TO INCREASE THE USAGE OF E-APPOINTMENT SYSTEM AMONG WALK-IN PATIENTS TO KLINIK KESIHATAN

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INTRODUCTION

E-appointment system for walk-in patients plays an important role for crowd control in Klinik Kesihatan. Low usage of e-appointment system among walk-in patients leads to unpredictable waiting time and eventually causing poor satisfaction among patients and health care workers¹.

Term	Definitions
Walk-in patients	Patients presenting without appointment given by klinik kesihatan
e-appointment	Appointment obtained from online platform –
(e= electronic)	e.g. mobile apps or browser.

SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

1.1 PROBLEM PRIORITIZATION

No	PROBLEMS	S	M	Α	R	Т	TOTAL
1.	Low usage of e-appointment system among walk-in patients to Klinik Kesihatan	31	24	29	24	26	134
2.	Poor public awareness about clinic appointment system (BookDoc App)	15	15	20	15	15	80
3.	Increase number of patients during peak operational clinic hours post covid pandemic	24	20	25	15	15	99
4.	Lack of secondary triaging system at Klinik Kesihatan	27	15	25	20	22	109
5.	Ineffective patients' record management at <i>Klinik Kesihatan</i> (OPD cards)	20	22	27	20	18	107

Voting – according to 'SMART' Criteria Rating scale: 1= low, 2= medium, 3= high Number of group members- 11

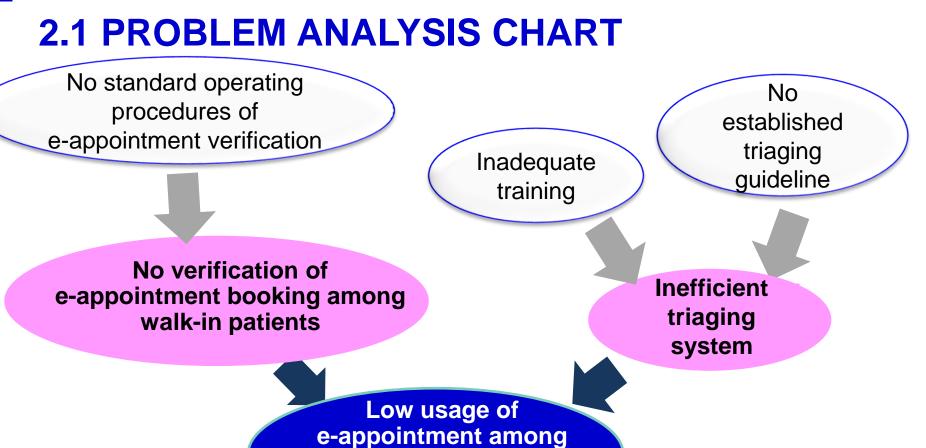
1.2 LITERATURE REVIEW

- Walk-in patients to Klinik Kesihatan in Penang Island accounted for about 22.2% of daily clinic attendance. More than 90% of walk-in patients attended Klinik Kesihatan without making an e-appointment⁶.
- · Implementing web-based medical scheduling systems reduce noshow rate and waiting time for patients. It streamlined work operation and improved efficiency¹.

1.3 PROBLEM STATEMENT

- The underutilization of the e-appointment system by walk-in patients leads to clinic overcrowding and unpredictable wait times, ultimately causing dissatisfaction among both patients and healthcare workers.
- We hope to increase the usage of e-appointment system among walk-in patients to Klinik Kesihatan.

KEY MEASUREMENT FOR IMPROVEMENT



walk-in patients to

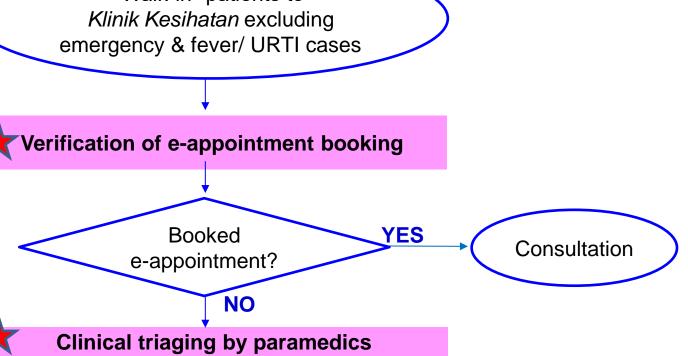
Klinik Kesihatan

Inadequate knowledge in obtaining e-appointment among staff and patients

Lack of awareness and education regarding e-appointment system

Lack of consistent promotional activity

2.2 PROCESS OF CARE 'Walk-in" patients to



(as per Garis Panduan Saringan Awal Kes

Tanpa Temu Janji) Education & booking e-appointment via **Help Desk Assistance** intervention Consultation on same day / as scheduled

2.3 OBJECTIVES

To increase the usage of e-appointment among walk-in patients to Klinik Kesihatan

GENERAL OBJECTIVE

SPECIFIC OBJECTIVES To verify the percentage of walk-in patients with e-appointment to Klinik

- Kesihatan To identify the contributing factors of low percentage of walk-in patients with eappointment to Klinik Kesihatan To implement appropriate remedial measures
- To evaluate the effectiveness of remedial measures

2.4 INDICATOR

Percentage of walk-in patients with e-appointment to Klinik Kesihatan = Number of walk-in patients presenting with e-appointment x 100% **Total number of walk in patients**

STANDARD >50%*

*Group consensus based on average of 21% e-appointment user¹ and 75% of MySejahtera user²

2.5 MODEL OF GOOD CARE

	Critical Step	Criteria	Standard	Pre remedial	Result (Phase 1)	Result (Phase 2)
1	Verification of eappointment booking	To verify all walk-in patients (excluding emergency and fever/ URTI cases) for e-appointment booking	100%	0%	100% 个	100% ↑
2	Clinical triaging	 PRIMARY TRIAGE: To triage all walk-in patients for appointment according to clinical urgency 	100%	0%	0%	100%个
		 To ensure all triaging is documented SECONDARY TRIAGE: To do further assessment for patients with Category 2* or Category 3* symptoms using Secondary Triaging Clerking form 	100%	0%	0% 0%	100%个
3	Education & booking e-appointment	Staff at Help Desk to assist walk-in patients without e-appointment • To ensure all walk-in patients have e-appointment booking done or reserved clinical slots	100%	0%	94%↑	100%个
		 To improve knowledge of healthcare workers using knowledge assessment questionnaire 	Mean score 80%	0%	0%	Pre: 50% Post: 83.6%个

PROCESS OF GATHERING INFORMATION

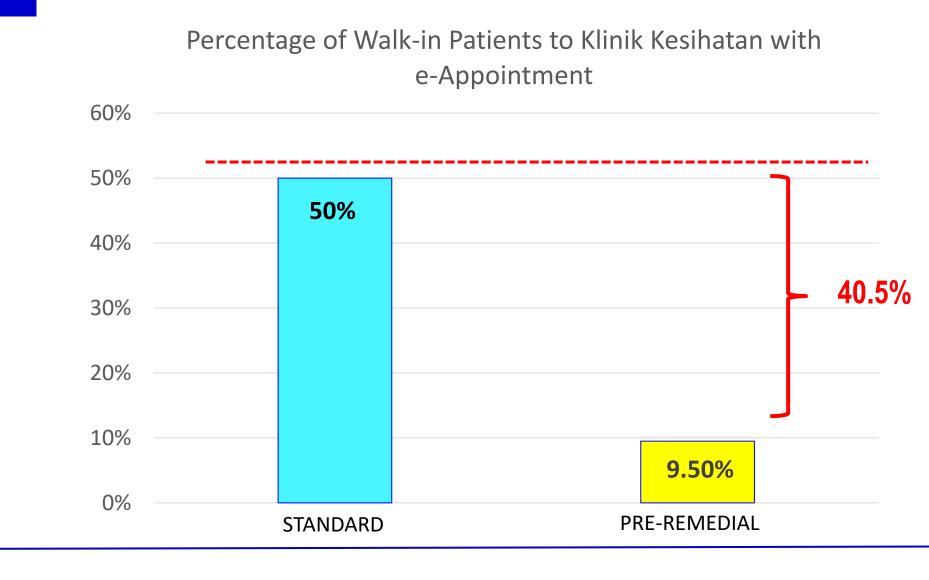
Type of study	Cross sectional study	
Study period	 Pre-remedial phase (1 Oct 2022 – 14 November 2022) Remedial Phase 1 Post remedial Phase 1 (7 – 20 June 2023) Remedial Phase 2 Post remedial Phase 2 (12 – 25 January 2024) 	
Study population	All patients walk-in to Klinik Kesihatan	
Sampling technique	Universal sampling	
Inclusion Criteria	All walk-in outpatients to 10 Klinik Kesihatan in Penang Island (Timur Laut & Barat Daya districts)	
Exclusion Criteria	Emergency or urgent casesFever and URTI cases	
Sampling Tools	 Patient registration record system Questionnaires (2 sets –patients with e-appointment & patients without e-appointment) Knowledge assessment questionnaires (pre and post modules training for clinic staff) 	

Critical steps for

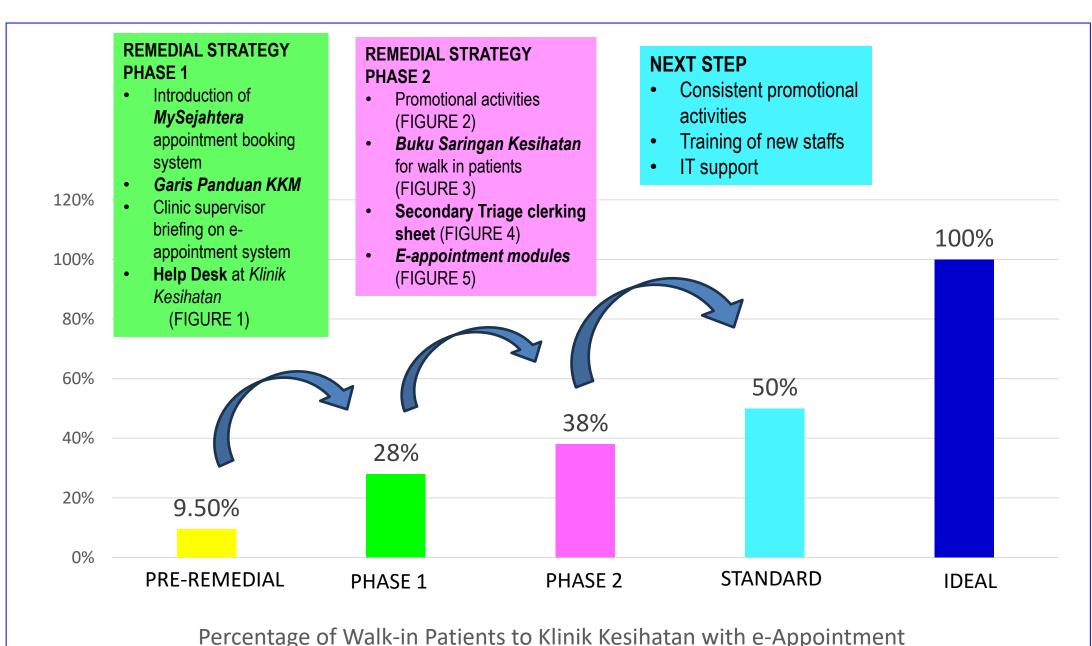
from October 2022 2024 through universal sampling. A total of 2 cycles were performed. The sampling tools include patient registration record knowledge system, assessment questionnaires on e-appointment among all walk-in patients and staffs

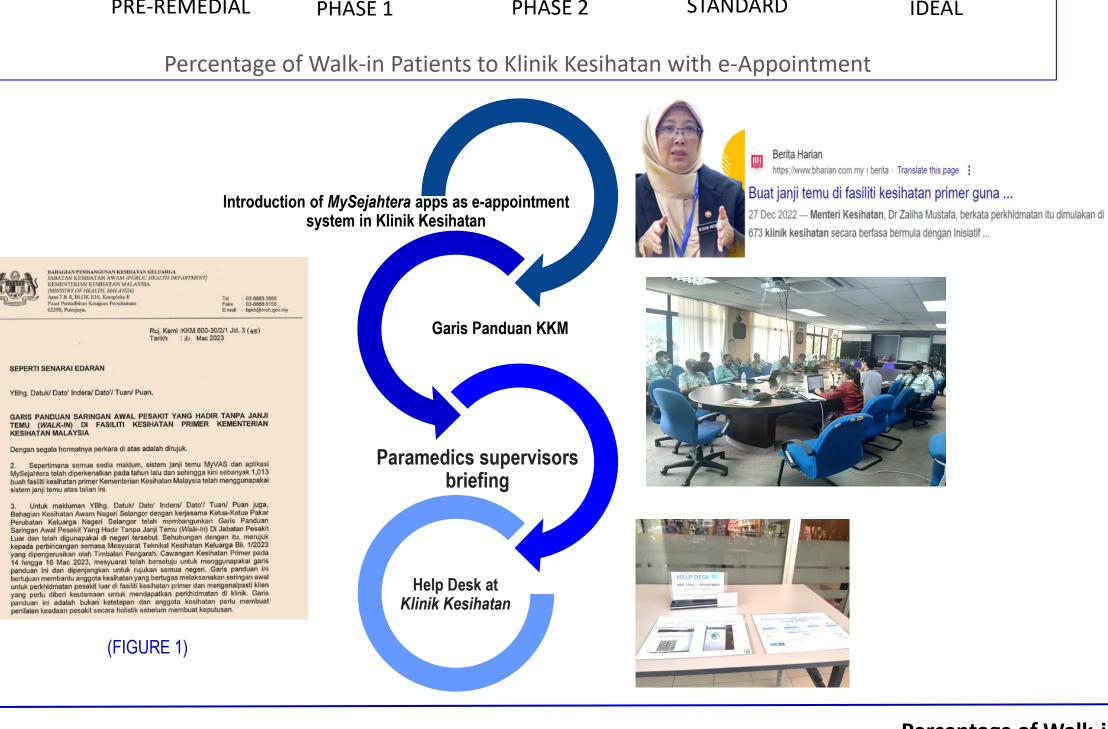
The study was conducted

ANALYSIS AND INTERPRETATION



5 STRATEGY FOR CHANGE





Promotional activities – Banners at Community during outreach program and at Klinik Kesihatan (FIGURE 2) SARINGAN AWAL SECONDARY TRIAGE TANPA JANJI TEMU **CLERKING SHEET**



(FIGURE 3)

VITAL SIGNS PAIN SCORE: HYDRATION STATUS REFERRAL LETTER Abdominal pain ☐ Diarrhoea/ vomiting ☐ EARLIEST AVAILABLE SLOT

Creation and printing of Secondary Clerking Sheet for assessment of walk-in patients with Category 2* and 3*

GARIS PANDUAN SARINGAN AWAL KES TANPA TEMU JANJ KATEGORI 2 **KATEGORI 3** KATEGORI 4 Kes kecemasan berdasarkan keadaan Deman/ sejarah deman Penyakit kulit HIV pra-perkahwinan pesakit (tidak bermaya, dalam kesakitan Selsema/batuk/sakit tekak Lumps/bumps tanpa simptom Pemeriksaan kesihatan pucat) antaranya melibatkan: Kes NNJ Kehabisan bekalan ubat (penyaki Perkhidmatan susulan/ defaulte Sakit dada Muntah/ cirit birit* Perkhidmatan berhenti merokok Saringan kesihatan seperti NCD, Kesukaran bernafas/ asma teruk Serangan asma Kes STO/ dressing Tukar CBD/ Ryle tube pap smear, PPC Sakit kepala yang berterusa Koma/ tidak sedar diri/ GCS tidak Pening (giddy)* Penyakit kulit yang kronik yang stabil dan tiada infeksi penuh (altered consciousness) Jangkitan kuman/ bernanah/ bisul d Perubahan tingkah laku secara tibamana-mana bahagian tiba (abnormal behaviour) Batuk berdarah/ disyaki TB Anonymous HIV screening **Adaptation from Garis Panduan Saringan Awal Pesakit yang Hadir** Tanpa Janji Temu (Walk in) di Fasiliti Kesihatan Primer KKM (FIGURE 4) 12. Percikan bahan kimia pada mata (eye 15. Kes melibatkan kanak-kanak berumui <5 tahun tanpa mengira keadaan atau 3. Masalah kehamilan seperti tumpah darah/ bersalin 14. Dipatuk ular/ binatang berbisa 15. Mengalami renjatan elektrik Lemas/ tercekik (choking) 17. Anaphylaxis 18. Akut stroke Kes medicolegal (penderaan kanak kanak, rogol, keganasan) 0. Severe acute pain (pain skor >7) SLOT TEMUJANJI TERDEKAT SLOT TEMUJANJI SEDIA ADA TEMPAH TEMU JANJI

MODUL 2:





EFFECT OF CHANGE

Staggered e-appointment minimized crowding in Klinik Kesihatan by spacing out appointment time and improved patient's satisfaction.



ACKNOWLEDGEMENT



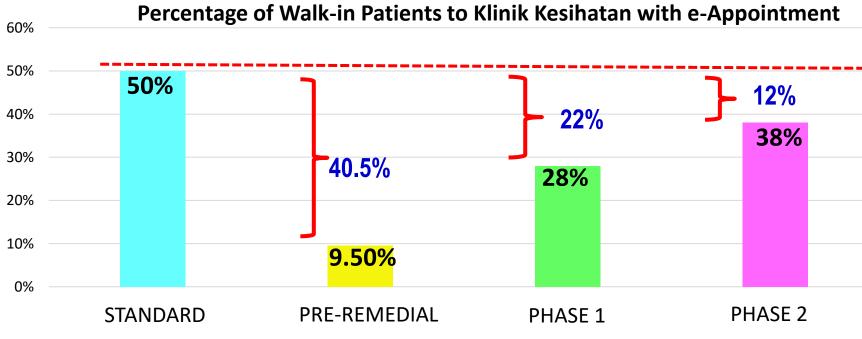
All Health Care Providers involved in this QA project







91.0 (2023) median score 86.5 (2022)



2

SE

PHA

EMEDIAL

THE NEXT STEP

Consistent promotional activities about benefits of e-appointment system and training of new staff on the e-appointment module to ensure the sustainability of the improvement.

 Pegawai Kesihatan Daerah Timur Laut & Barat Daya Pegawai Kesihatan Primer Daerah Timur Laut & Barat Daya Pakar-pakar Perubatan Keluarga Klinik Kesihatan Daerah Timur Laut & Barat Daya Penolong Pegawai Perubatan Kanan Klinik Kesihatan Daerah Timur Laut & Barat Daya 3. http://mysejahtera.malaysia.gov.my accessed on 8 Apr 2023

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4. https://www.instagram.com/reel/CmtDvIHozHc/?igshid=NDdhMjNiZDg= 5. Garis Panduan Saringan Awal Pesakit Yang Hadir Tanpa Janji Temu (Walk-in) Di Fasiliti Kesihatan Primer Kementerian Kesihatan Malaysia 31 Mac 2023: KKM.600-30/2/1 Jld.3 (45) 6. Reten Beban Kerja Perkhidmatan Kesihatan Primer Negeri Pulau Pinang 2022 & 2023 7. Irving, G. et al. (2017), International variations in primary care physician consultation time: A systematic review of 67 countries, BMJ Publishing Group, https://doi.org/10.1136/bmjopen-2017-017902