



# FACTORS AFFECTING THE COVID-19 VACCINATION DECISIONS OF SENIOR CITIZENS IN KORONADAL CITY, SOUTH COTABATO

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## ABSTRACT

**Background:** The COVID-19 pandemic had significant health, economic, and societal ramifications. Due to disruptions in health service delivery and normal vaccines, the pandemic is likely to have increased fatalities from other causes.

**Objectives:** This study aimed to evaluate the factors affecting the COVID-19 vaccination decisions of senior citizens during the pandemic.

**Methods:** A descriptive cross-sectional quantitative research design through a printed questionnaire and the data gathered was analyzed using the chi-square test. Descriptive and inferential statistics was used to assess factors affecting the COVID-19 vaccination decisions and Chi-square test to check the significant relationship between demographic profile and factors affecting the COVID-19 vaccination decisions of respondents.

**Results:** Results showed that most of the respondents trust the health institutions regarding the COVID-19 vaccination decisions having a mean of 3.32. While the least number of respondents do not rely on the possible side effects of the COVID-19 vaccine having a mean of 2.03 among the four factors. In terms of the other factors, health issues and communication and media have almost the same result having a mean of 2.75 and 2.74. Some of these factors have low to moderate influence on the decisions with a mean value of 2.03-3.32. It was also found out that the health

status, trust in health institutions, possible side effects, and communication and media may moderately affect the decisions of the respondents.

**Conclusions:** The findings revealed that there are low levels of readiness to receive COVID-19 immunizations indicating significant levels of possible vaccine reluctance. The hesitation was related to a range of demographic profile and factors, including gender, educational attainment, marital status, information sources about the COVID-19 vaccine, and the type of booster shot. To enhance vaccine uptake, these features should be viewed as a vital component of the COVID-19 immunization marketing effort.

**Keywords:** *COVID-19, senior citizens, vaccination decisions*

## INTRODUCTION

Vaccines are important addition to our COVID-19 protection, especially given the risk of fast-spreading variants (Moore, 2021). The World Health Organization emphasizes that vaccines are effective against severe disease and death caused by variants that have been identified so far. The most effective ways to reduce the spread of the disease remain a rapid vaccination rollout and continued practice of public health and social measures like mask-wearing and physical distancing (Junio, 2021).

Everyone is susceptible and prone to the virus but our senior adults are most likely to be hospitalized as a result of COVID-19 (Copenhagen, 2020). We risk overwhelming our hospitals and overburdening our health workers and frontline workers if we do not protect the elderly. We need to protect our senior citizens as soon as possible and with the broadest coverage possible. We should prioritize older people when we get a COVID-19 vaccine (Quinn, 2020).

A study by Sarah De Pue, *et. al* (2021) shows that elderly people or senior citizens are more prone to corona virus because the older they get, their immune systems get weaker. In addition to this, they have more chances of acquiring infectious diseases and are also more likely to suffer from illnesses like heart diseases, lung diseases, diabetes, and even renal disease. Now, having all these complications can reduce the body's ability to fight infections. Nevertheless, the vast majority of vaccine skeptics are senior citizens. Even if they do not have a political side or they do not support an anti-scientific cause; they are just undecided about getting vaccinated or not. A lot of senior citizens are hesitant about on getting the vaccine because they fear that the vaccines will kill them or get them isolated. A number of senior citizens aged 65 and above who are able to get the COVID-19 vaccine confessed that they too, do not fully trust the vaccine. (Figuroa and Ocasio, 2021).

According to Dr. Arestides Concepcion Tan, who is currently regional director of DOH-12, a lot of senior citizens and persons with comorbidities in South Cotabato are hesitant of getting their vaccines over reports of alleged death after being vaccinated (Sumangil, 2021). This is primarily one of the reasons why the vaccination and inoculation rate of seniors remains relatively low in region 12. Nevertheless, the public is continuously assured that the vaccines to be

administered are safe. Citizens must get inoculated in order for the country to achieve population protection or herd immunity (Orgera, *et. al*, 2021).

In Koronadal City, South Cotabato Province, the government has opened more vaccination sites for COVID-19 in order to cope with the increasing vaccine deliveries from the national government. In consideration of COVID-19 vaccination, the senior citizens in the city are of top priority. The priority eligible Group A consists of the frontline health workers, indigent senior citizens, and every remaining senior citizen of the city (Montaner, 2021).

## **METHODS**

A descriptive cross-sectional research design was used in this study. The researchers used purposive sampling that identify a sample of 357 senior citizens who are listed in the selected eight (8) barangays in the city of Koronadal, South Cotabato. According to the 2020 Census, the population was 195,398 people. The sample consisted of respondents that are listed in barangay, both vaccinated or not, and residents of Koronadal City, South Cotabato. Participants who were unable or unwilling to give written informed consent were not allowed to participate.

### **Sampling and Sample size**

The sample size was based on the number of population of senior citizens listed in selected eight (8) barangays given by the Population Office of the Koronadal City, South Cotabato, with a total of 4,875 population. This was determined by using an online sample size calculator, RaoSoft. The sample size is 357 with a response rate of 95% and 5% margin of error.

### **Survey Instrument**

A researcher-generated printed survey questionnaire was used to collect the data from the participants. The survey questionnaire consists of two domains: 1) Demographic Profile; and 2) Factors Affecting the COVID-19 Vaccination Decisions of Senior Citizens. The Likert Scale (1= Strongly Disagree, 2= Disagree, 3= Agree, and 4= Strongly Agree) will be used to determine the factors affecting their vaccination decisions during COVID-19 pandemic. The second part of the questionnaire consists of questions in regards to factors affecting their vaccination decisions.

### **Data Analysis**

The research utilized descriptive and inferential statistics to determine the factors affecting the COVID-19 vaccination decisions of senior citizens in Koronadal City, South Cotabato. Frequency, mean, standard deviation and percent frequency distribution is utilized to determine the number of senior citizens who are willing and unwilling to be inoculated with COVID-19 vaccine. Meanwhile, Chi-square test analysis is utilized to evaluate the significant relationship on the demographic profile and factors affecting the COVID-19 vaccination decision of Senior Citizens in Koronadal City, South Cotabato in terms of Health Issues, Trust in Health Institutions, Possible Side-Effects of COVID-19 Vaccine, and Communication and Media. The Chi-square test is when

the variables are nominal, as they often are in statistical research. The Chi-square test of independence is also known as the Pearson Chi-square test, or simply the Chi-square, is one of the most effective statistics for evaluating hypotheses.

### Ethical Consideration

Respect for people’s confidentiality and respondents' informed consent were all ethical issues taken into account when performing this study. The researchers upheld the respondents' rights, dignity, and secrecy. The researchers took care to maintain the respondents' identity while evaluating the pertinent information and data provided by the respondents. A letter of consent from the research adviser and the barangay leaders of the chosen Koronadal City barangays was supplied by the researcher. Finally, the respondents are given a thorough explanation of all the study's procedures, potential dangers, and advantages.

### RESULTS

**Table 1**  
**Demographic Profile of the Respondents**

**Table 1.1. Gender**

Profile	Segmentation	N	Percentage Distribution
Gender	Female	197	55.2
	Male	145	40.6
	Prefer not to say	15	4.2
	Total	357	100

Table 1.1 shows the demographic profile of the study population. Data on a total of 357 respondents (197 female, 145 males, and 15 prefer not to say) were analyzed. Results indicated that the majority of the respondents were female (55.2%). Researchers found gender data that was comparable to Karwowski (2012). In a study (Lazarus *et al.*, 2020), females were found to be more likely than males to intend to accept the vaccination.

**Table 1.2. Educational Level**

Profile	Segmentation	N	Percentage Distribution
Educational Level	College Graduate	68	19.1
	Elementary Graduate	126	35.3
	High School Graduate	138	38.7
	Postgraduate	7	2.0
	Vocational	16	4.5
	Vocational Graduate	2	0.6
	Total	357	100

Table 1.2 shows that most of the respondents were elementary (35.3%) and high school graduates (38.7%), which is contrary to most reported studies. Most studies show significant differences in vaccine willingness based on educational level. A bachelor's degree and a vocational degree were linked to a higher likelihood of accepting the COVID-19 vaccine (Kaim A., *et al.*, 2021., Al-Hanawi MK., *et al.*, 2021).

**Table 1.3. Marital Status**

Profile	Segmentation	N	Percentage Distribution
Marital Status	Annulled	3	0.8
	Divorce	4	1.1
	Married	191	53.5
	Separated	9	2.5
	Single	74	20.7
	Widowed	76	21.3
	Total	357	100

Table 1.3 shows that regarding marital status, most of the respondents were married (53.5%). Similar to (Wang *et al.*, 2020), married respondents were more likely to receive COVID-19 immunization. In a study by Marzo *et al.*, 2020 unmarried participants were substantially more likely than married participants to express hesitancy about receiving COVID-19 vaccinations.

**Table 1.4. Comorbidity**

Profile	Segmentation	N	Percentage Distribution
Comorbidity	With comorbidity	173	48.5
	Without comorbidity	184	51.5
	Total	357	100

Table 1.4 shows the results that most respondents have no known co-morbidity (51.5%). According to D’ascanio *et al.*, 2021, the severity of the disease, inflammatory activity, and negative clinical consequences varied significantly between Elderly and Very Elderly individuals. The risk of a serious illness may not only be related to age.

**Table 1.5. Sources of Information on COVID-19 Vaccine**

Profile	Segmentation	N	Percentage Distribution
Sources of Information of COVID-19 Vaccine	By word of mouth (Family/Friends)	65	18.2
	Health Care Workers (from health centers, local pharmacies, clinics, and hospitals)	197	55.2
	TV/Radio	59	16.5
	Social Media	36	10.1
	Total	357	100

Table 1.5 shows that health care workers as the source of information on the COVID-19 vaccine (55.2%). It was also demonstrated in the study of Tabacchi G., *et al.*, (2017) that the source of information is critical in shaping knowledge and motivating vaccination compliance. Higher levels of knowledge are linked to increased vaccination uptake. Individuals who received vaccination information from their healthcare provider or public health department had higher vaccination uptake (Hidiroglu S. *et al.*, 2010).

**Table 1.6 Vaccination Status**

Profile	Segmentation	N	Percentage Distribution
<b>Vaccination Status</b>	Fully vaccinated with Booster	83	23.2
	Fully Vaccinated without Booster	205	57.4
	Partially vaccinated	5	1.4
	Unvaccinated	64	17.9
	Total	357	100

Table 1.6 shows the current vaccination status, fully vaccinated without booster has the higher number among them with a percentage of 57.4. Even after receiving the complete course of vaccination, older age groups have remained disproportionately at risk throughout the epidemic (McKeever, A. 2021).

**Table 1.7 Vaccination Type**

Profile	Segmentation	N	Percentage Distribution
<b>Vaccination type</b>	AstraZeneca	32	9.0
	Janssen	53	14.8
	Moderna	18	5.0
	Pfizer	69	19.3
	Sinovac	121	33.9
	N/A	64	17.9
	Total	357	100

In this table 1.7, the highest vaccination type of senior citizens got a vaccine shot of Sinovac with a percentage of 33.9. According to Malacañang's announcement, the nation's vaccine expert panel (VEP) has advised giving those 60 and older the Sinovac Biotech CoronaVac vaccine (Carlos, R., 2021).

**Table 1.8 Booster**

Profile	Segmentation	N	Percentage Distribution
<b>Booster</b>	AstraZeneca	12	3.4
	Janssen	1	0.3
	Moderna	12	3.4
	Pfizer	46	12.9
	Sinovac	10	2.8
	N/A	276	77.3
	Total	357	100

Table 1.8 shows that 77.3% of the respondents have not decided to receive a booster shot. For adults over 50 and for some individuals with impaired immune systems, a second booster dose of either the Pfizer-BioNTech or Moderna COVID-19 mRNA vaccines may be administered four months after receiving an initial booster dose. After two Janssen doses, the vaccine's efficacy against COVID-19-related hospitalization was 54% for COVID-19 patients in the network hospitals. Comparatively, 79 percent for a single Janssen and mRNA dose and 83 percent with three mRNA doses were achieved (Robeznieks, A., 2022).

**Table 2**

**Mean Level of the Factors Affecting Vaccination Decisions of Senior Citizens in Koronadal City, South Cotabato**

**Table 2.1 Health Issues**

Items	Mean	SD	Description
<b>A. Health Issues</b>			
Q1	2.43	1.0486	Moderate



Q2	2.72	0.9650	Moderate
Q3	2.66	0.9416	Moderate
Q4	2.80	0.8996	Moderate
Q5	2.70	0.9934	Moderate
Q6	3.19	0.8683	Moderate
<b>Overall Mean</b>	<b>2.75</b>	<b>0.6545</b>	<b>Moderate</b>

Majority of the respondents had an overall mean of moderate level of perception of health issues ranging from 2.43 to 3.19. Vaccines have the potential to provide more effective long-term immunity. Vaccines also teach the body how to defend itself against diseases and boost the immune system (Farhud & Zokaei, 2021). However, results revealed that statements under health issues may moderately influence the vaccination decisions of senior citizens.

**Table 2.2 Trust in Health Institutions**

<b>B. Trust in Health Institutions</b>			
Q1	2.95	1.0561	Moderate
Q2	3.27	0.7998	Moderate
Q3	3.52	0.6728	High
Q4	3.38	0.8006	Moderate
Q5	3.42	0.7876	High
Q6	3.41	0.7391	High
<b>Overall Mean</b>	<b>3.32</b>	<b>0.6320</b>	<b>Moderate</b>

Respondents had a high level of perception of trusting the Department of Health in vaccine recommendations (3.52), trusting the protocols provided by the government for safety and preventive measures (3.42), and fully understanding how the vaccine works in the body (3.41), which is consistent with the findings of Siegrist and Zingg (2014), who found that people are more willing to take preventative measures when they trust the government and public health officials.

Respondents had a moderate level of perception in terms of all health care providers are fully vaccinated (2.95), health care providers are trained well in administering the COVID-19 vaccines to other patients (3.27), and trust in government in their decisions of the best vaccine for the people (3.38). In the study of Manca T. (2018) and Wilson RJI. *et al.*, (2020) showed that most health care professionals are not true vaccination experts: they may share with the general public their concerns about the benefits and safety of vaccines, as well as their views on the prohibition of certain vaccine-preventable diseases.

**Table 2.3 Possible Side-Effects of COVID-19 Vaccine**

C. Possible Side-Effects of COVID-19 Vaccine			
Q1	2.24	1.0650	Low
Q2	1.86	0.9347	Low
Q3	2.34	1.0542	Low
Q4	1.77	0.9004	Very low
Q5	1.94	0.9993	Low
Q6	2.03	1.0093	Low
<b>Overall Mean</b>	<b>2.03</b>	<b>0.7824</b>	<b>Low</b>

Results showed a low level of perception in statements under possible side-effects of the COVID-19 vaccine which means it slowly influences the vaccination decisions of senior citizens. According to WHO common, mild, or moderate side effects are beneficial since they demonstrate that the vaccine is effective. The absence of side effects does not indicate that the vaccine is ineffective (Qutaiba *et al.*, 2021). COVID-19 vaccinations rarely cause allergic responses. However, if one of the vaccines has a high risk of an adverse reaction, another vaccine may be available (Vieths *et al.*, 2020). In fact, research reveals that only approximately half of all patients develop side effects. Sore arms, fever, chills, and weariness are the most prevalent (Lipps, 2021).

**Table 2.4 Communication and Media**

<b>D. Communication and Media</b>			
Q1	3.12	0.8543	Moderate
Q2	2.17	0.9819	Low
Q3	1.49	0.7989	Very low
Q4	2.89	0.9210	Moderate
Q5	3.45	0.6146	Moderate
Q6	3.34	0.8810	Moderate
<b>Overall Mean</b>	<b>2.74</b>	<b>0.4398</b>	<b>Moderate</b>
<b>Grand Mean</b>	<b>2.71</b>	<b>0.3102</b>	<b>Moderate</b>

Results indicated that most respondents showed a moderate level of perception of what they learned and heard from media and other sources of information about the COVID-19 vaccine, which is comparable to Zhang, L. (2015) and Reichelt, J. *et al.*, (2014) study found that people trust the accuracy of information when it comes from the people they perceive to have similar interests to them.

Results also showed a very low to low level of perception in relying on what they hear from the discussions among their family and friends about the COVID-19 vaccination (2.17) and sharing the vaccine information they got from radio/television without making sure the information is correct (1.49). According to studies, such negative information (e.g., information about lower effectiveness and side effects) may reduce vaccine acceptance in general (Byington C.L., 2014) and COVID-19 vaccine acceptance in particular (Motta M., 2021). It was found that respondents do not rely on what they heard and share COVID-19 misinformation with others.

**Table 3**

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### Testing the Significant relationship between the Demographic Profile and Factors Affecting Vaccination Decision of Senior Citizen

**Table 3.1 Gender**

Test variables		Chi-square	P-value	Decision
Gender	Health Issues	67.358	0.105	Not significant
	Trust in Health Institutions	58.634	0.140	Not significant
	Possible Side-Effects of COVID-19 Vaccine	42.489	0.871	Not significant
	Communication and Media	76.369	0.000	Significant

Table 3.1 revealed the statistical analysis that gender can significantly ( $p < 0.05$ ) influence the decisions of senior citizens on COVID-19 vaccination based on what they heard or learned from media and other sources. Exposure to stereotypical gender portrayals and clear gender segregation correlates with traditional perceptions of gender roles, occupations, personality traits, and attitudes toward expectations and aspirations for future life trajectories (Lemish D. and Götz M., 2017).

**Table 3.2 Educational Level**

Test variables		Chi-square	P-value	Decision
Educational Level	Health Issues	133.543	0.306	Not significant
	Trust in Health Institutions	127.962	0.144	Not significant
	Possible Side-Effects of COVID-19 Vaccine	103.069	0.933	Not significant
	Communication and Media	76.875	0.855	Not significant

Table 3.2 showed no significant relationship between factors affecting the COVID-19 vaccination decisions of senior citizens. Although education has been demonstrated to have a favorable impact on intelligence, it is necessary to investigate if the observed relationship is dependent on the educational duration and intelligence prior to variations in the educational level in order to guide policy (Hegelund *et al.*, 2020).

**Table 3.3 Marital Status**

Test variables		Chi-square	P-value	Decision
Marital Status	Health Issues	137.613	0.029	Significant
	Trust in Health Institutions	85.804	0.763	Not significant
	Possible Side-Effects of COVID-19 Vaccine	95.552	0.798	Not significant
	Communication and Media	81.830	0.361	Not significant

Table 3.3 shows that the health conditions of the respondents can also influence their decisions regarding the COVID-19 vaccine ( $p < 0.050$ ) when analyzed based on marital status. Men and women who suffered marriage separation were more likely than those who remained married to seek primary health care for mental health issues (Reneflot *et al.*, 2020).

**Table 3.4 Comorbidity**

Test variables		Chi-square	P-value	Decision
Comorbidity	Health Issues	573.067	0.996	Not significant
	Trust in Health Institutions	675.505	0.010	Significant
	Possible Side-Effects of COVID-19 Vaccine	797.628	0.000	Significant
	Communication and Media	495.107	0.319	Not significant

Table 3.4 shows that the existence of comorbidities can also be held as a factor that affects their decisions concerning the COVID-19 vaccine in terms of trust in health institutions and possible side-effects of the COVID-19 vaccine.

**Table 3.5 Sources of Information of COVID-19 Vaccine**

Test variables		Chi-square	P-value	Decision
Sources of Information of COVID-19 Vaccine	Health Issues	80.601	0.366	Not significant
	Trust in Health Institutions	253.899	0.000	Significant
	Possible Side-Effects of COVID-19 Vaccine	110.289	0.648	Not significant
	Communication and Media	196.080	0.742	Not significant

Table 3.5 showed that sources of information on the COVID-19 vaccine may significantly influence the respondents' vaccination decisions based on trust in health institutions. Studies

conducted around the world have found that higher levels of trust (e.g., in the government) are associated with the likelihood of accepting a COVID-19 vaccine (Wang C. *et al.*, 2021).

**Table 3.6 Vaccination Status**

Test variables		Chi-square	P-value	Decision
Vaccination status	Health Issues	290.920	0.000	Significant
	Trust in Health Institutions	263.665	0.000	Significant
	Possible Side-Effects of COVID-19 Vaccine	223.362	0.000	Significant
	Communication and Media	171.628	0.000	Significant

Table 3.6 showed that vaccination status can significantly influence the respondents' vaccination decisions based on health issues, trust in health institutions, possible side effects of the COVID-19 vaccine, and communication and media. The choices for COVID-19 immunizations were significantly influenced by factors including vaccine effectiveness, side effects, protection, dosage, availability, and vaccination sites (Leng A. *et al.*, 2021).

**Table 3.7 Vaccination Type**

Test variables		Chi-square	P-value	Decision
Vaccination type	Health Issues	251.457	0.000	Significant
	Trust in Health Institutions	313.208	0.000	Significant
	Possible Side-Effects of COVID-19 Vaccine	216.672	0.003	Significant
	Communication and Media	180.094	0.000	Significant

Table 3.7 showed that vaccination status and vaccination type significantly influence the vaccination decisions of senior citizens based on what they feel, who they trust, and what they learned and heard. A recent study (Kaur SP, Gupta V., 2020) found that unvaccinated people who had previously had COVID-19 were twice more likely as those who were vaccinated to have a recurrence.

**Table 3.8 Booster**

Test variables	Chi-square	P-value	Decision
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Booster	Health Issues	243.296	0.000	Significant
	Trust in Health Institutions	78.151	0.994	Not significant
	Possible Side-Effects of COVID-19 Vaccine	149.727	0.073	Significant
	Communication and Media	93.535	0.407	Not significant

**\*Calculation was performed at a 0.05 level of significance**

The health issues of the respondents may influence ( $p < 0.05$ ) their vaccination decisions in booster uptake. A study of Arbel *et al.*, (2021) found that participants who received a booster dose of BNT162b2 at least five months after the second dose had 90 percent lower COVID-19 mortality rates than those who did not receive a booster dose of the vaccine.

Overall results of the survey indicated that there are several factors that affect the decision of senior citizens to be vaccinated against COVID-19. However, some of these factors have low to moderate influence on the decisions of the respondents with a mean value ranging from 2.03-3.32. Overall, it was found out that the health status, trust in health institutions, possible side effects, and communication and media may moderately affect the decisions of the respondents. Since the prevalence of vaccine hesitancy among senior citizens is moderate which is currently linked to various factors, the government must step up measures to promote COVID-19 vaccination among senior citizens in the area.

## DISCUSSION

In the demographic profile, all gender types of respondents were represented in the survey. Coming from the findings of this study the majority of the respondents were females with a number of 197 respondents and a percentage of 55.2. In addition to that, high school graduate respondents dominated the study with a total percentage of 38.7, or 138 out of 357. On the other side, married senior citizens take a greater part in the study with a percentage of 53.5 or 191 out of 357 respondents. Moreover, a large number of senior citizens with no known comorbidity joined as respondents of the study with a percentage of 51.5, or 184 out of 357. In addition, in most cases, respondents were currently fully vaccinated without boosters holding a number of 205 with a percentage of 57.4. Also, Sinovac vaccine has largely been chosen as their vaccination type with a percentage of 33.9, or 121 out of 357. Lastly, 77.3%, or 276 respondents have decided not to have booster shots.

Most of the respondents trust the health institutions regarding the COVID-19 vaccination decisions having a mean of 3.32. While the least number of respondents do not rely on the possible side effects of the COVID-19 vaccine having a mean of 2.03 among the four factors. In terms of the other factors, health issues and communication and media have almost the same result having a mean of 2.75 and 2.74.

There is a connection between the respondent's demographic profile and factors affecting the senior citizen's vaccination decisions. The researchers discovered that the type of vaccine and their hesitancy to receive a booster is one of the factors that may enhance hesitancy among the senior

citizens toward the COVID-19 vaccine. But, in spite of high enthusiasm among some senior citizens surrounding the roll out of the COVID-19 vaccine, some older adults continue to remain hesitant about its receipt.

Based on the result of statistical analysis, there is no significant difference between the demographic profile and factors affecting the COVID-19 vaccination decisions in terms of gender, educational level, marital status, and booster type. It does not matter what gender, educational level, marital status, and booster type people had, they still had their stand when it comes to hesitating or allowing themselves to be vaccinated. However, there is a significant difference between the demographic profile and factors affecting the COVID-19 vaccination decisions in terms of comorbidity, vaccination status, and vaccination type. This signifies that there are respondents that affect their vaccination decisions by these factors.

## **CONCLUSION**

In this study, it is discovered the low levels of readiness to receive COVID-19 immunizations about a third unsure or unwilling to receive the vaccine, indicating significant levels of possible vaccine reluctance. Senior's acceptance of the COVID-19 vaccine was influenced by their trust in the health care system, which included vaccine safety and effectiveness. Vaccines are especially important for older adults. In spite of some senior citizens' enthusiasm for the COVID-19 vaccine's introduction, some older people are still skeptical of its effectiveness. The hesitancy was linked to a variety of demographic profiles and factors in terms of gender, educational level, marital status, sources of information of the COVID-19 vaccine, and type of booster shot. These aspects should be considered a crucial feature in the COVID-19 vaccination promotion campaign in order to increase vaccine uptake. More research into the acceptance and hesitancy of the COVID-19 vaccine should be prioritized. To obtain a high vaccine uptake, health officials should focus on informing the public about the safety of a future COVID-19 vaccine.

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