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FROM AWARENESS TO ACTION: HOW BROADCAST MEDIA ONE HEALTH MESSAGES SHAPE PUBLIC BEHAVIOUR IN SOUTH-SOUTH NIGERIA

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ABSTRACT

This study examined how One Health messages disseminated through broadcast media shape awareness, perception, reaction and behaviour among broadcast journalists and members of the public in South-South Nigeria.

The study was anchored on the Agenda Setting Theory, Diffusion of Innovation theory and the Health Belief Model. The study adopted the survey technique. A 21-item questionnaire was administered to 384 validly analysed respondents selected through multi-stage cluster sampling and Levi's proportional allocation formula. Data were analysed descriptively. Findings revealed a conceptual gap in One Health knowledge among journalists and residents of the South-South region as only 18.2% demonstrated a clear understanding of One Health and what it entails. Among 57 media professionals who participated in the survey, only 29.8% understood the One Health Communication Agenda, over 70% were either unaware or did not understand the agenda.

Reaction to One Health messages was positive, as exposure to One Health messages made 35.4% of respondents feel a need to take action and change behaviour to prevent infection, while 27.1% expressed a sense of personal responsibility to protect themselves and their families. The most widely adopted behaviour as a result of exposure to One Health messages included regular handwashing (34.4%), covering food to prevent rodent and fly contamination (24.5%) and seeking medical tests when symptomatic (23.4%). The findings indicate a paradox: awareness and exposure remain limited, but when audiences encounter One Health messages, the messages can stimulate protective intentions and reported behaviour change.

Keywords: One Health Communication, Broadcast Media, Awareness, Behaviour Change, Risk Communication, Zoonotic Diseases, South-South Nigeria

1 INTRODUCTION

1.1 Background information

One Health is an integrative approach that recognises the links among the health of people, animals and ecosystems and underpins the Global Health Security Agenda's efforts to strengthen the detection of and response to the threat of infectious diseases (Federal Ministry of Health et al, 2019). The approach rests on the premise that with effective risk communication, the outbreak of infectious diseases can be controlled by shaping the social behaviours and attitudes that drive disease transmission. Globally, livestock accounts for a substantial share of newly discovered viral infections and roughly three-quarters of human pathogens identified over the last three decades originate from animals. (World Health Organization, 2023), underscoring the urgency of coordinated, multisectoral communication.

Reports have shown that Nigeria is one of the countries with the highest burden of infectious and zoonotic diseases globally. Nigeria was the first African country to adopt a One Health Strategic Plan in 2019, bringing together the health, agriculture and environmental sectors. This five-year framework, expected to be implemented from 2019-2023, was built on collaboration among the Federal Ministries of Health, Environment, Agriculture and Rural Development, as well as the Nigeria Centre for Disease Control, (NCDC), (NCDC, 2019). Communication was identified as a strategic component, with emphasis on raising awareness, reducing myths and misconceptions, developing standardised messages and using media channels to reach the public. Proposed activities in the One Health Strategic Plan included dissemination of radio jingles, TV advertisements, One Health messages on multimedia channels as well as the training of journalists in One Health Reporting.

Broadcast media are particularly important to public health communication because radio and television can reach dispersed populations, support education and provide opportunities for dialogue. Yet, outbreaks and risky practices persist. It is unclear whether high exposure to these messages actually translates into protective behaviour, which leaves a gap between awareness and action and raises questions about the effectiveness of broadcast media in driving action beyond dissemination of messages. As such, the study sought to determine to what extent does exposure to broadcast One Health messages translate to protective behaviours among residents of South South Nigeria.

1.2 Objectives

The objectives of the study were to:

- determine the level of awareness of the One Health Communication Agenda among broadcast journalists in South-South Nigeria;
- measure the public's level of knowledge and understanding of the One Health Communication Agenda in South-South Nigeria;
- ascertain the public's reaction to One Health messages; and
- identify actions taken by the public in reaction to One Health Communication messages.

1.3 Theoretical Framework

Related empirical studies reinforce the importance of media exposure but also caution against assuming that exposure automatically produces behaviour change. Sinaga and Larasati (2024), emphasise the role of media in raising awareness and influencing health-related behaviour. Akarika et al. (2020) found that community-oriented radio programming could support mobilisation when community voices were included. More recent studies similarly indicate that collaborative health broadcasting, local-language communication and strategic timing can improve engagement and comprehension (Nwokedi & Ijeoma, 2024; Nwokedi & Okechukwu-Eze, 2023; Odunlami et al., 2024). These findings support the argument that message design, source credibility, language, timing and audience participation are important moderators or communication effects.

The study adopted the Agenda Setting theory, Diffusion of Innovation theory and The Health Belief model. These theories are complementary rather than competing. Agenda setting explains why visibility matters; the Health Belief Model explains how audiences may translate information into perceptions and intentions; and Diffusion of Innovation explains how knowledge and practices may spread through communication channels and social systems. The combination is therefore appropriate for a study that moves from journalists' awareness through public knowledge and reaction to reported action. Diffusion of Innovation Theory explains the movement from individual awareness towards wider adoption of practices. Rogers (2003) argues that diffusion is influenced by the innovation, communication channels, time and the social system. The study applies this logic to One Health by treating preventive practices and One Health knowledge as ideas that can be disseminated through broadcast media and subsequently adopted by individuals and communities. The theory is therefore particularly relevant to the progression from awareness to interest, evaluation, trial and adoption. The broadcast journalist becomes an intermediary between technical knowledge and the

public, while repeated exposure, credible sources and social reinforcement can reduce uncertainty and facilitate adoption (Rogers, 2003). The Health Belief Model (HBM) provides the behavioural explanation. The model proposes that health action is influenced by perceptions of susceptibility, severity, benefit, barriers, cues to action and self-efficacy (Rosenstock et al., 1988). A message about zoonotic disease or environmental health is therefore more likely to encourage action when it makes the risk understandable, communicates why the risk matters, demonstrates the benefits of prevention and gives audiences practical actions they believe they can take to prevent infection. This research applies the HBM to explain how media messages can influence protective behaviour by shaping perceptions of threat and benefits. The framework is particularly useful for interpreting this study's finding that respondents who encountered One Health messages reported feeling a need to act and protect themselves and their families.

Agenda-Setting Theory, associated particularly with McCombs and Shaw (1972), proposes that the media influence the salience of issues by determining which issues receive attention and prominence. The theory does not require the media to tell people exactly what to think; rather, repeated attention can influence what people think about and which issues they regard as important. This is highly relevant to One Health because an issue that receives little broadcast attention may remain invisible to audiences even when it has substantial public-health importance. Similarly, the extensive media attention given to COVID-19 increased public dependence on media for information during the pandemic (Akarika et al., 2020). Applied to this study, Agenda-Setting Theory suggests that the low level of One Health awareness may partly reflect the limited prominence accorded to the integrated One Health framework by broadcast organisations.

Together, the theories explain three connected stages of the communication process: what becomes public salient, how audiences interpret health threats and benefits, and how new protective behaviours may spread through communication and social systems. The concept is particularly relevant to the media because One Health issues are often technically complex and involve relationships that are not immediately visible to audiences. A zoonotic disease, for example, may involve human behaviour, animal reservoirs, food practices, environmental conditions and health-system capacity. Since the COVID-19 pandemic, the role of the media expanded beyond information dissemination, education and entertainment to include surveillance, mobilization and response. Nigerian broadcasting is especially relevant because radio is relatively accessible, inexpensive and capable of reaching geographically dispersed and less-literately orientated audiences, while television can combine verbal explanation with visual demonstration (Udomisor, 2013; Sinaga & Larasati, 2024). The study's review further notes that broadcast media can provide platforms for public debate, expert explanation and feedback. However, literature on One Health communication remains less developed than the broader literature on One Health implementation.

2 MATERIALS AND METHODS

The research design adopted for this study was the survey. The total population of the six South-South states according to the National Bureau of Statistics (2023) was 28,154,029. The multistage cluster sampling technique was employed to group states in South-South Nigeria into three blocks (Cross River/Akwa Ibom, Rivers/Bayelsa, Edo/Delta) and three sample areas were selected from the six states (Akwa Ibom, Delta, Rivers). The population comprised residents of the selected South-South states in Nigeria, from which the study focused on 17,123,147, being the total population of residents of Akwa Ibom, Delta and Rivers States with a sample size of 386 respondents, calculated using Cochran's OpenBook sample size calculator.

Data for this study were gathered using the questionnaire. The questions were closed-ended, consisting 21 items aimed to provide answers to the research questions and address the four research objectives. Three hundred and eighty-six copies of the questionnaire were distributed proportionally across the selected states. The questionnaire was administered on members of the public, including broadcast journalists from the sampled states. The proportion of distribution was calculated using the Levi Stratified Sampling Computation and distributed proportionately as follows: Akwa Ibom State-108 (28%), Delta State - 120 (31%), Rivers State- 158 (41%); Total = 386 (100%). However, at the point of analysis 384 questionnaires were valid for analysis. The instruments were subjected to validity procedures, including expert/supervisory review. To establish the reliability of the instrument used for this study, the researcher carried out a pilot survey whereby 30 respondents were pre-tested before final administration. The Cronbach's Alpha coefficient method of reliability was used to determine the coefficient of reliability of the research instrument. Its purpose was to measure the internal consistency of the research instrument. This yielded a coefficient of 0.8538 indicating that the instrument used for the research was highly reliable, measured from the George and Mallery's (2003) acceptable rule of thumb. Data collected from this study were analysed and interpreted against the research questions and objectives of this study using descriptive statistics.

3 RESULTS AND DISCUSSION

3.1 Public awareness and understanding

Table 1: Public Awareness and Understanding

Indicator	n	%
Never heard of the One Health Communication Agenda	180	46.9
Heard of One Health but did not know about the Communication Agenda	40	10.4
Heard of One Health but did not know what it entails	94	24.5
Know One Health and understand what it entails	70	18.2

The results demonstrate a substantial awareness gap. Only 18.2% of the 384 respondents reported that they knew about the One Health Agenda and understood what it entails. However, conceptual understanding was stronger once the idea was presented: 54.4% identified One Health as an approach addressing health threats connected to humans, animals and the environment through communication.

3.2 Broadcast journalists' awareness

Table 2: Broadcast journalists' level of One Health awareness

Media-professional awareness	n	%
Never heard of the Global One Health Communication Agenda	19	33.3
Heard of One Health but not the Communication Agenda	4	7.0
Heard of the One Health Communication Agenda but did not know what it entails	17	29.8
Know and understand the One Health Communication Agenda	17	29.8

Only 29.8% of the 57 media professionals reported that they knew about and understood the Communication Agenda indicating a wide conceptual gap among journalists in South-South Nigeria.

3.3 Exposure and reactions

Table 3: Frequency of respondents' exposure to issues related to One Health on radio or Television

Frequency of exposure	n	%
Frequently	65	17
Occasionally	147	38.3
Rarely	118	30.7
Never	54	14
Total	384	100

Exposure was uneven. Seventeen percent reported frequent exposure to One Health issues on radio or television, 38.3% occasional exposure, 30.7% rare exposure and 14.0% no exposure. In reaction to messages, 35.4% reported that they felt a need to take action and change their behaviour to prevent infection, 27.1% felt responsible for themselves and their families, 21.4% felt hopeful that relevant agencies would tackle the diseases, 14.3% felt threatened by the risks, 11.2% perceived increased likelihood of being affected, and 5.7% doubted the credibility of the message source.

Table 4: Respondents' reactions towards One Health messages in the broadcast media

Reaction	n	%
Perceived threat (fear of disease risk)	55	14.3
Perceived susceptibility (increased likelihood of infection)	43	11.2
Doubt about the credibility of message source	22	5.7
Sense of personal and family responsibility	104	27.1
Intention to take action and change behaviour to prevent infection.	136	35.4
Trust that relevant agencies will tackle the diseases	82	21.4
Total	442	115.1

*Multiple responses were permitted, so percentages do not sum to 100%.

3.4 Actions taken in reaction to broadcast One Health messages

Table 5: Reported behaviours in reaction to One Health messages on radio or television

Reported behaviour	n	%
Regular handwashing	132	34.4
Covering food to prevent rodents and flies	94	24.5
Testing when fever/symptoms occur	90	23.4
Sleeping under insecticide-treated nets	71	18.5
Using condoms to prevent HIV/AIDS	42	10.9
Vaccinating pets	21	5.5
Avoiding monkeys as pets to prevent mpox	20	5.2

*Respondents were allowed to report more than one behaviour.

The data shows that over 95% of respondents who encountered One Health messages reported positive behaviour change. Regular handwashing was the most frequently

The central finding of this study is a communication paradox: public awareness is low, media-professional understanding is limited and exposure is not sustained, yet exposure is associated with substantial reported behavioural responses. This suggests that the problem may not be the inability of broadcast communication to influence behaviour; rather, it is the insufficient scale, consistency and strategic deployment of One Health communication. This paradox strengthens the case for capacity building and sustained communication rather than weakening the role of broadcast media. If relatively limited exposure can stimulate action among a substantial proportion of exposed respondents, greater reach, frequency, quality and integration of messages may offer an important opportunity for strengthening One Health outcomes in South-South Nigeria. The journalists' awareness result shows that more than 70% of media professionals either had never heard of the One Health Communication Agenda, did not know that it existed or did not understand it. Humboldt-Dachroeden (2021), studying One Health practices across key agencies in Sweden, found that ambiguity about what One Health entails in practice, weak engagement of the environmental sector, and legislative differences among agencies constituted major barriers to effective One Health cooperation, even in a high-resource setting. This resonates with the conceptual gap identified among broadcast journalists in the present study, suggesting that low technical clarity about One Health is not unique to low-resource contexts but is a structural challenge that communication interventions must directly address.

A journalist who lacks conceptual knowledge may treat One Health as a collection of isolated health stories rather than an integrated framework connecting human, animal and environmental health. This helps explain why the study found sparse animal-health coverage and a tendency to conflate One Health with general public health or environmental reporting. The public reaction results are consistent with the Health Belief Model. A message that increases perceived susceptibility or severity while offering clear and achievable preventive actions can increase the efficacy of audiences and their families to adopt positive behaviours. This indicates that many messages generated both risk perception and intention to act. The finding that 35.4% felt a need to change behaviour and 27.1% felt responsible for their families. The behaviour results are also important because they move the discussion beyond awareness. Handwashing, food protection, testing, use of insecticide-treated nets and avoidance of bushmeat are concrete practices. However, these

are self-reported behaviours and should not be interpreted as objective. The study notes that literature on the specific One Health Communication Agenda is relatively sparse compared with the broader One Health literature. Existing studies frequently focus on disease surveillance, zoonoses or intersectoral coordination rather than the communication pathway from media exposure to public behaviour. This study addresses that gap with empirical evidence from South-South Nigeria. This result indicates that exposure and reported behaviour were strongly associated. However, the relationship should not be interpreted to mean that broadcast exposure alone produced 95.8% of actual behaviour change.

This result also relates with the findings of Rai, *et al's* (2025) study which revealed a lack of awareness of One Health, a wide knowledge gap and poor understanding of Bhutan's One Health Strategic Plan and its operations, largely as a result of lack of training and capacity building programmes, suggesting a disconnect between conceptual understanding and operational application. From the data gathered, the few broadcast media professionals (21%) who confirmed their awareness of the One Health Agenda indicated that their source of One Health information was from trainings/workshops. This is incongruent with the Agenda Setting Theory which asserts that how much prominence is given to a news item by the media sets the agenda for discussion among the public. In this case, however, the broadcast media in South-South Nigeria have done very little in terms of their agenda setting role, as the broadcast media chose to give more focus and attention to issues of politics, crime and business, rather than health protection, prevention and awareness. In alignment with Shih *et al's* (2008) submission that the media coverage of epidemic hazards was given low coverage, while political news, policy announcements, and new scientific discoveries seemed to be driving the high amount of news coverage. The second objective focused on public knowledge and understanding. The survey showed a substantial awareness deficit: 46.9% of respondents had never heard of the One Health Communication Agenda, while only 18.2% reported knowing and understanding it. At the same time, once the concept was explained, many respondents were able to recognise its central meaning as an approach connecting human, animal and environmental health. This suggests that low awareness is not necessarily evidence of resistance to the concept; it may instead indicate insufficient exposure and explanation. The third objective examined public reaction. Exposure was uneven, with 17.0% reporting frequent exposure and 38.3% occasional exposure to One Health issues through radio or television. Nevertheless, 35.4% reported that exposure made them feel a need to take action and change behaviour to prevent infection, while 27.1% felt responsible for protecting themselves and their families. These reactions are compatible with the HBM because they suggest the activation of perceived risk, responsibility and motivation to act (Rosenstock *et al.*, 1988). They also illustrate the importance of cues to action: a media message can make a health threat salient and provide a prompt for preventive behaviour. The reactions of residents of South-South Nigeria are influenced by a number of factors which include trust issues, inconsistency in messages, sensationalised reporting which can heighten public anxiety and create fear, resulting in uneasiness and risky attitudes and denials, undermining trust in authorities and making it challenging for individuals to adopt positive behaviours suggested. This aligns with the findings of Guest *et al* (2021), which show that public reactions to health messages are shaped by message clarity, trust, cultural relevance and credibility. In another study, Stead *et al* (2020) validate the role of the broadcast media as a key driver of public engagement and behaviour change when deployed strategically, highlighting radio and television as the trusted sources of health information in Nigeria. Inconsistent messaging can create opportunities for misinformation, leading to confusion and mistrust for health authorities and government, especially because of the proliferation of various digital media platforms available to people on social media. It also affirms the Health Belief Model, outlined earlier, which suggests that when people perceive their vulnerability to health risk and depending on how severe they perceive the consequences of that health problem to be, they can take action to protect themselves and their loved ones.

The fourth objective examined actions taken after exposure. Respondents reported practical behaviours including regular handwashing, covering food, seeking testing when ill, sleeping inside insecticide-treated nets and avoiding bushmeat. The study shows that over 95% of respondents who encountered One Health messages indicated positive behaviour change. These findings support the proposition that broadcast communication can contribute to behaviour change when messages are relevant, comprehensible and actionable. However, because the behaviour measures are self-reported and the study is cross-sectional, the findings indicate evidence of reported association rather than proof of causality. The evidence supports a shift from episodic outbreak reporting towards sustained, audience-centred One Health communication that combines explanation, risk communication, practical advice, advocacy and feedback. Although the agenda for the broadcast of One health messages were targeted at behavioural change, it is important to note that knowledge does not always equate behaviour change. However, the more an individual is exposed to certain information, the more likely they would adopt positive behaviours for improved health outcomes. The findings provide strong evidence for this pathway. The study found that awareness of the One Health Communication Agenda among broadcast journalists was limited, with only 29.8% of the 57 media professionals reporting that they knew and understood the agenda. The implication is important: if journalists do not understand the integrated nature of One Health, they may report individual diseases or environmental events without explaining the connections among people, animals and ecosystems; and when people lack the motivation or ability to process information about their health, they passively rely on peripheral cues such as expert sources, media richness, debates and arguments on the issue and think systematically in an effortful and detailed way, thus forming or strengthening their central attitudes, regardless of whether such attitudes or behaviour are changed or not (Ting Wu and Guang Yu, 2024).

4 CONCLUSION

This study set out to trace the pathway from awareness to action in One Health communication among broadcast journalists and the public in South-South Nigeria. The findings show that while broadcast journalists themselves possess only a limited grasp of the Global One Health Communication Agenda, public reaction to the One Health messages that do reach audiences is largely constructive, and exposure to such messages is strongly and significantly associated with the adoption of protective health behaviour. This suggests that broadcast media hold considerable, and currently under-utilised, potential to drive behaviour change around zoonotic and other One Health issues in the region. Strengthening this potential requires closing the conceptual gap among journalists through structured training and mandatory One Health content in journalism curricula, alongside sustained, multi-platform public messaging that reinforces high-efficacy behaviours. Policymakers, media managers and public health stakeholders should treat journalist capacity building not as a peripheral activity but as a precondition for translating public receptiveness into durable behaviour change.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors declare no conflicts of interest regarding this manuscript.

Statement of ethical approval

The authors ensured data was gathered ethically.

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