Improving First Visit Attendance for Patients Referred from Medical Oncology Clinic to Palliative Medicine Clinic

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Tan Tock Seng HOSPITAL — National Healthcare Group

National Healthcare Group — Adding years of healthy life

Mission Statement

To improve the FIRST VISIT ATTENDANCE PERCENTAGE (FVAP)* of patients referred from Medical Oncology Clinic (MOC) to Palliative Medicine Clinic (PMC) from 64%** to 100%*** within 6 months

* First Visit Attendance Percentage (FVAP): Refers to first visit patients who are referred by MOC and seen in PMC clinic
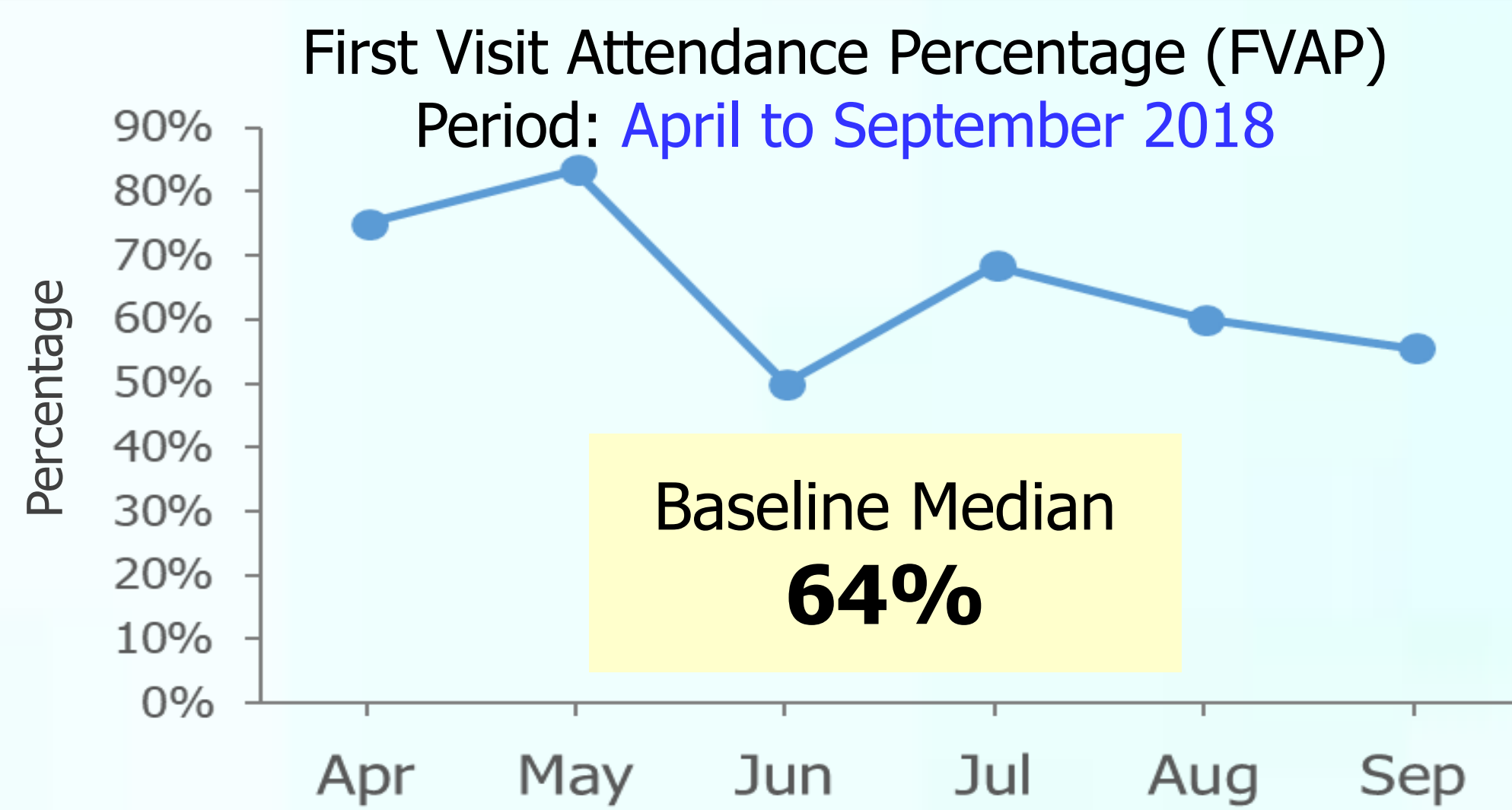** FVAP = Number of patients attended FV divide by Number of patients referred by MOC excluding those who died or were too weak
*** Exclude patients who were too weak or had died before clinic appointment

Team Members

	Name	Designation	Department
Team Leaders	Dr Ang Shih-Ling	Principal Resident Physician	Palliative Medicine
	Dr Yee Choon Meng	Senior Consultant	Palliative Medicine
Team Members	Siti Mariam Binte Jailani	Senior PSA	Clinic 5A
	Atiqah Nor Fatin	PSA	Clinic 5A
	Dr Troy Sullivan	Senior Consultant	Medical Oncology
	Amanda Guo	Operations Manager	CCC
Sponsors	Adj A/Prof Mervyn Koh Yong Hwang, Adj A/Prof Lavina Bharwani & Ms Sim Jin Yen		
Facilitator	Adj A/Prof Tan Hui Ling		

Legend
PSA = Patient Service Associate
CCC = Continuing & Community Care

Evidence for a Problem Worth Solving

First Visit Attendance Percentage (FVAP)
Period: April to September 2018

Baseline Median **64%**

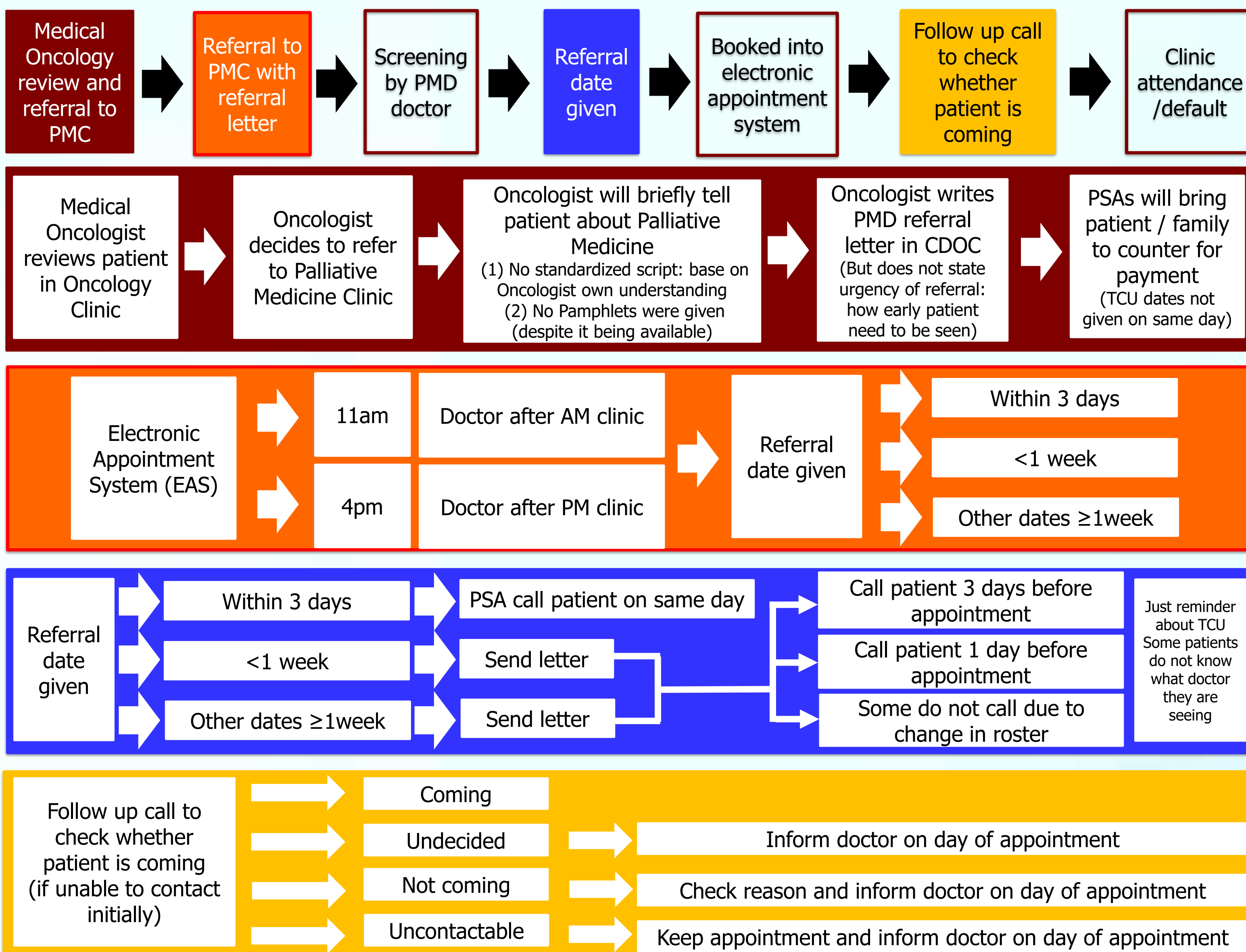| Year 2018	Apr	May	Jun	Jul	Aug	Sep
First Visit Attendance	12	5	3	13	6	5
Total Medical Oncology Patients Referred (minus too sick / RIP patients)	16	6	6	19	10	9

Impact of Missed Appointment to Patients with Advanced Cancer:
1) Worsen survival
2) Increased Emergency utilisation

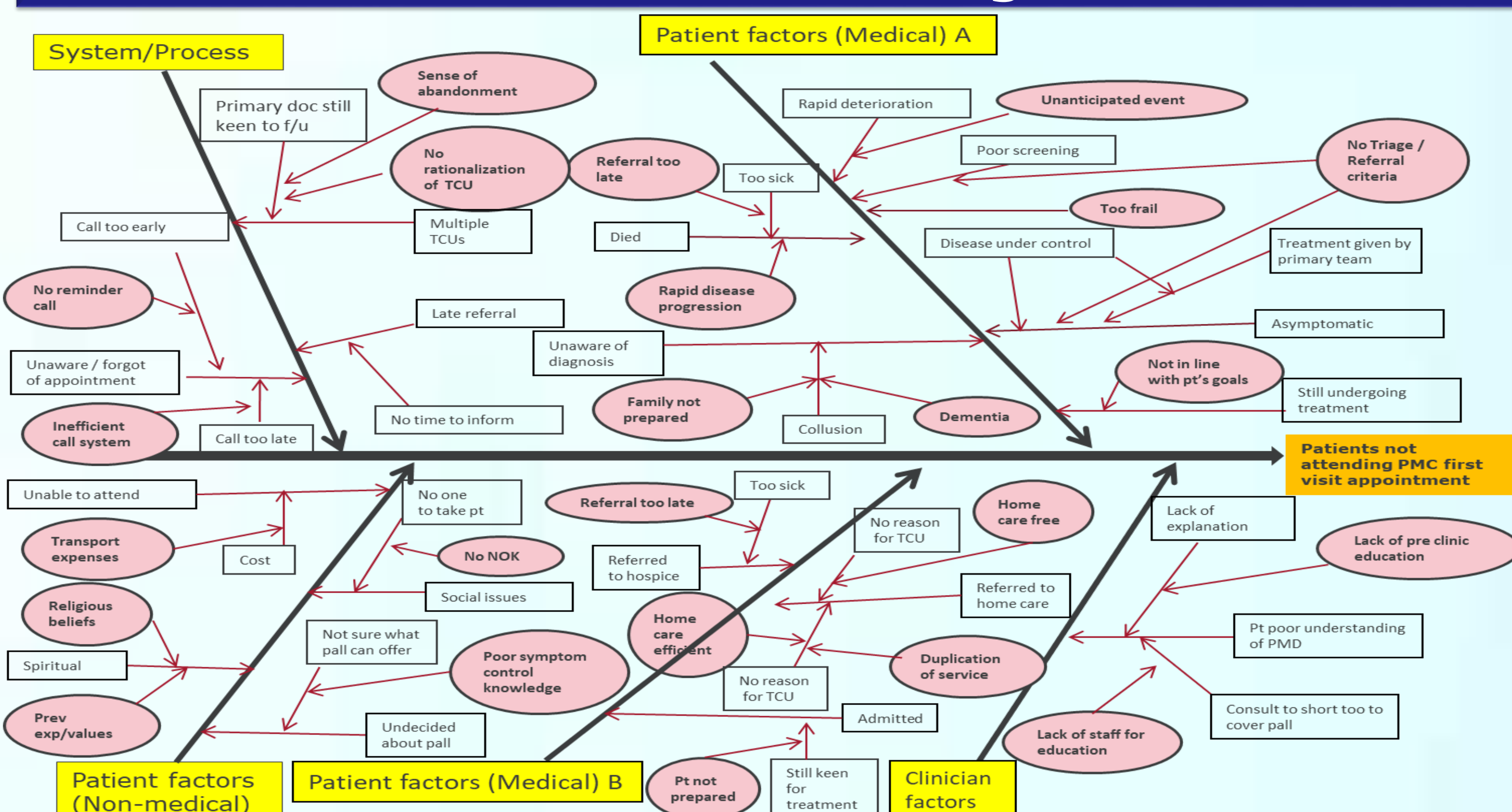Medical Oncology Clinic is the biggest Palliative Medicine Clinic referral source

Flow Chart of Process

Medical Oncology review and referral to PMC → Referral to PMC with referral letter → Screening by PMD doctor → Referral date given → Booked into electronic appointment system → Follow up call to check whether patient is coming → Clinic attendance /default

Medical Oncologist reviews patient in Oncology Clinic → Oncologist decides to refer to Palliative Medicine → Oncologist will briefly tell patient about Palliative Medicine (1) No standardized script: base on Oncologist own understanding (2) No Pamphlets were given (despite it being available) → Oncologist writes PMD referral letter in CDOC (But does not state urgency of referral: how early patient need to be seen) → PSAs will bring patient / family to counter for payment (TCU dates not given on same day)

Electronic Appointment System (EAS) → 11am Doctor after AM clinic / 4pm Doctor after PM clinic → Referral date given → Within 3 days / <1 week / Other dates ≥1week

Referral date given → Within 3 days → PSA call patient on same day / <1 week → Send letter / Other dates ≥1week → Send letter → Call patient 3 days before appointment / Call patient 1 day before appointment / Some do not call due to change in roster → Just reminder about TCU Some patients do not know what doctor they are seeing

Follow up call to check whether patient is coming (if unable to contact initially) → Coming / Undecided → Inform doctor on day of appointment / Not coming → Check reason and inform doctor on day of appointment / Uncontactable → Keep appointment and inform doctor on day of appointment

Cause and Effect Diagram

System/Process; Patient factors (Medical) A; Sense of abandonment; Primary doc still keen to f/u; No rationalization of TCU; Multiple TCUs; Referral too late; Too sick; Rapid deterioration; Poor screening; Too frail; Unanticipated event; No Triage / Referral criteria; Call too early; Died; Disease under control; Treatment given by primary team; No reminder call; Late referral; Rapid disease progression; Unaware of diagnosis; Asymptomatic; Unaware / forgot of appointment; No time to inform; Family not prepared; Collusion; Not in line with pt's goals; Still undergoing treatment; Dementia; Inefficient call system; Call too late; Patients not attending PMC first visit appointment; Unable to attend; No one to take pt; Too sick; No reason for TCU; Home care free; Lack of explanation; Lack of pre clinic education; Transport expenses; No NOK; Referred to hospice; Referred to home care; Pt poor understanding of PMD; Cost; Social issues; Religious beliefs; Spiritual; Not sure what call can offer; Poor symptom control knowledge; Home care efficient; Duplication of service; No reason for TCU; Consult to short too to cover pall; Prev exp/values; Undecided about pall; Admitted; Lack of staff for education; Patient factors (Non-medical); Patient factors (Medical) B; Pt not prepared; Still keen for treatment; Clinician factors

Pareto Chart

Reasons Patients Not Coming for First Visit

33.3, 54.2, 75.0, 83.3, 91.6, 95.8

Cause A	Lack of pre-clinic education
Cause B	No triage / referral criteria
Cause C	Inefficient call system
Cause D	Lack of dedicated staff for education
Cause E	Unanticipated event
Cause F	Too frail
Cause G	No reminder calls

Implementation

Root Cause	Intervention	Implementation Date
Lack of pre-clinic education	**PDSA 1A:** a) Palliative care pamphlets (developed by Singapore Hospice Council) to be distributed by PSA to patient/family members once they are referred to PMC b) Dedicated front desk staff to counsel patients about what Palliative care is about with standardised script	5 March 2019
	PDSA 1B: Introducing palliative care to patient and their families using revised PSA Script (in English and Mandarin with Layman terms)	12 March 2019
	PDSA 1C: Briefing session for PSAs / Nurses in Clinic 5A (to give out Palliative care pamphlets & use script when calling patients) & daily reminder at roll call	7 May 2019

Results
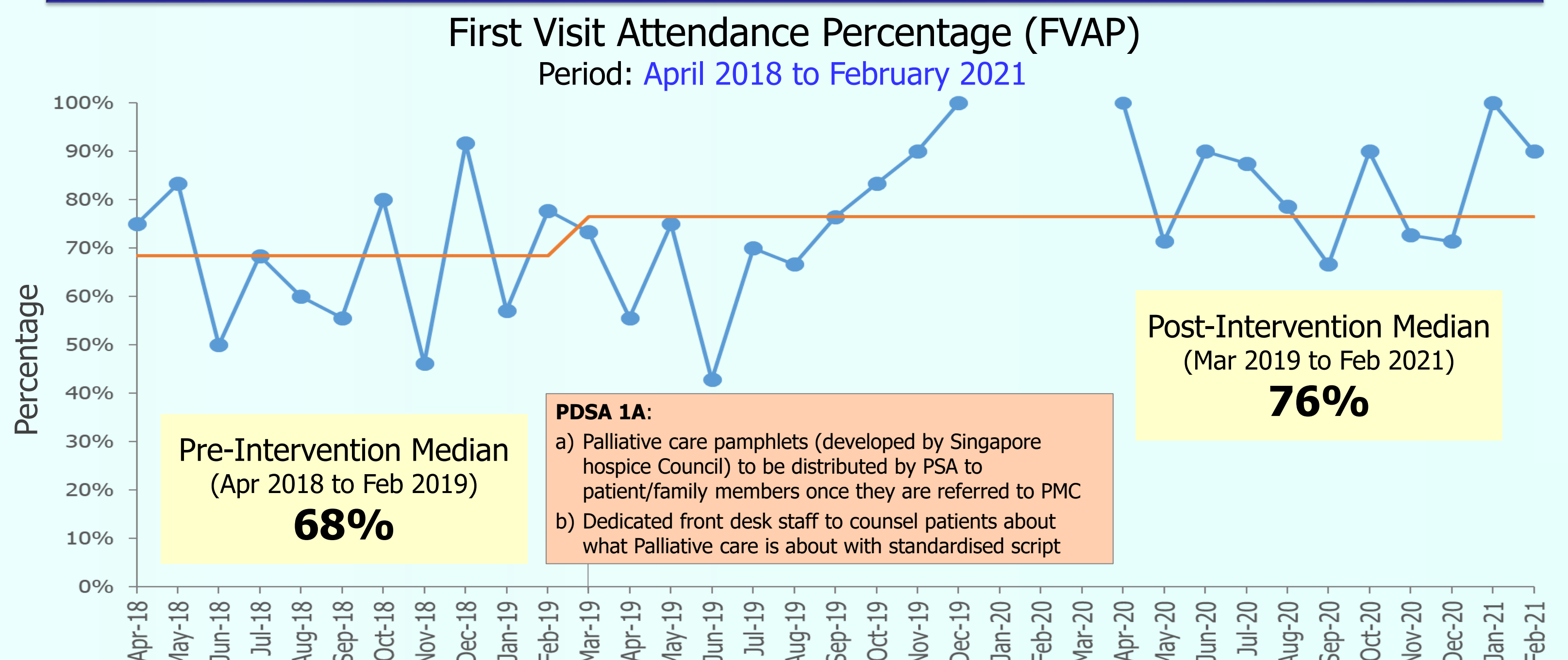
First Visit Attendance Percentage (FVAP)
Period: April 2018 to February 2021

Pre-Intervention Median (Apr 2018 to Feb 2019) **68%**

Post-Intervention Median (Mar 2019 to Feb 2021) **76%**

PDSA 1A:
a) Palliative care pamphlets (developed by Singapore hospice Council) to be distributed by PSA to patient/family members once they are referred to PMC
b) Dedicated front desk staff to counsel patients about what Palliative care is about with standardised script

PDSA 1B: Introducing palliative care to patient and their families using revised PSA Script (in English and Mandarin with Layman terms)

PDSA 1C: Briefing session for PSAs / Nurses in Clinic 5A (to give out Palliative care pamphlets & use script when calling patients) & daily reminder at roll call

Year	2018									2019												2020												2021	
Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
First Visit Attendance	12	5	3	13	6	5	12	6	11	8	7	11	5	9	7	13	5	9	8	13	9	8	13	5	9	7	11	6	9	8	4				
Total Medical Oncology Patients Referred (minus too sick / RIP patients)	16	6	6	19	10	9	15	13	12	14	9	15	9	12	7	10	12	7	6	10	8	13	7	10	8	14	9	10	11	7	6	10			

Cost Savings

	Pre-Intervention	Post-Intervention
1st Visit Attendance Percentage	68%	76%
% Wasted Slot (Per Month)	32% (4 slots)	24% (1 slot)
Reduction in No. of Slot Wasted (Per Month)	4 - 1 = 3 slots	
Manhour Cost Saved (Per Month)	3x [Consultation Cost + Admin Cost] 60 minutes required by Doctor + 60 minutes required by PSA = 3 x [($4.87 x 60mins) + ($0.46 x 60mins)] = $959.40	
Manhour Cost Saved (Annualized)	**$11,512.80**	

Legend:
Weighted Ave Cost per min for Consultant = $4.87
Weighted Ave Cost per min for PSA= $0.46
Estimated No. of Medical Oncology Patients referred (Minus too sick / RIP) = 12 per month

Lessons Learnt

1. Understanding and defining the problem at stake is important (at all levels)
2. Derived measurable and reproducible outcome which is of clinical relevance to patient care is important
3. Implementing interventions may require constant feedback for refinement and empowering your colleagues as change agents in the process

Strategies to Sustain

1. Establish a sustainable workflow in Clinic 5A
   - Empowerment and Ownership to engineer culture shift
   - Orientation to new staff about new workflow
2. To test out model in other Clinic which has high referral rate for oncology patient (example General Surgery Clinic 4A)