

INCREASING THE COVERAGE RATE OF ORAL SCREENING AMONG ANTENATAL PATIENTS IN

JOHOR BAHRU DISTRICT

Nik Nurul NK¹, Muhammad Rasydan R¹, Nur Fatin MP¹, Aimi Liyana A¹
¹Pejabat Pergigian Daerah Johor Bahru, Johor Bahru, Johor



PP-06

1. SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

1.1 Introduction

Antenatal patients are vulnerable towards oral health diseases such as gingivitis and periodontitis. Delay in obtaining dental treatment among antenatal mothers lead to premature delivery and low birth weight baby thus making increasing the coverage rate of oral screening among antenatal patients essential.

1.2 Problem Identification and Prioritization

Problem	S	M	A	R	T	Score
Low percentage of complete case among new aborigine patients	12	10	6	6	6	40
High prevalence of edentulous adult patients (35-44)	12	8	10	10	8	48
Low prevalence of periodontal disease free (BPE =0)	12	11	8	6	10	47
Low percentage of ≥ 60 years old patient whose denture is issued within 8 weeks	12	10	10	8	10	50
Low coverage rate of oral screening among antenatal patients	12	10	11	10	12	55

S	M	A	R	T	4 Group Members			
					Score	1	2	3
Decrease of coverage rate in 2022 from 50.22% to 40.62%					Indication	Low	Average	High
Data are quantifiable and process is clearly defined								
Oral healthcare programs for Antenatal Patients have been established as early as 1990 and strengthened in 2004								
The solution is possible within the capacity of dental officers with less requirement of others' involvement								
Short duration of project and changes can be seen immediately after strategies implemented								

1.3 Problem Statement

A verification study done in 2022, revealed a decreasing trend of dental screening amongst antenatal patients from 50.22% to 46.72% resulting in less than half of antenatal patients in Johor Bahru district benefitted from the oral healthcare program. **Low oral screening done by oral healthcare workers, low referral by medical healthcare workers, insufficient and ineffective facilities and low antenatal patients coming for oral screening** contribute to low coverage rate of oral screening among antenatal patients in Johor Bahru.

2. KEY MEASURES FOR IMPROVEMENT

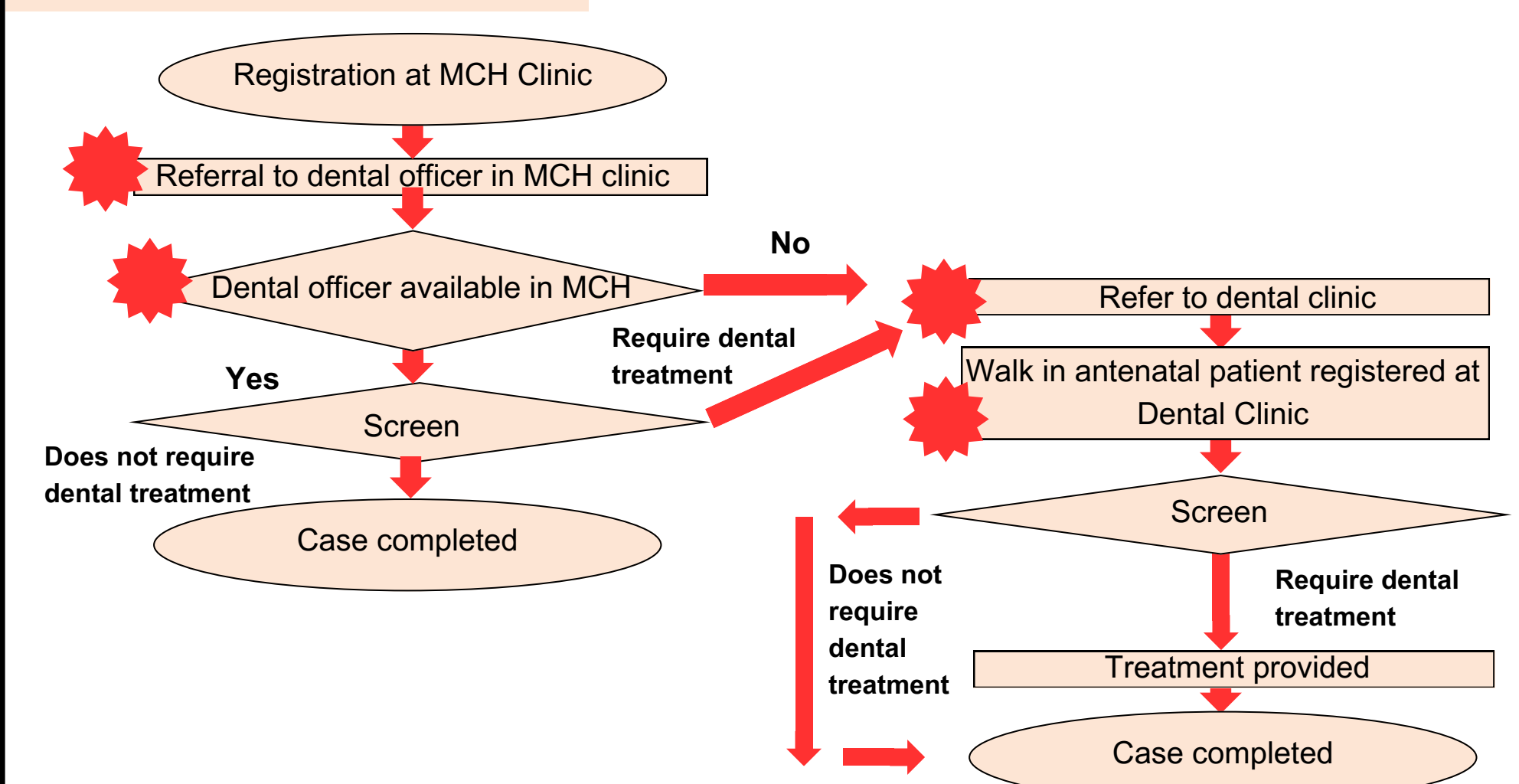
2.1 General Objective

To increase the coverage of oral screening among antenatal mothers in Johor Bahru district.

2.2 Specific Objective

- To determine the coverage rate of oral screening among antenatal mothers in Johor Bahru district
- To identify contributing factors towards decrease antenatal coverage
- To take remedial actions towards those contributing factors
- To evaluate the remedial actions

2.3 Process of Care



2.4 Cause-effect Analysis



2.5 Indicator and Standard

INDICATOR	
Percentage of new antenatal patient undergone oral screening in Johor Bahru district	$= \frac{\text{Number of new antenatal patient undergone oral screening in Johor Bahru district}}{\text{Total number of new antenatal patient in Johor Bahru district}} \times 100 \%$

STANDARD: 73% (Plan of Action target for Johor Bahru in 2023)
 (In consensus with Dental Public Health Specialist as District Dental Officer)

3. PROCESS OF GATHERING INFORMATION

Study Design	Quality improvement study
Study Location	Johor Bahru district
Populations	Antenatal patients with: Inclusion Criteria: • Antenatal patients who registered under either MCH clinics or Klinik Desa and no records of oral screening Exclusion criteria • Transferred antenatal patients out from Johor Bahru district
Study Tools	• Reten of attendance of antenatal patients • Questionnaire • Pre and post test • Based on PG207
Study Period	
Data Analysis	Data are analysed using Microsoft Excel

4. ANALYSIS AND INTERPRETATION

MODEL OF GOOD CARE

Step	Process of Care	Criteria	Preremial	Standard	Cycle 1	Cycle 2
1	Walk in antenatal patient registered at dental clinic	Ensure every antenatal patient are registered Ensure all walk-in antenatal patient must be accepted Antenatal patients come by their own for oral screening	100%	100%	100%	100%
2	Referral to dental officer in MCH Clinic	To refer all antenatal patients	50%	100%	70%	90%
3	Referral to dental clinic by MCH Clinic	To refer all antenatal patients	50%	100%	70%	90%
4	Availability of dental officers in MCH Clinic	To ensure dental officers are sent to MCH Clinic Dental officers are proactive in reminding MHCW	50%	100%	60%	80%

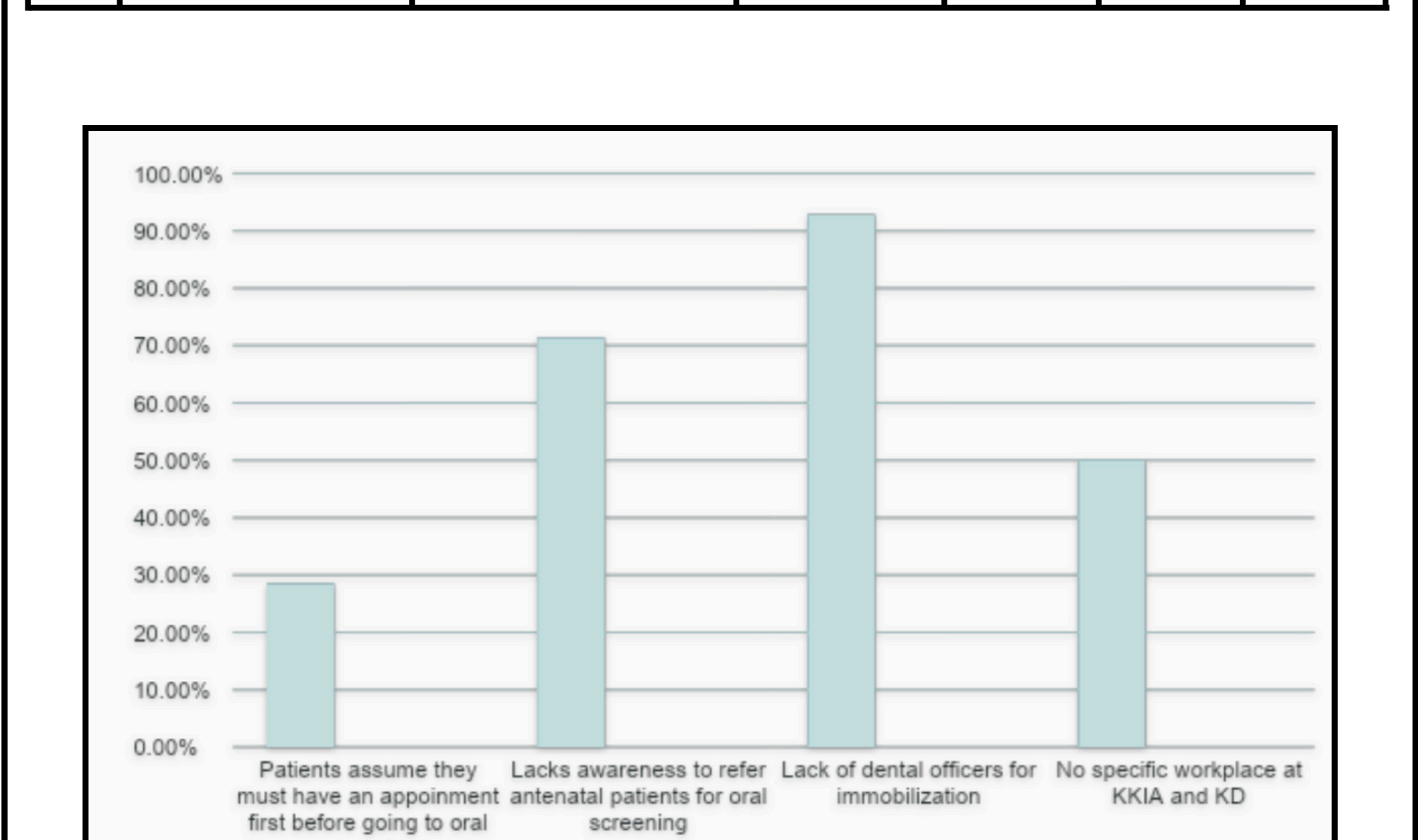


Figure 1: Questionnaire of knowledge and practice among dental officers

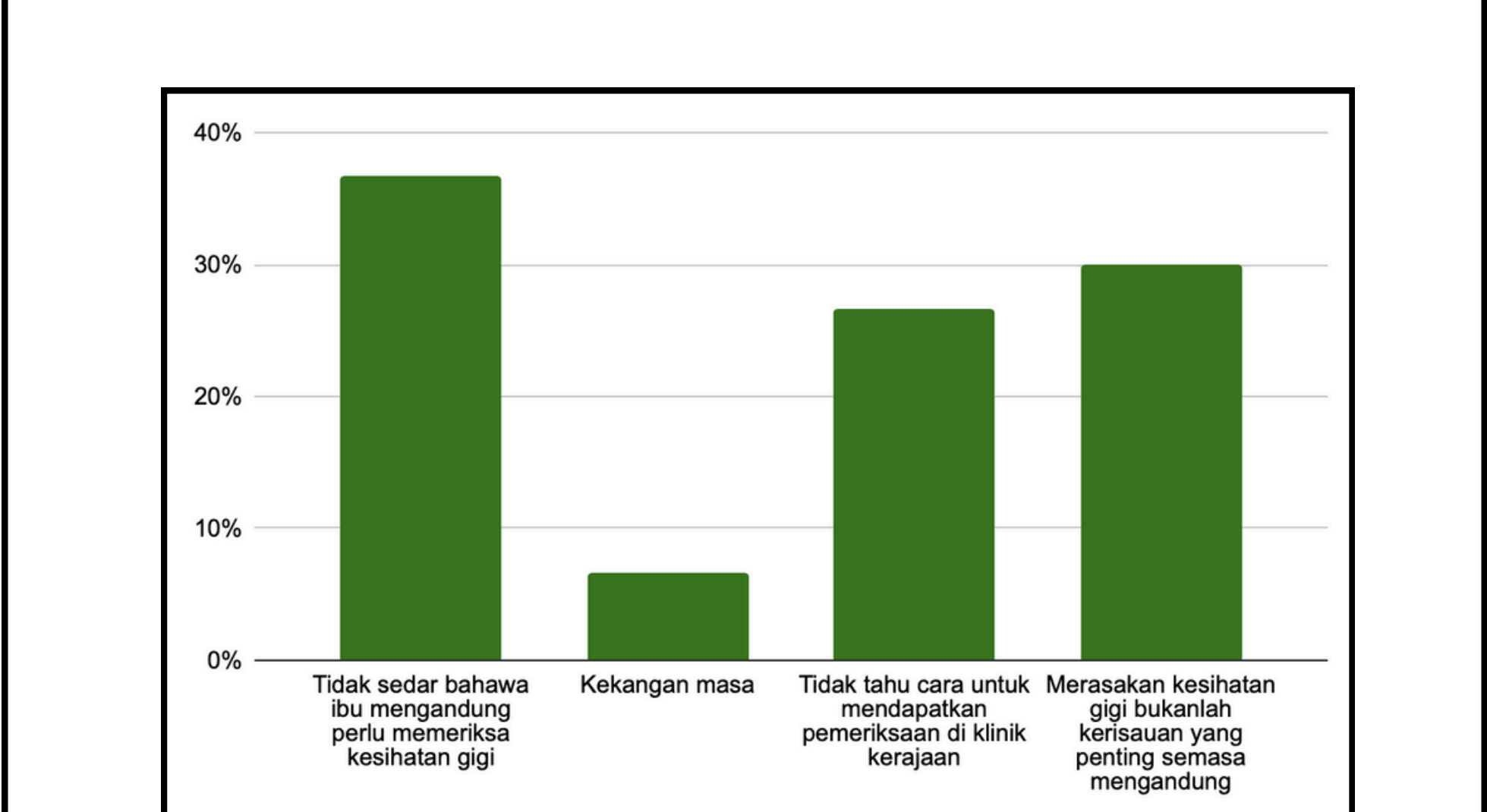
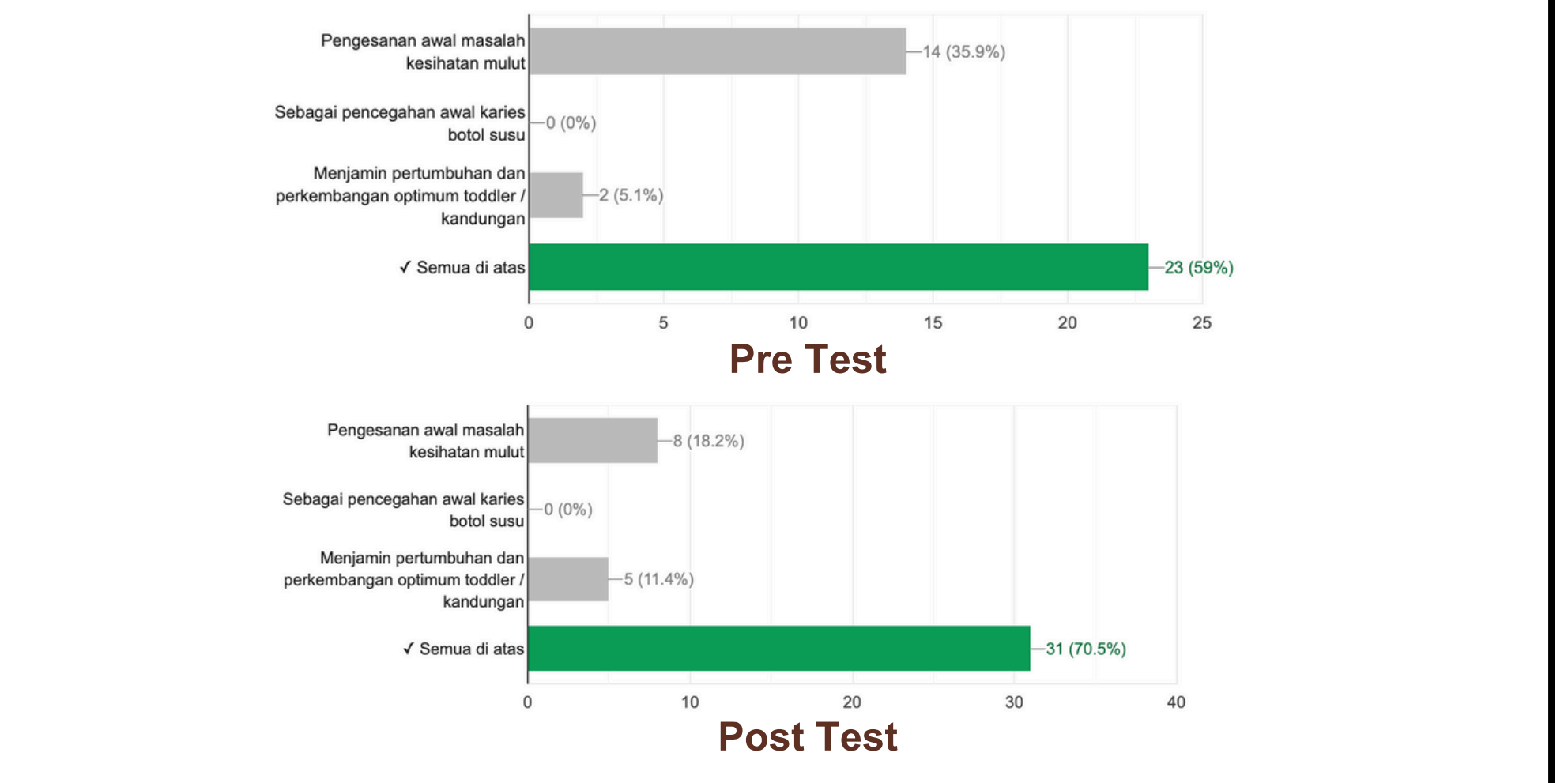


Figure 2: Questionnaire of knowledge among medical healthcare workers

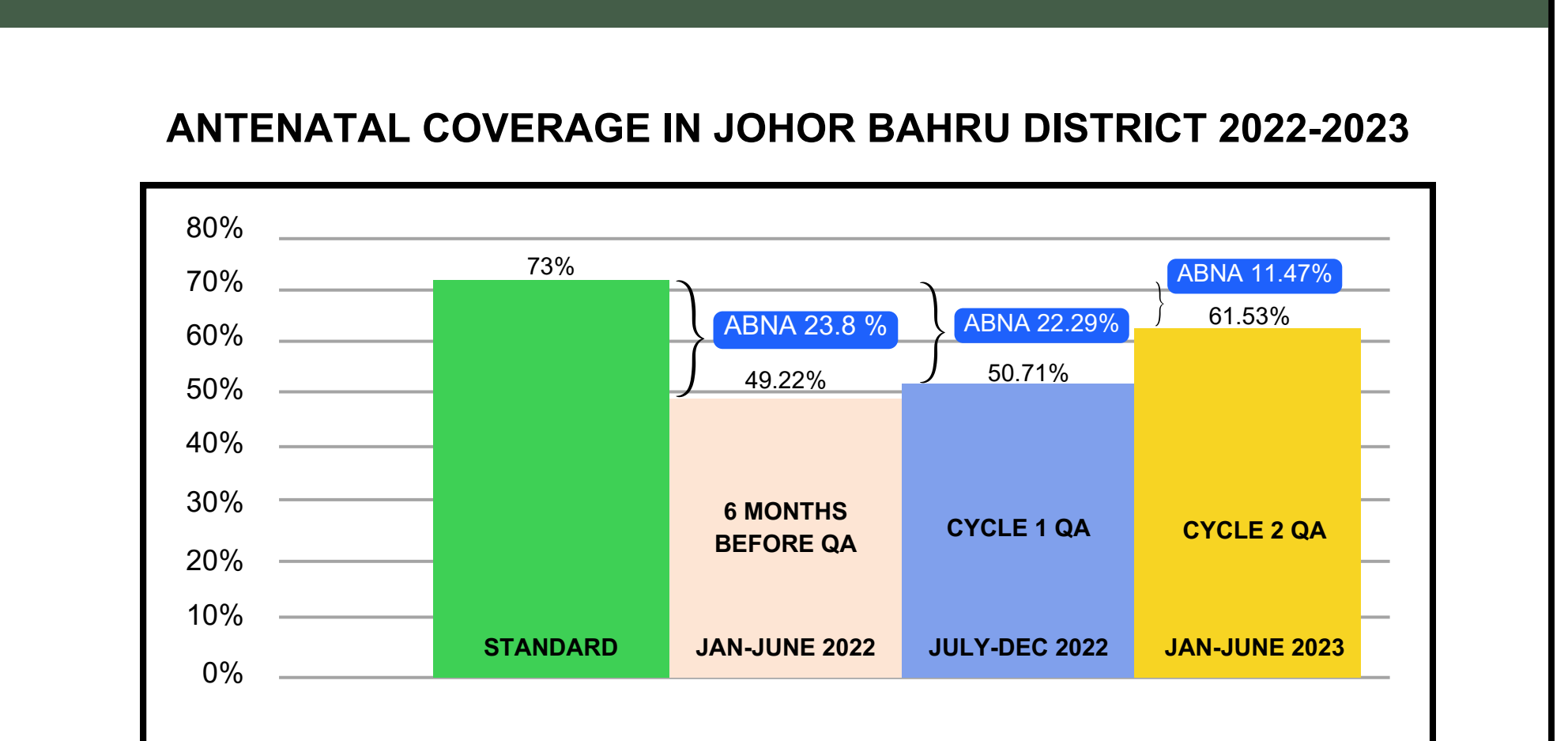
Figure 3: Pre and Post Test After Seminar for Jururawat and Jururawat Masyarakat



5. STRATEGY FOR CHANGE

Problem	Strategy for Change	Implementation
Cycle 1 1. Lack of awareness regarding oral screening among antenatal patients.	GiBunt innovation; a dual function application which serves to provide oral health education and streamline antenatal patient's appointment via Infoblast and is provided in all MCH Clinics and KDs.	 August 2022
Cycle 1 2. Lack of awareness among Medical Healthcare Workers regarding the importance of antenatal referral for oral screening.	'Seminar Kesihatan Pergigian bagi Jururawat dan Jururawat Masyarakat' di KKIA dan KD was organized through google meet. A pre and post test were done to determine the awareness of referring antenatal patients for oral screening. In addition, this seminar emphasized more on the dental checkup column during the seminar.	 16 August 2022
Cycle 1 3. Different location of Dental clinic to MCHC via centralized district schedule	Systematic mobilization of dental officers to MCHC via centralized district schedule	 July 2022
Cycle 1 4. No specific workplace for dental officers at MCH Clinics and Klinik Desa.	Folded banquet table and chairs provided and labelled to establish a comfortable workplace.	 July 2022
Cycle 1 6. Unawareness of antenatal patients can do oral screening via walk-ins .	Reminder given in focus group discussion with Pejabat Kesihatan Daerah Johor Bahru.	 October 2022
Cycle 2 7. Lack of availability and appointment slots in EPRS .	Introduction of QR code and Infoblast for antenatal dental checkup slots.	 January 2023

6. EFFECT OF CHANGE



6.1 Conclusion

- Oral screening among antenatal patients in Johor Bahru district has increased from 49.22% into 61.53%.
- Main contributing factors are **lack of dental officers (93%)**, **lack of awareness to refer antenatal patient (71%)**, **antenatal patient unaware of the importances of oral healthcare (28%)**, and **no specific workplace (50%)**.

7. THE NEXT STEP

- This project with the implementation of QR code and Infoblast are to be continued in 16 MCH Clinics and 20 Klinik Desa in Johor Bahru.

REFERENCES

1. VLH, T M, T S, Nisha V A, A A. Dental consideration in pregnancy-a critical review on the oral care. J Clin Diagn Res. 2013 May;7(5):948-53. doi: 10.7860/JCDR/2013/5405.2986. Epub 2013 Mar 21. PMID: 23814753; PMCID: PMC3681080.
 2. Yenen Z, Ataçgü T. Oral care in pregnancy. J Turk Ger Gynecol Assoc. 2019 Nov 28;20(4):264-268. doi: 10.4274/jtgga.galenos.2018.2018.0139. Epub 2018 Dec 17. PMID: 3055662; PMCID: PMC6883753.

ACKNOWLEDGEMENTS

- TPKN (G) Dr Nurul Ashikin binti Abdullah
- District Dental Officer Dr Azhani binti Ismail
- Team Members
- Pejabat Pergigian Daerah Johor Bahru
- Pejabat Kesihatan Daerah Johor Bahru
- Dr Ahmad Hadi bin Amir
- PPYM for each Dental Clinic in Johor Bahru