

Project Title

Proposed workflow to improve the dental operatory session utilisation rate

Project Lead and Members

Project lead: Dr Wong Li Beng

Project members: A/Prof Adrian Yap U Jin, Ho Fang Ting, Janet Ong, Wilson Tay,
Hayley Khng, Priscilla Low, Kelvin Lew

Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group Involved in this Project

Medical, Healthcare Administration

Applicable Specialty or Discipline

Dentistry

Aims

The aim of this project was to increase the dental operatory session utilisation rate from a mean of 78% (Jan 2019 to July 2019) to above 85% by Mar 2020. This increase would be necessary to maximize the utilisation of all the 10 dental operatories to accommodate the clinical sessions for all the full-time clinicians.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

Clinicians submitting their leave two (2) months in advance has improved the utilization target rate.

Lessons Learnt

Better coordination between the Ops Manager and Clinical Coordinator, clinician compliance to apply for leaves early and flexibility in workday arrangement have contributed to improved session utilization rate.

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign

Value Based Care, Operational Management, Resource Allocation

Keywords

Dental Operatory, Utilisation Rate

Name and Email of Project Contact Person(s)

Name: Dr Wong Li Beng

Email: [Li Beng Wong@nuhs.edu.sg](mailto:Li_Beng_Wong@nuhs.edu.sg)

PROPOSED WORKFLOW TO IMPROVE THE DENTAL OPERATORY SESSION UTILIZATION RATE

A/P ADRIAN YAP U JIN, DR WONG LI BENG, HO FANG TING, JANET ONG, WILSON TAY SER CHYE, KHNG EN LYN HAYLEY, PRISCILLA LOW NYUK CHENG, KELVIN LEW SIN MIN

Define Problem, Set Aim

Problem/Opportunity for Improvement

As of 1st Aug 2019, there were 13 full time clinicians in the Department of Dentistry, operating in both Ng Teng Fong General Hospital (NTFGH) and Jurong Medical Centre (JMC). There are currently 10 dental operatories available in NTFGH. From 1st Aug 2019, all the clinicians would be consolidated at NTFGH, there would thus be a shortage of dental operatories available for all the clinicians.

From Jan 2019 to July 2019, the monthly dental operator session utilisation rate ranges from 58-88% (mean 78%), which can be more optimally utilised to accommodate all the clinicians.

Aim

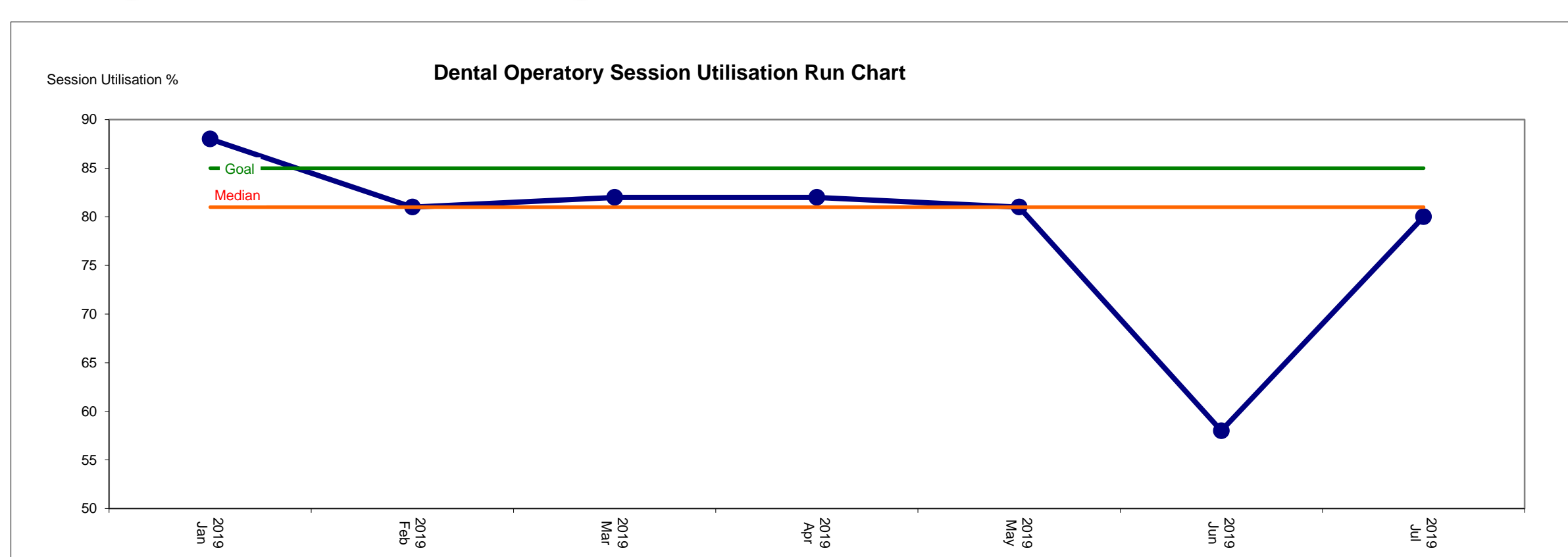
The aim of this project was to increase the dental operator session utilisation rate from a mean of 78% (Jan 2019 to July 2019) to above 85% by Mar 2020. This increase would be necessary to maximize the utilisation of all the 10 dental operatories to accommodate the clinical sessions for all the full-time clinicians

Establish Measures

Outcome measure: Dental operator session utilization rate (%)

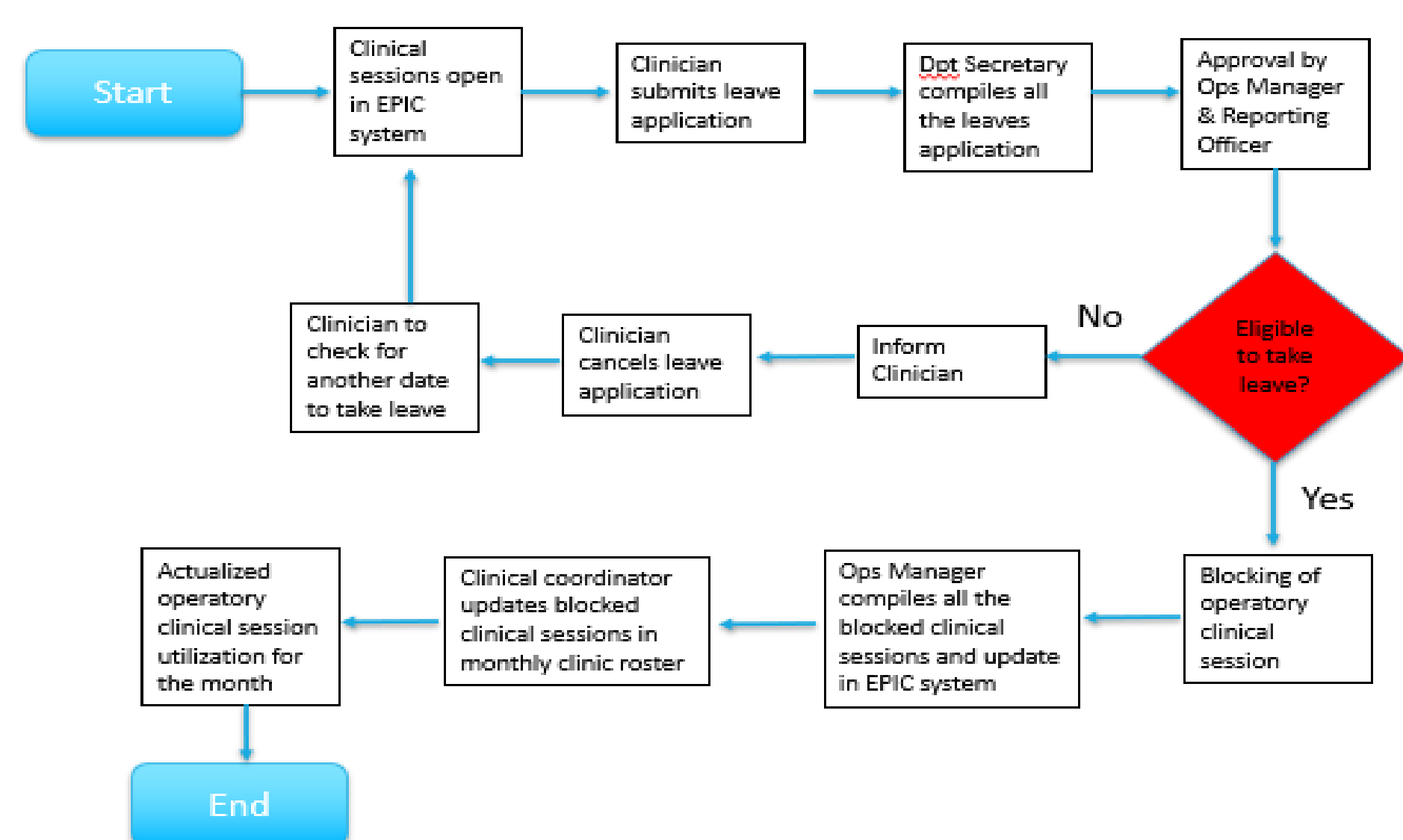
Process measure: Leave submission compliance rate (%)

Balancing measure: Average clinical FTE of all full-time clinicians

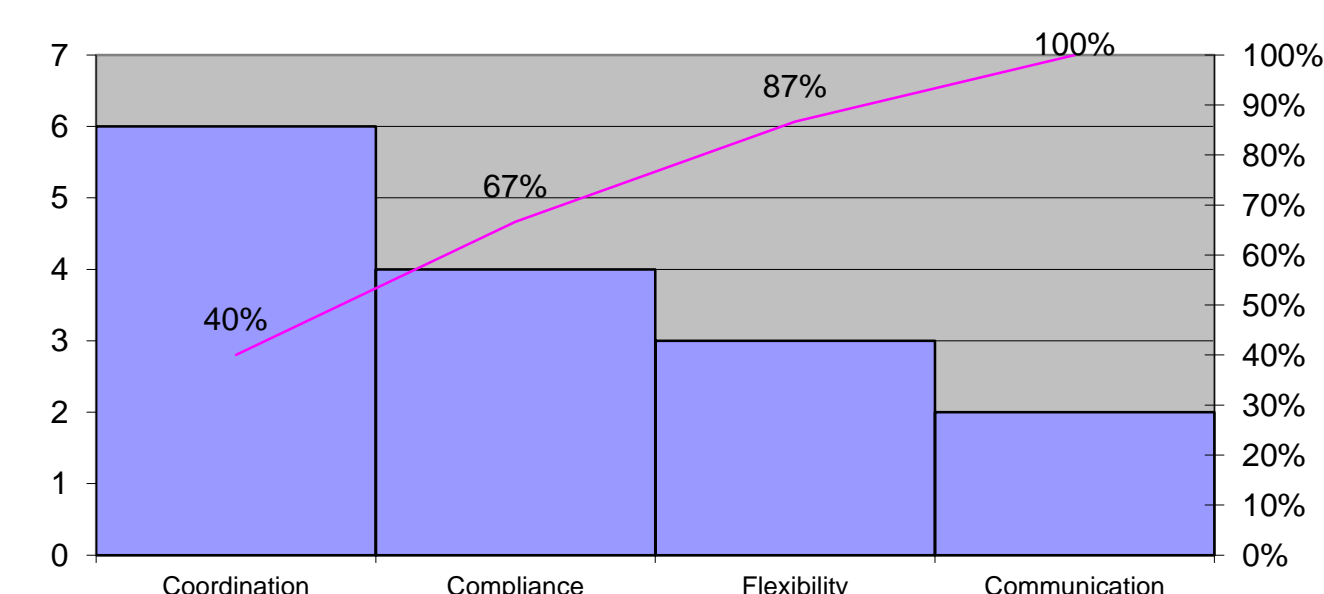
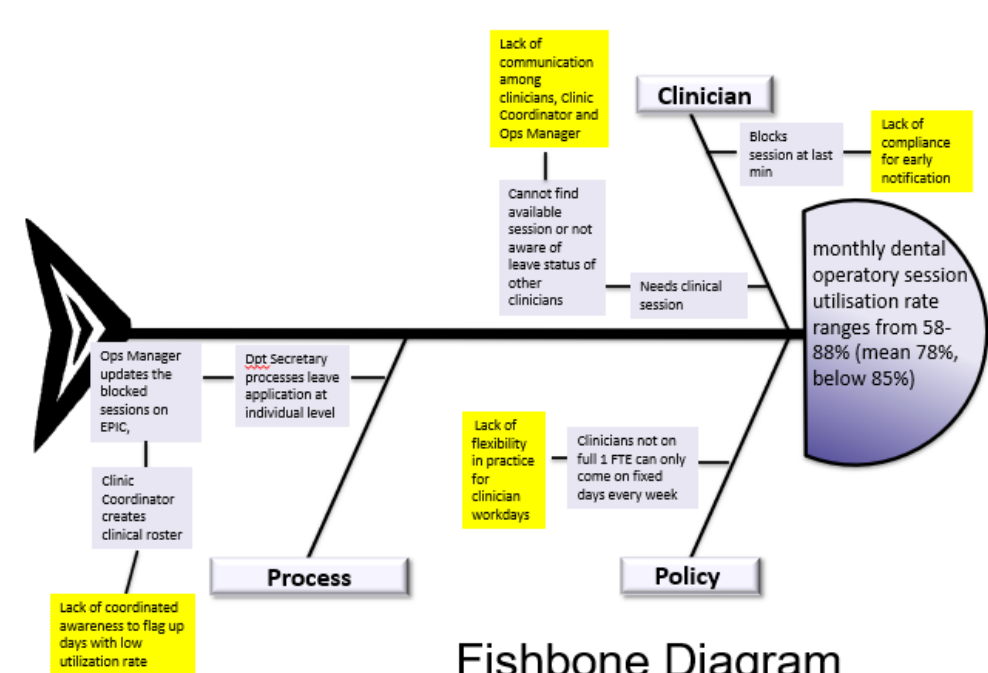


Analyse Problem

Current Process



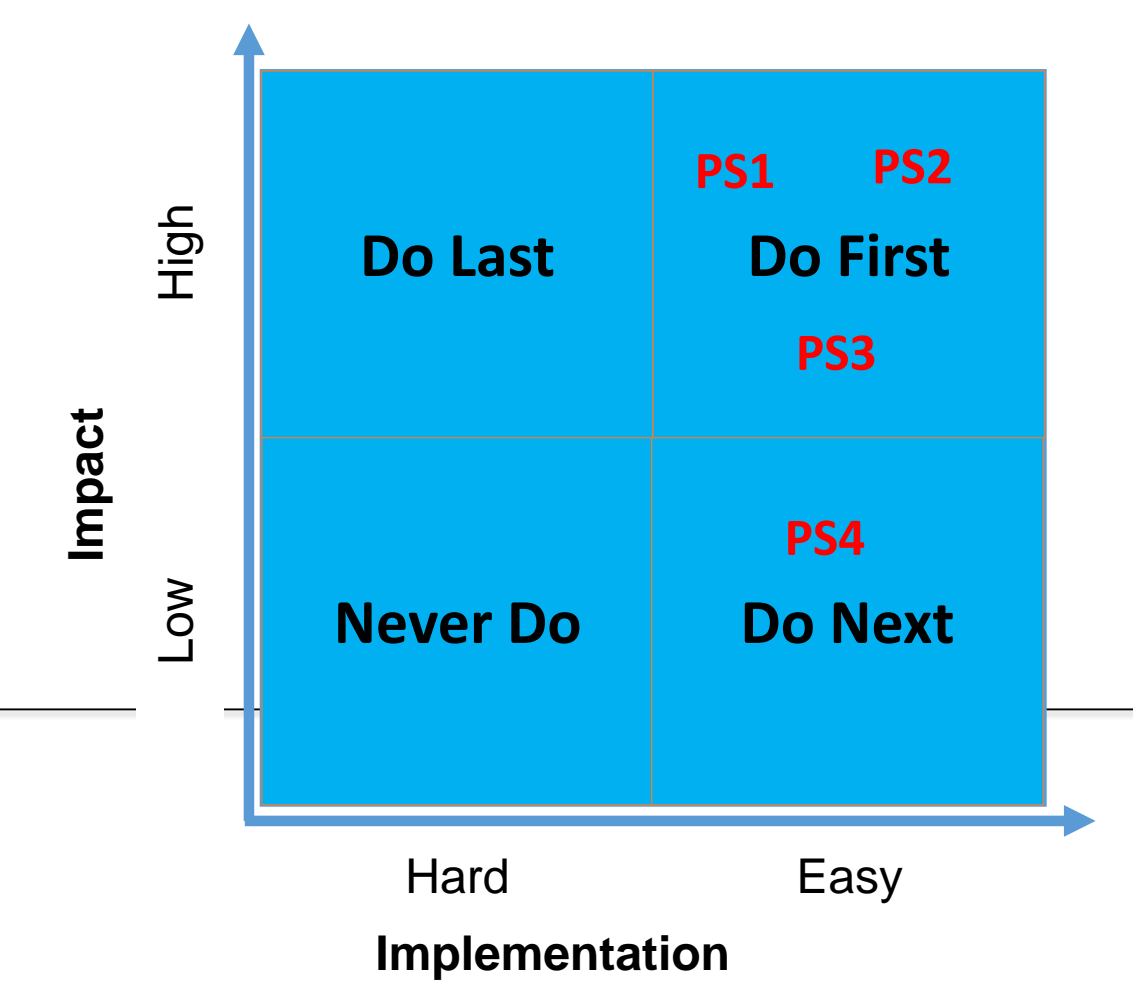
Probable Root Causes



- ☐ SAFETY
- ☐ QUALITY
- ☐ PATIENT EXPERIENCE
- ☒ PRODUCTIVITY
- ☐ COST
- ☒ TEAMWORK
- ☒ COMMUNICATION

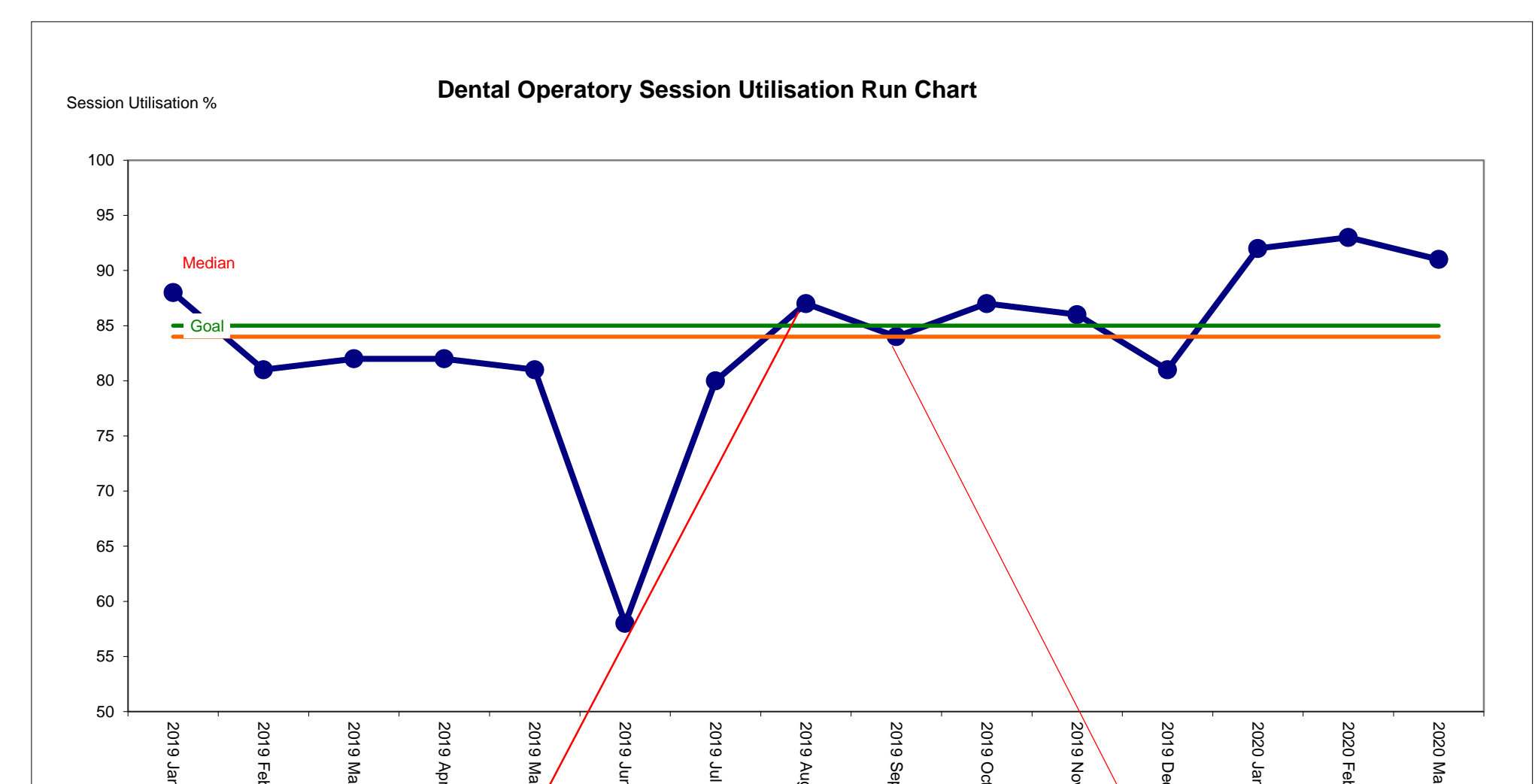
Select Changes

Root Cause		Potential Solutions
Lack of coordination	1	Ops Manager and Clinic Coordinator to compile total leave application, blocking of sessions and clinical roster together
Lack of compliance to apply leave 2 months in advance	2	Clinicians to be constantly reminded to apply their leaves and session blocking at least 2 months in advance
Lack of flexibility in practice for clinician workday	3	Clinicians who are not on full 1FTE be allowed for flexible workdays in a week to maximize the utilization of unused operator clinical sessions
Lack of communication among clinicians, Ops manager and Clinic Coordinator	4	Clinicians to inform Ops Manager and Clinic Coordinator 1 month in advance if they require additional sessions on certain days. Clinic Coordinator and Ops Manager will incorporate their "wish list" during clinic roster planning



Test & Implement Changes

Cycle	Plan	Do	Study	Act
1	Ops Manager and Clinic Coordinator to compile total leave application, blocking of sessions and clinical roster together Clinicians to be constantly reminded to apply their leaves and session blocking at least 2 months in advance Clinicians who are not on full 1FTE be allowed for flexible workdays in a week to maximize the utilization of unused operator clinical sessions	Started from 1 st Aug 2019 Feedback: The advance 2-month notice was important in terms of patient scheduling and for the clinicians to plan their work schedule.	Improvement in session utilization rate from 80% to 87%	Adopt the plan for the next cycle
2	As above + Clinicians to inform Ops Manager and Clinic Coordinator early if they require additional sessions on certain days. Clinic Coordinator and Ops Manager will incorporate their "wish list" during clinic roster planning	Started from 1 st Sep 2019	Session utilization rate dropped slightly from 87% to 84%	Adopt the plan for the next cycle
3	As above	Started from 1 st Oct 2019	Improvement in session utilization rate from 84% back to 87%	Adopt the plan for the next cycle

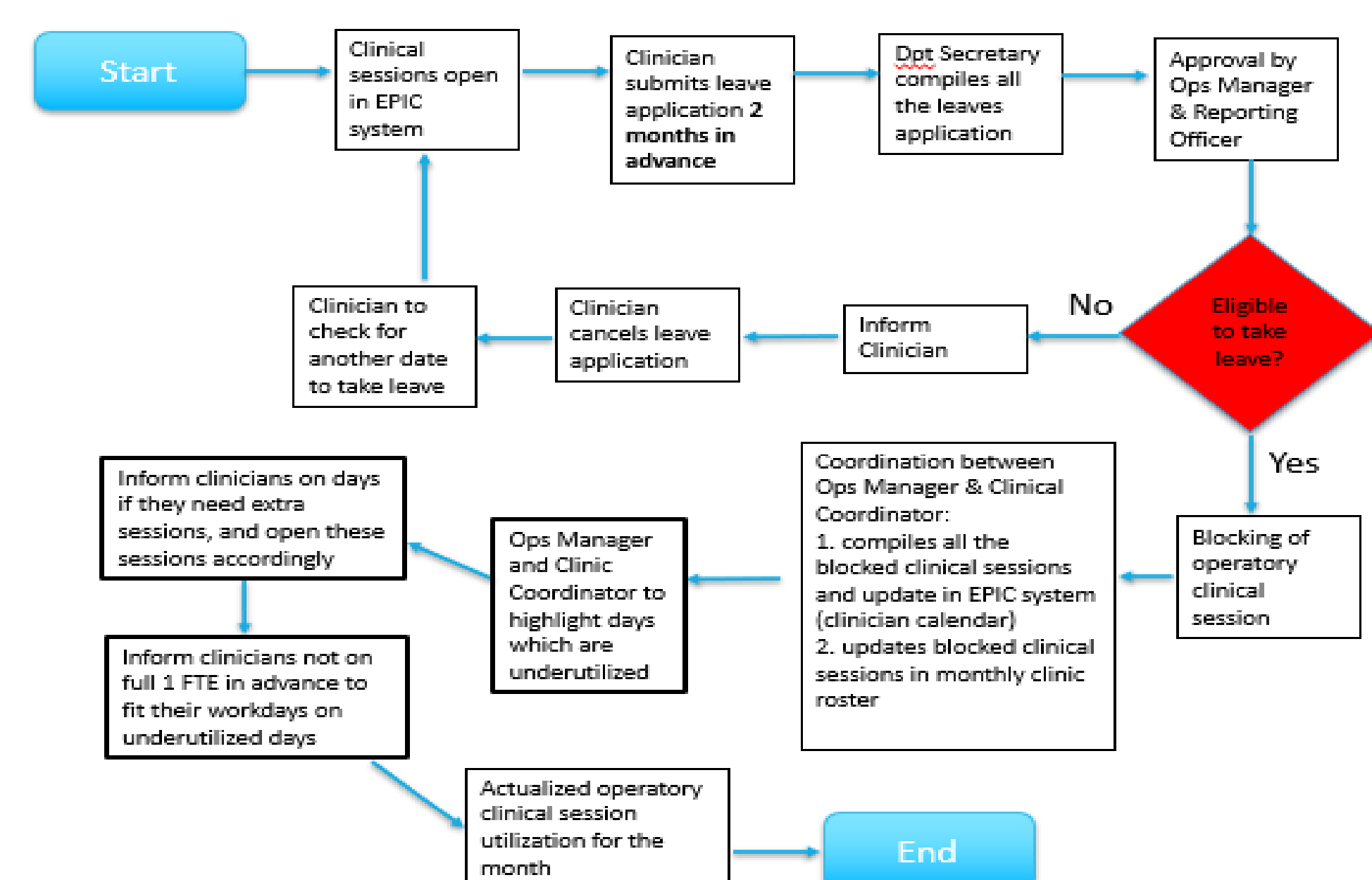


1. Ops Manager and Clinic Coordinator to compile total leave application, blocking of sessions and clinical roster together
2. Clinicians to apply their leaves and session blocking at least 2 months in advance
3. Clinicians who are not on full 1FTE be allowed for flexible workdays in a week

Clinicians to inform early if they require additional sessions on certain days.

Spread Changes, Learning Points

Improved Process



Key Learning

Better coordination between the Ops Manager and Clinical Coordinator, clinician compliance to apply for leaves early and flexibility in workday arrangement have contributed to improved session utilization rate.