

## ATTITUDE OF FARMERS TOWARDS COVID-19 VACCINATION IN IKOT-EKPENE SENATORIAL DISTRICT OF AKWA IBOM STATE, NIGERIA

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## ABSTRACT

The study examined the attitude of farmers towards Covid-19 vaccination in Ikot Ekpene Senatorial District of Akwa Ibom State. The objectives of the study were to assess the respondents' awareness level of vaccines and vaccination as well as examine the attitude of the respondents toward the Covid-19 vaccination. The multi-stage sampling procedure was used to select two hundred (200) respondents for the study. Primary data were obtained using a structured questionnaire and analysed using descriptive and inferential statistics. The results on socioeconomic characteristics revealed that the majority (54%) of the respondents were female and married (49%). They were educated and were majorly Christians (77.5%) who were engaged in crop farming (45%) as a primary source of occupation. From the findings, the respondents' awareness index on COVID-19 Vaccines was very high (0.99) with a positive attitudinal disposition towards vaccines and vaccination. They acknowledged that it was not possible to reduce COVID-19 infection without vaccination (x=3.75) and promised to take COVID-19 vaccination without hesitation upon availability (x=3.61). However, the respondents expressed worry about the unknown effects of COVID-19 vaccines (x=3.68) believing that the vaccines can cause unforeseen problems in the future (3.51). In conclusion, the respondents, besides being receptive to the COVID-19 vaccine, still have some reservations and doubts about the vaccines. It is therefore recommended that Government and relevant authorities should intensify educational awareness and sensitization campaigns on the vaccines while making available more vaccines.

Keywords: Attitude, Farmers, Covid-19 Vaccines, Akwa Ibom State

#### INTRODUCTION

Coronavirus otherwise known as Covid-19 took the government of the world unawares and was declared a pandemic in March 2020 by the World Health Organization (WHO). Several measures to curtail its spread sprung up from various governments according to how the pandemic was perceived. It resulted in movement restrictions, quarantines, and lockdown which disrupted many sectors of development including agriculture, especially, in African countries. In Nigeria, for instance, farmers could not access their farms thereby affecting the agricultural value chain. Over 60% of Africans depend directly on agriculture for their livelihoods (FAO, 2017). The agricultural sector in Nigeria is responsible for the production and supply of food items as well as a stable source of growth for the national economy (Oyetoro, Abdulraheem, and Adefare, 2020).

To bring the pandemic to an end means to be immune to the virus and the safest way to achieve this was with a vaccine. Humanity has often relied on vaccines in the past to reduce infectious diseases death. The sustained success of the public health response to the COVID-19 pandemic will rely on acquired immunity in an adequate proportion of the population (Randolph, 2020). Widespread vaccination is therefore essential for managing COVID-19 transmission. Vaccination is a simple, safe, and effective way of protecting people against harmful diseases before they come into contact with them. It uses one body's natural defenses to build resistance to specific infections and makes your immune system stronger (Larson, de Figueiredo, Karafillakis, and Rawal, 2018). When one gets a vaccine, one's immune system responds by recognizing the invading germ, such as the virus or bacteria, and produces antibodies. Antibodies are proteins produced naturally by the immune system to fight disease. It remembers the disease and how to fight it. If you are then exposed to the germ in the future, your immune system can quickly destroy it before you become unwell. The vaccine is therefore a safe and clever way to produce an immune response in the body, without causing illness and our immune systems are designed to remember it. (Larson et al., 2018; Kata, 2012). Once exposed to one or more doses of a vaccine, we typically remain protected against a disease for years, decades, or even a lifetime. This is what makes vaccines so effective. Rather than treat a disease after it occurs, vaccines prevent us in the first instance from getting sick (Kata, 2012).

There is global optimism that the pandemic will be brought to an end through herd immunity. Launched in 2020 by Africa Centre for Disease Control (ACDC), the COVID-19 Vaccine Development and Access Strategy aim to immunize at least 60% of the African population (or 780 million people) by 2022 with vaccines that are proven safe and efficacious and are quality-assured to international standards to develop "herd immunity" (Altmann, Douek, and Boyton, 2020). Globally, as of 27th June 2022, 66.4% of the population has received at least one dose of the COVID-19 vaccine from about 12.03 billion doses administered. Currently, 5.21 million doses are administered daily and only 17.8% of the people in low-income countries have received at least one dose (Richie et al., 2020). Data from ourworld database show that as of June 26, 2022, 27.4 million of the 200 million people in Nigeria have received at least one dose of the COVID-19 vaccine, representing about 13% of the population and 16.82 million have received all doses prescribed by the initial vaccination protocol. Latest updates from Africa CDC on progress made on covid-19 vaccinations on the continent show that, in Nigeria, 96,570,000 doses of the vaccine have been received and 50,342,369 have been administered. About 52.1% of the doses were consumed while 9.7% have been fully vaccinated and 44.6% of the population has been supplied. Akwa Ibom State Government had taken delivery of 63,336 doses of the Modena vaccine in a bit to vaccinate her citizens who as of August 19, 2021, have had about 790 active cases of COVID-19 infections. As of October 8th, 2021, about 2,757,641 Nigerians constituting 2.1% have been vaccinated with the second dose of vaccines with Akwa Ibom receiving the total share of 110,374 doses.

Although the effective and equitable distribution of COVID-19 vaccines should be a key policy priority, ensuring acceptance is just as important as well. Trust in vaccines as well as the institutions that administer them are key determinants of the success of any vaccination campaign (de Figueiredo, Simas, Karafillakis, Paterson, and Larson, 2020).

Vaccine acceptability can be driven by three factors: confidence, convenience, and attitude (Zimmer, Corum, and Wee, (2020). Confidence considers the trust in the safety and effectiveness of the vaccine, trust in the delivery system as the healthcare system, and the trust in the policymakers (French, Deshpande, Evans & Obregon, 2020). Many people have doubts about vaccine safety, and this is going to be a major challenge to be resolved by health care providers, policymakers, community leaders, and governments to increase the widespread acceptance of the vaccines (Coustasse, Kimble, Maxik, 2021). Another driving force capable of influencing the acceptance of COVID-19 vaccines is the attitude of people towards vaccines. Attitude as a psychological concept could be viewed as the way one reacts towards an object or situation. It is a desire or tendency to approach or avoid something. (Abia, 2003). It is built from one's perception

and it can be positive or negative, favourable or unfavorable. When it is positive, the individual approaches the object when otherwise, the object is avoided. The success of any vaccination program is largely dependent on how well the vaccines are accepted among the population and the willingness of people to be vaccinated. Paul, Steptoe, and Fancourt, (2021) investigated the attitudes toward vaccines and the intention to vaccinate against COVID-19 among United Kingdom adults. They revealed that mistrust towards vaccines represents a significant challenge in achieving the vaccination coverage required for population immunity.

Similar skepticism was also shown in a poll that was carried out in the United States of America, where 50% of the respondents said they are willing to take the vaccine, 30% were unsure, and 20% were refusing the vaccine, (Zimmer, Corum and Wee, 2020). Another study reported that 67% of Americans would accept COVID-19 vaccines if it is recommended to them, although there were significant demographic differences in vaccine acceptance, (Coustasse, Kimble, Maxik, 2021). Negative attitudes towards vaccines and uncertainty or unwillingness to receive vaccinations may constitute major barriers to managing the COVID-19 pandemic in the long run, especially in the rural areas where we have those at the forefront of making sure we have food on our tables – the farmers. This study is designed to examine the attitude of rural farmers towards COVID-19 vaccination in Ikot Ekpene senatorial district of Akwa Ibom State.

#### The specific objectives were to;

- 1. Identify the socio-economic characteristics of the respondents.
- 2. assess the respondents' knowledge level of vaccines and vaccination.
- 3. examine the attitude of the respondents towards COVID-19 vaccination.

## Hypotheses

There is no significant difference in the attitude of respondents towards covid-19 Vaccination based on selected Socio-economic characteristics.

There is no significant Predicting influence of selected socio-economic characteristics of the respondents on their attitude towards covid-19 Vaccination.

## Methodology

The study was conducted in Akwa Ibom North West Senatorial District. Akwa Ibom State has a population of about 3.92 million people and it is divided into three Senatorial Districts namely,

Akwa Ibom North East (Uyo), Akwa Ibom South (Eket), and Akwa Ibom North West (Ikot Ekpene) senatorial districts.

Akwa Ibom North West has 2 agricultural Zones which are Ikot Ekpene with 8 blocks and Abak with 9 blocks making a total of 17 blocks. The study population was made up of all the farmers in Ikot Ekpene and Abak Agricultural Zones. A Multi-stage sampling technique was used in the selection of respondents for the study. Out of the 17 Agricultural blocks in the 2 Agricultural Zones, 10 blocks were selected using a simple random sampling technique. In the second stage, 2 cells each were randomly selected from the 10 blocks giving a total of 20 cells. At the last stage, 10 farmers from each of the cells were selected using a simple random sampling technique, giving a total of 200 respondents used for the study. The study made use of primary data. The primary data were collected using a well-structured questionnaire and complemented by a personal interview to ensure consistency and accuracy. The questionnaire was administered to 200 farmers in the study area. Objectives 1-4 were analyzed using descriptive statistics while Hypotheses 1 and 2 were tested using ANOVA and multiple regression.

### **RESULTS AND DISCUSSION**

#### **Socio-economic Characteristics**

The median age of respondents was 36 years old and more than half of them (54.0%) were females. The majority of the respondents (49.0%) were married. About 81% of the respondents had various forms of educational qualification with only 19.0% without formal education. Besides, more than half of the respondents (77.5%) were Christians and 45.0% of the respondents were into crop farming while 43.0% were into livestock farming. Detailed demographics are presented in Table 1.

Socio-economic Characteristics	Frequency	Percentage (%)
Gender		
Male	92	46.0
Female	108	54.0
Total	200	100.0
Age		
1-20	2	1.0
21-40	138	69.0
41-60	59	29.0
61-80	1	0.5
Total	200	100.0
Mean	36.4	
Marital Status		
Single	66	33.0
Married	98	49.0
Divorced/Separated	22	11.0
Widowed	14	7.0
Total	200	100.0
Educational Level		
No Formal Education	38	19.0
Primary Education	57	28.5
Secondary Education	59	29.5
Tertiary Education	46	23.0
Total	200	100.0
Religion		
Christianity	155	77.5
Islamic	14	7.0
African traditional	28	14.0
Others (Pagan)	3	1.5
Total	200	100.0

 Table 1: Socio-economic Characteristics of the Respondents

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#### **Primary Source of Income**

Crop farming	90	45.0
Livestock farming	86	43.0
Trading	11	5.5
Civil Services	13	6.5
Total	200	100.0
Household Size		
1-5 persons	140	70.0
6-10 persons	56	28.0
11-15 persons	4	2.0
Total	200	100.0
Mean	4.6 persons	

Source: Field Survey, 2022

## **Knowledge level on Vaccines and Vaccination**

The majority of the respondents had knowledge of the Covid-19 vaccine, and this constitutes a high awareness incidence index of 0.99. Item 2 on table 2 also revealed that the respondents were aware that Covid-19 vaccines are taken to prevent people from contacting covid-19 virus with an awareness incidence index of 0.91. The respondents were highly aware (0.91) that Covid-19 is given by medical experts in the Primary health care center. They were aware that the COVID-19 vaccine is not given by church pastors in the village (0.84), is not taken at a nearby market (0.81)and at a nearby church (0.84). They were aware that COVID-19 is a severe disease that may cause severe complications (0.76). However, more than half of the respondents were not aware of people who have died of COVID-19 constituting a low awareness incidence of 0.31. Similarly, more than half of the respondents were not in the know about people, especially, their friends who are affected by the COVID-19 pandemic. Generally, the high and low incidence indicates those attributes of COVID-19 that the respondents have a high level of knowledge of and those ones they have low knowledge of. This raises the need for periodic awareness campaigns on COVID-19 issues to raise their knowledge level on virtually all the COVID-19 issues, especially, vaccination. This agrees with the result of a survey conducted by the Nigeria Health Watch in Bauchi, Bayelsa, Ebonyi, Kebbi, Lagos, Niger states, and Federal Capital Territory (FCT), in which 85% of those surveyed

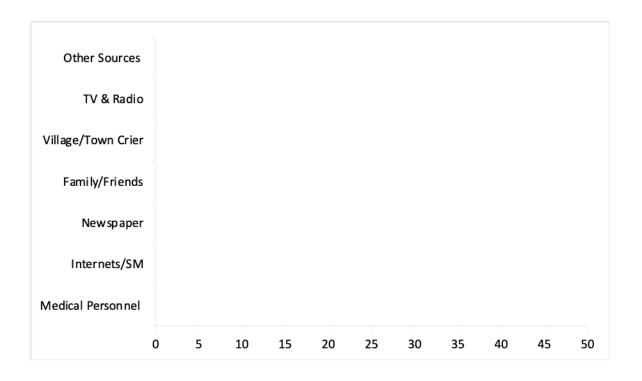
had heard about the COVID-19 vaccine and over two-thirds were willing to take the vaccine but disagrees with the number of people (56%) who had no fears about the jab. Also, a survey by ACDC, 2021 found that 88% of respondents who know someone who has had COVID, would take the vaccine as opposed to 76% of respondents who do not.

Table 2: Distribution of respondents based on knowledge on Vaccines and Vaccination

S/N	Statement	Yes	No	Don't	Knowledge	
				know	Incidence	Remark
1.	Have you heard about the COVID-19 Vaccine?	198	2 (1)		0.99	High
		(99.0)				
2.	Covid-19 Vaccines are taken to prevent people from	181	18	1	0.91	High
	contacting covid-19 virus	(90.5)	(9.0)	(0.5)		
3.	Have you been infected with COVID-19 before?	31	165	4(2.0)	0.16	Low
		(15.5)	(82.5)			
4.	Have our family members/Relatives been infected by COVI	I41	59		0.71	High
	19?	(70.5)	(29.5)			
5.	Has any of your friends been infected with Covid-19?	71	107	22	0.36	Low
		(35.5)	(53.5)	(11.0)		
6.	Has anybody you know died of Covid-19?	62	120	18	0.31	Low
		(31.0)	(60.0)	(9.0)		
7.	Covid-19 vaccines are taken at any primary health care cente	166	27	7	0.83	High
		(83.0)	(13.5)	(3.5)		
8.	COVID-19 Vaccine can also be taken at any nearby church	19	169	12	0.10	Low
		(9.5)	(84.5)	(6.0)		
9.	Covid-19 Vaccine can also be taken at any nearby market	21	162	17	0.11	Low
		(10.5)	(81.0)	(8.5)		
10.	COVID-19 Vaccine is given by church pastors in the village	19	168	13	0.10	Low
		(9.5)	(84)	(6.5)		
11.	Covid-19 is given by medical experts in the Primary Health C	181	17	2	0.91	High
	Centre	(90.5)	(8.5)	(1.0)		
12.	COVID-19 Vaccine is taken once every week?	23	167	10	0.12	Low

	(11.5)	(83.5)	(5.0)		
COVID-19 Vaccine is taken only once	100	88	12	0.50	Average
	(50.0)	(44.0)	(6.0)		
People of all ages can take the vaccine	148	47	5	0.74	High
	(74.0)	(23.5)	(2.5)		
Have you been vaccinated against COVID-19?	47	151	2	0.24	Low
	(23.5)	(75.5)	(1.0)		
Do you wish to receive the vaccine against COVID-19?	32	114	54	0.16	Low
	(16.0)	(57.0)	(27.0)		
Do you think COVID-19 is a severe disease that may cau	151	44	5	0.76	High
severe complications	(75.5)	(22.0)	(2.5)		
The probability of contracting COVID-19 infection is slim?	126	74		0.63	Average
	(63.0)	(37.0)			
	People of all ages can take the vaccine Have you been vaccinated against COVID-19? Do you wish to receive the vaccine against COVID-19? Do you think COVID-19 is a severe disease that may can severe complications	COVID-19 Vaccine is taken only once100 (50.0)People of all ages can take the vaccine148 (74.0)Have you been vaccinated against COVID-19?47 (23.5)Do you wish to receive the vaccine against COVID-19?32 (16.0)Do you think COVID-19 is a severe disease that may cau severe complications151 (75.5)The probability of contracting COVID-19 infection is slim?126	COVID-19 Vaccine is taken only once10088(50.0)(44.0)People of all ages can take the vaccine14847(74.0)(23.5)Have you been vaccinated against COVID-19?47151(23.5)(75.5)(23.5)(75.5)Do you wish to receive the vaccine against COVID-19?32114(16.0)(57.0)(57.0)Do you think COVID-19 is a severe disease that may cause is evere complications15144Severe complications(75.5)(22.0)The probability of contracting COVID-19 infection is slim?12674	COVID-19 Vaccine is taken only once       100       88       12         COVID-19 Vaccine is taken only once       100       88       12         (50.0)       (44.0)       (6.0)         People of all ages can take the vaccine       148       47       5         (74.0)       (23.5)       (2.5)         Have you been vaccinated against COVID-19?       47       151       2         (23.5)       (75.5)       (1.0)         Do you wish to receive the vaccine against COVID-19?       32       114       54         (16.0)       (57.0)       (27.0)       0         Do you think COVID-19 is a severe disease that may cau       151       44       5         severe complications       (75.5)       (22.0)       (2.5)         The probability of contracting COVID-19 infection is slim?       126       74	COVID-19 Vaccine is taken only once       100       88       12       0.50         COVID-19 Vaccine is taken only once       100       88       12       0.50         (50.0)       (44.0)       (6.0)       (6.0)       (6.0)         People of all ages can take the vaccine       148       47       5       0.74         (74.0)       (23.5)       (2.5)       (2.5)       (2.5)         Have you been vaccinated against COVID-19?       47       151       2       0.24         (23.5)       (75.5)       (1.0)       (16.0)       (57.0)       (27.0)         Do you wish to receive the vaccine against COVID-19?       32       114       54       0.16         (16.0)       (57.0)       (27.0)       (27.0)       (27.0)       (27.0)       (25.5)         Do you think COVID-19 is a severe disease that may cau       151       44       5       0.76         severe complications       (75.5)       (22.0)       (2.5)       (2.5)       (2.5)         The probability of contracting COVID-19 infection is slim?       126       74        0.63

Source: Field survey, 2022.



## Fig 1: Bar Chart Representing the main Source of information regarding the Covid-19 Vaccine

Results from the bar chart above reveal that the majority (99%) of the respondents primarily gathered COVID-19 vaccination information from multiple sources, others gathered from television/Radio (19%), village head/town crier (12.5), family and friends (11%), newspaper (5.5%), internet/social (5%) and medical personnel (4%). This highlight concerns about the low rate of reliance on electronic media in the transmission of information on vaccines. This result does not agree with the results of a survey conducted by ACDC in 2021, which revealed that 69% of Nigerians are more likely to trust radio for information on COVID-19, while 36% prefer social media. At the same time, 8% of respondents are less willing to trust government sources and 14% less willing to trust healthcare authorities. However, the result may also show the information-seeking behaviour of the respondents in times of pandemic as they did not rely majorly on one source of information.

#### Attitude of the Respondents towards Covid-19 Vaccination

Table 3 gives insight into the attitudinal disposition of farmers towards COVID-19 vaccination in the study area. The mean scores of the responses on attitudinal dispositions were also calculated. Any statement that has a mean score of 3.0 and above was regarded as a positive attitude towards that particular statement and vice versa if the mean score is below 3.0 since the maximum response score for each item was 5 and the minimum was 1. Item 1 in the table, 'taking of vaccines is against my religion' attracted a low mean score of 2.02 implying that the majority of the farmers were not in agreement with the statement leading to a negative attitude towards the statement. Item 2 attracted a high mean score of 3.51 implying that a greater number of the respondents agreed that they can rely on vaccines to stop serious infectious diseases. The respondents also agreed in greater numbers that they will feel safe after being vaccinated with the COVID-19 vaccine. This attracted a mean score of 3.68 indicating a favourable attitude towards the statement and COVID-19 vaccination in general. Other items that attracted higher means and favourable attitudes included items 9 and 10. The respondents agreed in greater numbers that they will take the COVID-19 vaccine without any hesitation, if it is available in their location with a mean score of 3.73 and that it is not possible to reduce the incidence of COVID-19 without vaccination. This attracted a mean score of 3.76 and it's a positive attitude. This finding agrees with a survey conducted by the ACDC

on the Covid-19 vaccine in February 2021 which showed that 76% of Nigerians are willing to accept the vaccine.

However, some of the farmers had some reservations towards COVID-19 vaccine and vaccination as demonstrated by their mean scores on attitude towards some items. To the majority of the farmers, COVID-19 vaccines can cause unforeseen problems in the future. This attracted a high negative mean score of 3.51 indicating that a sizeable number of the respondents, besides being receptive to the COVID-19 vaccine, still have some reservations and doubts about the vaccines. The majority agreed that they worry about the unknown effects of COVID-19 vaccines with a mean response of 3.68. This constituted a serious display of ignorance drawing attention to a greater need for awareness and sensitization campaigns on the DOs and DON'Ts of vaccines in the study area. Statements like 'I will feel protected after getting vaccinated with COVID-19 vaccine (2.02), and I will also encourage my family/friends/relatives to get COVID-19 vaccination of the response distribution of the respondents, one could conclude that the respondents had a positive and favourable attitudinal disposition towards COVID-19 vaccines and vaccination though with reservations and fear of the unknown.

S/N	Statements	SA	Α	Ν	D	SD	Μ
1.	Taking vaccines is against my religion.	11	9	6	120	54	2.02
2.	I can rely on vaccines to stop serious infectious	47	85	15	29	24	3.51
	diseases						
3.	I will feel safe after being vaccinated with the	54	83	30	11	22	3.68
	COVID-19 vaccine.						
4.	I will feel protected after getting vaccinated	11	9	6	120	54	2.02
	with the COVID-19 vaccine.						
5.	COVID-19 vaccines can cause unforeseen	47	85	15	29	24	3.51
	problems in the future.						
6.	I worry about the unknown effects of COVID-	54	83	30	11	22	3.68
	19 vaccines.						

 Table 3: Attitude of Respondents towards COVID-19 Vaccination

7.	I feel natural immunity through herbs will last longer than COVID-19 vaccines.	54	83	30	11	22	3.68
8.	I will also encourage my family/friends/relatives to get the COVID-19 vaccination.	11	9	6	120	54	2.02
9.	I will take the COVID-19 vaccine without any hesitation if it is available in my location.	63	69	29	29	10	3.73
10.	It is not possible to reduce the incidence of COVID-19 without vaccination.	55	81	35	18	11	3.76

Source: field survey, 2022. M = Mean

Key: SA = Strongly Agree; A= Agree; N =Neutral; D = Disagree; SD = Strongly disagree

Analysis of Variation in Attitude towards Covid-19 Vaccination Based on Selected Socio-Economic Characteristics of the Respondents

## Variation in Average Monthly Income and Attitude towards COVID-19 Vaccination among the Respondents

The ANOVA also examined the variation in the attitude toward COVID-19 vaccination based on the average monthly income of the respondents and shown in item 1 in Table 4. The results revealed that there was a significant difference in the attitude towards COVID-19 vaccination based on the average monthly income of the respondents, F=3.005, P<0.05. Results of the post hoc test done to determine which range of income was significantly different show that farmers with an average income of N61, 000 to N80, 000 had the highest score (45.40) on attitude towards COVID-19 vaccination, followed by farmers with an average income of N1, 000 toN20, 000 (43.14), followed by those who earned N81, 000 and above with a mean attitude score of 41.50, and then those who earned N21, 000 to N40, 000 with a mean attitude score of 40.84. Those with an average monthly income of N41, 000 to N60, 000 came least with a mean attitude score of 39.38. but a survey by ACDC, 2021 showed that those whose financial status had worsened due to the pandemic were three times less likely to take the COVID-19 vaccine.

## Variation in Educational Status and Attitude towards COVID-19 Vaccination among the Respondents

Results of ANOVA were employed to examine the variation in the attitude toward COVID-19 vaccination based on the educational status of the respondents and shown in item 2 in Table 4. The results revealed that there was no significant difference in the attitude towards COVID-19 vaccination based on the educational status of the respondents, F=1.771, P>0.05. One would have expected a change in attitude based on educational status, but the results say otherwise. This may be because over 80% of the respondents were educated and less than 20% had no formal education.

## Variation in Household Size and attitude towards COVID-19 Vaccination among the Respondents

Results on item 3 of Table 4. The table revealed that the attitude score of respondents with household sizes of 11-15 persons (47.00) was higher than those with households that had 1-5 persons (43.17) as well as households that had 1 to 5 persons (40.98). The differences across the household groups were also statistically significant at F=4.135, P<0.05. This means that the sign value of 4.135 was higher than the P-value of 0.05.

#### Variation in Gender and Attitude towards COVID-19 Vaccination among the Respondents

Table 4 below shows that there is no significant difference in the attitude towards COVID-19 vaccination of the respondents according to gender. Although the mean score of female farmers (M=41.89) is higher than that of male farmers (M=41.51), the mean difference observed, was not statistically significant at  $t_{(198)=} 0.441$ , P>0.05. This implies that the t-calculated is not greater than the t-critical. There was therefore no difference in the attitude of both men and women towards Covid-19 in the study area. This agrees with the result from the ACDC, 2021 survey on Covid-19 vaccines acceptability which showed that 77% of Nigerian men were willing to be vaccinated as opposed to 76% of women.

S/n	Variables	Ν	Mean	<b>F-Value</b>	Sign	<b>P-Value</b>	Remarks
					2-tailed		
1	Average Monthly			3.005	0.020	0.05	Significant
	Income			5.005	0.020		
	1000 to 20000	82	43.1463 <sup>b</sup>				
	21000 to 40000	85	$40.8471^{d}$				
	41000 to 60000	26	39.3846 <sup>e</sup>				
	61000 to 80000	5	45.4000ª				
	Above 81000 naira	2	41.5000°				
2	Educational Status			1.771	.154	0.05	Not Significant
	No formal education	38	42.0263				C
	primary education	57	40.6667				
	secondary education	59	41.2712				
	tertiary education	46	43.3478				
3	Household Size			4.135	0.017	0.05	Significant
	1 to 5 persons	140	40.9857				
	6 to 10 persons	56	43.1786				
	11 to 15 persons	4	47.0000				
4	Sex			df	t-value	t-critical	Remark
	Male	92	41.5109	198	0.441	1.972	Not Significant
	Female	108	41.8981				

# Table 4. ANOVA Results on the Variation in Attitude of COVID-19 Vaccination among theRespondents based on Selected Socio-economic Characteristics

Source: Field survey, 2022.

#### Analysis of Predictors of Attitude towards Covid-19 Vaccination among the Respondents

In analyzing the attitude towards COVID-19 vaccination among the respondents, multiple regression, which consisted of 5 regressors, was used. The five regressors were the socio-economic characteristics of the respondents. Multiple regression was conducted to examine if the selected socio-economic characteristics (age, sex, educational status, household size, and average monthly income) significantly predict the attitude of the respondents towards COVID-19 vaccination. Table 5 showed that all the five (5) independent variables taken together were significant in predicting the variance in the attitude of the respondents towards COVID-19 vaccination, R = 0.262. The results show that a 6.9% variance in the attitude of the respondents towards COVID-19 vaccination was accounted for by the five (5) predictors. The joint influence of these predictors on the attitude of the respondents towards COVID-19 vaccination at F = 2.866; P < 0.05.

A critical examination of the Beta coefficients in Table 5 shows that two predictors (household size and average monthly income) significantly predicted the attitude of the respondents towards COVID-19 vaccination. The coefficient of household size is 0.179. This means that a unit increase in household size actually does increase the attitude of the respondents towards COVID-19 vaccination by 0.179 units.

The coefficient of average monthly income was significant at -0.169. This means that a unit increase in average monthly income among the respondents will decrease the attitude of the respondents towards COVID-19 vaccination by 0.169 units.

S/N	Variables	<b>Coefficients</b> (Linear)	
1	Age of Farmers	0.063	
		(0.862)	
		(0.059)	
2	Sex	-0.043	
		(-0.613)	
		(0.872)	
3	Educational status	0.074	
		(1.068)	
		(0.412)	

**Table 5: Predictors of Perception towards Covid-19 Vaccination** 

4	Household size	0.179
		(2.510)*
		(0.170)
5	Average monthly income	-0.169
		(-2.379)*
		(0.000)
	Constant	38.719*
	R	0.262
	$\mathbb{R}^2$	0.069
	Standard error of Estimate	6.03922
	F-value	2.866
	Significant	0.016*

#### Source: Computed from Field survey 2022

**Note**: Values in the middle represent t-values while values in the last parenthesis represent standard error. \* Significant at 5% level of significant

### **Conclusion and Recommendations**

The study shows that almost all the respondents were aware of the Covid-19 Vaccines and had a favourable attitude towards the vaccine as a greater number of the respondents agreed that they can rely on vaccines to stop serious infectious diseases and will feel safe after being vaccinated with COVID-19 vaccine. They also agreed that they will take the COVID-19 vaccine without any hesitation if it is available in their location because according to them, it is not possible to reduce the incidence of COVID-19 without vaccination. However, they exhibited fear and worry that COVID-19 vaccines can cause unforeseen problems and unknown effects in the future. The study recommends a more targeted educational awareness campaign by Government and Public Health Groups on addressing how people think and feel about getting the vaccines. This will tackle the negative attitudes of fear and doubts about the future safety of Covid-19.

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