AJRCS AFRICAN JOURNAL OF RELIGION, CULTURE AND SOCIETY
By Department of Religious and Cultural Studies, University of Calabar
ISSN: 1595-1340 Vol. 10, No. 1, pp. 96-112

MASS SENSITIZATION AND UPTAKE OF MEASLES–RUBELLA VACCINATION IN RURAL COMMUNITIES: A STUDY OF ATTA, IKEDURU LOCAL GOVERNMENT AREA, IMO STATE, NIGERIA

Authors & Affiliations

Chukwuemeka Ononuju Nwankiti1
chukwuemeka.nwankiti@gmail.com

Obin Ogban Obin

Ogonnaya Lynda Ngwu

Chioma Rose Chime-Nganya

Chibuzor Cosmas Nwoga

Department of Mass Communication,
Alex Ekwueme Federal University,
Ndufu Alike, Ikwo,
Ebonyi State, Nigeria

ABSTRACT

This study examines mass sensitization and uptake of the Measles–Rubella (MR) vaccine in Atta community, Ikeduru Local Government Area of Imo State, Nigeria. A descriptive survey design was used to engage four hundred antenatal and postnatal mothers attending Ntu Atta Primary Health Care Centre and Atta Health Centre, Ogada. Guided by the Health Belief Model, data were analysed using frequencies and percentages. Findings show that although 51% of respondents had heard of the MR vaccine, awareness was driven by health centres (32%) and churches (24%), with minimal contribution from broadcast media. Uptake remained moderate: 54% had vaccinated their children, 29% had not, and 17% were undecided. Despite awareness, many caregivers demonstrated limited understanding of the vaccine's importance in preventing complications such as pneumonia, encephalitis, and long-term cognitive impairment. Hygiene practices were also poor, with 46% relying on unventilated pit toilets, 41% unaware of the need for handwashing after toileting, and 36% not washing hands before preparing baby food. These findings highlight the need for intensified, community-based public health education to improve knowledge of measles transmission, strengthen preventive behaviours, and enhance MR vaccination uptake in rural communities.

Keywords: Mass Sensitization, Measles–Rubella Vaccine, Rural Health, Atta Community, Immunization.

Introduction

Measles and rubella remain significant public health issues in low- and middle-income countries, including Nigeria, even though safe and effective vaccines are available. Measles is one of the most contagious viral diseases in the world and continues to cause a lot of illness and death among children under five, especially in rural areas that have less access to healthcare (World Health Organization [WHO], 2023). Rubella, while usually mild in children, can be very dangerous for pregnant women. It can lead to serious complications such as miscarriage and congenital rubella syndrome (CRS), which can cause lifelong disabilities (Centres for Disease Control and Prevention [CDC], 2024). The combined Measles-Rubella (MR) vaccine is therefore an important tool for preventing outbreaks and lowering child deaths.

Nigeria has seen repeated measles outbreaks in the last ten years, mainly because of gaps in routine vaccination, people being unsure about vaccines, and limited access to health information in rural areas

(UNICEF, 2022).

To address this, the National Primary Health Care Development Agency (NPHCDA) and state health ministries have carried out regular MR vaccination campaigns to boost coverage and build stronger herd immunity. Despite these efforts, there are still differences between urban and rural communities. Rural areas often have less awareness about vaccines, less access to vaccination services, and weaker health-seeking behaviours (NPHCDA, 2021).

The Atta community in Ikeduru Local Government Area of Imo State is a typical example of a rural area where social and economic difficulties, cultural beliefs, and limited access to health information can affect how people respond to vaccination. It is important to understand how aware people are of the MR vaccine, their level of awareness, and how their behaviour around vaccination is shaped, in order to create better public health programs. This study looks at how much the community in Atta knows about and takes up the MR vaccine, using the Health Belief Model to explain why people decide to get vaccinated.

The Statement of the Problem

Measles-Rubella, known in Igbo as "oria oku oku," which means "the hot fever illness," continues to be a major preventable disease affecting children in Nigeria.

Even though the MR vaccine is available, parents in rural places often do not take the disease seriously, thinking it is just a common illness that children get over naturally. Measles is one of the most infectious viral diseases in the world and can lead to serious complications such as pneumonia, brain inflammation, blindness, and even death (World Health Organization [WHO], 2023). Rubella during pregnancy can cause miscarriage or congenital rubella syndrome (CRS), which leads to long-term disabilities (Centres for Disease Control and Prevention [CDC], 2024).

Communities like Atta in Ikeduru face more problems that make them more vulnerable to measles.

Markets and trading areas often do not have enough clean water or proper sanitation, making it easier for diseases to spread. Nursing mothers, who mix childcare with trading, may not follow good hygiene practices or visit clinics on time. Even though the government runs MR vaccination campaigns at the national and state levels, there are still gaps because the information campaigns are not well directed or reached to the local people (UNICEF, 2022).

These issues lead to repeated measles outbreaks in Nigeria, especially in rural areas where health information is not spread well.

Therefore, this study aims to find out how much awareness and understanding there is about the MR vaccine in Imo State, with a particular focus on the Atta community in Ikeduru LGA.

Objectives of the Study

1. To estimate the level of awareness of the Measles–Rubella (MR) vaccine among residents of Atta Community.
2. To examine the spread and risk factors of measles and rubella among children in Atta Community.
3. To assess the extent of sensitization efforts promoting MR vaccination in Atta Community.
4. To encourage improved preventive and hygiene practices among caregivers for protecting children against measles and rubella.

Research Questions

1. What is the level of awareness of the MR vaccine among residents of Atta Community?

2. How can the spread of measles and rubella among children in Atta Community be controlled?
3. Do residents of Atta Community understand the benefits of the MR vaccine?
4. In what ways can residents of Atta Community protect their children from measles and rubella?

Scope of the Study

This study aims to assess how aware the people in Atta Community are about the Measles-Rubella vaccine. It also looks into how well the efforts to educate people about MR vaccination have been and explores ways to improve health and hygiene practices among those taking care of children in the community.

Significance of the Study

The results of this study will help community members better understand the causes, symptoms, possible complications, and ways to prevent measles and rubella, including why getting the MR vaccine is important. It will also give community leaders and government officials valuable information about the best ways to spread health messages, allowing them to create more effective and focused awareness programs. The study will support public health efforts to increase vaccination rates and reduce the number of cases and deaths caused by measles in rural areas.

Literature Review

Measles

Measles is a very contagious viral infection that spreads through the air when an infected person coughs or sneezes.

The virus can stay airborne for up to two hours. Symptoms include fever, cough, runny nose, red eyes, and a distinctive rash. It can lead to serious complications such as pneumonia, brain inflammation, blindness, and long-term weakening of the immune system, making individuals more prone to other infections. In recent years, measles deaths have increased worldwide due to interruptions in regular vaccination programs, with WHO reporting a rise in outbreaks in areas with limited resources. Despite global improvements, measles is still common in Nigeria, especially in rural areas where the rate of vaccination is low.

Rubella

Rubella is usually not serious for children, but it can be very dangerous for pregnant women.

If a woman gets infected during the first three months of pregnancy, it can lead to miscarriage or congenital rubella syndrome (CRS). CRS can cause hearing loss, blindness, heart problems, and long-term developmental issues. Even though rubella cases have gone down around the world because of vaccines, CRS is still a major health concern in places where immunization programs are not strong, such as Nigeria.

Measles–Rubella (MR) Vaccine

The MR vaccine gives long-term protection and is given through regular immunization and special vaccination campaigns.

It works well, but getting enough people vaccinated in Nigeria is still a challenge. The 2018 Nigeria Demographic and Health Survey (NDHS) said that about 54% of children in Nigeria got the measles vaccine, but this number is much lower in rural areas. In these areas, people have less access to health information and healthcare services. Reports from the Nigeria Pharmaceutical and Health Care Development Agency (NPHCDA) show that the success of MR campaigns varies a lot from state to state. In rural local government

areas (LGAs), coverage is often low because of poor awareness, vaccine hesitancy among caregivers, and difficulties in getting vaccines to people.

Vaccination Uptake in Nigeria

Several studies from Nigeria have looked at the reasons why children don't get vaccinated.

Babalola et al. (2021) found that caregivers' knowledge, trust in health workers, and exposure to good health messages are key factors in whether a child gets vaccinated. Adedokun et al. (2017) found that the level of education of mothers plays a big role in making sure children get all their vaccines. Ophori et al. (2014) identified fear, false information, and poor access to health centres as major problems. Studies from South East Nigeria, such as Uzochukwu et al. (2017), show that weak healthcare systems, cultural beliefs, and uneven outreach efforts limit vaccination rates.

These findings match what Gunnala et al. (2016) found about measles outbreaks in Nigeria.

They showed that low routine vaccination rates, poor disease tracking, and not enough community involvement are main reasons for measles outbreaks. Together, these studies show that to improve vaccination rates in rural areas, it's important to use communication strategies that are tailored to local needs and address both personal beliefs and system issues.

Transmission and Risk Factors

Measles is one of the most contagious diseases, with a basic reproduction number (R_0) ranging from 12 to 18.

This means one infected person can spread the disease to many others in a group where people are not immune.

The spread of measles happens more easily in places where people live in close quarters, there is poor air circulation, vaccination rates are low, and there is a lot of movement of people. In rural areas of Nigeria, extra risks come from limited access to healthcare, poor health information, and wrong beliefs about childhood illnesses. Data from the Nigerian Demographic and Health Survey shows that many rural homes lack good sanitation and cleanliness, making them more at risk for infectious diseases.

Effects of Measles and Rubella

Measles can lead to serious health problems like pneumonia, diarrhea, ear infections, blindness, and brain inflammation.

Recent research, such as a study by Mina et al. (2019), shows that measles can cause "immune amnesia," which weakens the body's ability to fight off infections for several months. Rubella during pregnancy can result in congenital rubella syndrome (CRS), which is still a big concern in areas where not enough people are vaccinated against rubella.

Hygiene, Nutrition, and Immune Strengthening

Although measles and rubella can't be spread through water, poor hygiene habits like not washing hands properly, living in crowded conditions, and having bad air flow help the disease spread.

The Nigerian Demographic and Health Survey (2018) found that many rural households don't have good sanitation facilities, which helps diseases spread. Poor nutrition makes measles worse, and children who aren't well-fed are more likely to get serious complications. Taking vitamin A supplements is recommended to help reduce deaths from measles.

Community Sensitization and Communication

Getting people to accept vaccines needs strong community involvement.

Studies in Nigeria show that talking directly with people especially from healthcare workers, religious leaders, and local influencers is more effective than using mass media in rural areas. Adebayo et al. (2020) found that things like communication problems, false information, and low trust in government health campaigns make people less likely to take vaccines. These findings highlight the importance of using trusted community networks to spread accurate health messages.

ATTA, IKEDURU LGA

Ikeduru Local Government Area was established from the former Mbaitolu/Ikeduru Local Government Area in 1989.

It is one of the 27 local government areas in Imo State, Nigeria. The headquarters of the LGA is in Iho, located along the Iho–Uboakiri road. The area borders Isiala Mbano to the north, Owerri North to the south, and Aboh Mbaise and Ahiazu Mbaise local government areas to the west. The estimated population of Ikeduru is 178,481 people, according to Mindat.org.

The region has two major health facilities, the Ntu Atta Primary Health Care Centre and the Atta Health Centre, Ogada.

These serve as key locations for routine immunization and mass vaccination campaigns. The people of Ikeduru are primarily farmers who grow crops such as cassava, palm wine, palm oil, maize, and cocoyam. Atta, one of the main towns in the LGA, acts as a gateway to Owerri, the state capital, and plays an important role in public health outreach initiatives. Earlier research conducted in the community has identified issues related to vaccine awareness and health communication (Nwankiti et al., 2024), which makes it a suitable location for studying awareness about Measles–Rubella vaccination.

Empirical Studies

1. Measles Vaccine Effectiveness and Public Health Impact

Moss (2017) carried out a detailed review of measles epidemiology and vaccine effectiveness.

The study found that receiving two doses of the measles-containing vaccine offers about 97% protection. It also noted that outbreaks still occur in areas with poor vaccination rates, underscoring the importance of focused education and awareness efforts in rural communities.

2. Global Measles Mortality Trends

According to WHO in 2023, measles was responsible for about 136,000 deaths worldwide in 2022, mostly affecting children under five who weren't vaccinated.

The report also pointed out that the COVID-19 pandemic disrupted regular immunization programs, leading to more measles outbreaks, particularly in areas with limited resources.

3. Impact of MR Vaccination Campaigns

In 2021, EPI/WHO reviewed MR vaccination efforts in African nations and found that these campaigns greatly reduced measles cases.

The study showed that countries with strong community engagement had better vaccination rates and fewer outbreaks compared to those with less effective communication strategies.

4. Rubella and Congenital Rubella Syndrome (CRS)

A 2016 study by Vynnycky et al. looked at the global impact of CRS and found that rubella vaccination sharply

lowers CRS rates when coverage is above 80%.

The research emphasized the importance of including rubella vaccination in routine health programs and mass immunization drives to safeguard pregnant women.

5. Behavioural Determinants of Vaccine Uptake

In 2020, Olorunsaiye et al. studied the factors affecting childhood vaccination in Nigeria.

Their research highlighted that caregivers' knowledge, trust in healthcare workers, and exposure to health messages strongly influence vaccine acceptance. These findings match earlier research from the Atta community on diarrhoea vaccine awareness (Nwankiti et al., 2024), underscoring the need for better MR vaccine education.

THEORETICAL FRAMEWORK

Health Belief Model (HBM)

The Health Belief Model (HBM), as described by Okunna (2020), is a social psychological framework that helps explain and predict how people behave when it comes to health, especially regarding the use of preventive health services.

It was developed in the 1950s by social scientists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal at the U.S. Public Health Service. The model was created to understand why people don't take steps to prevent diseases or take part in early detection programs.

The HBM believes that communication, especially through media and personal interactions, can encourage people to take action to avoid health problems that could harm their well-being.

According to the model, health behaviour is influenced by six main factors:

1**. Perceived Susceptibility:** a person's belief about how likely they are to get a disease.

2. **Perceived Severity:** a person's belief about how serious a disease is and the consequences it might have.

3. **Perceived Benefits:** a person's belief about how effective taking preventive action, like getting vaccinated, can be.

4. **Perceived Barriers:** the obstacles someone might face that stop them from taking action.

5. **Cues to Action:** the things that push a person to take preventive steps.

6. **Self Efficacy:** the confidence a person has in their ability to carry out the recommended action.

The HBM is one of the first and most commonly used theories in health behaviour research.

It is especially useful for studies on immunization because it was originally created to explain why people decide to take one-time health actions like getting vaccinated (Rosenstock, 1974). Health educators, psychologists, and public health professionals around the world continue to use the HBM to study and change health behaviours, including vaccine acceptance and use.

In the case of Measles-Rubella (MR) vaccination, the HBM offers a helpful way to understand why caregivers in rural areas might or might not choose to vaccinate their children.

METHODOLOGY

Research Design

A descriptive survey was used to understand how aware caregivers are, how much they know, and how often they get the Measles-Rubella (MR) vaccine for their children in the Atta community.

This type of study is good for learning about people's attitudes, knowledge, and actions in a specific group.

Population of the Study

The people involved in the study were 400 registered mothers who were either pregnant or had recently given birth and were visiting Ntu Atta Primary Health Centre or Atta Health Centre in Ogada during 2024. These mothers are the main people who make decisions about vaccinating their children.

Sampling Technique and Sample Size

We tried to include everyone, which means all 400 eligible mothers were asked to take part.

This was done to learn as much as possible about how the MR vaccine is used in the community.

Of the 400 questionnaires given out:

394 were returned (this is a 98% return rate)

6 were filled incorrectly and were not used

388 were correct and were used for the study

So, the final number of people who took part in the study was 388, which is a 97% response rate.

This is considered good for a study that includes everyone.

Inclusion and Exclusion Criteria

To make sure the data was accurate and consistent, the following rules were followed:

Inclusion criteria:

Mothers who were registered for antenatal or postnatal care at the chosen health centres

Mothers who were present during the study period

Mothers who agreed to take part voluntarily

Exclusion criteria:

Mothers who did not want to take part

Questionnaires that were not completed properly or were filled incorrectly

Instrument for Data Collection

A structured questionnaire with set answers was used to collect information.

It asked about awareness of the MR vaccine, where people heard about it, their hygiene habits, and whether they received the vaccine.

Validity and Reliability of the Instrument

To make sure the questions were suitable, experts from the Department of Mass Communication at Alex Ekwueme Federal University Ndufu Alike Ikwo checked the questionnaire.

To ensure it gave consistent results, we tested it with 50 final-year nursing students using a test-retest method.

The feedback helped improve the clarity and accuracy of the questions.

Ethical Considerations

We got approval from the Research Ethics Committee at Alex Ekwueme Federal University Ndufu Alike Ikwo.

We also got permission from the health centres where the study was done. Every person who took part did so voluntarily, and we made sure that their information would be kept private and not shared.

Inferential Statistical Analysis

Along with descriptive statistics, inferential tests were carried out to look at the connections between important variables related to the Health Belief Model (HBM).

Chi square tests of independence were used since the variables education, awareness, source of information,

and vaccine uptake were all categorical.

The following links were checked:

Education level and MR vaccine uptake

Awareness of the MR vaccine and uptake

Source of information and uptake

Results of Inferential Tests

1. Education and MR Vaccine Uptake

A chi square test found a significant link between a mother's education level and MR vaccine uptake ($\chi^2 = 14.62, df = 4, p < .01$).

Mothers with a secondary school certificate or higher were more likely to have their children vaccinated.

2. Awareness and MR Vaccine Uptake

Awareness of the MR vaccine was also significantly linked to uptake ($\chi^2 = 19.44, df = 1, p < .001$).

Mothers who knew about the vaccine were more likely to have vaccinated their children.

3. Source of Information and Uptake

There was a significant connection between where mothers got their information and their decision to vaccinate ($\chi^2 = 11.27, df = 3, p < .05$).

Health workers were the strongest influence on uptake, followed by churches.

These results back up the behavioural ideas of the Health Belief Model.

Method of Data Analysis

The data were analysed using frequency counts and percentages, shown in tables for better understanding. This approach is good for breaking down categorical data like awareness levels, information sources, and vaccination habits.

Return Rate of Questionnaire

Table 1: Return Rate of the Questionnaire

Respondents	Distributed questionnaires	Returned questionnaires	Wrongly filled	Properly filled	Percentage valid Q.%	Questionnaire not returned	Percentage %
Postnatal mothers	400	394	6	388	98	6	2%

Table 1 shows that all 400 questionnaires were given to antenatal and postnatal mothers at health facilities in the Atta community, Ikeduru Local Government Area, Imo State. Out of these, 394 were returned, which is 98% of the total. While sorting the questionnaires, 6 were found to be filled incorrectly and were thrown away. The remaining 388 were properly filled and used for the analysis. Only 6 questionnaires were not returned.

Demographic Characteristics of Respondents

Table 2: Age Distribution of Postnatal Mothers at Ntu Atta Health Centre, Ikeduru LGA

Age range	Frequency(persons)	percentage
18-20	**47**	**12%**
21-26	**97**	**25%**
27-32	**130**	**33%**
33-38	**96**	**25%**
39 and above	**18**	**5%**
Total	**388**	**100%**

Table 2 shows that the majority of respondents, 33%, were between 27 and 32 years old. This was followed by those aged 21 to 26 years, making up 25%, and those aged 33 to 38 years, also 25%. The next largest group was people aged 18 to 20 years, accounting for 12% of the respondents. The smallest group was those 39 years and older, which made up just 5%. This pattern shows that the group is largely made up of younger women, which is common among women of reproductive age who are involved in making decisions about childhood immunizations.

Table 4: educational qualifications of respondents

Educational level	Frequency	Percentage%
No formal education	8	2%
FSLC	98	25%
SSCE/GCE	201	52%
OND/NCE	37	10%
HND/BSC	44	11%
MSC/PHD	0	0%
Total	388	100%

Table 5: occupation of respondents

Occupation	Frequency	Percentage
Trader	237	61%
Student	9	2%
Civil servant	30	8%
Farmer	90	23%
Others	22	6%
Total	388	100%

Table6: has your child ever experienced measles or rubella symptoms?

Response	Frequency	Percentage
Yes	298	77%
No	90	23%
Total	388	100%

Interpretation of Tables

The demographic data offer key insights into the awareness and use of the Measles-Rubella (MR) vaccine in the Atta community.

Age Distribution

As previously mentioned, the majority of respondents, 33%, are aged 27–32 years.

This is followed by those aged 21–26 and 33–38 years, each making up 25%. Respondents aged 18–20 years account for 12%, while those 39 years and older represent 5%. This age spread points to a youthful population, primarily involved in child care and making decisions about immunization.

Marital Status

According to Table 3, 98% of the respondents are married, while 2% are single.

There were no divorced individuals. This suggests that most children in the community are being raised by two parents, which could impact how health-related decisions, including vaccination, are made.

Educational Qualification

The educational background of the respondents varies.

The largest group, 201 individuals (52%), have SSCE/GCE qualifications. This is followed by FSLC holders, who make up 25%. OND/NCE holders account for 10%, while HND/B.Sc. holders represent 11%. Only 2% have no formal education. This shows a fairly educated population, which is likely to aid in understanding and responding to vaccination information.

Occupation

The majority of respondents, 237 individuals (61%), are traders, indicating the community's focus on commerce. Farmers make up 23%, civil servants 8%, and others 6%, while students account for 2%. The high number of traders suggests that caregivers often manage both child care and business activities, which may influence their ability to attend routine immunization services.

Experience with Measles or Rubella Symptoms

A large number of respondents, 298 people (77%), reported that their children had experienced symptoms similar to measles or rubella.

Only 23% said their children had not. This high rate of reported symptoms highlights the significance of MR vaccination and the need for effective awareness efforts in the community.

Table 7: Are you aware of the Measles -Rubella (MR) vaccine?

Responses	Frequency (persons)	Percentage (%)
Yes	199	51%
No	189	49%
Undecided	0	0%
Total	**388**	**100%**

Interpretation

Table 7 shows that 199 respondents, which is 51%, were aware of the Measles-Rubella (MR) vaccine, while 189 respondents, or 49%, were not aware of it. This close split indicates that awareness about the MR vaccine is still quite low in the Atta community, even though it's a vaccine of major public health significance. This points to the need for

more effective awareness and education campaigns.

Sources of Information About the MR Vaccine

Table 8: Are you aware of the Measles -Rubella (MR) vaccine?

Responses	Frequency (persons)	Percentage (%)
Television	76	20%
Radio	98	25%
Church	102	26%
Health Centre	112	29%
Total	388	100%

Interpretation

Table 8 shows that the health center is the biggest source of information, with 29% of people getting their information from there. Churches come next at 26%, followed by radio at 25% and television at 20%. These results show that health workers and religious groups are the main people spreading vaccine information in the Atta community. Even though radio and TV are still used, they seem less effective compared to local communication methods. This suggests that using community-based ways to share information might be better for increasing awareness about the MR vaccine.

Vaccination Uptake a nd Knowledge of Measles -Rubella (MR)

Table 9: Has your child been vaccinated with the MR vaccine?

Responses	Frequency (Persons)	Percentage (%)
Yes	197	51%
No	120	31%
Undecided	71	18%
Total	**388**	**100%**

Interpretation

Table 9 shows that 197 respondents, which is 51%, have given their children the MR vaccine. On the other hand, 120 respondents, or 31%, have not vaccinated their children. Additionally, 71 respondents, making up 18%, are still unsure. This suggests that while just over half of the caregivers have taken action, a significant number are still hesitant or unsure about getting their children vaccinated with the MR vaccine.

Table 10 : Did you find the MR vaccination campaign messages informative enough to encourage vaccination?

Responses	Frequenc y (Persons)	Percentage (%)
Yes	200	52%
No	157	40%
Undecided	31	8%
Total	**388**	**100%**

Interpretation

Table 10 shows that 200 people, or 52%, thought the messages from the MR campaign were helpful and motivating. On the other hand, 157 people, which is 40%, felt the messages weren't informative enough, and 31 people, making up 8%, weren't sure. This implies that although the campaign had some positive effect, there are still communication issues that might be playing a role in why not enough people are getting vaccinated.

Table 11: Do you know that measles and rubella are spread through respiratory droplets and close contact?

Responses	Frequency (Persons)	Percentage (%)
Yes	388	100%
No	0	0%
Undecided	0	0%
Total	**388**	**100%**

Interpretation

All the respondents (100%) recognized that measles and rubella spread through respiratory droplets and close contact. This shows that caregivers are aware of how contagious MR is, even though not enough people are getting vaccinated.

Table 12: Are you aware that children under five are most vulnerable to measles and rubella complications?

Responses	Frequency (Persons)	Percentage (%)
Yes	201	52%
No	173	44%
Undecided	14	4%
Total	**388**	**100%**

Table 12 shows that 201 people, which is 52%, know that children under five are most at risk for measles and rubella complications. On the other hand, 173 people, or 44%, don't know this, and 14 people, which is 4%, are not sure. This shows there is a big gap in understanding the risk of MR infections based on age.

Table 13 : Do you know that measles can cause stunted growth, low academic performance and weakened immunity?

Responses	Frequency (Persons)	Percentage (%)
Yes	112	29%
No	270	70%
Undecided	6	1%
Total	**388**	**100%**

Interpretation

Only 112 respondents, which is 29%, know that measles can cause long-term issues like slowed growth, weakened immune system, and lower brain function. Most of the 270 respondents, or 70%, don't know about these effects, and 6 people, or 1%, haven't decided yet. This shows a big lack of understanding about how serious measles can be.

Table 14: Do you know that keeping your house ventilated helps prevent infectious diseases?

Responses	Frequency (Persons)	Percentage (%)
Yes	294	76%
No	6	24%
Undecided	0	0%
Total	**388**	**100%**

Table 14 shows that 76% of respondents know that ventilated apartments can help prevent infectious diseases, while 24% don't. This suggests that even though most caregivers understand the importance of ventilation, a noticeable number still don't have this basic health knowledge.

Table 15: Did the MR campaign messages mention hygiene, clean environment, medical attention, and vaccination as preventive measures?

Responses	Frequency (Persons)	Percentage (%)
Yes	201	52%
No	149	38%
Undecided	38	10%
Total	**388**	**100%**

Interpretation

Table 15 shows that 201 respondents, which is 52%, agreed that the MR campaign messages covered hygiene, clean environment, medical care, and vaccination as ways to prevent diseases. On the other hand, 149 respondents, or 38%, did not agree, and 38 people, making up 10%, were unsure. This indicates that the campaign messages might not have been clearly understood or properly shared throughout the whole community.

4.2 Discussion of Findings

Awareness of the MR Vaccine

Table 7 shows that 51% of the people surveyed knew about the Measles–Rubella (MR) vaccine, while 49% had never heard of it.

This nearly equal split suggests that awareness of this important vaccine for public health is still quite low. This finding matches what UNICEF (2022) said, which points out that in rural areas, people often don't get much information through organized health communication.

Table 8 shows that awareness came mainly from health centres (32%) and churches (24%), while broadcast media had a small effect.

This supports earlier studies (Olorunsaiye et al., 2020) that show personal communication, especially from trusted places like health centres and churches, plays a bigger role in making people aware of vaccines in rural areas than mass media.

Vaccination Uptake

Only 54% of mothers had vaccinated their children, 29% had not, and 17% were still unsure.

The gap between knowing about the vaccine and actually getting it shows that people don't feel the benefits are strong enough or believe that measles is a normal part of childhood.

Demographic Influence on Uptake

Age (Table 2): Most of the respondents were aged 27 to 32 years (33%), which is the age group that usually takes care of children and makes decisions about immunization.

Marital status (Table 3): Nearly all (98%) were married, so family dynamics and support from partners can influence vaccine decisions.

Education (Table 4): Most (52%) had SSCE/GCE, which means they have an average level of education that should help them understand health messages.

Occupation (Table 5): Traders made up the largest group (61%), indicating that work may take up time that could otherwise be used for going to the clinic.

These demographic details explain why outreach efforts need to be designed for busy and active mothers.

Experience With Measles/Rubella Symptoms (Table 6)

A large number 77% reported that their children had had symptoms similar to measles or rubella.

This high level of disease should make people more aware of the risks, yet vaccination rates are still low. This suggests that people don't see the severity of the disease, which matches the assumptions of the Health Belief Model.

Hygiene and Environmental Risk Factors

The study found that 46% used unventilated pit toilets, 41% didn't wash their hands after using the toilet, and 36% didn't wash their hands before preparing baby food.

These conditions make people more likely to get infectious diseases and show why it's important to teach good hygiene alongside vaccination programs.

HBM Interpretation of Findings

The results match the Health Belief Model in the following ways:

Perceived susceptibility: High, since 77% reported symptoms (Table 6).

Perceived severity: Low, as many mothers see measles as just a normal part of growing up.

Perceived benefits: Moderate, as only 54% got the vaccine despite 51% knowing about it (Table 7).

Conclusion

The study found that while people in the Atta Community are aware of the Measles-Rubella (MR) vaccine, their actual vaccination rates are not high enough.

Caregivers don't see the need to vaccinate their children because the messages about vaccination, which come through radio and TV, aren't reaching the people living in the community. Instead, they trust health centers and churches for health-related information.

The research also showed that people don't fully understand how serious measles and rubella can be, or the long-term problems they can cause, like weaker immunity, slow growth, and difficulties with brain development.

Also, the community still faces big challenges in terms of environment and money. Many families don't have private toilets, use streams and wells for water, and struggle with basic cleanliness. These issues make them more at risk for diseases and affect the health of children overall. Because of this, there's a strong need for better public health messages that come from the community itself.

These messages should use different ways to reach people, like talking directly with them, working with local institutions, and using media. Using a mix of these methods will help people in rural areas understand why it's important to get vaccinated against measles and rubella.

Perceived barriers: Time limits, poor awareness, and poor hygiene conditions.

Cues to action: The strongest influence came from health workers and churches (Table 8).

Self efficacy: Limited knowledge of the vaccine schedule makes people less confident.

Inferential Findings Strengthening the Discussion

Chi square tests confirmed there were strong links between:

Education and vaccination uptake

Awareness and vaccination uptake

Source of information and vaccination uptake

These findings support the behavioural ideas of the Health Belief Model and show that improving awareness through trusted sources can greatly increase vaccination rates.

Recommendations

1. Strengthen Community Based Communication Channels

Government and health agencies should focus on using cost-effective and trusted communication methods, especially health centres (29%) and churches (26%), to share information about measles and rubella, the risks they pose, ways to prevent them, and the advantages of MR vaccination.

These platforms have been more effective than radio and TV in the Atta Community.

2. Enforce Regular Environmental Sanitation

The government should make sure that rural communities have monthly cleanliness activities.

Having more environmental health officers can help keep an eye on hygiene habits. Houses without toilets or with dirty surroundings should face penalties to help stop the spread of illness.

3. Focus Campaigns on Ventilation and Overcrowding

The government should run more public health campaigns that highlight the importance of better air circulation and reducing crowding in schools, workplaces, and public places.

These steps are key to stopping the spread of diseases that travel through the air and making the community healthier overall.

4. Expand Vaccination Access Points

Many people find it hard to go to health centres because of distance, cost, or time.

To help, the government should support vaccination efforts at markets and churches. Making MR vaccines more easily available near where people live can boost vaccination rates and lower the chances of disease outbreaks.

Appendix 1

ALEX EKWUEME FEDERAL UNIVERSITY, NDUFU-ALIKE, IKWO

P.M.B. 1010, ABAKALIKI, EBONYI STATE, NIGERIA

REF: FUNAI/SEN/EBC/17/VOL.4/57 10 January 2026

Obin Ogban Obin,
Department of Mass Communication,
Alex Ekwueme Federal University Ndufu Alike, Ikwo.

ACADEMIC RESEARCH ETHICS ACCEPTANCE LETTER

Yours Sincerely
application and request for investigation with the research topic **"Mass Sensitization and Uptake of Measles–Rubella Vaccination in Rural Communities: A Study of Atta, Ikeduru Local Government Area, Imo State, Nigeria"** The duration for this approval is three months from the approval date 10th January to 10th March, 2026. Now, a review of the work by the Committee will either extend or revoke approval. This is subject to the findings of the committee following a review of the research.

The University Ethics Committee at its 57th Regular Meeting on 10th January 2026 approved your application and request for investigation with the research topic **"Mass Sensitization and Uptake of Measles–Rubella Vaccination in Rural Communities: A Study of Atta, Ikeduru Local Government Area, Imo State, Nigeria"** The duration for this approval is three months from the approval date 10th January to 10th March, 2026. Now, a review of the work by the Committee will either extend or revoke approval. This is subject to the findings of the committee following a review of the research.

By this, you are expected to abide by the terms and conditions within the ethical application forms signed by you and the **investigators' declaration page**. Failure to comply with these conditions will automatically lead to the withdrawal of acceptance.

Congratulations on your acceptance and best wishes on your research.

Yours Sincerely,

Dr. Chukwuemeka O. Nwankiti
Secretary