

## Background

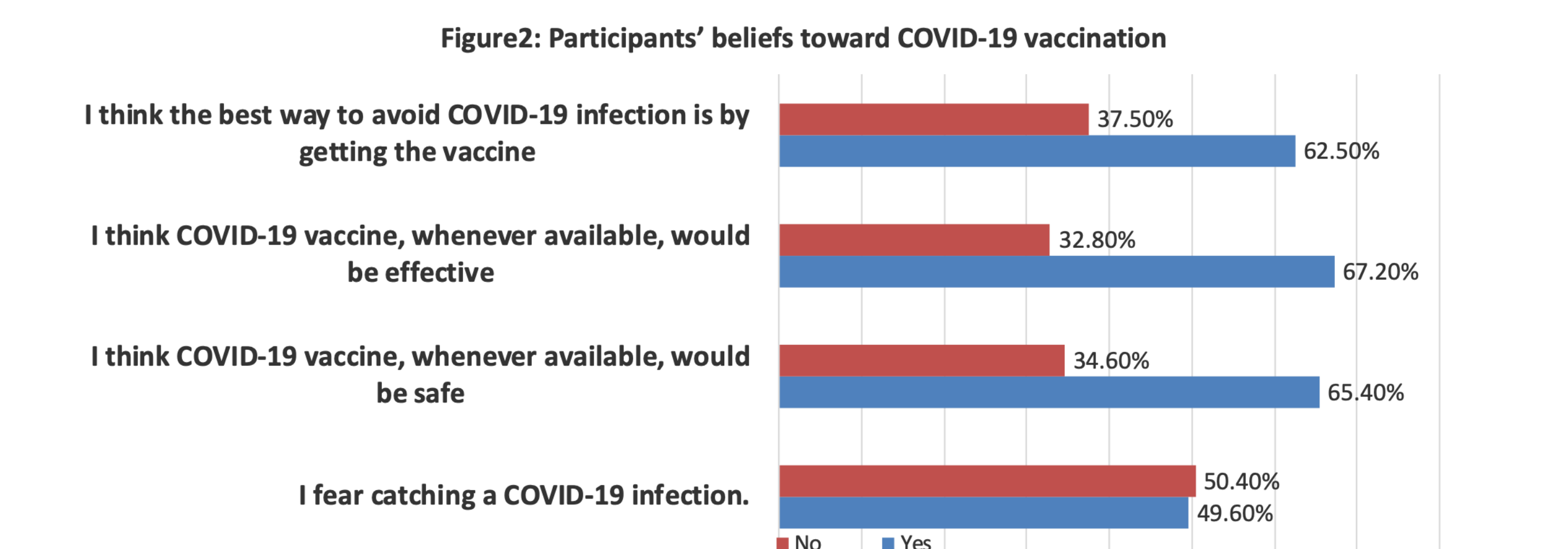
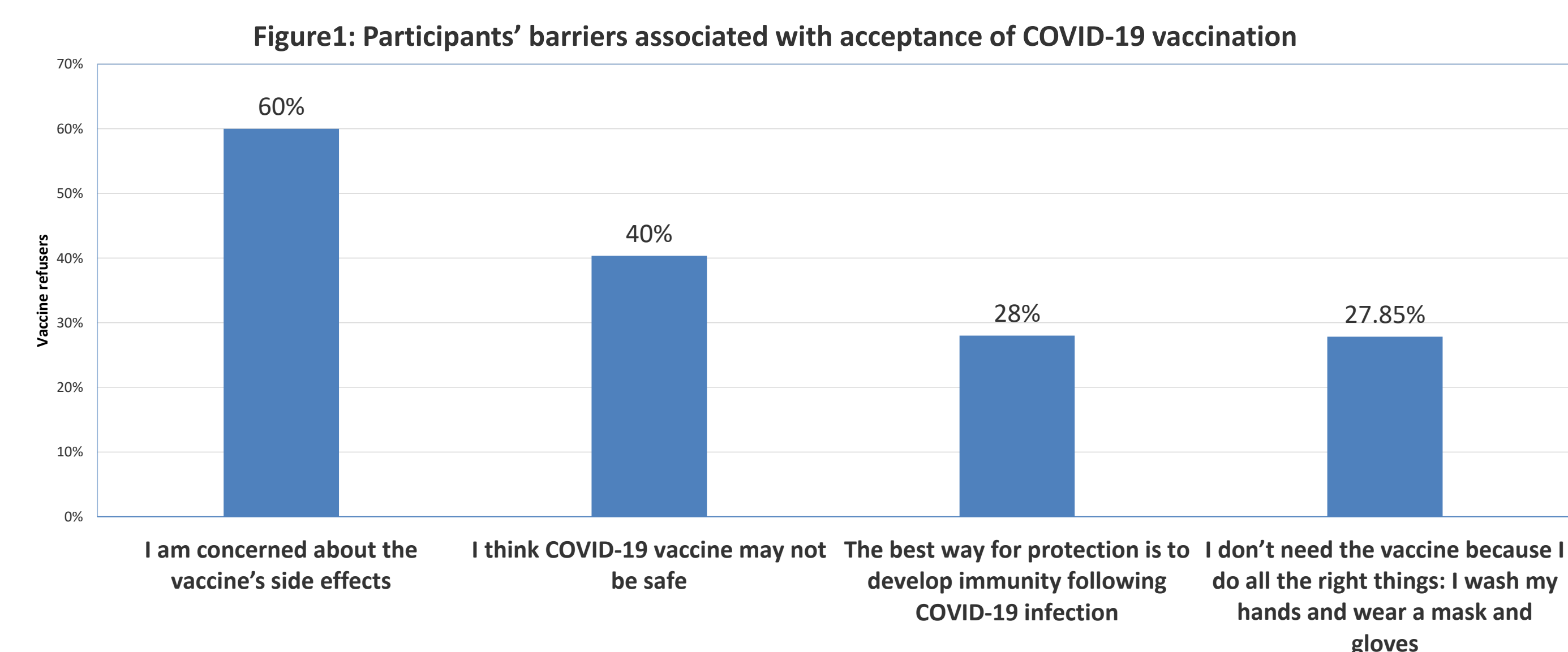
The coronavirus disease 2019 (COVID-19) has spread worldwide, and the vaccine remains the ultimate cornerstone to overcoming its long-term impact. Vaccine hesitancy might obstruct the effort to achieving herd immunity and eradicating the virus. We aimed to assess the community's willingness, beliefs, and barriers regarding the COVID-19 vaccine as well as their adherence to precautionary measures during and after the pandemic.

## Aim and Objective

- To assess population's willingness to accept COVID-19 vaccine.
- To investigate the barriers, beliefs and predictors of the public's acceptance.

## Methods

A self-administered electronic validated questionnaire was distributed among the five major regions in Saudi Arabia between November and December 2020. The questionnaire addressed the sociodemographic data, beliefs, potential barriers, parents' acceptance of COVID-19 vaccination for their children, and adherence to protective measures during and after the pandemic.



## Results

Of 8056 participants, 4218 (52.4%) were willing to be vaccinated against COVID-19. Furthermore, being a young adult, male, having less than a high school degree, being a smoker, having a chronic disease, and having a history of seasonal influenza vaccine uptake, were found to be positive predictors of COVID-19 vaccine acceptance. Moreover, hesitant participants identified concerns about vaccine side effects and safety as the main barriers to accepting the COVID-19 vaccine.

Table 1: Sociodemographic of COVID-19 vaccine acceptance

Variables	Total Population n=8056 (%)	If COVID-19 vaccination is available, I will take it		P-value	
		NO (%)	YES (%)		
		n=3838 (47.6%)	n=4218 (52.4%)		
Age	Young Adults (18-28 years)	3526 (43.8%)	1539 (43.6%)	1987 (56.4%)	<0.0001
	Middle aged adults (29-50 years)	3482 (43.2%)	1744 (50.1%)	1738 (49.9%)	
	Older adults (older than 50 years)	1048 (13.0%)	555 (53%)	493 (47%)	
Sex	Male	3688 (45.8%)	1658 (45%)	2030 (55%)	<0.0001
	Female	4368 (54.2%)	2180 (49.9%)	2188 (50.1%)	
Education	Less than High school	200 (2.5%)	86 (43%)	114 (57%)	<0.0001
	High school	1747 (21.7%)	754 (43.2%)	993 (56.8%)	
	University and higher	6109 (75.8%)	2998 (49.1%)	3111 (50.9%)	
Residence	Middle region	2893 (35.9%)	1422 (49.2%)	1471 (50.8%)	<0.0001
	East region	2129 (26.4%)	1076 (50.5%)	1053 (49.5%)	
	Western region	1997 (24.8%)	912 (45.7%)	1085 (54.3%)	
	North region	327 (4.1%)	146 (44.6%)	181 (55.4%)	
	South region	710 (8.8%)	282 (39.7%)	428 (60.3%)	
Professional	Healthcare provider	1228 (15.2%)	599 (48.8%)	629 (51.2%)	0.189
	Employed	4294 (53.3%)	2069 (48.2%)	2225 (51.8%)	
	Unemployed	2534 (31.5%)	1170 (46.2%)	1364 (53.8%)	

## Discussion

The Kingdom of SA has taken drastic measures to substantially mitigate the burden of the COVID-19 pandemic. Despite these tremendous efforts, the vaccine remains the key to ending the long-term impact of COVID-19 [1]. The acceptance and refusal of the vaccination generally varies both locally and internationally, even among individuals of the same gender, age, and class [2]. A reassuring percentage of respondents recognized that the vaccine was key to stopping the spread. locally, patterns of positive beliefs toward COVID-19 vaccine were observed [3,4]. This in concordance with our finding in which Most of our participants generally showed positive beliefs regarding different aspects of the COVID-19 vaccine. They acknowledged the importance of the vaccine and that the vaccine would be safe and effective once available. A reassuring percentage of respondents recognized that the vaccine was key to stopping the spread. Positive beliefs are highly important because they reflect the respondents' strong demand for the vaccine. This finding also highlights that participants realize the vital role of the vaccination, which provides a good start in achieving herd immunity. Interestingly, the finding regarding HCW's acceptance of the COVID-19 vaccine in SA is concerning because HCWs are at a high risk of COVID-19 infection, and they play an important role in persuading individuals to be vaccinated.

## Translational Potential

Our findings will play a role in advancing the knowledge of how the population beliefs and attitude toward vaccination could change during an unusual public health crisis, which requires designing an effective behavior change communication campaigns by the healthcare system to increase awareness among the public. Moreover, this study will further enlighten the healthcare professionals in SA to address the population's concerns and beliefs in regard vaccination in general to evaluate and increase population information regarding vaccinations to increase the knowledge and improve the attitude and practice to facilitate the government and healthcare system efforts to overcome any future crisis.

## Conclusion

Our study revealed an overall more willingness, positive beliefs, and attitudes toward the COVID-19 vaccination. However, a considerable proportion of the population are reluctant to accept the vaccine. Thus, providing information about vaccine safety publicly and implementing health education programs are crucial for increasing public confidence in the vaccine.

## References

