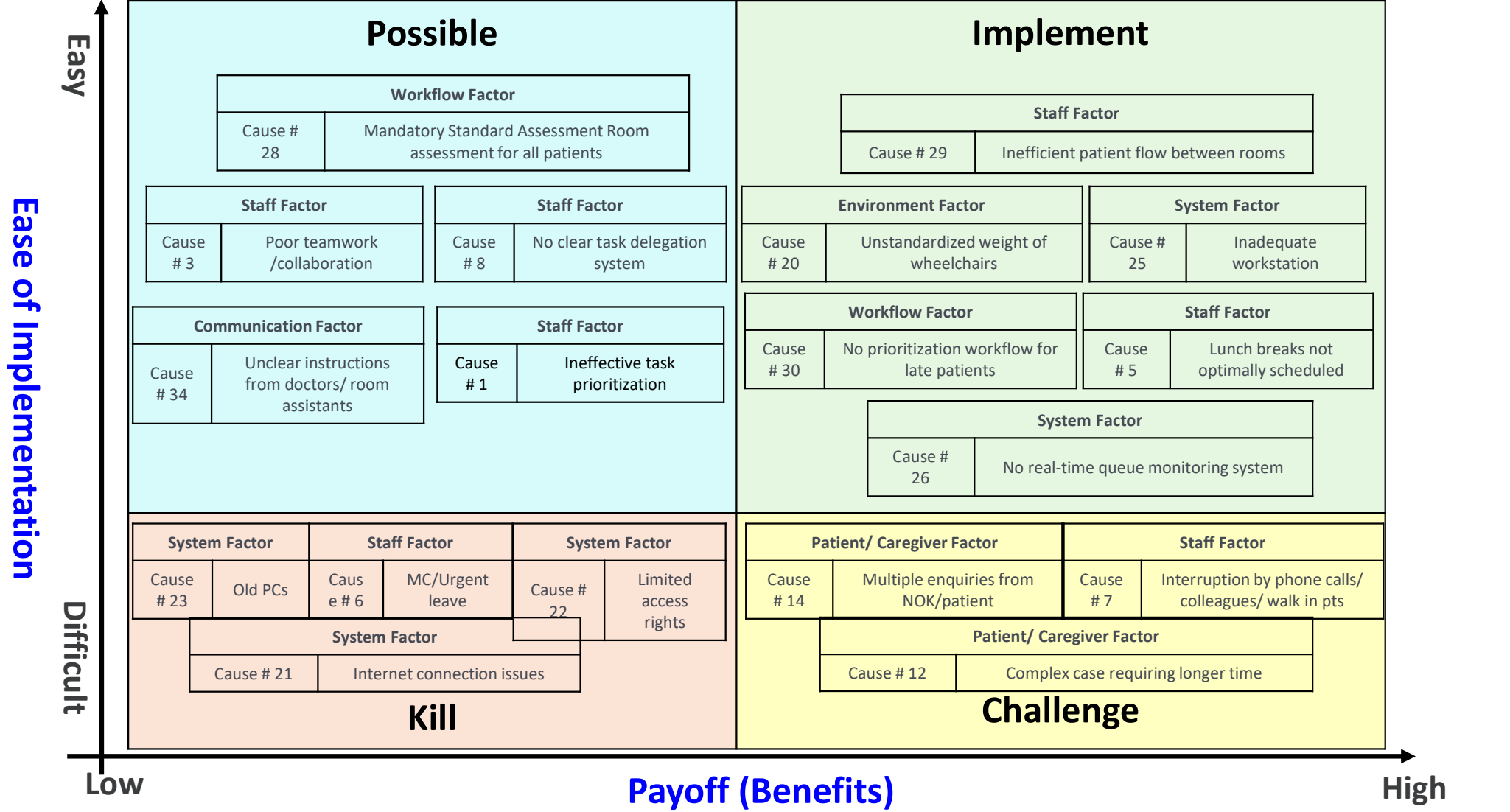
# Pareto Chart



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Top Voted Root Causes		1st round Votes	2nd round Votes	3rd round Votes
Cause #7	Interruption by phone calls/ colleagues/ walk in pts	6	2	3
Cause #12	Complex case requiring longer time	6	4	3
Cause #14	Multiple enquiries from NOK/patient	6	3	3
Cause #23	Old PCs	6	5	3
Cause #20	Unstandardized weight of wheelchairs	6	4	4
Cause #1	Ineffective task prioritization	5	2	5
Cause #6	MC/Urgent leave	5	4	2
Cause #28	Mandatory room 2assessment for all patients	5	3	2
Cause #13	Dementia patient	5	3	0
Cause #34	Unclear instructions from doctors/ room assistants	5	3	1
Cause #30	No prioritization workflow for late patients	5	4	4
Cause #3	Poor teamwork /collaboration	4	1	2
Cause #8	No clear task delegation system	4	3	2
Cause #11	Unclear signage	4	1	0
Cause #16	Inconvenient location	3	0	0
Cause #19	Poor room layout	3	0	0
Cause #32	Patient non-English speaking	3	1	0
Cause #25	Inadequate workstation	3	1	2
Cause #21	Internet connection issues	3	2	1
Cause #29	Inefficient patient flow between rooms	3	3	5
Cause #10	Multiple same day appt	2	1	0
Cause #15	Unclear signage for directions	2	1	0
Cause #33	Miscommunication amongst staff	2	0	0
Cause #26	No real-time queue monitoring system	2	1	2
Cause #5	Lunch breaks not optimally scheduled	2	1	3
Cause #9	Bad weather	1	0	0
Cause #22	Limited access rights	1	1	1

# PICK Chart



# Solution Approach - Standard Assessment Room

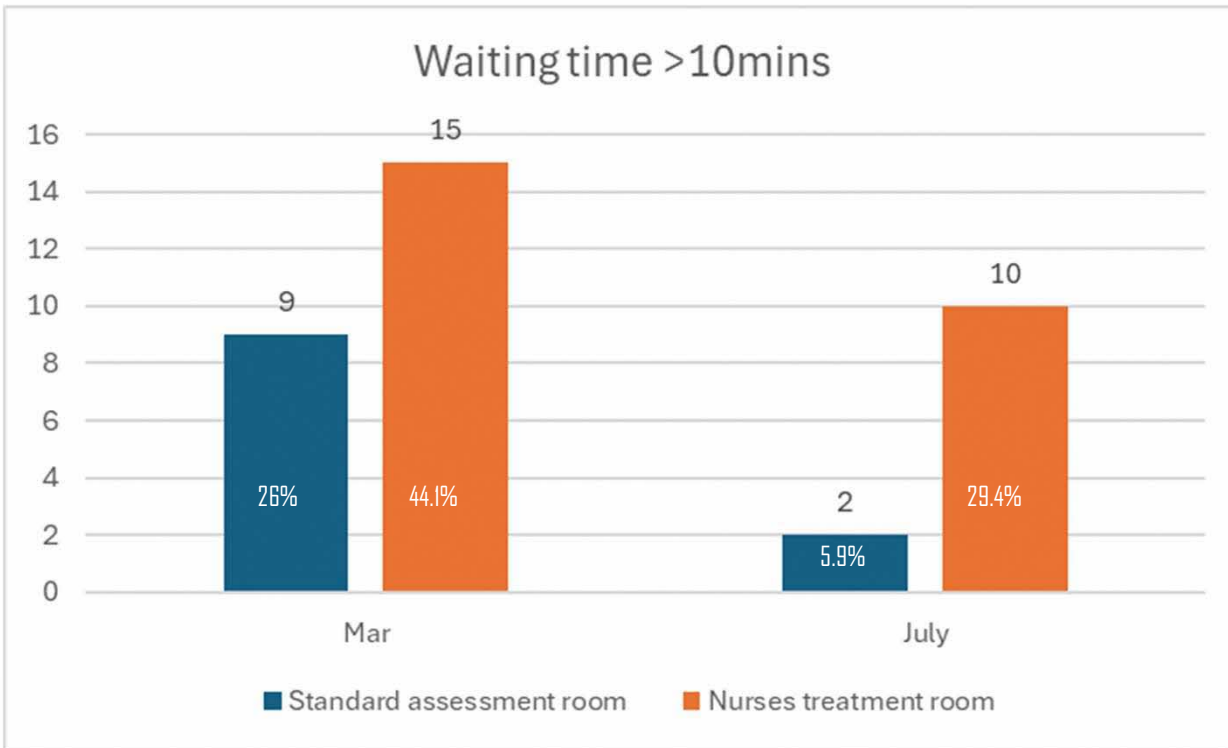
	Cause/ Problem	Intervention Plans	Date of Implementation
1	Cause #5 - Lunch breaks not optimally scheduled	<b>Peak Hour Coverage</b> Optimize staff deployment during high-volume periods	April 2025
2	Cause #20 - Unstandardized weight of wheelchairs	<b>Wheelchair Weight Standardization</b> Implemented consistent process for TTSH wheelchair weight labelling to reduce unnecessary patient transfers	April 2025
3	Cause #30 - No prioritization workflow for late patients Cause # 29 Inefficient patient flow between rooms	<b>First Visit/ Late Patient Queue Management</b> Assigned dedicated team lead to prioritize FV and late patient processing	April 2025
4	Cause #26 - No real-time queue monitoring system Cause #25 -Inadequate workstation	<b>IT Infrastructure Enhancement</b> Fixed PC 3 and added third workstation with dedicated traffic controller	May 2025

# Solution Approach - Nurses Treatment Room

	Cause/ Problem	Intervention Plans Nurses Treatment Room	Date of Implementation
1	Cause #26 - No real-time queue monitoring system Cause # 29 - Inefficient patient flow between rooms	<b>Queue Management System</b> Assigned senior staff as traffic controller to streamline patient flow	April 2025
2	Cause # 29 Inefficient patient flow between rooms	<b>First Visit Priority Protocol</b> Implemented FV queue prioritization to reduce waiting times	April 2025
3	Cause #30 - No prioritization workflow for late patients	<b>Late Arrival Protocol</b> Directed late FV patients to Nurse Clinicians for immediate assessment with visual acuity testing post-consultation	April 2025

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# Rapid Experiments



## Target Achievement July 2025:

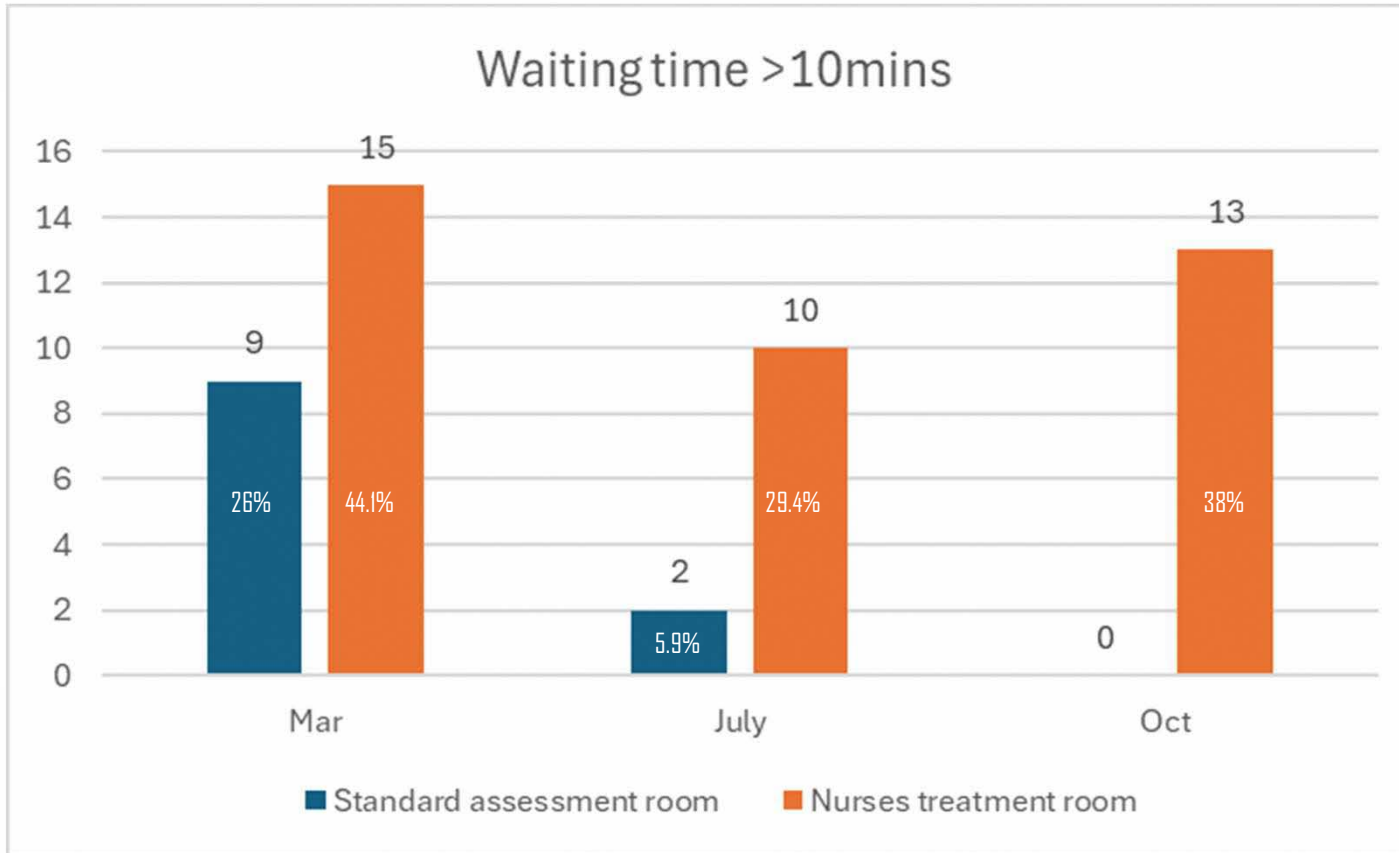
- Standard Assessment Room:  
Reduce patients waiting >10 minutes from 26% to 5.9% (exceeded target of 10%).
- Nurses Treatment Room:  
Reduce patients waiting >10 minutes from 44.1% to 29.4% (approaching to target of 20%).

# Completion Plan

Action	By Who	By When	Status
Deploy peak hour coverage optimization for Standard Assessment Room	PSA Supervisors	April 2025	✔ Completed
Implement wheelchair weight standardization process	PSAS & HA	April 2025	Ongoing
Assign dedicated team lead for FV/Late patient queue management Standard Assessment Room	PSA Supervisors	April 2025	✔ Completed
Fix PC 3 and add additional workstation in Standard Assessment Room	IT Support & Facilities	May 2025	✔ Completed
Deploy Standard Assessment Room traffic controller with queue oversight responsibilities	Designated Senior PSAs	May 2025	✔ Completed
Assign senior staff as traffic controller for Nurses Treatment Room queue management	Senior Nurse	April 2025	✔ Completed
Implement First Visit priority system for Nurses Treatment Room	Nurses Treatment Room Nurses and NCs	April 2025	✔ Completed
Establish late arrival protocol directing patients to Nurse Clinicians	PSAS, Nurses and NCs	April 2025	✔ Completed
Conduct performance monitoring and data collection	Project Team	Ongoing	✔ Completed
Achieve Standard Assessment Room target: 10% patients waiting >10 minutes	All Standard Assessment Room PSAs	October 2025	✔ <b>EXCEEDED</b> (100% reduction achieved)
Achieve Nurses Treatment Room target: 20% patients waiting >10 minutes	All Nurses Treatment Room nurses	October 2025	<b>NOT MET</b> (38% current) - Project 2.0 for further intervention

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# Confirmed State



## Final Project Status (October 2025):

- Standard Assessment Room: Complete success with 100% elimination of extended waiting times.
- Nurses Treatment Room: Partial success requiring additional intervention strategies.
- Overall: Mixed results with excellent Standard Assessment Room outcomes and ongoing Nurses Treatment Room challenges.

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# Confirmed State Summary

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## Standard Assessment Room Performance:

- Final Result : 0% of patients waiting >10 minutes
- Improvement from Baseline: 100% reduction (from 26% in March 2025)
- Target Achievement: EXCEEDED TARGET (target was 10%)
- Status: **COMPLETE SUCCESS**

## Nurses Treatment Room Performance:

- Final Result : 38% of patients waiting >10 minutes
- Improvement from Baseline: 13.8% reduction (from 44.1% in March)
- Target Achievement: TARGET NOT MET (target was 20%, gap of 18%)
- Status: **REQUIRES FURTHER INTERVENTION**

# Insight

## Actions for Spread?

- Replicate successful Standard Assessment Room model in other clinic areas.
- Create best practice guidelines for peak hour management across departments.

## What went well?

- Standard Assessment Room achieved 100% reduction in waiting >10 minutes.
- Minimum 2 staff coverage during lunch break schedules ensured continuous service delivery.
- IT infrastructure improvements had immediate impact on Standard Assessment Room efficiency.
- Standardised wheelchair weight labels to hospital wheelchairs minimised patient transfers and improved efficiency.

## What helped?

- Management support for resources and IT infrastructure.
- Dedicated traffic controller roles for patient flow management.
- Strong team collaboration.

## What did not go well?

- Nurses Treatment Room failed to meet target (38% vs 20% goal) and showed regression from July improvements.
- Treatment room operations more complex than anticipated.
- Sustainability measures insufficient for Nurses Treatment Room.

## What hindered?

- Complex patient cases requiring more time.
- Ongoing IT system limitations beyond hardware fixes.
- Nurses Treatment Room lunch break staffing reduced, impacting continuous service delivery.
- Limited resources for extensive Nurses Treatment Room modifications.



# Thank You

Tan Tock Seng Hospital • Khoo Teck Puat Hospital • Woodlands Hospital • Yishun Community Hospital • TTSH Integrated Care Hub  
Institute of Mental Health • National Skin Centre • National Centre for Infectious Diseases • NHG Cancer Institute • NHG Eye Institute • NHG Heart Institute  
Population Health • NHG Polyclinics • Diagnostics • Pharmacy • Community Care • NHG College • Centre for Healthcare Innovation