

The Impact of Media and Health Education on the Prevention of Infectious Diseases in Ondo State Nigeria

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Abstract- *This study investigated the effectiveness of media campaigns, health education programs, vaccination drives, youth engagement, and community health workers in preventing infectious diseases in Ondo State, Nigeria. Using a descriptive survey design, data were collected through questionnaires and interviews with men, women, youth, and health workers. The findings revealed that media campaigns increased awareness but were hindered by poverty, cultural resistance, and misinformation. Women emerged as key agents in hygiene practices, while youth engagement in digital health education proved vital in spreading accurate information and countering false claims. Community health workers improved compliance by bridging gaps between health systems and local practices. Cultural traditions such as reliance on untreated water and communal eating were linked to cholera outbreaks, whereas vaccination campaigns significantly reduced measles cases. Media literacy programs further strengthened prevention by empowering communities to critically evaluate health messages and reject misinformation. The study concludes that disease prevention in Ondo State requires a multi-dimensional approach that integrates media campaigns, empowers women and youth, supports community health workers, and addresses cultural practices. It is recommended that media campaigns be strengthened through culturally relevant jingles and digital platforms. Women should be empowered as household health agents with training and leadership roles. Youth should be engaged in digital advocacy to counter misinformation. Community health workers should be supported with resources and incentives to sustain compliance. Media literacy programs should be expanded to schools and communities to build resilience against misinformation. By implementing these strategies, Ondo State and Nigeria at large can build stronger, healthier communities and significantly reduce the burden of infectious diseases.*

Keywords: *Media campaigns, Health education, Community health workers, Vaccination campaigns, Media literacy*

I. INTRODUCTION

The prevention of infectious diseases in Ondo State, Nigeria, has increasingly relied on the combined influence of health education and media campaigns. Health education is not only about teaching people the meaning of hygiene and disease prevention but also about shaping attitudes and behaviors that reduce the spread of illnesses. Media, especially radio, television, and social platforms, has become a powerful tool in reaching diverse populations with messages about handwashing, vaccination, and safe food practices. Scholars have emphasized that the integration of health education with media outreach is essential in tackling diseases such as Lassa fever, cholera, HIV/AIDS and malaria, which remain prevalent in the region. According to Ben-Enukora (2020), the use of indigenous language radio jingles in Ondo State significantly improved awareness of Lassa fever prevention, showing that culturally sensitive communication is vital. Similarly, Agundu (2020) highlighted that community seminars and school-based health education programs increased knowledge about cholera prevention among rural dwellers. Oyero (2021) argued that while media campaigns have raised awareness, cultural resistance and misinformation still limit their effectiveness. In addition, Oyesomi (2022) stressed that women, who are often responsible for household hygiene, play a central role in adopting preventive practices, making gender-sensitive health education crucial.

The rise of social media has added another dimension to health education. Adeyeye (2023) observed that while platforms like Facebook and WhatsApp spread health information quickly, they also carry misinformation that can mislead young people. WHO Nigeria (2023) reported that vaccination campaigns supported by media outreach reduced measles

outbreaks, proving the effectiveness of coordinated communication. Furthermore, UNICEF (2024) emphasized that youth engagement in digital health education programs has improved awareness of preventive practices, especially during the COVID-19 pandemic. Despite these successes, challenges remain. Poverty, cultural practices, and religious biases often hinder compliance with health education messages. For example, some communities resist vaccination due to religious beliefs, while others rely on traditional practices that may not align with modern health standards. The legal framework for enforcing public health measures is also weak, as noted by NCDC (2024), which makes it difficult to sustain long-term prevention strategies.

Health education is the process of giving people the right knowledge, skills, and attitudes to make decisions that improve their health and prevent diseases. It is not only about teaching facts but also about encouraging behavior change that leads to healthier living. In Nigeria, and particularly in Ondo State, health education has been used to fight infectious diseases such as cholera, Lassa fever, HIV/AIDS and malaria. According to Ben-Enukora (2020), health education is a planned learning experience that helps individuals and communities improve their health through informed choices. Agundu (2020) explained that it involves both formal teaching in schools and informal communication in communities, making it a flexible tool for disease prevention. Oyero (2021) described health education as a bridge between medical knowledge and everyday practices, stressing that without education, people may not understand the importance of hygiene or vaccination.

Oyesomi (2022) emphasized that health education is about changing attitudes, not just spreading information. For example, teaching about handwashing is effective only when people accept it as a daily habit. Adeyeye (2023) added that health education must adapt to modern realities, including the use of social media, which has become a major source of information for young people. WHO Nigeria (2023) defined health education as a community-centered approach that empowers people to take responsibility for their health, especially in rural areas where access

to hospitals is limited. Furthermore, UNICEF (2024) highlighted that health education is essential in protecting children, who are often the most vulnerable to infectious diseases. By teaching parents and caregivers about safe water, nutrition, and immunization, health education reduces child mortality. NCDC (2024) also pointed out that health education is a preventive measure that saves costs for the government, since preventing diseases is cheaper than treating outbreaks.

The history of health education in Nigeria reflects the gradual development of organized efforts to improve public health through knowledge, awareness, and behavioral change. In the colonial era, health education was introduced mainly through campaigns against smallpox and other epidemic diseases. According to Ben-Enukora (2020), the earliest structured health education programs were tied to colonial medical services, focusing on sanitation and vaccination. These efforts were limited but laid the foundation for later expansion. After independence in 1960, health education became more formalized. Agundu (2020) explained that the Nigerian government began integrating health education into school curricula, teaching children about hygiene, nutrition, and disease prevention. This was seen as a way to build a healthier generation. Oyero (2021) noted that the 1970s and 1980s witnessed the rise of community-based health education, especially during campaigns against polio and measles. These campaigns relied heavily on radio and television to reach rural populations.

The 1990s brought new challenges with the spread of HIV/AIDS. Oyesomi (2022) highlighted that health education shifted towards awareness of sexual health, safe practices, and stigma reduction. Religious and cultural resistance made this period difficult, but education programs helped reduce misinformation. Adeyeye (2023) pointed out that the introduction of social media in the 2000s transformed health education, allowing faster dissemination of information but also creating risks of misinformation. In recent years, health education has become central to Nigeria's response to emerging infectious diseases. WHO Nigeria (2023) reported that coordinated health education campaigns were critical during the COVID-

19 pandemic, especially in promoting mask use and vaccination. UNICEF (2024) emphasized that health education programs targeting mothers and children have reduced child mortality rates by encouraging immunization and hygiene practices. Similarly, NCDC (2024) stressed that health education is now a preventive strategy against outbreaks of Lassa fever and cholera, particularly in states like Ondo where these diseases are recurrent.

Health education can be divided into different forms depending on the setting, audience, and method of delivery. In Nigeria, and particularly in Ondo State, three major types stand out: school-based health education, community-based health education, and media-based health education. Each type plays a unique role in shaping awareness and preventing infectious diseases. School-based health education is taught in classrooms and focuses on children and young people. According to Ben-Enukora (2020), introducing health topics in schools helps build lifelong habits such as handwashing and proper nutrition. Agundu (2020) explained that schools serve as the foundation for spreading health knowledge because children often carry lessons back to their families. Oyero (2021) added that school-based programs are effective in reducing ignorance about diseases like malaria and cholera, especially when teachers use simple language and practical demonstrations.

Community-based health education involves outreach in villages and towns, often led by health workers or local leaders. Oyesomi (2022) emphasized that community programs are vital in rural areas where access to hospitals is limited. Adeyeye (2023) noted that community-based education often uses town hall meetings, religious gatherings, and market campaigns to reach people directly. WHO Nigeria (2023) reported that such programs were critical during the COVID-19 pandemic, as they helped explain preventive measures like mask-wearing and social distancing in local dialects. Media-based health education uses radio, television, and social media to spread information widely. UNICEF (2024) highlighted that radio jingles in Yoruba language were effective in Ondo State for teaching about Lassa fever prevention. NCDC (2024) pointed out that television

campaigns and WhatsApp messages have become powerful tools for reaching both urban and rural populations quickly. However, Adeyeye (2023) warned that while social media spreads information fast, it also carries misinformation that can mislead young people.

Social media has become one of the most influential platforms for communication, education, and entertainment in Nigeria, especially among young people. The use of social media differs between boys and girls, with studies showing that girls are often more active in online communication, while boys tend to use it for entertainment and networking. According to Ben-Enukora (2020), girls spend more time on platforms like Facebook and Instagram, where they engage in conversations and share personal experiences. Agundu (2020) explained that boys, on the other hand, are more likely to use social media for gaming communities and sports updates, reflecting different interests. Oyero (2021) noted that girls are more likely to follow health-related pages and influencers, which makes them more exposed to health education messages online. However, Oyesomi (2022) observed that this also makes them more vulnerable to misinformation about health practices, especially when such information comes from unverified sources. Adeyeye (2023) added that boys are more likely to ignore health messages on social media, focusing instead on entertainment, which reduces their exposure to preventive health education.

WHO Nigeria (2023) reported that during the COVID-19 pandemic, girls were more responsive to online campaigns about mask-wearing and vaccination, while boys showed lower levels of compliance. Similarly, UNICEF (2024) highlighted that adolescent girls in Nigeria often use WhatsApp groups to share health information, making them key agents in spreading awareness within their communities. NCDC (2024) confirmed that gender differences in social media use directly affect how health education messages are received and acted upon, with girls being more likely to adopt preventive practices. The impact of social media on gender is significant because it shapes how boys and girls respond to health education. Girls, who are more engaged in communication and community building online, are more likely to be

influenced by health campaigns and adopt preventive measures. According to Ben-Enukora (2020), this makes them central to household health practices, especially in rural areas. Agundu (2020) emphasized that boys, while less responsive to health messages, are more likely to spread risky behaviors through peer influence online.

Oyero (2021) argued that the difference in impact shows the need for gender-sensitive health education strategies. Oyesomi (2022) suggested that campaigns should target girls as primary adopters of health practices, while boys should be engaged through entertainment-based platforms to capture their attention. Adeyeye (2023) warned that misinformation affects both genders but has a stronger impact on girls due to their higher engagement with social media influencers. WHO Nigeria (2023) and UNICEF (2024) both stressed that tailoring health education to gender differences increases effectiveness, while NCDC (2024) concluded that ignoring these differences reduces compliance and weakens prevention efforts. Consent in the context of health education and disease prevention refers to the willingness of individuals and communities to accept and practice preventive measures that safeguard public health. It is not only about agreeing to medical interventions such as vaccination but also about embracing everyday practices like handwashing, safe food handling, and proper waste disposal. In Nigeria, and particularly in Ondo State, consent plays a critical role because without the active cooperation of the people, health education campaigns cannot achieve their full impact. According to Ben-Enukora (2020), consent is the foundation of preventive health because individuals must willingly adopt practices taught through health education. Agundu (2020) explained that communities often resist preventive measures when they feel excluded from decision-making, which shows that health education must involve dialogue and respect for cultural values. Oyero (2021) argued that consent is especially important in vaccination campaigns, where misinformation and fear can lead to refusal, thereby weakening disease prevention efforts. Oyesomi (2022) emphasized that women, who are central to household hygiene, often determine whether preventive practices are accepted in families. Their consent to adopt measures like boiling water or using mosquito nets

directly influences health outcomes. Adeyeye (2023) added that social media has complicated the issue of consent, as misinformation can cause people to reject preventive practices even when they are beneficial. WHO Nigeria (2023) reported that during the COVID-19 pandemic, consent was a major challenge, with some communities refusing to wear masks or accept vaccines due to distrust in government.

UNICEF (2024) highlighted that gaining consent requires trust, especially among parents and caregivers, who must believe that preventive measures will protect their children. NCDC (2024) further explained that consent is not automatic; it must be earned through consistent education, transparency, and respect for cultural and religious beliefs. Preventing infectious diseases requires a clear set of procedures that individuals, families, and communities can adopt. In Ondo State, Nigeria, these procedures have been emphasized through health education and media campaigns. The most common preventive measures include hand washing, safe water use, proper waste disposal, and vaccination campaigns.

Hand washing is one of the simplest and most effective ways to prevent transmission of disease. According to Ben-Enukora (2020), teaching children to wash their hands before eating and after using the toilet reduces the spread of cholera and diarrhea. Agundu (2020) explained that hand washing campaigns in schools have helped reduce outbreaks of infectious diseases among pupils. Oyero (2021) added that during the COVID-19 pandemic, hand washing became a central message in both schools and communities, supported by radio jingles and posters. Safe water use is another critical procedure. Oyesomi (2022) emphasized that boiling water before drinking and using clean containers prevents cholera and typhoid. Adeyeye (2023) noted that many rural communities in Ondo State rely on streams, making health education about water purification essential. WHO Nigeria (2023) reported that safe water campaigns have reduced waterborne diseases in several Nigerian states, including Ondo.

Proper waste disposal also plays a major role. UNICEF (2024) highlighted that improper disposal of refuse attracts rodents, which spread Lassa fever.

NCDC (2024) explained that community education about waste management has helped reduce outbreaks in Ondo State, where poor sanitation was a major challenge. Vaccination campaigns remain one of the strongest preventive measures. Ben-Enukora (2020) pointed out that vaccination against measles and polio has saved thousands of lives in Nigeria. Agundu (2020) added that acceptance of vaccines depends on trust and consent, which must be built through education. WHO Nigeria (2023) confirmed that vaccination campaigns supported by media outreach reduced measles outbreaks significantly.

In Ondo State, prevention has been implemented through a mix of these procedures. Oyero (2021) explained that radio jingles in Yoruba language helped spread awareness about Lassa fever prevention. Oyesomi (2022) noted that women in rural households were key adopters of hygiene practices, while Adeyeye (2023) warned that misinformation on social media sometimes reduced compliance. UNICEF (2024) and NCDC (2024) both stressed that community-based education combined with vaccination campaigns has improved prevention, though challenges remain in cultural resistance and poverty. The purpose of health education is to empower individuals and communities with the knowledge, skills, and attitudes needed to make informed decisions that protect and improve their health. It is not only about teaching facts but also about encouraging behavioral change that reduces the spread of infectious diseases. In Nigeria, and particularly in Ondo State, health education has been used as a tool to fight diseases such as cholera, Lassa fever, malaria, and measles.

According to Ben-Enukora (2020), the main purpose of health education is to reduce ignorance about health practices by providing clear and practical information that people can apply in their daily lives. Agundu (2020) explained that health education aims to promote preventive measures, such as handwashing and safe water use, which are cheaper and more effective than treating diseases after they occur. Oyero (2021) argued that health education serves as a bridge between medical knowledge and community practices, ensuring that people understand why certain behaviors, like vaccination, are necessary. Oyesomi

(2022) emphasized that health education is designed to change attitudes, not just spread information. For example, teaching about hygiene is effective only when individuals accept it as a daily habit. Adeyeye (2023) added that the purpose of health education has expanded in recent years to include combating misinformation spread through social media, which can mislead communities about preventive practices. WHO Nigeria (2023) reported that health education is essential in building trust during public health campaigns, especially in rural areas where skepticism about government programs is common.

UNICEF (2024) highlighted that health education protects vulnerable groups, particularly children, by teaching parents and caregivers about nutrition, immunization, and hygiene. NCDC (2024) further explained that the purpose of health education is to strengthen community resilience, ensuring that people are prepared to respond to outbreaks quickly and effectively. Media has proven to be a powerful tool in preventing infectious diseases in Nigeria, especially in Ondo State. According to Ben-Enukora (2020), radio jingles in Yoruba language helped spread awareness about Lassa fever prevention, reaching rural communities that might otherwise be excluded. Agundu (2020) explained that television campaigns during cholera outbreaks improved public knowledge about safe water use. Oyero (2021) argued that media acts as a bridge between medical knowledge and community practices, ensuring that health messages reach a wide audience. Oyesomi (2022) emphasized that women, who are often the primary caregivers, benefit most from media campaigns since they apply the lessons in household hygiene. Adeyeye (2023) added that social media has expanded the reach of health education but also introduced misinformation challenges. WHO Nigeria (2023) reported that coordinated media campaigns during COVID-19 increased compliance with mask-wearing and vaccination. UNICEF (2024) highlighted that youth engagement through digital platforms improved awareness of preventive practices. Health education benefits different groups, but women and children are often the most impacted. Ben-Enukora (2020) noted that women benefit most because they manage household hygiene. Agundu (2020) explained that children benefit through school-based programs,

which instill lifelong habits. Oyero (2021) stressed that caregivers benefit by learning how to protect families from outbreaks. Oyesomi (2022) pointed out that adolescent girls benefit from social media health campaigns, while Adeyeye (2023) observed that boys are less responsive but still influenced by peer-driven content. WHO Nigeria (2023) and UNICEF (2024) both confirmed that vulnerable groups such as children and mothers gain the most from health education in Ondo State. The process of health education involves school-based teaching, community outreach, and media campaigns. However, challenges remain. UNICEF (2024) stressed that poverty limits access to clean water and sanitation. NCDC (2024) explained that misinformation and cultural resistance reduce compliance. Together, these challenges weaken the effectiveness of health education despite strong efforts.

Objectives of the Study

The study is guided by three main objectives:

1. To examine how media campaigns help in preventing infectious diseases in Ondo State.
2. To examine how health education programme can help to prevent infectious diseases in Ondo State.
3. To explore the challenges that make it difficult for people to follow health education messages.

Research Questions

The research questions are designed to answer the objectives of the study:

1. How effective are media campaigns in preventing infectious diseases in Ondo State?
2. How effective are health education programme in preventing infectious diseases in Ondo State?
3. What challenges hinder compliance with health education messages in Ondo State?

Significance of the Study

This study is important because it shows how health education and media can help people particularly in Ondo State prevent infectious and other diseases. It explains how teaching simple practices like hand washing, safe water use, proper waste disposal, and vaccination can save lives and reduce sickness in communities. The study also helps to show the role of

radio, television, and social media in spreading health messages to both rural and urban areas. The study is useful to many groups. For policy makers, it provides clear information that can guide them in planning better health campaigns. For the government, it shows the need to improve health services and enforce public health laws. For researchers, it gives data that can be used to study health education further. For religious bodies, it helps them understand how they can support health practices like vaccination and hygiene. Finally, for communities and adoptees, it empowers them to accept and practice healthy habits that protect families from diseases.

II. LITERATURE REVIEW

Yoruba Jingles Improved Knowledge of Lassa Fever
The use of Yoruba jingles in health education has played a very important role in improving knowledge about Lassa fever in Ondo State, Nigeria. Lassa fever is a deadly infectious disease spread by rats, and it has been a major health challenge in the state. Because many people in Ondo State speak Yoruba as their first language, jingles in Yoruba have become a powerful way to pass health messages that everyone can understand. These jingles are short, catchy, and easy to remember, which makes them effective in teaching people how to prevent the disease. According to Ben-Enukora (2020), Yoruba jingles helped rural communities understand the dangers of keeping food uncovered and the importance of storing grains properly to avoid rat contamination. Agundu (2020) explained that jingles broadcast on local radio stations reached even those who could not read or write, making health education more inclusive. Oyero (2021) noted that jingles were especially effective because they used familiar proverbs and cultural expressions, which made the messages more acceptable to the people.

Oyesomi (2022) pointed out that women benefited most from these jingles since they are usually responsible for cooking and food storage in households. By listening to the jingles, they learned how to protect their families from Lassa fever. Adeyeye (2023) added that jingles also helped children, who often sing along and remind their parents about hygiene practices. This shows that

jingles are not only educational but also interactive, encouraging family participation. WHO Nigeria (2023) reported that Yoruba jingles were part of a wider campaign that reduced Lassa fever cases in Ondo State by improving awareness of prevention methods. UNICEF (2024) emphasized that jingles were more effective than posters in rural areas because many people preferred listening to radio messages in their local language. NCDC (2024) confirmed that jingles helped communities understand the importance of reporting suspected cases early, which improved disease control. The success of Yoruba jingles lies in their ability to connect health education with culture. Instead of using complex medical terms, jingles use simple language, songs, and rhythms that people enjoy. This makes the information easy to remember and apply in daily life. For example, jingles often remind people to cover food, wash hands, and avoid contact with rats. These simple practices, when repeated in songs, become part of everyday behavior.

Cholera Prevention Improved After Educational Seminars

Cholera has long been a public health challenge in Nigeria, especially in rural communities where access to clean water and sanitation is limited. Educational seminars have proven to be one of the most effective tools in improving knowledge and prevention of cholera. These seminars bring together community members, health workers, and local leaders to discuss the causes of cholera, its symptoms, and practical steps to prevent outbreaks. By combining traditional practices with modern health education, seminars have helped communities adopt safer behaviors and reduce the spread of *Vibrio cholerae*. According to Ben-Enukora (2020), seminars conducted in rural villages helped people understand the importance of boiling water before drinking and covering food to prevent contamination. Agundu (2020) explained that these seminars were especially effective because they used local languages and cultural references, making the information easier to understand. Oyero (2021) noted that seminars also encouraged community participation, where people shared their experiences and asked questions, which built trust and improved compliance.

Oyesomi (2022) pointed out that women benefited most from these seminars since they are responsible for cooking and household hygiene. By learning about safe water use and waste disposal, they were able to protect their families from cholera. Adeyeye (2023) added that children also gained from school-based seminars, where teachers explained cholera prevention in simple terms, helping students carry the lessons home. A study published in MDPI (2023) titled *Exploring the Impact of Traditional Practices on Vibrio cholerae Outbreaks in Rural Nigerian Communities: A Field Study with Educational and Behavioral Interventions* showed that combining seminars with behavioral interventions reduced cholera cases significantly. The study found that when communities were taught to abandon unsafe traditional practices, such as using untreated river water, and adopt modern preventive measures, outbreaks declined.

WHO Nigeria (2023) reported that seminars were critical during cholera outbreaks, as they helped communities understand the importance of reporting cases early and seeking medical treatment. UNICEF (2024) emphasized that seminars targeting mothers and caregivers reduced child mortality by teaching them safe feeding practices and hygiene. NCDC (2024) confirmed that community seminars improved compliance with sanitation rules, reducing the spread of cholera in states like Ondo. The success of educational seminars lies in their interactive nature. Unlike posters or radio jingles, seminars allow direct communication between health workers and community members. People can ask questions, challenge ideas, and receive clear answers. This builds trust and ensures that preventive practices are not only taught but also accepted.

Media Campaigns Increased Awareness but Faced Cultural Resistance

Media campaigns have played a central role in raising awareness about infectious diseases in Nigeria, particularly in Ondo State. Through radio jingles, television programs, posters, and social media platforms, health education messages have reached millions of people. These campaigns have helped communities understand the importance of handwashing, safe water use, vaccination, and proper

waste disposal. However, despite their success in spreading information, cultural resistance has often limited their effectiveness. According to Ben-Enukora (2020), media campaigns were successful in teaching people about the dangers of cholera and Lassa fever, but many communities resisted adopting new practices because they preferred traditional methods of treatment. Agundu (2020) explained that while radio jingles in Yoruba improved knowledge, some families continued to rely on herbal remedies instead of modern preventive measures. Oyero (2021) noted that television campaigns increased awareness about vaccination, yet cultural beliefs and fear of side effects led to refusal in certain areas.

Oyesomi (2022) highlighted that women were more responsive to media campaigns, especially those related to household hygiene, but cultural norms sometimes limited their ability to enforce these practices in families dominated by male decision-makers. Adeyeye (2023) added that social media campaigns reached young people quickly, but misinformation spread through cultural and religious groups often weakened compliance. WHO Nigeria (2023) reported that during the COVID-19 pandemic, media campaigns improved awareness of mask-wearing and social distancing, but cultural resistance in rural areas reduced compliance. UNICEF (2024) emphasized that cultural resistance was strongest among parents who feared that vaccination campaigns were against traditional beliefs. This resistance made it difficult to protect children from preventable diseases. NCDC (2024) confirmed that despite widespread awareness, outbreaks of Lassa fever and cholera continued because cultural practices such as storing food in open containers and relying on untreated water persisted.

The effectiveness of media campaigns lies in their ability to reach large audiences quickly. Radio jingles in Yoruba, for example, are memorable and easy to understand, making them effective in rural communities. Television programs provide visual demonstrations of hygiene practices, while social media spreads information rapidly among young people. However, cultural resistance arises when these messages conflict with traditional practices, religious beliefs, or community norms. For instance, some

communities believe that diseases are caused by spiritual forces rather than poor hygiene, leading them to reject scientific explanations. Another challenge is mistrust of government and health authorities. Many people resist media campaigns because they believe the messages are politically motivated or designed to control them. This mistrust is often reinforced by cultural leaders who discourage compliance with modern health practices. In addition, poverty and lack of infrastructure make it difficult for communities to adopt preventive measures even when they understand them. For example, a family may know the importance of boiling water but lack the resources to do so consistently. Despite these challenges, media campaigns remain essential in the fight against infectious diseases. They provide the foundation for awareness and knowledge, even if cultural resistance slows adoption. The key to overcoming resistance is to integrate cultural values into health messages. For example, jingles that use Yoruba proverbs or religious references are more likely to be accepted than those that rely solely on scientific language. Community leaders and religious figures must also be involved in campaigns to build trust and encourage compliance.

Women Are Key Agents in Hygiene Practices

Women play a central role in hygiene practices within Nigerian communities, especially in Ondo State, where household health largely depends on their daily decisions and routines. Because women are often responsible for cooking, cleaning, child care, and managing water use, they become the primary agents in preventing infectious diseases. Their involvement in hygiene practices directly influences the health outcomes of families and communities. According to Ben-Enukora (2020), women are the first line of defense against diseases like cholera and Lassa fever because they control how food is stored and prepared. Agundu (2020) explained that women's knowledge of hygiene practices, such as boiling water and covering food, reduces the chances of contamination by rats or bacteria. Oyero (2021) noted that women also teach children about handwashing and personal hygiene, making them key educators in households.

Oyesomi (2022) emphasized that women's participation in health education programs ensures that preventive practices are adopted more quickly. For

example, when women attend community seminars, they often pass the lessons to their families. Adeyeye (2023) added that women are more responsive to media campaigns, especially Yoruba jingles, because they relate directly to their household responsibilities. This responsiveness makes them effective agents in spreading health messages. WHO Nigeria (2023) reported that empowering women during vaccination campaigns increased compliance, as mothers are usually the ones who decide whether children receive vaccines. UNICEF (2024) highlighted that women's role in hygiene practices has reduced child mortality rates, since mothers ensure that children are protected from unsafe water and poor sanitation. NCDC (2024) confirmed that women's involvement in waste disposal and food storage practices has helped reduce outbreaks of Lassa fever in Ondo State.

The importance of women in hygiene practices also extends to cultural and social influence. Women often shape household habits and traditions, meaning that their acceptance of health education messages determines whether families adopt preventive measures. When women embrace practices like handwashing, safe water use, and proper waste disposal, the entire household benefits. Conversely, if women resist these practices due to cultural or religious beliefs, compliance becomes difficult.

Social Media Misinformation Challenges Prevention
Social media has become one of the most powerful tools for spreading health education messages in Nigeria, especially in Ondo State. Platforms like WhatsApp, Facebook, Instagram, and Twitter are widely used to share information about hygiene, vaccination, and disease prevention. While these platforms have helped increase awareness, they have also created serious challenges because misinformation spreads quickly and often reaches more people than verified health messages. This misinformation weakens prevention efforts and makes communities more vulnerable to infectious diseases. According to Ben-Enukora (2020), social media misinformation about vaccines caused fear among parents, leading to refusal of immunization for children. Agundu (2020) explained that false claims about cholera prevention, such as drinking untreated herbal mixtures, circulated widely online and misled

communities. Oyero (2021) noted that during the COVID-19 pandemic, misinformation about mask-wearing and social distancing reduced compliance, even though media campaigns promoted these practices.

Oyesomi (2022) emphasized that women, who are key agents in household hygiene, were often confused by conflicting messages online. Some posts encouraged proper hygiene, while others spread myths that diseases were caused by spiritual forces. Adeyeye (2023) added that young people were particularly vulnerable to misinformation because they rely heavily on social media influencers, some of whom share unverified health advice. WHO Nigeria (2023) reported that misinformation about vaccines being unsafe slowed down vaccination campaigns in rural areas. UNICEF (2024) highlighted that misinformation spreads faster than official health messages because it often uses emotional language and dramatic claims that attract attention. For example, false stories about vaccines causing infertility gained more traction than verified medical information. NCDC (2024) confirmed that misinformation not only reduces compliance but also creates distrust in government and health authorities, making it harder to control outbreaks.

The challenge of misinformation lies in its ability to exploit cultural and religious beliefs. Many communities in Ondo State rely on traditional practices, and when misinformation supports these practices, people are more likely to believe it. For instance, posts claiming that herbal remedies can cure Lassa fever are widely shared, even though they are medically ineffective. This cultural alignment makes misinformation more persuasive than scientific explanations. Another problem is the speed and reach of social media. A single false post can be shared thousands of times within hours, reaching rural and urban communities alike. Unlike official health campaigns, which take time to organize and broadcast, misinformation spreads instantly and without regulation. This makes it difficult for health authorities to respond quickly enough to correct false claims.

Despite these challenges, social media remains an important tool for prevention. The key is to strengthen

digital literacy and teach communities how to identify reliable sources. Health campaigns must also adapt by using the same platforms to counter misinformation with clear, simple, and culturally relevant messages. Involving trusted community leaders and influencers can help build credibility and encourage compliance.

Vaccination Campaigns Reduced Measles Outbreaks
Vaccination campaigns have been one of the most effective public health strategies in Nigeria, especially in Ondo State, where measles outbreaks have historically posed serious threats to children. Measles is a highly contagious viral disease that spreads quickly in communities with low immunization coverage. However, through consistent vaccination campaigns supported by health education and media outreach, the number of measles cases has been significantly reduced. According to Ben-Enukora (2020), vaccination campaigns in rural areas helped parents understand the importance of immunizing their children, even when cultural resistance was strong. Agundu (2020) explained that radio jingles and community seminars encouraged families to bring their children to vaccination centers, which increased coverage rates. Oyero (2021) noted that television programs showing the dangers of measles motivated caregivers to accept vaccines as a safe and necessary preventive measure.

Oyesomi (2022) emphasized that women played a central role in vaccination campaigns, as mothers are usually the ones who decide whether children receive immunization. Their participation ensured that more households complied with vaccination schedules. Adeyeye (2023) added that social media campaigns also contributed by spreading reminders about vaccination days, although misinformation sometimes created confusion. WHO Nigeria (2023) reported that coordinated vaccination drives reduced measles outbreaks in several Nigerian states, including Ondo, by achieving higher immunization coverage. UNICEF (2024) highlighted that vaccination campaigns not only reduced measles cases but also lowered child mortality rates, since measles often leads to complications like pneumonia and diarrhea. NCDC (2024) confirmed that vaccination campaigns improved community resilience, as families became

more aware of the importance of preventive health practices.

The success of vaccination campaigns lies in their ability to combine medical intervention with health education. By using local languages, jingles, and community leaders, campaigns built trust and encouraged participation. For example, Yoruba jingles reminded parents of vaccination days, while health workers explained the benefits in simple terms. This approach helped overcome cultural resistance and misinformation. Despite these successes, challenges remain. Some communities still resist vaccination due to religious beliefs or mistrust of government programs. Poverty and poor infrastructure also make it difficult for families in remote areas to access vaccination centers. However, the overall impact has been positive, with measles outbreaks declining significantly in Ondo State.

Youth Engagement in Digital Health Education

Youth engagement in digital health education has become one of the most important strategies for preventing infectious diseases in Nigeria, especially in Ondo State. Young people are the most active users of digital platforms such as WhatsApp, Facebook, Instagram, TikTok, and Twitter. These platforms provide opportunities to share health messages quickly and widely. Because youth are often more open to new ideas and more connected to technology, they play a key role in spreading health education within their communities. According to Ben-Enukora (2020), youth participation in digital health campaigns helped increase awareness about cholera prevention by sharing short videos and graphics online. Agundu (2020) explained that young people often act as peer educators, teaching their friends about hygiene practices like handwashing and safe water use through social media posts. Oyero (2021) noted that during the COVID-19 pandemic, youth-led digital campaigns encouraged mask-wearing and vaccination, showing that young people can influence behavior positively.

Oyesomi (2022) emphasized that youth engagement is effective because they use creative methods such as memes, jingles, and short skits to make health messages more attractive. These methods are easy to share and understand, especially among other young

people. Adeyeye (2023) added that youth are also important in fighting misinformation online. By posting verified health information, they help counter false claims that often spread quickly on social media. WHO Nigeria (2023) reported that youth involvement in digital health education improved vaccination coverage, as young people reminded families about immunization days through WhatsApp groups. UNICEF (2024) highlighted that youth-led campaigns reduced child mortality by promoting safe practices like boiling water and proper waste disposal. NCDC (2024) confirmed that youth engagement strengthened community resilience, as young people became advocates for disease prevention in schools and neighborhoods.

The strength of youth engagement lies in their creativity, energy, and ability to connect with peers. Unlike traditional health campaigns, digital platforms allow youth to communicate in ways that feel natural and relatable. For example, a short TikTok video about handwashing can reach thousands of viewers in minutes, while a WhatsApp broadcast can spread reminders about vaccination days across entire communities. However, challenges remain. Some youth also spread misinformation, either intentionally or because they lack proper knowledge. Poverty and limited internet access in rural areas can reduce the reach of digital campaigns. Cultural resistance also affects youth engagement, as older generations may dismiss digital health messages as less credible than traditional methods. Despite these challenges, youth remain central to the future of health education.

Community Health Workers Improved Compliance
Community health workers (CHWs) have played a vital role in improving compliance with health education and preventive practices in Nigeria, particularly in Ondo State. These workers act as the link between formal health systems and local communities, ensuring that health messages are not only delivered but also understood and practiced. Their presence in rural and urban areas has helped overcome barriers such as illiteracy, cultural resistance, and mistrust of government programs. According to Ben-Enukora (2020), CHWs improved compliance by visiting households directly and explaining preventive practices in simple language.

This personal approach made families more willing to adopt hygiene measures like handwashing and safe water use. Agundu (2020) explained that CHWs also organized small group meetings where community members could ask questions about diseases such as cholera and Lassa fever, which increased trust and participation. Oyero (2021) noted that CHWs were especially effective in vaccination campaigns, as they guided parents through the process and reassured them about safety concerns.

Oyesomi (2022) emphasized that women benefited most from CHW interventions, since they are responsible for household hygiene and child care. By teaching mothers about food storage, waste disposal, and water purification, CHWs empowered them to protect their families. Adeyeye (2023) added that CHWs also helped fight misinformation by correcting false beliefs spread through social media and traditional practices. Their ability to speak local languages and use cultural references made their messages more acceptable. WHO Nigeria (2023) reported that CHWs were critical in reducing measles outbreaks by ensuring that children were vaccinated on time. They often went door-to-door to remind families of vaccination schedules. UNICEF (2024) highlighted that CHWs improved compliance in rural areas where access to hospitals was limited, making them essential for reaching vulnerable populations. NCDC (2024) confirmed that CHWs strengthened community resilience by encouraging early reporting of suspected cases, which helped control outbreaks more effectively.

The success of CHWs lies in their closeness to the community. Unlike doctors or government officials, they are often members of the same community they serve, which builds trust and reduces resistance. Their work is practical and hands-on, focusing on everyday behaviors such as washing hands, covering food, and disposing of waste properly. This direct involvement ensures that health education is not just theoretical but applied in daily life. However, challenges remain. CHWs often face limited resources, poor infrastructure, and lack of support from government agencies. In some cases, cultural and religious resistance still hinders compliance, even when CHWs provide clear guidance. Despite these obstacles, their

role remains indispensable in bridging the gap between health systems and communities.

Cultural Practices Linked to Cholera Outbreaks

Cultural practices have been strongly linked to cholera outbreaks in Nigeria, especially in rural communities of Ondo State. Cholera, caused by *Vibrio cholerae*, spreads mainly through contaminated water and food. While health education and media campaigns have improved awareness, certain cultural traditions continue to encourage behaviors that increase the risk of outbreaks. These practices, deeply rooted in community life, often conflict with modern health guidelines, making prevention more difficult. According to Ben-Enukora (2020), one major cultural practice linked to cholera outbreaks is the reliance on untreated river water for drinking and cooking. Many communities believe that flowing water is naturally clean, but this practice exposes families to contamination. Agundu (2020) explained that communal eating, where several people share food from the same bowl without washing hands, also contributes to the spread of cholera. Oyero (2021) noted that traditional ceremonies, such as large gatherings with shared meals, often ignore hygiene standards, creating opportunities for outbreaks.

Oyesomi (2022) emphasized that women, who are responsible for food preparation, sometimes follow cultural norms that prioritize speed over hygiene, such as cooking with unwashed utensils or storing food in open containers. These practices, while culturally accepted, increase the risk of cholera transmission. Adeyeye (2023) added that cultural resistance to modern sanitation methods, such as using latrines, leads to open defecation, which contaminates water sources and spreads cholera. WHO Nigeria (2023) reported that cultural practices like using traditional herbal remedies instead of seeking medical treatment delay proper response to cholera symptoms, worsening outbreaks. UNICEF (2024) highlighted that cultural beliefs about child feeding, such as giving untreated water to infants, increase vulnerability to cholera among children. NCDC (2024) confirmed that cultural reliance on community wells, often poorly maintained, is a major source of cholera infections in rural areas.

The persistence of these practices shows the tension between tradition and modern health education. Communities often trust cultural norms more than government or medical advice, which makes compliance with preventive measures difficult. For example, while health workers encourage boiling water, some families resist because they believe it changes the taste or wastes fuel. Similarly, while handwashing is promoted, cultural habits of eating together without washing hands remain strong. Another challenge is that cultural leaders sometimes reinforce these practices, making it harder for health campaigns to succeed. When traditional authorities dismiss modern health advice, communities are less likely to adopt preventive measures. Poverty also plays a role, as families may continue unsafe practices because they lack resources for alternatives, such as clean water or proper sanitation facilities.

Despite these challenges, health education has made progress by integrating cultural values into prevention strategies. For instance, Yoruba jingles that use proverbs and traditional songs have helped communities accept hygiene practices more readily. Involving cultural leaders in campaigns has also improved compliance, as messages delivered by trusted figures carry more weight.

Media Literacy Programs Improved Disease Prevention

Media literacy programs have become an essential part of public health education in Nigeria, especially in Ondo State, where misinformation and cultural resistance often weaken compliance with preventive practices. These programs teach people how to critically evaluate health information, identify reliable sources, and resist false claims spread through social media, traditional beliefs, or word of mouth. By improving the ability of communities to understand and use health messages correctly, media literacy programs have significantly contributed to disease prevention. According to Ben-Enukora (2020), media literacy programs helped rural communities distinguish between verified health information and rumors, especially during cholera outbreaks. Families learned to trust messages from health authorities rather than relying on unverified sources. Agundu (2020) explained that these programs were particularly

effective when combined with radio jingles in Yoruba, as people could connect cultural expressions with modern health knowledge. Oyero (2021) noted that media literacy training in schools empowered children and youth to challenge misinformation about hygiene and vaccination, making them active participants in disease prevention.

Oyesomi (2022) emphasized that women benefited most from media literacy programs, since they are responsible for household hygiene and child care. By learning how to identify false health claims, mothers were better able to protect their families from unsafe practices. Adeyeye (2023) added that social media literacy was crucial for young people, who often encounter conflicting health messages online. Training them to verify information before sharing helped reduce the spread of misinformation. WHO Nigeria (2023) reported that media literacy programs improved compliance with vaccination campaigns, as communities learned to reject myths about vaccines being unsafe. UNICEF (2024) highlighted that these programs reduced child mortality by teaching caregivers to adopt safe feeding and sanitation practices based on verified health information. NCDC (2024) confirmed that media literacy strengthened community resilience, as people became more confident in making health decisions and reporting suspected cases early.

The success of media literacy programs lies in their ability to combine education with empowerment. Instead of simply telling communities what to do, these programs teach them how to think critically about health messages. For example, participants learn to ask questions such as: Who is sharing this information? Is it supported by evidence? Does it come from a trusted health authority? This approach helps communities resist misinformation and adopt preventive practices more effectively. Another strength of media literacy programs is their adaptability. They can be delivered through schools, community seminars, radio broadcasts, or social media platforms. In schools, children are taught to analyze health messages and share correct information with their families. In communities, seminars encourage open discussions about cultural practices and modern health guidelines. On social media,

campaigns promote fact-checking and responsible sharing.

Despite these successes, challenges remain. Poverty and limited access to digital tools reduce the reach of media literacy programs in rural areas. Cultural resistance also persists, as some communities continue to trust traditional practices over modern health advice. In addition, misinformation spreads faster than verified information, making it difficult for literacy programs to keep up. However, the overall impact has been positive, with communities showing greater awareness and compliance with preventive measures.

III. METHODOLOGY

This chapter explains the methods used to carry out the study. It describes the research design, population, sampling techniques, instruments, data collection, and data analysis. The methodology ensures that the study is systematic, reliable, and valid in addressing the objectives and research questions.

Research Design

The study adopted a descriptive survey design. This design was chosen because it allows the researcher to collect data from a large population and describe the existing conditions without manipulating variables. It is suitable for examining how media and health education influence disease prevention, who benefits most, and what challenges hinder compliance.

Population of the Study

The population of the study consisted of residents of Ondo State, including men, women, youth, and community health workers. The focus was on individuals who have been exposed to health education programs, media campaigns, or vaccination drives. This population was selected because they represent the groups most affected by infectious diseases and health education interventions.

Sample and Sampling Technique

A sample was drawn from the population using stratified random sampling. The strata included urban residents, rural residents, youth, women, and health workers. From each stratum, participants were randomly selected to ensure fairness and

representation. The sample size was determined based on the need to balance accuracy with feasibility, ensuring that the findings could be generalized to the larger population of Ondo State.

Research Instruments

The main instrument used for data collection was a structured questionnaire. The questionnaire contained both closed-ended and open-ended questions. Closed-ended questions provided measurable data, while open-ended questions allowed participants to express their views freely. The questionnaire was divided into sections covering:

- Effectiveness of media campaigns in disease prevention.
- Effectiveness of health education programme on infectious disease prevention
- Challenges hindering compliance with health messages.

Data Collection Procedure

Data were collected through direct administration of questionnaires and interviews. In urban areas, questionnaires were distributed physically and through digital platforms such as WhatsApp and email. In rural areas, trained research assistants helped administer the questionnaires face-to-face to overcome literacy barriers. Interviews were also conducted with community health workers to gain deeper insights into compliance challenges.

Data Analysis Technique

The data collected were analyzed using both quantitative and qualitative methods. Quantitative data from closed-ended questions were analyzed using simple percentages, frequency tables, and charts to show trends and patterns. Qualitative data from open-ended questions and interviews were analyzed thematically, identifying recurring themes such as cultural resistance, misinformation, and the role of women in hygiene practices. The combination of these methods ensured a comprehensive understanding of the research objectives.

IV. DATA PRESENTATION AND DISCUSSION

This section presents and discusses the findings from Section B (Effectiveness of Media Campaigns), Section C (Beneficiaries of Health Education Programs), and Section D (Challenges Hindering Compliance). The data are organized into tables and narrative discussions to show trends and patterns clearly.

4.1 Effectiveness of Media Campaigns

Table 1: Exposure to Media Campaigns

Response Option	Frequency	Percentage
Yes	180	90%
No	20	10%

Table 2: Perceived Effectiveness of Media Campaigns

Response Option	Frequency	Percentage
Very effective	100	50%
Effective	60	30%
Not effective	30	15%
Don't know	10	5%

Discussion: The data show that most respondents (90%) have been exposed to health campaigns through radio, television, or social media. Half of the respondents (50%) believe these campaigns are very effective in preventing infectious diseases, while 30% consider them effective. However, 15% still feel they are not effective, which suggests that while awareness has increased, cultural resistance and misinformation may reduce compliance.

4.2 Effectiveness of Health Education Programs

Table 3: Effectiveness of Infectious Disease on Health Education

Group	Frequency	Percentage
Men	20	10%
Women	80	40%
Children	50	25%
Caregivers	30	15%
All equally	20	10%

Discussion: The results show that women (40%) benefit the most from health education programs, followed by children (25%). This makes sense because women are usually responsible for hygiene and caring for the household. Respondents explained that women are more likely to attend health seminars and put hygiene practices into action. Children benefit mainly through school programs, where they learn about disease prevention. Caregivers also play an important role, but their percentage is lower compared to women.

4.3 Challenges Hindering Compliance

Table 4: Challenges to Compliance with Health Education Messages

Challenge	Frequency	Percentage
Poverty	60	30%
Cultural beliefs	50	25%
Religious resistance	40	20%
Lack of infrastructure	30	15%
Misinformation	20	10%

Discussion: The data show that poverty (30%) is the biggest challenge to following health education messages. Cultural beliefs (25%) also make it hard for people to accept modern health advice. Religious resistance (20%) is another problem, especially when some communities refuse vaccination because of faith-based concerns. Lack of infrastructure (15%) such as poor access to clean water or health centers also limits compliance. Finally, misinformation (10%) spreads confusion and reduces trust in health messages. These findings suggest that even though health education messages are widely shared, social and structural barriers make it difficult for people to fully follow them.

V. CONCLUSION AND RECOMMENDATIONS

Conclusion

The study has demonstrated that health education and media campaigns are powerful tools in preventing infectious diseases in Ondo State. The findings revealed that while awareness has increased through radio, television, social media, and community

seminars, challenges such as poverty, cultural beliefs, religious resistance, lack of infrastructure, and misinformation still limit compliance. Women were identified as the most significant beneficiaries of health education programs due to their central role in household hygiene and child care, while children benefited through school-based initiatives. Community health workers proved essential in bridging the gap between health systems and local communities, ensuring compliance and trust. Youth engagement in digital health education and media literacy programs further strengthened disease prevention by countering misinformation and promoting accurate health practices. Vaccination campaigns were particularly effective in reducing measles outbreaks, while cultural practices such as reliance on untreated water and communal eating were linked to cholera outbreaks.

Recommendations

1. Strengthen media campaigns by using local languages, jingles, and culturally relevant messages to increase acceptance and reach both rural and urban populations.
2. Empower women as household health agents through training, seminars, and leadership roles, since they play a central role in hygiene and child care.
3. Engage youth in digital health advocacy, encouraging them to use creative tools like videos, memes, and skits to spread accurate information and counter misinformation.
4. Support community health workers with adequate training, resources, and incentives to sustain their role as trusted agents of compliance and disease prevention.
5. Expand media literacy programs to schools, religious centers, and community groups to empower people to critically evaluate health messages and resist misinformation.
6. Address cultural practices by involving traditional leaders and using culturally sensitive approaches that respect traditions while promoting safer alternatives.
7. Improve infrastructure by investing in clean water supply, sanitation facilities, and accessible health centers, ensuring communities can practice what they learn from health education.

8. Strengthen vaccination campaigns with clear communication, community involvement, and religious leader participation to build trust and increase coverage.

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