

# Improving the rate of specialist review for first visits at the General Surgery Specialist Outpatient Clinic from 41.8% to 80% within 3 months

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## Mission Statement

The General Surgery (GS) Specialist Outpatient Clinic (SOC) at Clinic 2A sees about 1900 new patients referred from the hospital emergency, inpatient or outpatient wards and polyclinics every month. Ministry of Health requires all first visits to be reviewed by a specialist, and the baseline rate for GS Department is 41.8%. This project aims to improve the rate to 80% within 3 months by November 2015, with a stretched target of 100%. The benefits of this project are twofold: it improves patient safety and reduces healthcare cost; which are aligned with Tan Tock Seng Hospital's value-driven healthcare strategy.

## Team Members

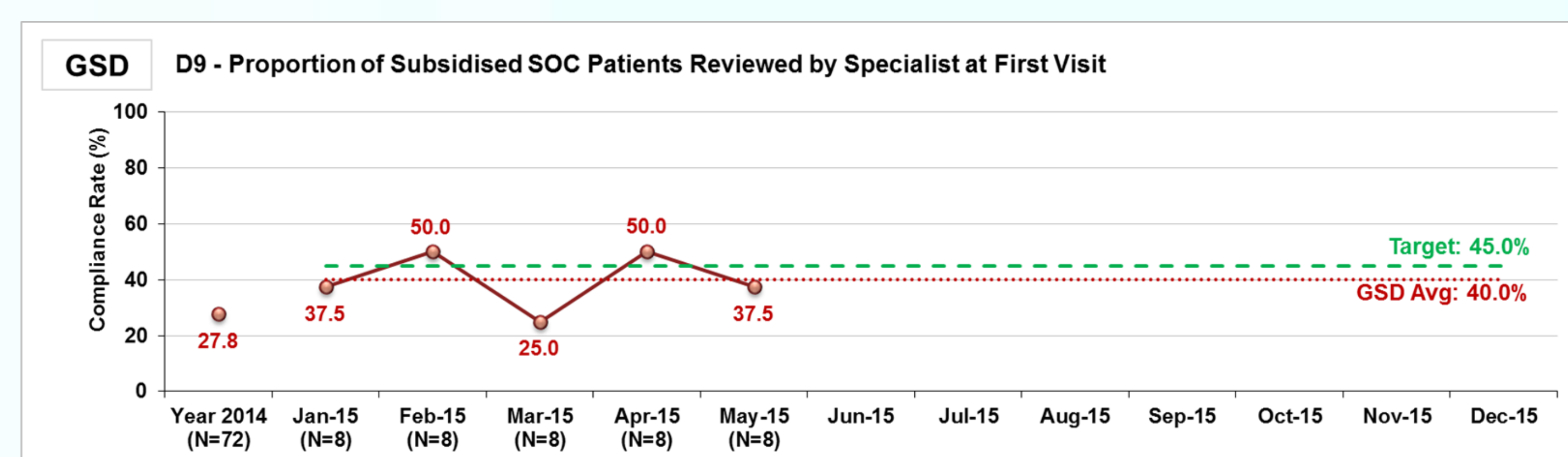
	Name	Designation	Department
<b>Team Leader</b>	Dr Chua Wei Chong	Consultant	GS
<b>Team Members</b>	Dr Tay Wee Ming	Snr Resident	GS
	Ms Sandy Chai	Manager	Ops (GS)
	Sister Bavani Deyvi	Manager	Clinic 2A
	Ms Choo Joon May	Asst Manager	Contact Centre
	Ms Cindy Lim	Snr Executive	Ops (GS)
	Ms Cheyenne Lee	Mgt Executive	Ops (GS)
	Ms Rash Tan	PSA Supervisor	Clinic 2A
	Mr Collin Bernard Kandiah	Asst Supervisor	Clinic 2A
<b>Sponsor</b>	A/Prof Chiu Ming Terk	Head of Dept	GS
<b>Facilitator</b>	A/Prof Prabha Unny Krishnan	Snr Consultant	Lab Medicine

## Evidence for a Problem Worth Solving

All first visits to the GS SOC should be reviewed by a specialist instead of a junior doctor, who may lack the experience to recognize symptoms that may point to potentially serious conditions. There was a delay in diagnosis of a critical illness in 2014, and complex conditions may not be adequately investigated, leading to wastage of valuable clinic resources.

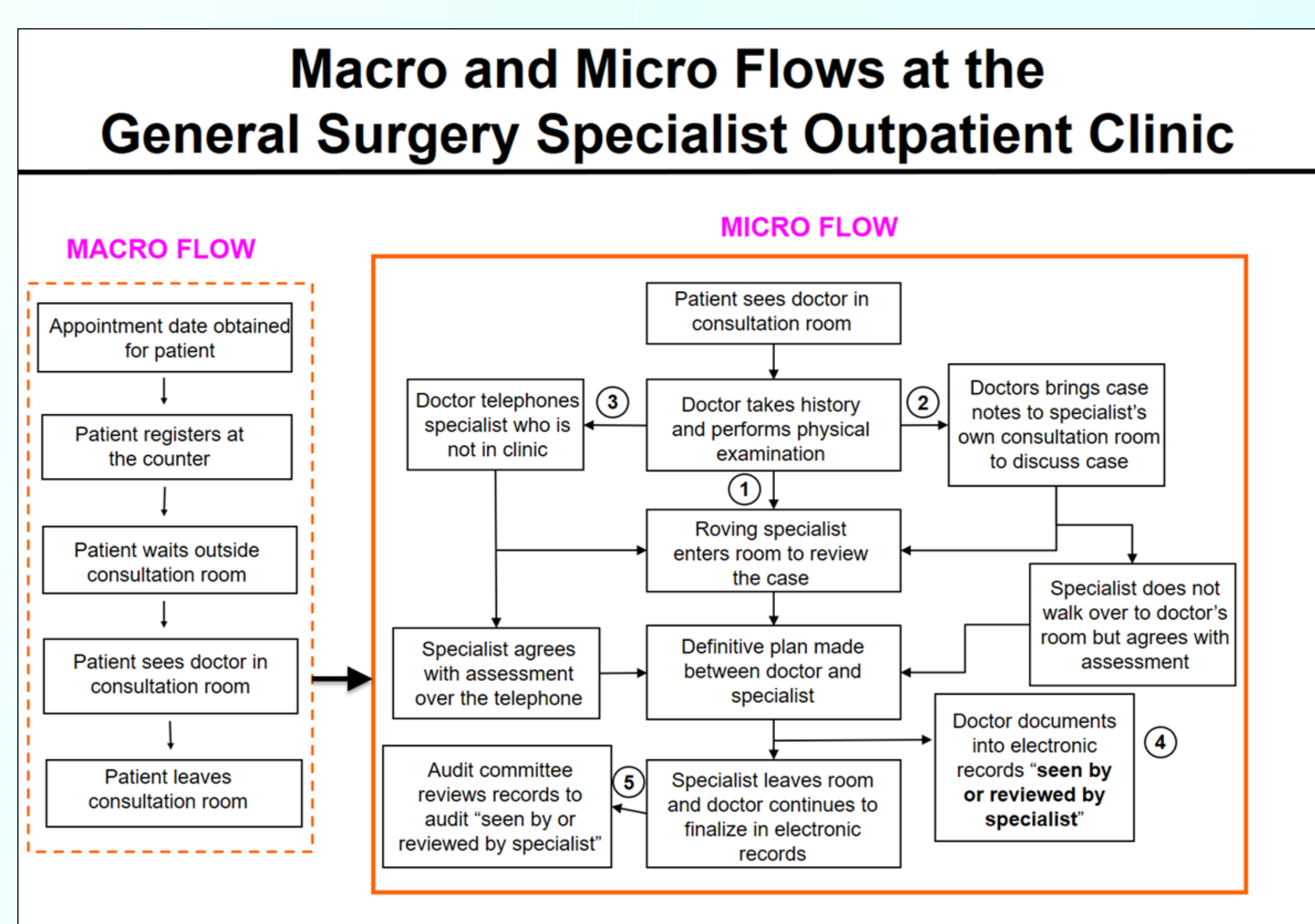
## Current Performance of a Process

The Office of Clinical Governance (OCG) independently audits the rate of first visits at all clinics and submits the data to MOH monthly. The baseline data below shows that more than half of the 1900 first visits per month to Clinic 2A were not reviewed by a specialist.

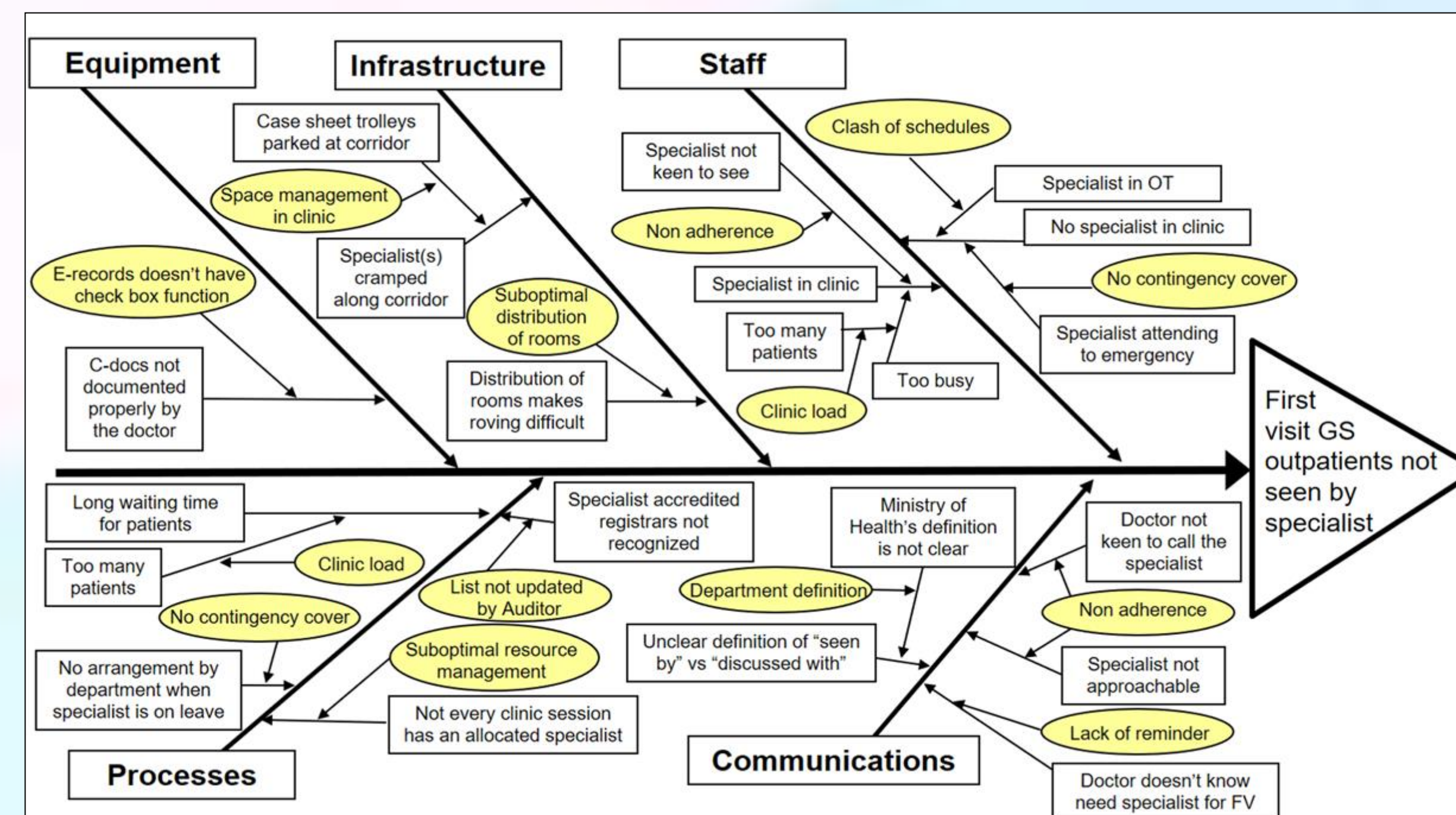


## Flow Chart of Processes

The macro and micro flows in Clinic 2A are mapped to identify possible areas where root causes can be found to address this problem.

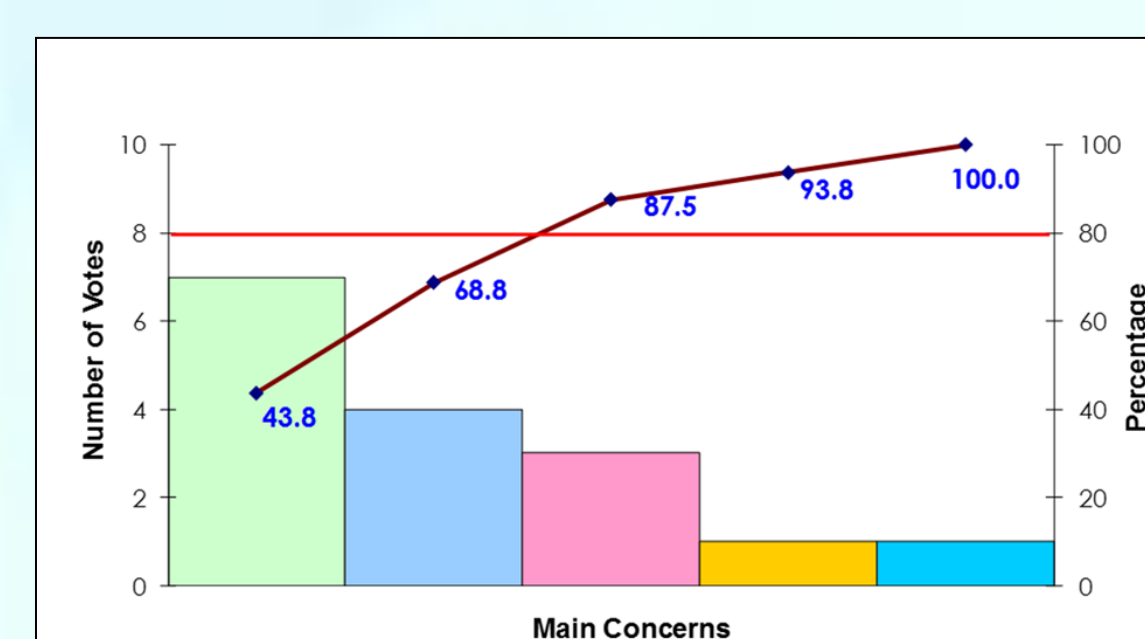


## Cause and Effect Diagram



## Pareto Chart

The Pareto Analysis is a formal method to identify the top causes that need to be addressed to resolve the majority of problems. Through this method, the top 3 root causes were selected, which would then be addressed sequentially to effect an improvement.



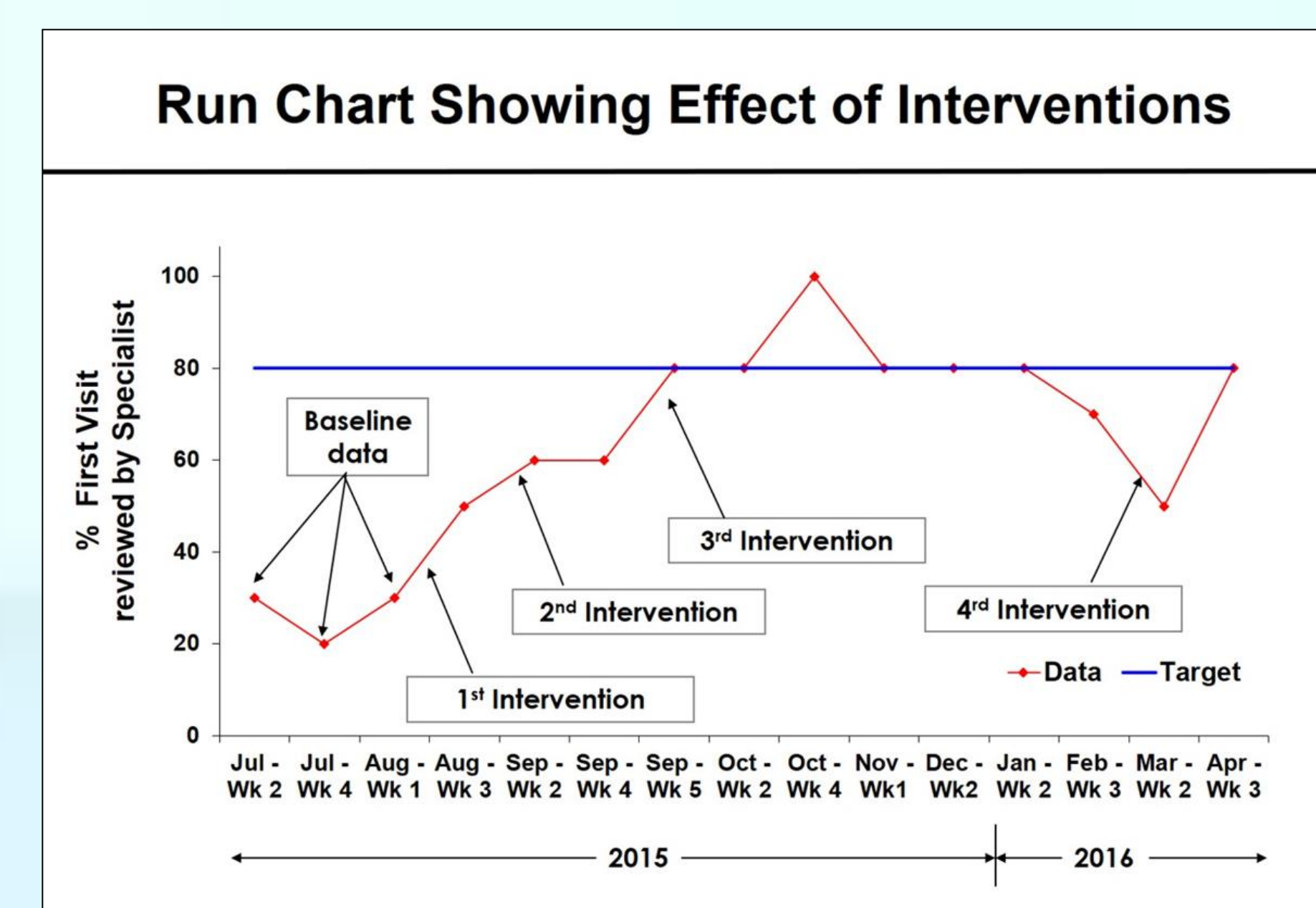
1	Non adherence of the specialist
2	No specialist assigned to the clinic
3	Lack of reminder to junior doctors
4	Clash of schedules (OT vs clinic)
5	No contingency cover

## Implementation

Problem	Intervention	Date
Non adherence of the specialist to rove Clinic 2A	Deliberate information management plan to GS Dept	13 <sup>th</sup> Aug 15
Lack of reminder to junior doctors to inform specialist	Visual reminder on all LCD screens in Clinic 2A	31 <sup>st</sup> Aug 15
No specialist assigned to some sessions in Clinic 2A	All clinics are assigned covering specialists for those on leave	28 <sup>th</sup> Sept 15
Clash of operating theatre and clinic schedules	Reassignment of clinic resource to deconflict OT and Clinic	22 <sup>nd</sup> Feb 16

## Results

The run chart illustrates the achievement of the target of 80% within 3 months, and even reached its stretched target of 100% in Oct 2015. A 4<sup>th</sup> intervention in Feb 2016 was introduced to address the dip, leading to a sustainable result.



## Cost Savings

There is a cost avoidance of S\$26,100 per month, assuming that patients not reviewed by a specialist during the first visit do not have a definitive decision made and "wasted" the visit: \$36 (cost of first visit) x 725 (patients who benefited from the project) = \$26,100.

## Problems Encountered

Some medical staff need regular reminders to follow through with the interventions. Providing good evidence changes mindsets. Proposed changes like adding a checkbox in C-Docs to remind doctors will incur additional time and costs.

## Strategies to Sustain

This practice has been incorporated into the on-boarding program brief for new doctors joining the GS Dept and PSAs joining Clinic 2A. Positive results are also disseminated to everyone to "celebrate small victories together", so that all staff will be motivated to continue with the interventions positively.