Project Title

No Show Management – Reduction in Radiology DNA and Possible Clinic DNA

Project Lead and Members

Project lead: Nuradila Nordin

Project members: Siti Noraisah, Sri Rahayu, Dr Yeong Kuan Yuen, Dr Bernard Wee, Franco, Ivena, Normisah, Ameera

Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group(s) Involved in this Project

Allied Health, Healthcare Administration

Applicable Specialty or Discipline

Radiology, Orthopaedics, Contact Centre

Project Period

Start date: March 2020

Completed date: March 2021

Aims

The Radiology No Show Management Team intends to reduce Radiology DNA rate by 50% within 6 months for effective management of machine utilization and patient waiting list. Our goal includes collaboration with Clinics to reduce the possible Clinic DNA for TCU related with Radiology appointment.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

- Co-operation and effective communication between departments and staff were viable in making it a sounding success.

- Revisiting current workflow and implementing small changes could make an impact to others

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign, Value-Based Care, Safe Care, Adherence Rate

Keywords

Do Not Attend

Name and Email of Project Contact Person(s)

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NO SHOW MANAGEMENT – REDUCTION IN RADIOLOGY DNA AND POSSIBLE CLINIC DNA
(IN COLLABORATION WITH ORTHO CLINIC & CONTACT CENTRE)

☐ SAFETY ☑ PRODUCTIVITY
☐ QUALITY ☑ COST
☑ PATIENT EXPERIENCE

MEMBERS: NURADILA NORDIN, SITI NORAISAH, SRI RAHAYU
FACILITATORS: DR YEONG KUAN YUEN, DR BERNARD WEE, FRANCO, IVENA, NORMISAH, AMEERA

Define Problem, Set Aim

Problem/Opportunity for Improvement
In March 2020, the DNA rate for CT, MRI and Ultrasound was at 21% on average. These DNA resulted in lower machine utilization rate and higher appointment lead wait time for other patients. It had also indirectly caused a ripple DNA effect to Clinic's TCU with related Radiology appointment.
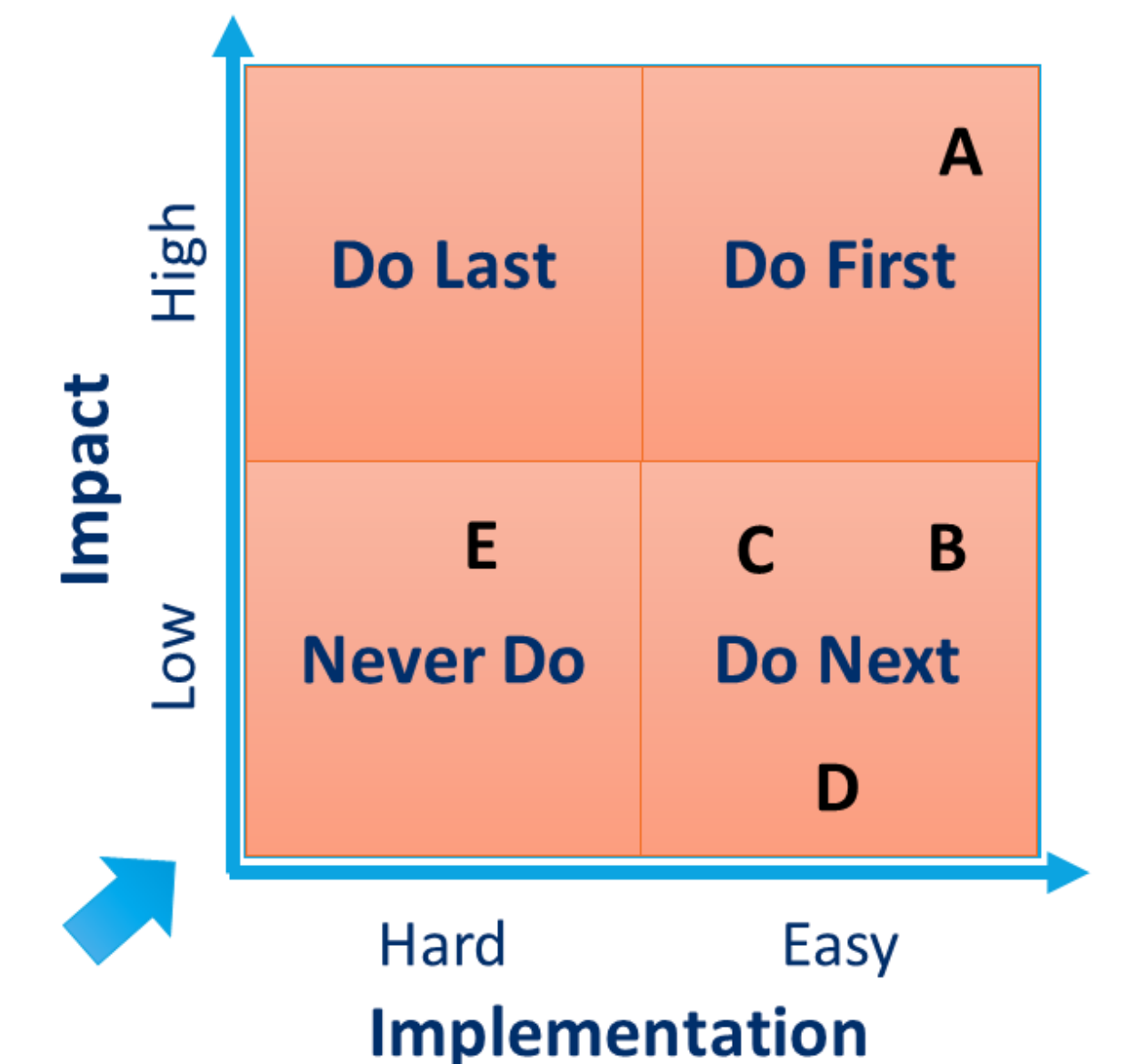
Aim
The Radiology No Show Management Team intends to reduce Radiology DNA rate by 50% within 6 months for effective management of machine utilization and patient waiting list. Our goal includes collaboration with Clinics to reduce the possible Clinic DNA for TCU related with Radiology appointment.
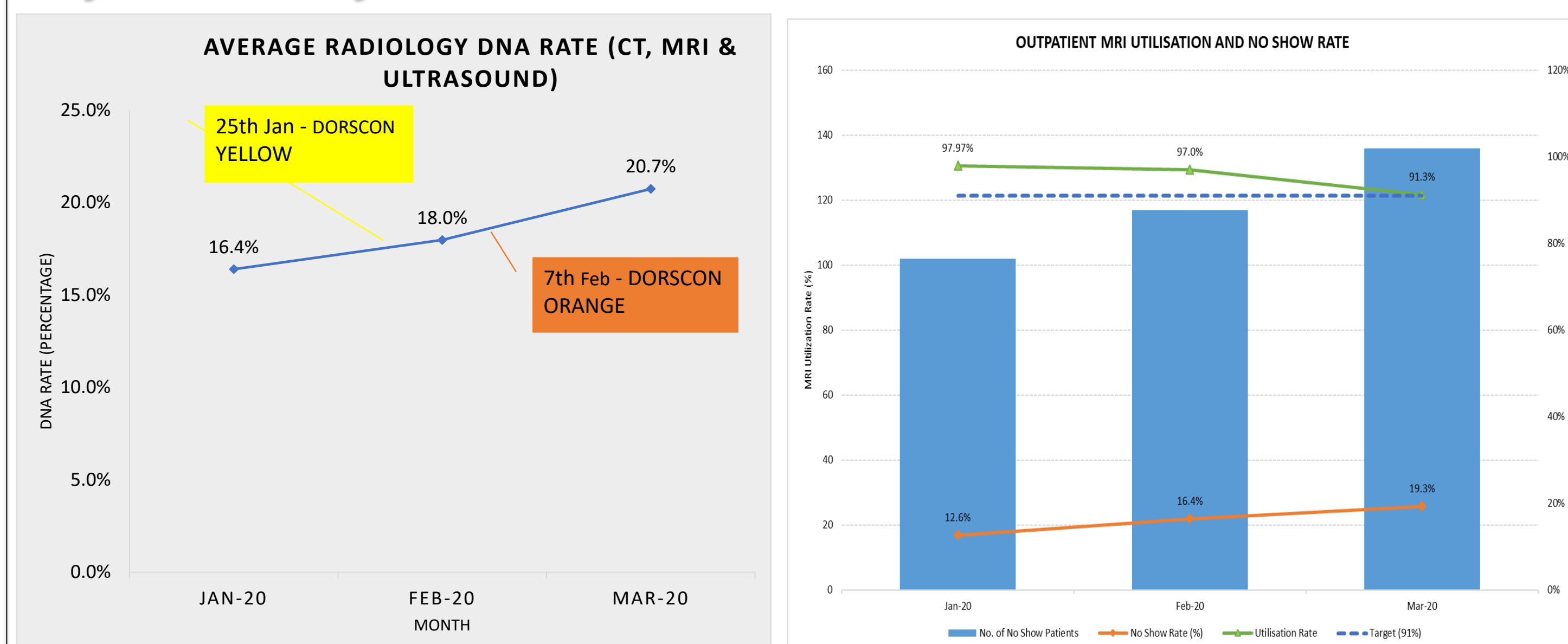
Establish Measures

Performance before intervention:

AVERAGE RADIOLOGY DNA RATE (CT, MRI & ULTRASOUND)
- 16.4% (Jan-20), 18.0% (Feb-20), 20.7% (Mar-20)
- 25th Jan – DORSCON YELLOW
- 7th Feb – DORSCON ORANGE

OUTPATIENT MRI UTILISATION AND NO SHOW RATE

Analyse Problem

Process before intervention:

1. SMS Response List

Start → 1. Contact Centre sends the filtered daily cancellation list yo NTFGH Radiology email → 2. Radiology PSA cancels scheduled appointment in EPIC → 3. Any Clinic TCU → YES → 3Y. Radiology PSA informs Clinic PSA of cancelled scan appointment → End; NO → End

GAP: "No response" reply not acted on

2. DNA List

Start → 1. When patient did not attend scan appointment → End

GAP: No updates to Clinic for Radiology DNA with Clinic TCU

Probable root causes:

Patient / System / Staff / Process

In March 2020, the DNA rate for CT, MRI and Ultrasound was on average at 21%

Select Changes

Probable solutions:

Root Cause		Potential Solutions
Did not receive appointment reminders	A	Request Contact Centre for full list of SMS response and act on "No Response" patient
	B	Call "No Response" patients 1 day before appointment (Specialised scans only)
	C	Send SMS if "No Response" patient is uncontactable after two attempts
	D	Call patients who needs to provide LOG 3 days before appointment
	E	Call all patients one day before appointment

Impact High/Low vs Implementation Hard/Easy:
- Do Last
- Do First (A)
- Never Do (E)
- Do Next (C, B, D)

Test & Implement Changes

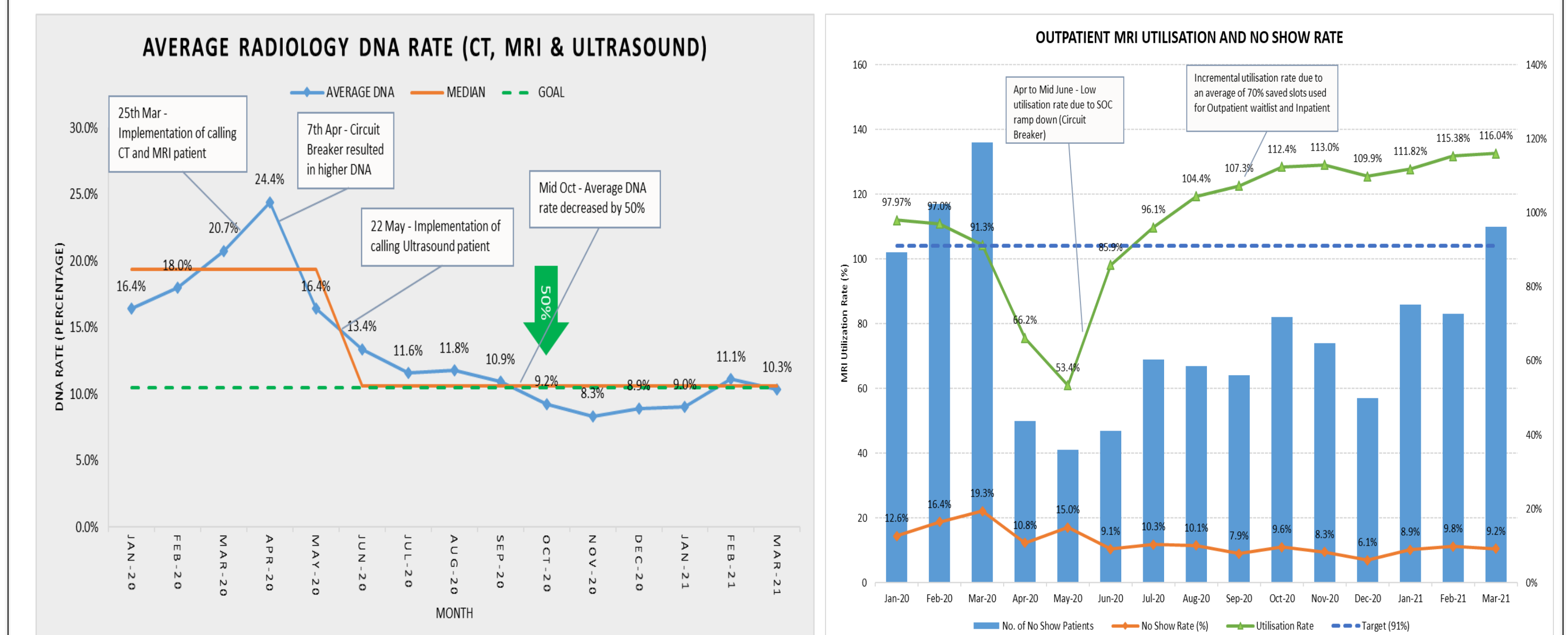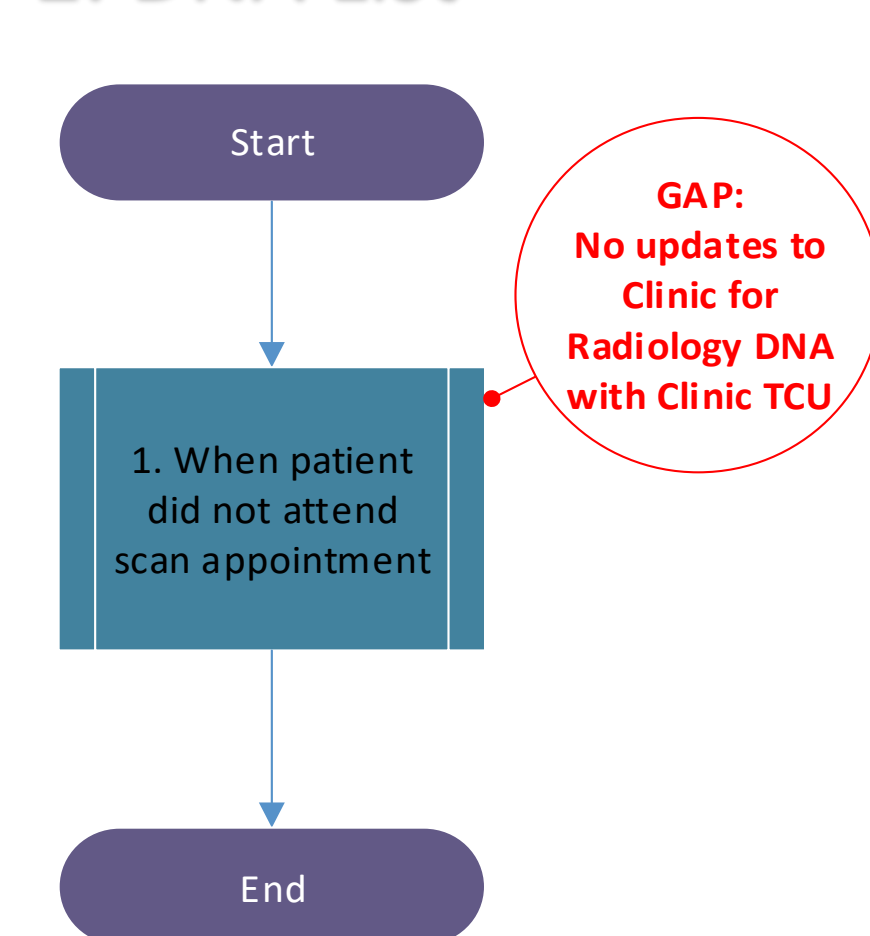| Cycle	Plan	Do	Study	Act
1	☐ Request from Contact Centre daily list of SMS response and filter for "Cancellation" and "No Response" ☐ Cancellation response – Cancel appointment in EPIC and TigerText Clinic ☐ No response – Attempt to call patient twice. To send SMS after two call attempts ☐ Non-citizen patients – Call patient 3 days before appointment to confirm availability of LOG	☐ Unfiltered list received from Contact Centre was exhaustive, yet able to segregate the SMS responses ☐ SMS reminder sent to patients who were uncontactable ☐ Appointments are rescheduled for non-citizen patients without LOG ☐ TigerTexts Clinic on cancellation or reschedule of appointments	☐ The data showed an average of 6% decrease after 2 months of implementation ☐ Effective communication between departments (SOC and Contact Centre) through TigerText	☐ To adopt this change ☐ The next change is the extraction of daily Radiology DNA with Clinic TCU list to pre-empt Clinic of possible DNA for Clinic TCU

AVERAGE RADIOLOGY DNA RATE (CT, MRI & ULTRASOUND)
- 25th Mar – Implementation of calling CT and MRI patient
- 7th Apr – Circuit Breaker resulted in higher DNA
- 22 May – Implementation of calling Ultrasound patient
- Mid Oct – Average DNA rate decreased by 50%

OUTPATIENT MRI UTILISATION AND NO SHOW RATE
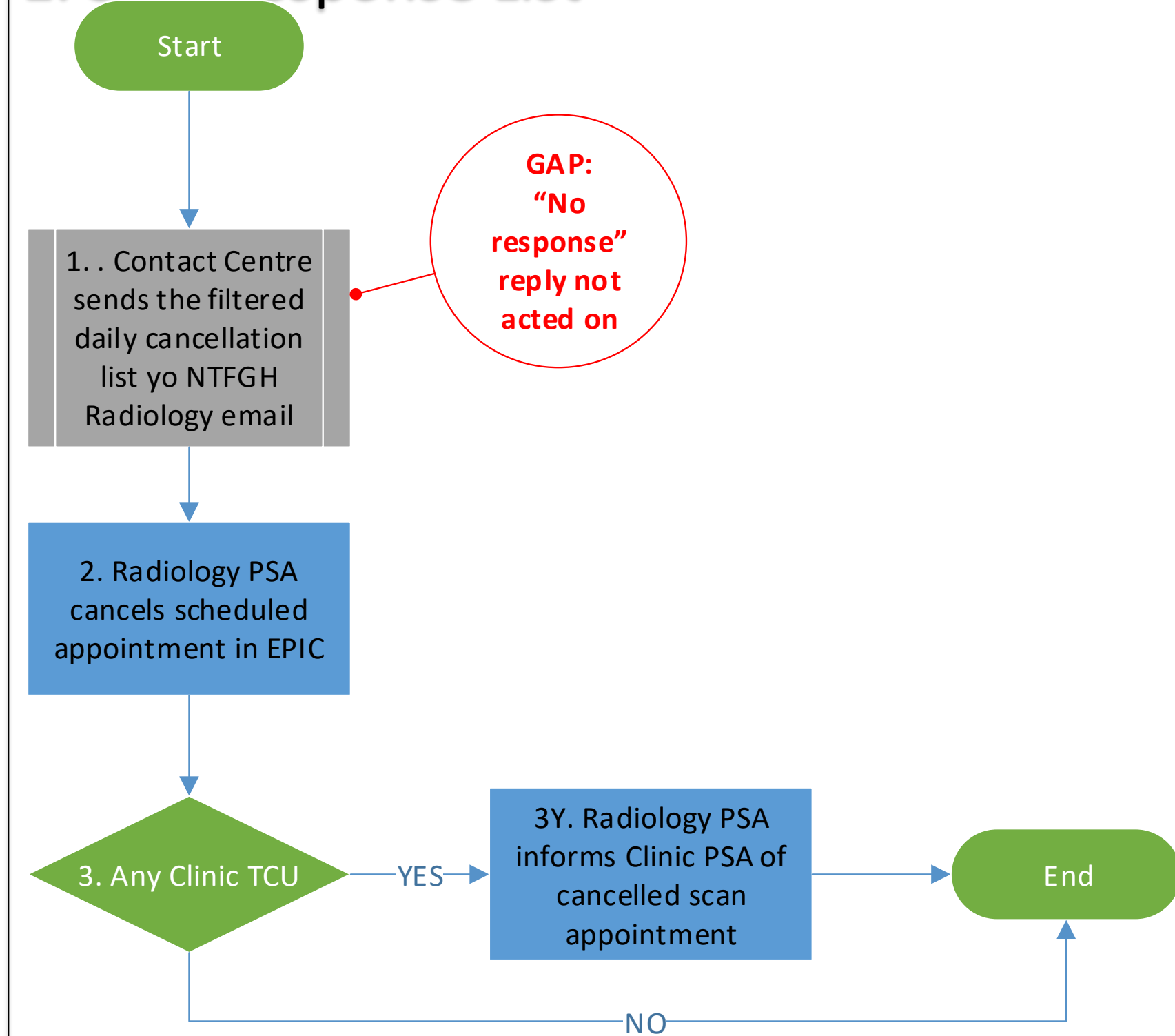
Spread Changes, Learning Points

The strategies to spread change after implementation:
With the reduction of CT and MRI DNA within 1.5 months, the change was spread to Ultrasound modality on 22 May 2020.

Key learnings from this project:
- Co-operation and effective communication between departments and staff were viable in making it a sounding success.
- Revisiting current workflow and implementing small changes could make an impact to others
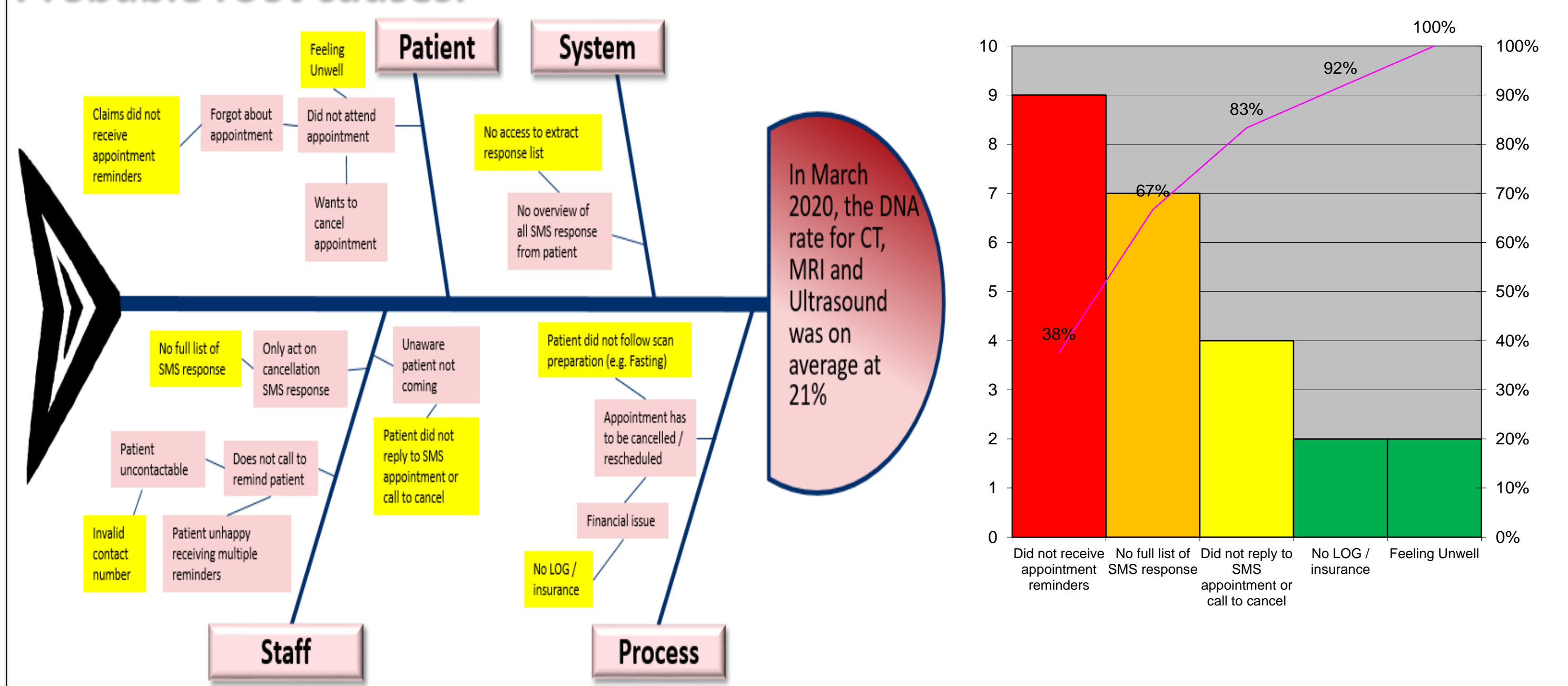
Monthly Average of 79 cancelled MRI Outpatient Slots
(Equivalent to $801 x 79 = $63,279 monthly revenue loss)
- 60% of these cancelled slots were utilized for MRI Outpatient waitlist/urgent cases ($63,279 x 60% = **$37,967 monthly sustained revenue**)
- 10% of these cancelled slots were utilized to clear Inpatient cases ($63,279 x 10% = **$6,328 monthly sustained revenue**) which also **indirectly eases BOR**

- On average per month about 50 Radiology DNA with Ortho Clinic TCU
- Equivalent to 50 possible saved Ortho Clinic TCU slots
- Provides foresight to Clinic on the possible TCU Clinic DNA

MRI OP CANCELLED SLOTS UTILISATION

RADIOLOGY DNA WITH ORTHO CLINIC TCU
- 55, 44, 62, 45, 41, 53

AVERAGE OF 50 POSSIBLE SAVED CLINIC TCU SLOTS PER MONTH

Ng Teng Fong General Hospital Jurong Community Hospital