

Evaluating the Influence of Strategic Health Communication Campaign on Vaccine Hesitancy in Rural Rivers State Communities

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Abstract

This study evaluated the influence of strategic health communication campaign on vaccine hesitancy in rural rivers state communities. The study focused on three Local Government Areas of Rivers State: Abua/Odual, Khana and Etche. The research was guided by the theory of planned behavior. The sample for the study was 400 residents of the LGAs and three Medical Directors of the Primary Health Care Centers in the three Local Government Areas. Multistage cluster sampling technique used in the study, while structured questionnaire was used to elicit data from the respondents. Data was analysed using simple percentages and weighted mean score. Findings of the study showed that while a variety of public communication campaigns are carried out to spread awareness on the HPV vaccine, rural dwellers in Rivers State mostly came across the campaign to encourage the uptake of HPV vaccine through health workers visitation of the

community, social media, interaction with community members, and printed materials in nearby hospital. The study concludes that health communication campaigns to curb HPV vaccine hesitancy in rural Rivers State have not been successful in enhancing the vaccine uptake; many rural dwellers in Rivers State have limited knowledge about the HPV vaccine and its role in preventing cervical cancer. The study recommended that access to health communication campaigns should be improved by efforts taken at the policy, state and local government levels that will address transportation issues, guarantee sufficient availabilities of vaccination sites, provide home-based vaccination, incorporate vaccination sites into community facilities, and address financial barriers and existing inequities in access to HPV vaccines.

Keywords: *Health Communication, Campaign, Vaccine Hesitancy, Influence, Rural communities*

1.0 Introduction

It is an undisputed scientific understanding that vaccines are beneficial to health. Vaccination is considered to be one of the greatest achievements of public health. Vaccination programs have contributed to the decline in mortality and morbidity of various infectious diseases and are credited with the elimination of several diseases including poliomyelitis, smallpox, etc. However, the relevance of vaccinations may not always be similar with consensus when it comes to making individual choices. Many individuals tend to be vaccine hesitant, and these hesitations and concerns can cause one or more recommended vaccinations to be missed or delayed.

Vaccine hesitancy refers to delay in acceptance or refusal of safe vaccines despite availability of vaccination services (WHO, 2025). It is a motivational state of being conflicted about, or opposed to, getting vaccinated; this includes intentions and willingness (WHO, 2022). Drawing a clear picture of vaccine hesitancy can be difficult at the population level because hesitancy may not directly relate to vaccine uptake. Hesitancy can vary according to the vaccine involved (one can be hesitant regarding flu vaccine but accept with confidence all other vaccines), with newer vaccines usually engendering more hesitancy (Bedford & Lansley, 2007). Therefore, there is need for caution when trying to draw a general picture of vaccine-hesitant individuals' characteristics. Attitudes toward vaccination should be seen on a continuum ranging from active demand for vaccines to complete refusal of all vaccines. Generally speaking, vaccine-hesitant individuals are a heterogeneous group in the middle of this continuum. Vaccine-hesitant individuals may refuse some vaccines, but agree to others; they may delay vaccines or accept vaccines according to the recommended schedule, but be unsure in doing so (Benin, et al., 2006). Indeed, recent outbreaks of vaccine-preventable diseases, including measles, poliomyelitis, and pertussis in several parts of the developed world have been linked mainly to under-vaccinated or non-vaccinated communities (Falagas & Zarkadoulia, 2008). In addition, results of many studies have shown that even vaccinated individuals can have important doubts and concerns regarding vaccination (Casiday et al., 2006). Studies have shown that a significant number of parents and sometimes even healthcare professionals are uncertain and apprehensive about getting certain vaccines (Galagali et al., 2022). In the view of Lafnitzegger and Gaviria-Agudelo (2022), depending on individual and contextual factors, parents of children who require vaccinations lie on a spectrum of vaccine hesitancy from total acceptance of all childhood vaccines to acceptance of a few to cautious consideration to total rejection.

Vaccine hesitancy is a complex, rapidly changing global problem that varies widely. According to WHO (2025), immunization managers revealed that in some cases particular rural ethnic minorities and remote communities were affected, while in other areas wealthy urban residents

expressed concerns regarding vaccine safety. In other areas concerns are related to subgroups of religious or philosophical objectors. Concerns about safety of the vaccines which can influence vaccine acceptance. A particular concern stems from the side effects that may result from the vaccine intake. Pragmatic issues include challenges that individuals experience in getting vaccinated like availability, accessibility, affordability, and quality of health services.

Addressing these safety concerns requires providing accurate information about the vaccines' safety profiles and highlighting the rigorous testing and approval processes they undergo (Nnaemeka et al., 2022). To be successful in reducing the prevalence and incidence of vaccine-preventable diseases, vaccination programmes rely on a high uptake level. In addition to direct protection for vaccinated individuals, high vaccination coverage rates induce indirect protection for the overall community by slowing transmission of vaccine-preventable diseases, thereby decreasing the risk of infection among those who remain susceptible in the community (Fine et al., 2011). It is essential to build vaccine confidence among the people to improve its uptake. People should believe that vaccines are effective, safe, and part of a trustworthy medical system. Government health agencies and healthcare providers should understand the situation, empathize and use non-confrontational techniques along with strategic interventions to overcome vaccine hesitancy. Most importantly, the people need to be properly educated about the dangers of diseases and the efficacy and importance of vaccines.

2.0 Statement of the Problem

It is generally known that vaccines have saved countless lives in the past, however, it is unfortunate that vaccine hesitancy is causing a rise in preventable diseases. Recently, vaccine hesitancy was ranked eighth among the top threats to global health by the World Health Organisation (WHO) and this has enabled the perpetuation of vaccine-preventable diseases. The implication is that a worldwide gain in vaccination coverage is threatened by growing vaccine hesitancy. Nigeria, being a low-income country faces challenges in combating infectious diseases. Outbreaks of diseases like measles, diphtheria, pertussis, poliomyelitis, cancer, tuberculosis and hepatitis have substantially burdened the population's health and wellbeing. To this end, government and non-government health institutions have from time to time, conducted health communication campaigns to encourage vaccine uptake for various ailments. However, the challenge persists.

There is limited empirical evidence on the effectiveness of health communication campaigns on vaccine uptake and hesitancy and how they influence rural dwellers. This gap creates uncertainty about whether the campaigns on vaccine hesitancy are effective in the rural areas. Given this concern, there is a need to empirically examine health communication campaigns on vaccine hesitancy. Understanding how the people in the rural areas react to these campaigns is crucial for assessing the effectiveness of the campaigns for health development in Nigeria.

3.0 Objectives of the Study

1. find out how the rural dwellers in Rivers State come across health communication campaigns to curb HPV vaccine hesitancy
2. examine the influence of health communication campaigns to curb HPV vaccine hesitancy on attitude of rural dwellers to vaccine uptake in Rivers State

4.0 Research Questions

1. How do rural dwellers in Rivers State come across health communication campaigns to curb HPV vaccine hesitancy?

2. What is the influence of health communication campaigns to curb HPV vaccine hesitancy on attitude of rural dwellers to vaccine uptake in Rivers State?

5.0 Theoretical Review

Theory of Planned Behaviour

The theory of planned behavior (TPB) was developed in the 1980s by the social psychologist Icek Ajzen as a refinement of the theory of reasoned action. The theory is a psychological model that predicts human behavior by focusing on intentions, which are shaped by three core factors: attitude (liking/disliking the behavior), subjective norms (social pressure), and perceived behavioral control (perceived ease/difficulty of the behavior). Stronger intentions, combined with control, lead to a higher likelihood of performing the behavior, making it a powerful tool for understanding and influencing health, environmental, and consumer choices. The theory asserts that behavior is directly influenced by an individual's intention to perform the behavior, which in turn is shaped by their attitudes toward the behavior, the social norms that govern behavior, and their perceived ability to execute the behavior (Eze et al., 2024). The theory of planned behaviour traces the causal links from beliefs to actual human behaviour and it is implied that individuals make decisions based on rational considerations of available information. There are three kinds of considerations to guide behaviour: behavioural beliefs, normative beliefs, and control beliefs. Behavioural beliefs are conceptualised as the likely consequences or other attributes of the behaviour; they reflect an individual's subjective evaluation of the potential outcome occurring following their performance of the behaviour of interest. For instance, an individual may hold the belief that going to the gym (the behaviour) can help them be fit (the outcome). Behavioural beliefs are determinants of attitude, which is a learned disposition and reflects an individual's evaluation of the desirability of a targeted behaviour. From a deductive point of view, the more positive the attitude, the stronger an individual's intention will be to perform the behaviour.

The theory posits that an individual's intention to perform a specific behavior is the primary predictor of actual behavior, with three key variables influencing that intention: behavioral beliefs, normative beliefs, and control beliefs. Behavioral beliefs reflect an individual's perceptions of the outcomes of a behavior, while normative beliefs involve the perceived expectations of important social groups, such as friends and family. Control beliefs encompass factors that can either facilitate or hinder the performance of a behavior, contributing to an individual's perceived behavioral control. The theory emphasizes that more positive attitudes, greater perceived control, and stronger intentions correlate with a higher likelihood of executing the behavior. This model has been widely applied not only in health-related contexts, like exercise, smoking cessation, and dietary choices, but also in various fields, including public relations and advertising. By understanding how these beliefs interact, researchers can gain insights into a range of behaviors, such as political activism and sports participation, making the theory of planned behavior a valuable tool for predicting and influencing human actions across diverse domains (Boslaugh, 2022). The theory is relevant to this study as it incorporates the role of intentions, attitudes, subjective norms, and perceived behavioral control in the decision on vaccine uptake and hesitancy. In the case of vaccine hesitancy, individuals may be influenced by negative attitudes toward vaccines, driven by misinformation, distrust in authorities, or fear of side effects. Moreover, social norms, such as the opinions of family members, peers, and community leaders, play a crucial role in shaping vaccination decisions. In communities where vaccine hesitancy is widespread, individuals may feel pressure to conform to the views of their social group, even if they believe vaccination is beneficial. Addressing these social and cognitive factors through targeted

interventions, such as promoting positive attitudes and providing accurate vaccine information, is essential to reducing hesitancy.

6.0 Conceptual Review

Health Communication

Health communication is multifaceted and multidisciplinary field of research, theory, and practice concerned with reaching different populations and groups to exchange health-related information, ideas, and methods in order to influence, engage, empower, and support individuals, communities, health-care professionals, patients, policymakers, organizations, special groups, and the public so that they will champion, introduce, adopt, or sustain a health or social behaviour, practice, or policy that will ultimately improve individual, community, and public health outcomes (Schiavo et al., 2014). Health communication can be said to be the study and use of communication strategies to inform and influence people to make choices about their health. Messages are spread through different channels such as mass media, print materials, social media, and face-to-face conversations. There is interface between communication and health which is increasingly recognized as a necessary element for improving both personal and public health. Health communication is often used synonymously with health education which can contribute to all aspects of disease prevention and health promotion. The most obvious application of health communication has been in these areas of health promotion and disease prevention.

Sixsmith et al. (2014) define health communication as the study and use of communication strategies to inform and influence individual and community decision that enhance health. It encompasses health promotion, health protection, disease prevention and treatment, and is pivotal to the overall achievement of the objectives and aims of public health. According to Kreps (2015), health communication examines the influence of human and mediated communication on health care delivery and the promotion of health. It is problem-based and identifies serious issues in communication that impedes the health care quality and promotion of health care as well as suggests accurate health communication interventions, policies and programs for improving the quality of healthcare practices. Airhihenbuwa (2000) believes health communication is a social marketing strategy that aims to change the behaviour of people and promote acceptability of a health campaign. Media health communication is the dissemination of health information by the media in order to influence peoples' health choice and improve their health literacy for sustainable health development. Health programme communication is concerned with informing and creating awareness among the general public or specific population groups and empowering people to take action. It is often mainly concerned with communicating a series of messages about the health problem. Mass media remain a key component and veritable tool in the campaign toward sustainable health development in Nigeria. This is so because through adequate health communication and campaigns on issues of health such as drugs abuse, vaccines/immunizations, maternal health care, family planning programs, healthful living practices, prevention practices, cure eradication of diseases etc. The mass media have proven to be very concern about our health development. Some of the media communication programmes are centred on poliomyelitis vaccination, family planning program, malaria control, female genital mutilation, HIV/AIDS pandemic, COVID-19 pandemic, immunization, etc.

Design elements that have contributed to successful campaigns include sophisticated audience segmentation and targeting, the use of formative research in message creation, the development of professional-quality messages that compete effectively with product ads and other features of the communication environment for the attention of the audience, the use of appropriate channels of

communication, and the incorporation of more sophisticated theories of persuasion in campaign design. Health communication principles are often used today for various disease prevention and control strategies including advocacy for health issues, marketing health plans and products, educating patients about medical care or treatment choices, and educating consumers about healthcare quality issues. At the same time, the availability of new technologies and computer-based media is expanding access to health information, and effective use of these new tools.

The overall aim of health communication is to promote healthy living through interventions, advocate health policies, among others. No matter how well crafted a health intervention is, if it is done without the target population in mind, the communication will fail. Bennett and Glasgow (2009) posit that the effectiveness of a health communication programme can be ascertained through the measuring of the impact vis-a-vis improving the quality of life or reducing the negative effects of diseases on individuals, which in this case, diabetes. Uittenhout (2012) avers that when launching health communication, attention should be paid to how the information will be made available to the target population, how to influence the target population as well as motivate them. Therefore, in the chain of health communication, the target population is the king. Just like in the production process, the health communication is never complete until it reaches the target population. This makes the communication behaviour of the population measured in media preference and use very essential for health communication undertakings.

Vaccine Hesitancy

Vaccination has emerged as an effective strategy against the global spread of infectious diseases, averting over 5 million deaths worldwide. Vaccine hesitancy refers to delay in acceptance or refusal of safe vaccines despite availability of vaccination services (WHO, 2025). Vaccine hesitancy is defined as a motivational state of being conflicted about, or opposed to, getting vaccinated; this includes intentions and willingness (WHO, 2022). The WHO SAGE Working Group on Vaccine hesitancy describes hesitancy on a continuum between full acceptance and outright refusal and recognizes that vaccine hesitancy can be to single or multiple vaccines.

Vaccine hesitancy has existed since the first vaccine was administered over 200 years ago. However, it became a household term in the wake of the COVID-19 pandemic, with more people in the world thinking about vaccines than perhaps at any time in our history. The term 'hesitancy' was already gaining traction in vaccine discussions in the decade before COVID-19 erupted, and had become a growing topic of research and public health concern. The World Health Organization (WHO) had already named vaccine hesitancy as one of the top ten global health threats in 2019 (Larson, 2022). According to Dr Philippe Duclos, Senior Health Adviser for WHO's Immunization, Vaccines and Biological Department and guest editor of the special issue, entitled WHO recommendations regarding vaccine hesitancy, vaccines can only improve health and prevent deaths if they are used, and immunization programmes must be able to achieve and sustain high vaccine uptake rates. Vaccine hesitancy is an increasingly important issue for country immunization programmes. Behavioral and social drivers are beliefs and experiences specific to vaccination that are potentially modifiable to increase vaccine uptake. These include four interrelated domains of thinking and feeling, social process, motivation, and practical issues. Vaccine hesitancy is under the motivation domain. WHO has designed behavioral and social driver tools and survey instruments that can be used by countries to assess reasons for poor vaccine uptake in childhood and for COVID-19 and plan national vaccination programs to counter these (Galagali et al., 2022). Bussink-Voorend and colleagues investigated how the concept of vaccine hesitancy is characterized and measured. They find that vaccine hesitancy is operationalized in a

number of ways, and conclude that it is therefore not a practicable concept. Early references cited in the paper challenged various characterizations of vaccine hesitancy as being an unspecific and ambiguous notion in need of a clear definition. Bussink-Voorend et al. make a strong case for distinguishing between hesitancy and behaviour, and argue that including behaviour within a definition of vaccine hesitancy is not tenable (Bussink-Voorend et al., 2022, cited in Larson, 2022). This disputes the 2014 WHO Sage Working group definition of vaccine hesitancy as a behavioural phenomenon; however, it is also a point made in Maya Goldenberg's recent book *Vaccine Hesitancy*, which similarly rejects the definition of vaccine hesitancy as a behaviour. In their conclusion, Bussink-Voorend et al. (2022) propose that vaccine hesitancy should be defined as a state of indecisiveness regarding a vaccination decision (Larson, 2022).

Vaccine hesitancy can be due to various factors like lack of knowledge, false religious beliefs, or anti-vaccine misinformation. Beliefs regarding the benefit and effectiveness of vaccines, wariness of the motives behind, the influence of family especially parents' attitude, and conversation with friends on vaccination decisions also influence the vaccine acceptance and hesitancy. Fear of needles and pain after vaccine injection especially in children is also documented as one of the greatest opponents of vaccination (Machingaidze & Wiysonge, 2021). An interesting finding was noted among physicians in Switzerland. Those interested in immunization, a significant proportion of non-pediatricians, had the fear of "immune overload" and declined or delayed the immunization of their own children with the recommended MMR- or DTP-based combination vaccines (Posfay-Barbe et al., 2005). Vaccine hesitancy is not a static state; instead, vaccine decision-making is a journey with ups and downs, and changes over time with different influences and nudges along the path that sometimes prompt hesitancy and sometimes nudge a positive intention to vaccinate. In the case of COVID-19 vaccines, the constantly evolving information environment, including new information (and misinformation), changing guidance and requirements, and a volatile and changing epidemic context that affected risk perceptions and the felt need (or not) for vaccination, were all factors that have prompted changing sentiments around the vaccines, sometimes prompting eagerness and at other times hesitancy, delays or outright refusal of vaccination.

Strategic Communication as a Driver for Improved Vaccine Uptake in Nigeria

Nigeria is the most populous country in Africa, with an estimated population of more than 170 million people in 2013. Administratively, Nigeria is divided into 36 states and the Federal Capital Territory, Abuja. Each state is subdivided into local government areas (LGAs), and each LGA is divided into wards. The people of Nigeria are multi-ethnic, multicultural, and multi-religious. In Nigeria, the National Primary Health Care Development Agency is charged with the responsibility of effectively controlling vaccine-preventable diseases through the provision of vaccines and immunisation guidelines. The national routine immunisation schedule recommends that all childhood vaccinations are completed by 9 months of age. Apart from the routine immunisation schedule, several rounds of supplemental or mass campaigns are held across the country each year in an effort to eradicate poliomyelitis and other vaccine-preventable diseases. The National Social Mobilisation Working Group and the social mobilisation committees at the state and local government levels are responsible for developing and implementing communication interventions for both routine and campaign activities.

Nigeria has one of the highest rates of under-5 mortality in the world and vaccine-preventable diseases account for approximately 22% of child deaths in the country. Though vaccination rates have increased in Nigeria in the last decade, only 52% of eligible children in Southern Nigeria were fully vaccinated in 2013 (NDHS, 2013), and in the North, even fewer children (10–27%)

were fully vaccinated. These low rates have been attributed partly to vaccine hesitancy, a behaviour influenced by a number of factors, including a lack of trust in the vaccine or the provider, people not perceiving a need for or not valuing the vaccine, poor access, lack of knowledge, rumours, religious beliefs, illiteracy, and other social and political factors. Effective communication strategies can address some of these issues by making more people aware of the benefits of immunisation; correcting false beliefs, rumours, or concerns that prevent people from getting immunised; and informing people where and when to get immunised, thereby potentially increasing vaccination rates (Waisbord & Larson, 2005).

Communication intervention is a purposeful, structured, repeatable, and adaptable strategy to inform and influence community decisions to personal and public health participation, disease prevention and promotion, policy making, service improvement, and research (Hill, 2011). Communication interventions are believed to have contributed to the successes recorded in the polio eradication initiative in Nigeria. The country's National Social Mobilisation Working Group, headed by UNICEF, is responsible for developing and coordinating communication strategies for all childhood vaccinations. At state and local levels, social mobilisation committees coordinate these activities which tend to focus on the following three objectives: advocacy, social mobilisation and behavioural change communication (NPHCDA, 2008).

Currently, a wide range of communication interventions are being used in Nigeria. Most of the interventions used are developed at the national level and then implemented locally. However, this may result in inadequate community involvement in their planning and implementation. To improve communication, it is important to identify what interventions are being used, where, and for which purposes; which communication interventions are effective; and how people want to be communicated with.

Inaccurate information regarding both vaccine safety and the process leading to vaccine licensure and inclusion in universal programs can circulate widely, leading to significant problems for public health clinicians, policy makers and patients. A recent example of pitfalls in communicating vaccine safety to the public is the controversy surrounding the removal of thimerosal, a mercury-containing preservative, from vaccines for children in the US. Due to awareness of the theoretical potential for neurotoxicity of even low levels of organomercurials and because of the increased number of thimerosal-containing vaccines added to the childhood vaccination schedule in the US, concerns about the use of thimerosal in vaccines and other products have been raised (Halsey, 1992, cited in Dubé et al., 2015).

Doctors and other healthcare workers have been identified as effective potential communicators for promoting the benefits of vaccine uptake (Adedeji-Adenola et al., 2022). Multiple studies have also shown that physician recommendations could influence and improve the willingness to receive the COVID-19 vaccine among patients (Orok et al., 2022). Therefore, Healthcare professionals should be well-equipped with the necessary expertise to manage waning vaccine confidence. It is also important to ensure that policy actors are effectively educated about the importance and utility of vaccines, particularly for emerging vaccines such as the RTSS vaccine for malaria. This can help improve political will, government efforts, and commitments to improve vaccine access and information, preventing cases such as the 2003 OPV mishap. Countering misinformation through traditional and social media is also essential, as evidenced by increased efforts by the National Primary Health Care Development Agency (NPHCDA) and partner media organizations to provide credible information about COVID-19 during the pandemic (Adedeji-Adenola et al., 2022). Also, incorporating the developments and findings of vaccine research into

effective immunization programs will help replace false information with evidence-based communication (Chukwuocha, 2018).

7.0 Methodology

The study adopted the survey research design. The population of the study comprised the 1,187,034 people of Khana, Abua/Odual and Etche Local Government Areas of Rivers State. The sample size was determined using Taro Yamane formula to be 400. Multistage cluster sampling technique was used in the study. In the first stage, Rivers State is structured into three main senatorial districts or political zones: Rivers South-East, Rivers West and Rivers East, senatorial districts, out of which Khana, Abua/Odual and Etche were selected respectively. The researcher purposively the LGAs that have rural communities and villages where the people are more attached to their cultural practices, and are far away from the capital city of Port Harcourt. In the second stage, purposive sampling technique was used to select communities that have Primary Health Care Centers. In Abua/Odual LGA, the selected communities are: Emesu, Agada, and Okoboh. In Khana LGA, the selected communities are: Taabaa, Gwara and Beer. In Etche LGA, the selected communities are: Ulakwo, Obite and Umuaturu. In the third stage, convenience sampling technique was used to identify the streets where the questionnaires were administered. Cronbach Alpha was used to calculate the reliability of the instrument. The result came out as 0.76 which indicated that the instrument is reliable. The data generated through the questionnaires were categorised and represented in frequency tables. They were analysed using simple percentages and weighted mean score.

8.0 Data Presentation and Analysis

Table 1: Whether health communication campaigns for uptake of HPV vaccine are clear and easy to understand

No.	Category	Frequency	Percentage
1	Yes	207	55.5
2	No	148	40
3	Not sure	18	4.8
	Total	373	100

Source: Field survey (2026)

Table 1 shows that majority of the respondents constituting 55.5% are of the view that health communication campaigns for uptake of HPV vaccine are clear and easy to understand.

Table 2: Whether health communication campaigns for uptake of HPV vaccine are culturally inclusive

No.	Sex	Frequency	Percentage
1	Yes	35	9.4
2	No	321	86
3	Not sure	17	4.6
	Total	373	100

Source: Field survey (2026)

Table 2 shows that majority of the respondents constituting 86% are of the view that health communication campaigns for uptake of HPV vaccine are not culturally inclusive.

Table 3: How rural dwellers come across health communication campaigns to curb HPV vaccine hesitancy

S/N	Perception	SA	A	D	SD	Total	WMS	Decision
1	Respondents learnt about campaign for uptake of HPV vaccine through radio	69	45	96	163	373	2.05	Disagreed
2	Respondents learnt about campaign for uptake of HPV vaccine through town crier	153	122	63	35	373	2.2	Disagreed
3	Respondents learnt about campaign for uptake of HPV vaccine through health workers visitation of the community	223	69	58	23	373	3.3	Agreed
4	Respondents learnt about campaign for uptake of HPV vaccine through social media	159	107	46	61	373	3.0	Agreed
5	Respondents learnt about campaign for uptake of HPV vaccine through interaction with community members	227	68	32	46	373	3.3	Agreed
6	Respondents learnt about campaign for uptake of HPV vaccine through printed materials in nearby hospital	134	108	86	45	373	2.9	Agreed

Source: Field survey (2026)

On Table 3, with a weighted mean score of 3.3, it is agreed that respondents learnt about campaign for uptake of HPV vaccine through health workers visitation of the community. However, with a weighted mean score of 2.05, it is disagreed that respondents learnt about campaign for uptake of HPV vaccine through radio.

Table 4: Influence of HPV campaigns on attitude of rural dwellers

S/N	Perception	SA	A	D	SD	Total	WMS	Decision
1	Campaign have increased knowledge about the vaccine among the community members	145	134	61	33	373	3.05	Agreed
2	Campaign have enabled community members understand the relevance of the vaccine for health of young females	142	136	58	37	373	3.03	Agreed
3	More young females have taken HPV vaccine as a result of the health communication campaign	69	57	119	128	373	2.17	Disagreed
4	There is more positive disposition of parents and community members toward the HPV vaccine as a result of the health communication campaign	54	35	79	205	373	1.8	Disagreed

Source: Field survey (2026)

On Table 4, with a weighted mean score of 3.03, it is agreed that the campaign to curb HPV vaccine hesitancy have enabled community members understand the relevance of the vaccine for health of young females. However, with a weighted mean score of 1.8, it is disagreed that there is more positive disposition of parents and community members toward the HPV vaccine as a result of the health communication campaign.

9.0 Discussion of Findings

Research Question 1: How do rural dwellers in Rivers State come across health communication campaigns to curb HPV vaccine hesitancy?

While a variety of public communication campaigns are carried out to spread awareness on the HPV vaccine, rural dwellers in Rivers State mostly came across the campaign to encourage the uptake of HPV vaccine through health workers visitation of the community, social media, interaction with community members, and printed materials in nearby hospital.

Effective health communication campaigns in rural Nigeria rely heavily on grassroots strategies, traditional media, and community engagement to overcome low health literacy, cultural barriers, and infrastructure limitations. Because internet and visual media access are limited in remote areas, campaigns require a tailored, multi-channel approach. Radio is the most accessible and influential mass medium across rural Nigeria. Campaigns frequently use local community radio stations to broadcast public service announcements and interactive health education programme but when the

messages are not presented in the local language, it may have less impact on the people. Using the traditional and opinion leaders can be a very effective method in communicating with the rural audience. This method of message transmission is centered on the two-step flow of communication by first educating local chiefs, opinion leaders and religious leaders. These trusted figures then disseminate the health messages to the wider community. Trusted community health workers and village health volunteers can deliver direct, face-to-face education. This ensures messages on maternal health, hygiene, and immunization are culturally appropriate and easily understood. Also, village square meetings, storytelling, and cultural dance groups can be used as engaging ways to communicate the importance of health communication campaigns.

The research revealed that there are indeed health communication campaigns in place aimed at curbing vaccine hesitancy, particularly for the HPV vaccine. These campaigns are often conducted through a combination of traditional and modern media channels, including radio, television, community meetings, and social media platforms. In some areas, health workers and local leaders play a crucial role in disseminating information about the HPV vaccine, especially in communities where trust in healthcare systems is low. In contrast, in more urban or semi-urban areas, the use of digital platforms such as Facebook and WhatsApp has become more prevalent, allowing for broader and more immediate communication.

Research Question 2: What is the influence of health communication campaigns to curb HPV vaccine hesitancy on attitude of rural dwellers to vaccine uptake in Rivers State?

The health communication campaigns to curb HPV vaccine hesitancy on attitude of rural dwellers have increased knowledge about the vaccine and it's the relevance to health of young females. However, this did not influence on acceptance of the vaccine among the people.

The HPV vaccines available in rural Nigeria encountered community resistance based on misconceptions about why the vaccine was being introduced. This reflects the tenets of the theory of planned behaviour which states that behavior is directly influenced by an individual's intention to perform the behavior, which in turn is shaped by their attitudes toward the behavior and the social norms that govern behavior (Eze et al., 2024). The theory purports that an individual is more inclined to perform a behaviour when there is more positive feeling about it and consider it important that others think they should do so. Since there is lower rate of positive attitudes toward the HPV vaccine, this has affected its acceptability among the rural people. This shows that people use information and reasoning to guide their behavior just as the theory of planned behavior purports. Discussions on HPV vaccine is a complex topic that requires clear, accurate, and culturally relevant information to address common misconceptions and fears. Health communication campaigns should be designed to inform, educate, and persuade individuals about the importance of vaccination according to the rural and cultural context. In the context of HPV vaccine hesitancy, these campaigns can increase awareness about HPV and its link to cervical cancer, promote the safety and efficacy of the HPV vaccine, address misconceptions and myths about the vaccine, encourage community engagement and peer-to-peer education, and build trust in healthcare providers and government initiatives.

Effective communication strategies can address some of these issues by making more people aware of the benefits of immunisation; correcting false beliefs, rumours, or concerns that prevent people from getting immunised; and informing people where and when to get immunised, thereby potentially increasing vaccination rates (Waisbord & Larson, 2005). Rural populations face higher rates of vaccine hesitancy due to a combination of lower health literacy, distinct cultural norms, and restricted access to medical resources. Therefore, health communication campaigns that

provide accurate, evidence-based information in a way that is easy to understand and relevant to the community are essential.

10.0 Conclusion and Recommendations

Health communication campaigns to curb HPV vaccine hesitancy in rural Rivers State have not been successful in enhancing the vaccine uptake; many rural dwellers in Rivers State have limited knowledge about the HPV vaccine and its role in preventing cervical cancer. The effectiveness of these campaigns is often limited by factors such as fear of side effect, misconceptions about vaccines, resistance from parents, insufficient information, uneven distribution of primary health workers, and so on. The study recommends that access to health communication campaigns should be improved by efforts taken at the policy, state and local government levels that will address transportation issues, guarantee sufficient availabilities of vaccination sites, provide home-based vaccination, incorporate vaccination sites into community facilities, and address financial barriers and existing inequities in access to HPV vaccines. Also, targeted advocacy efforts should be put into health campaigns content developers to overcome community resistance that arise due to misconceptions about why the vaccine was being introduced.

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