

## COVID-19 Vaccine Hesitancy

### ABSTRACT

#### Objective

This study examines individuals' perceptions of the cause and subsequent measures taken to mitigate the spread of COVID-19 and its vaccine. There was high uncertainty and a general lack of knowledge surrounding the virus's transmission and effects. The limited information led to minimal or delayed communication to the public, which was sometimes contradictory. Viewpoints varied and led to misinformation and disinformation. This, in turn, influenced individuals' risk perception and either served to increase or decrease hesitancy towards protective measures. Thus, the outcome variable is to assess if there was at least one diagnosis of COVID after receiving the vaccine. The source of information played an integral role in overall risk perception. Therefore, the rationale behind this study is to determine the public's interpretation of communication and how it impacted their decision to take the vaccine and subsequent booster shots. A survey questionnaire was disseminated through Qualtrics to selected participants.

#### Methods

This qualitative self-administered online survey was distributed via text message, WhatsApp and Social media. An anonymous link was used to ensure candid responses due to the sampling methods. Convenience sampling was the selection method employed to recruit participants, as many were family, friends, and acquaintances. However, snowball sampling methods were also utilised as respondents were asked to forward the link to others. The 22-question survey consisted of a wide range of questions applicable to various populations on a local, national, and international level. Slight adaptations were made to the survey questions. One change was to include that an individual did not contact COVID. References were made in the survey questions to the Centers for Disease Control and the US Government. However, as the survey was sent internationally, generic adjustments were made to mention the country's public health agency and government.

#### Results

The study was conducted from March 5 to March 8 with a sample size of 108 participants. The participants were located across the world. However, most were from the United States, followed by India, Trinidad and Tobago, the United Arab Emirates and the United Kingdom. At 48%, 18-24 was the main age group. In terms of ethnicity, Asians comprised 39% of the participants, and 31% of participants were Black or African American. 54% of the participants were females. 35% of the participants had a bachelor's degree. 56% of the participants trusted the CDC or respective national departments of health for guidelines for COVID-19 prevention. In terms of the methods for COVID-19 prevention, 86% of the participants believed that washing hands and sanitising was an effective way of averting transmission, and 56% believed receiving boosters was also effective. Most participants were unconcerned with 42% or somewhat concerned with 38%. This statistic

tells us that people have grown down from the stigma and trust the efficacy and potency of the vaccines and boosters and themselves for the prevention of transmission of COVID.

## **Discussion**

A substantial majority of the participants have received more than one COVID-19 vaccine, indicating that the level of education coincides with vaccination. It also aligns with widespread vaccination programmes conducted by the Government in coordination with local agencies and state health departments. It is important to emphasise that the survey population does not indicate the broader population. Most participants relied on the CDC or the national health department in their respective nations for guidelines for preventing transmission and other notifications; talking to their healthcare provider was a close second.

Most participants focused on personal hygiene, like hand sanitising and hand washing, to prevent transmission. This is in alignment with health for all, which requires input and participation from all to tackle something as big as a pandemic. 61% of the participants knew someone who was infected with COVID; the fact that a known person is infected is bound to influence behaviours and practices when it comes to COVID. It was good to see that 96% of the participants received the COVID-19 vaccine, which provided herd immunity in the population, aided in overcoming the increased rates of transmissibility, and put an end to the chain of transmission.

## **Conclusions**

With many of our participants residing in the United States, this survey has revealed a plethora of information about preparedness, government and individual response to a pandemic, and credibility regarding the COVID-19 virus. The majority of our participants followed public health recommendations before there was a vaccine and continue to follow these recommendations even after the threat of COVID-19 has decreased significantly. While our participants trust credible sources like the Center for Disease Control or their local healthcare provider, there appears to be a consensus that the United States government would still be unprepared if another pandemic were to happen. Part of this response may have to do with discourse surrounding the seriousness of the virus now and how little of a threat it seems to be to our participants, as 42% of the responses stated they were no longer concerned about contracting COVID-19. However, 33% of all respondents were concerned about the long-term effects of COVID-19. This may stem from the need for more research and education on long-covid. Thus, this survey is an excellent example of how individuals view the threat of COVID today, almost three years after the United States went on lockdown, and how COVID-19 is often on the same level of threat as the seasonal flu. From this survey, we can conclude that while individuals trust those in power with the information they are receiving, there is still a lot more to be done by these people for the participants to feel that the United States can effectively tackle or prevent another pandemic from happening. The following steps should include the enhancement of communication and education strategies - where clear, consistent, and transparent communication channels are developed and accessible to everyone, the promotion of research on the long-term effects of COVID-19 and improved preparedness plans.

## APPENDIX:

TABLE 1: Age

AGE	PERCENTAGE	NUMBER OF PARTICIPANTS
Under 18	3%	3
18 - 24	47%	51
25 - 34	24%	26
35 - 44	9%	10
45 - 54	11%	12
55 - 64	5%	5
65 - 74	1%	1
75 years or older	0%	0

TABLE 2: GENDER

GENDER IDENTITY	PERCENTAGE	NUMBER OF PARTICIPANTS
Man	43%	46
Woman	55%	59
Non-Binary	0%	0
Other	0%	0
Prefer not to answer	3%	3

TABLE 3: RACE

RACE	PERCENTAGE	NUMBER OF PARTICIPANTS
American Indian or Alaskan Native	3%	3
Asian	40%	43
Black or African American	31%	33
Native Hawaiian or Another Pacific Islander	0%	0
White	15%	16
Prefer not to answer	16%	17

**TABLE 4: ETHNICITY**

<b>ETHNICITY</b>	<b>PERCENTAGE</b>	<b>NUMBER OF PARTICIPANTS</b>
Hispanic or Latino	18%	19
Not Hispanic or Latino	56%	59
Prefer not to answer	26%	27

**TABLE 4: EDUCATIONAL LEVEL**

<b>EDUCATIONAL LEVEL</b>	<b>PERCENTAGE</b>	<b>NUMBER OF PARTICIPANTS</b>
Less than High School Diploma or GED	1%	1
High School Diploma or GED	19%	21
Associate's Degree	7%	8
Bachelor's Degree	35%	38
Master's Degree	21%	23
Doctoral Degree or Equivalent (e.g., JD, DO, PhD)	10%	11
Prefer not to answer	6%	6

**TABLE 5: MOST TRUSTED SOURCE FOR INFORMATION**

<b>MOST TRUSTED SOURCES FOR PUBLIC HEALTH INFORMATION</b>	<b>PERCENTAGE</b>	<b>NUMBER OF PARTICIPANTS</b>
My healthcare provider	55%	55
Friends & family	31%	31
The Centers for Disease Control and Prevention (CDC) or other national health departments	56%	56
Local Public Health Department	33%	33
Personal social media and/or knowledge research (e.g., Google)	33%	33

**TABLE 6: NUMBER OF TIMES INFECTED BY COVID-19**

<b>NUMBER OF TIMES INFECTED BY COVID</b>	<b>PERCENTAGE</b>	<b>NUMBER OF PARTICIPANTS</b>
1 time	67%	38
2 times	25%	14
3 or more times	5%	3
Was never COVID positive	4%	2