



Using The Health Belief Model To Assess Beliefs And Behaviors Of COVID-19 Vaccination In Saudi Arabia: A Cross-Sectional Study

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INTRODUCTION

The WHO have been approved COVID-19 vaccines at the end of 2020. Since then, people exhibited different behaviors towards the vaccine around the world. And because each society has its own set of cultural and psychosocial differences. it is important to better understand our unique factors that might affect people's attitudes and behavior towards COVID-19 vaccine by using one of the most widely used behavioral models which is the health belief model (HBM).

OBJECTIVES

- Identify characteristics of the people who got vaccinated early in Saudi Arabia (SA) according to HBM.
- To find out the association between HBM variables and the behavioral change outcome.

METHODS

A nationwide cross-sectional electronic survey was disseminated to adults >18 years old in SA from October 2021 to January 2022. The survey was based on HBM (perceived: susceptibility, severity, benefits, barriers to vaccination, and cues to action), 5-point Likert scale (agreement/disagreement) was used. Descriptive statistics and multivariable logistic regression were used to identify the associations between vaccination behaviors and HBM constructs using SPSS 28 version software .

RESULTS

Demographics

A total of 1,739 complete responses were received. The majority of participants 94.5 % have been vaccinated by January 2022. The study received responses from participants of diverse demographics. As shown in Table.1

Table1: Demographics

Total Number= 1739

Age, n (%)

18-29	58.5
30-39	15.1
40-49	13.1
50-59	8.2
Above 60	5.1

Gender, n (%)

Male	28.5
Female	71.5

Education level, n (%)

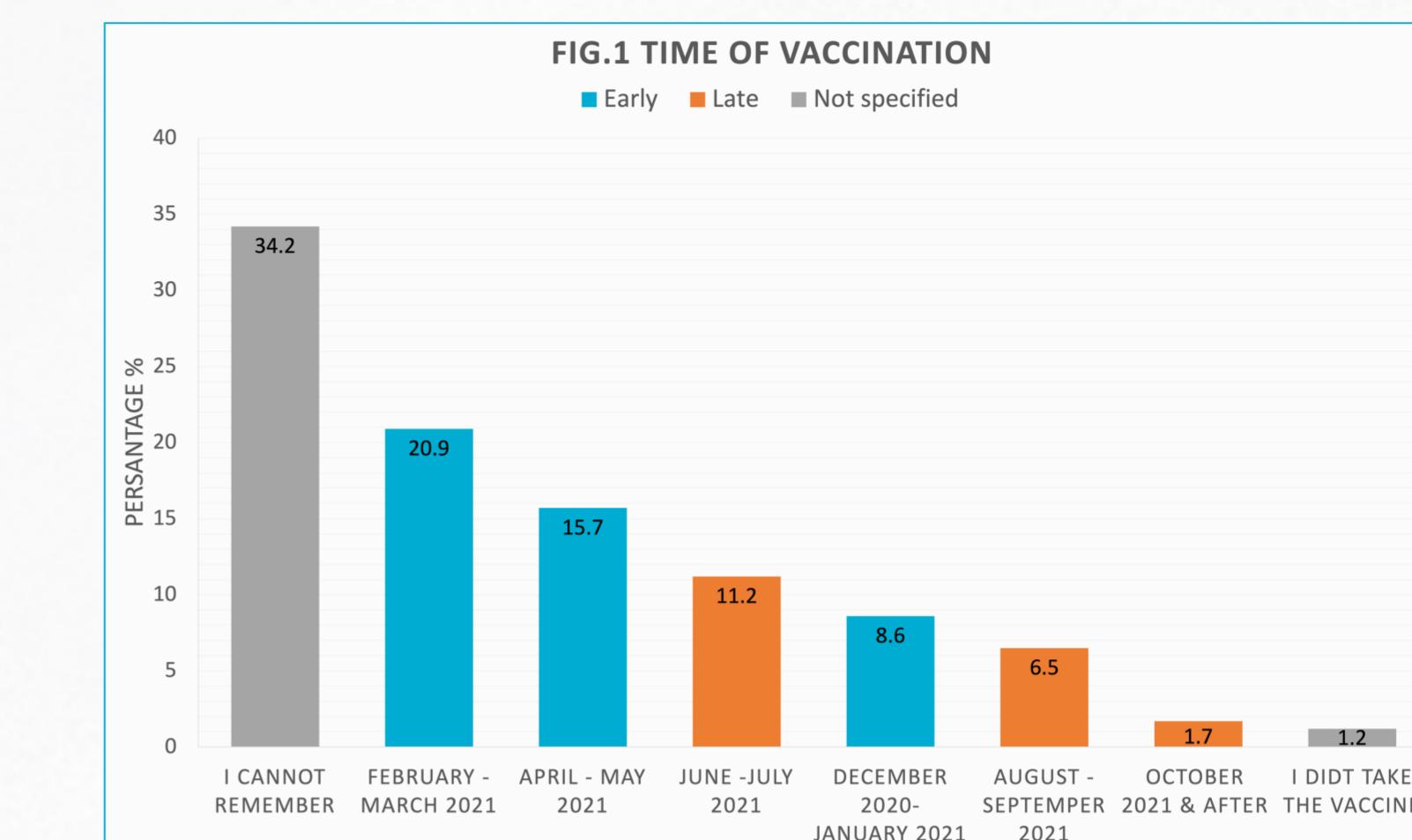
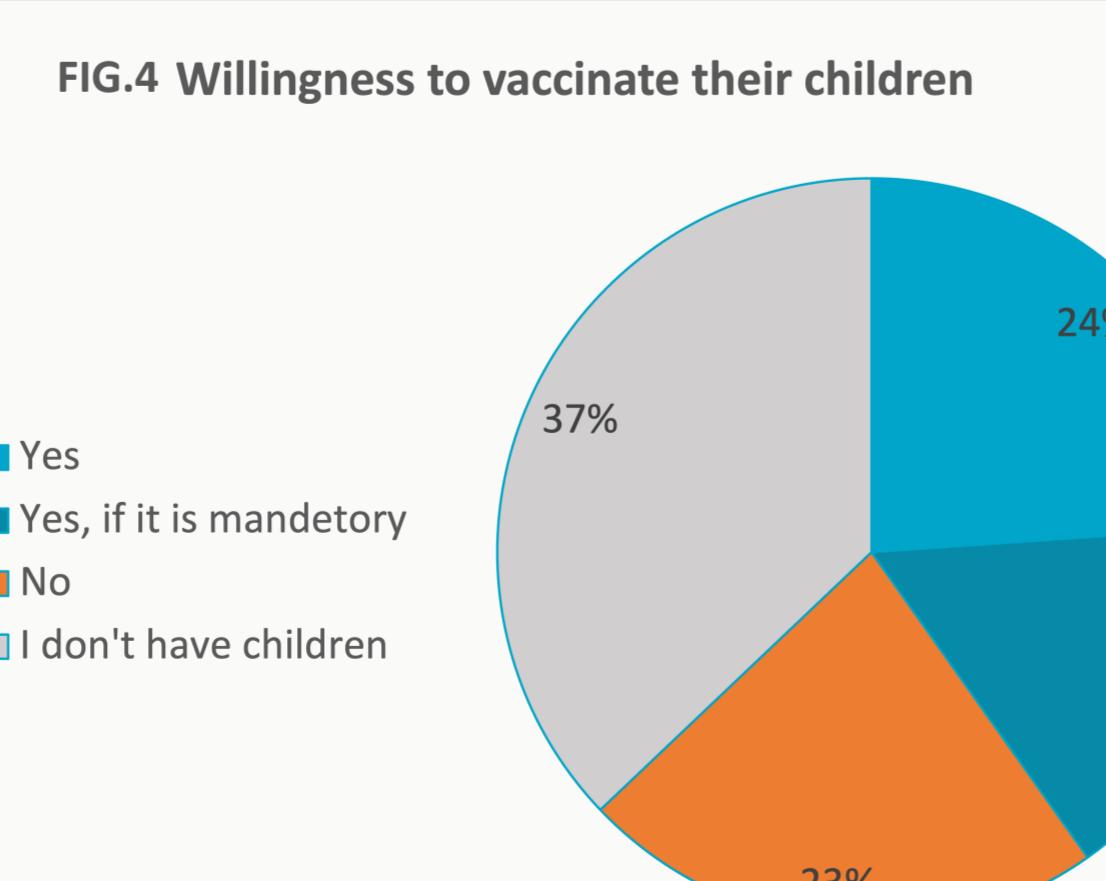
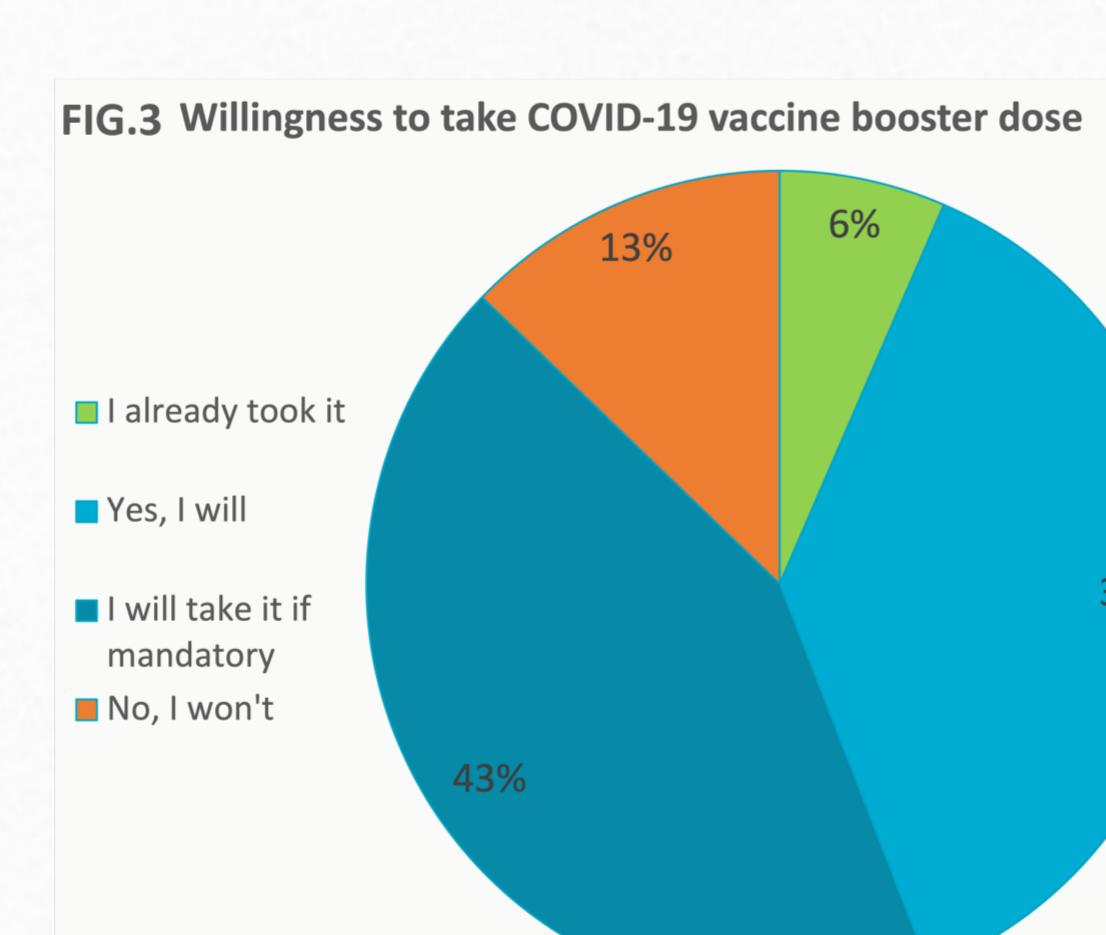
Primary School	0.2
Secondary School	1.4
High School	22.1
Diploma	9.6
Bachelor's degree	52.8
Master's degree	5.4
PhD	3.0

Job sector, n (%)

Health sector	11.4
Educational Sector	16.3
Trading Sector	8.6
Restaurants and cafes	0.7
Military sector	3.1
Unemployed	54.3
Financial sector	0.8
Others	4.8

Health Status, n (%)

Healthy	79.1
DM	5.3
CKD	0.2
CHD	1.1
Immune deficiency	0.9
Asthma	6
Cancer	0.3
Allergy	2.9
Obese	2.9
Other	4.4



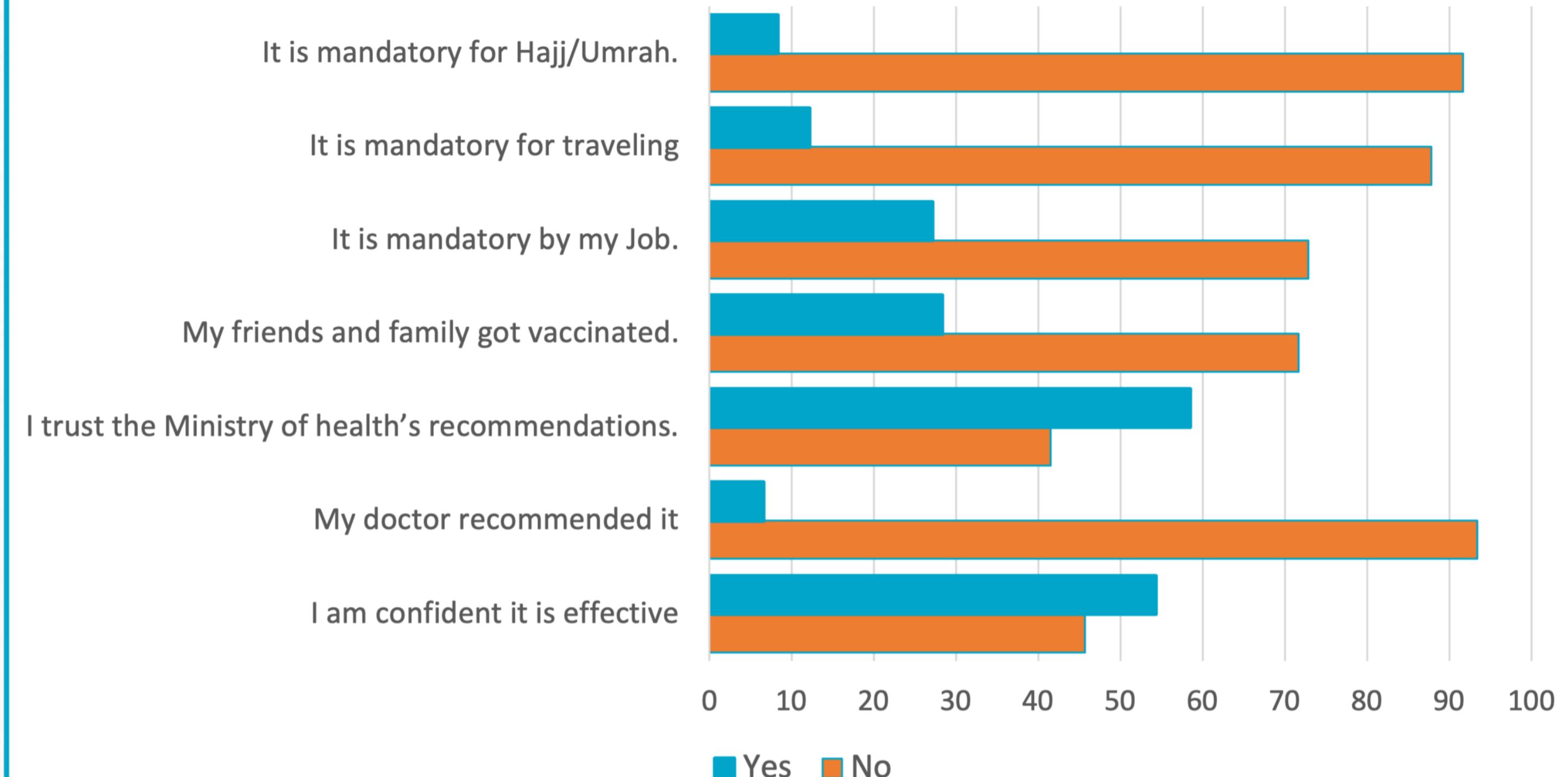
Health Belief model constructs

The majority of participants showed low perception of susceptibility and severity of the COVID-19 infection. Nonetheless, Perception of susceptibility influenced vaccination timing, participants who do not feel they are at risk of getting the COVID -19 Infection (OR = 1.549 , 95% CI 1.2–1.98) have greater odds to vaccinate late. Similarly, participants who do not feel that their family members are at risk for getting COVID -19 infection (OR = 1.829, 95% CI 1.44–2.313) have greater odds to vaccinate late.

Participants who vaccinated early were found to have the highest significant odds in the following perceived benefits, the belief that Covid-19 vaccine lessen the severity of symptoms and complications of Covid-19(OR = 3.350, 95% CI 2.210-5.078) and Getting vaccinated will help going back to normal life faster (OR =2.537 95% CI 1.634-3.938).

Participants who are confident that the vaccine is effective (OR =0.613, 95% CI 0.506-0.743) were found to have the highest significant odds to vaccinate early. Similarly, participants who trust the Ministry of health's recommendations (OR =0.497 95% CI 0.408-0.605) were found to have the highest significant odds to vaccinate early.

FIG.2 Reason To Take COVID-19 vaccine



DISCUSSION & CONCLUSIONS

The perceived benefit of the vaccine was the primary motivator for vaccination. Knowing the vaccine's benefits and receiving the information from a reliable, trusted source, such as MOH, will have a significant impact on people's attitudes toward vaccination and, as the data shows, it will increase the early adaptation of the vaccine. Future campaigns and educational materials should be designed to increase society's awareness about vaccine's benefits.

REFERENCES

