

Framing the 2026 International Hantavirus Outbreak in Two Nigerian Online Newspapers (Premium Times and Sahara Reporters)

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ABSTRACT

Background: Emerging infectious diseases often attract significant media attention because of their potential impact on public health perceptions and preparedness. Despite the absence of confirmed cases in Nigeria, the 2026 Andes hantavirus outbreak generated global public health concern because of increased international mobility and the potential risk of cross-border transmission.

Objective: This study investigated how *Premium Times* and *Sahara Reporters* framed the 2026 global hantavirus outbreak, focusing on the frequency, presentation formats, prominence, and dominant frames of coverage.

Method: The study employed a content analysis design. Using census approach, all hantavirus-related stories published by *Premium Times* and *Sahara Reporters* between 2 and 30 May 2026 were identified, yielding 29 stories for analysis. Data were analysed using descriptive statistics, while Holsti's (1969) formula was used to assess inter-coder reliability, yielding a reliability coefficient of 0.85.

Results: *Premium Times* published 17 stories (58.6%), while *Sahara Reporters* published 12 stories (41.4%). Of the 29 stories, 24 (82.8%) were news stories, 19 (65.5%) received low prominence, and 10 (34.5%) adopted a health risk/awareness frame, followed by the prevention and safety measures frame (5 stories; 17.2%) and the attribution of responsibility frame (4 stories; 13.8%).

Conclusion: Nigerian online newspapers reported the outbreak primarily as a public health risk but devoted limited attention and prominence to the issue, suggesting a predominantly reactive orientation in the newspapers' reporting of emerging health threats.

Unique Contribution: This study contributes empirical evidence on Nigerian media framing of the 2026 global hantavirus outbreak and extends health communication scholarship on emerging zoonotic diseases.

Key Recommendation: Nigerian online newspapers should adopt more sustained, prominent, explanatory, and interpretative reporting of emerging infectious diseases to strengthen public preparedness and risk communication.

Keywords: Hantavirus outbreak, media framing, online newspapers, health communication, *Premium Times*, *Sahara Reporters*, Nigeria.

INTRODUCTION

Emerging infectious diseases usually generate public fear and anxiety beyond their actual epidemiological risk (Asmundson & Taylor, 2020; Shultz et al., 2016). The multinational outbreak of Andes hantavirus linked to passengers aboard the cruise vessel M/V Hondius attracted global attention because of its high fatality rate, involvement of multiple countries, and the potential for limited human-to-human transmission (Sallam et al., 2026; World Health Organization, 2026a). Several affected individuals required intensive care and international medical evacuation to countries including South Africa, the Netherlands, Switzerland, and Germany (WHO, 2026a). Because passengers and crew had disembarked in multiple countries before the outbreak was recognised, extensive contact tracing and symptom monitoring were implemented across several jurisdictions, including St Helena, South Africa, and Switzerland (CDC, 2026; WHO, 2026a). This cross-border dispersion of exposed individuals transformed a localised outbreak into an international public health emergency, requiring coordinated surveillance, contact tracing, diagnostic coordination, and timely communication among health authorities (Sallam et al., 2026).

In Nigeria, the Nigeria Centre for Disease Control and Prevention (NCDC) issued public health advisories assuring citizens that no confirmed cases had been detected in the country while emphasising enhanced surveillance and preparedness measures (NCDC, 2026). Although Nigeria was not directly affected by the outbreak, the event attracted attention within the country's media environment because of its international scope, reported fatalities, and the documented potential for limited human-to-human transmission associated with Andes virus (*Premium Times*, 2026; *Sahara Reporters*, 2026; WHO, 2026a,b). This underscores the need to examine how the infectious disease was reported or framed in Nigerian online newspapers.

Hantaviruses are a group of zoonotic viruses belonging to the family Hantaviridae, with rodents serving as their primary natural reservoirs, although some species have also been identified in shrews and bats (Laenen et al., 2019; Omoga et al., 2023; WHO, 2026b). Although infections are relatively uncommon globally, they can cause severe illnesses, including haemorrhagic fever with renal syndrome in Europe and Asia and hantavirus cardiopulmonary syndrome in the Americas, both of which are associated with high mortality (Jonsson et al., 2010; Li et al., 2024; Tian & Stenseth, 2019; WHO, 2026a, 2026b). Human infection occurs primarily through exposure to infected rodents or their excreta, while person to person transmission is generally considered rare (WHO, 2026a, 2026b). However, the 2026 outbreak involved Andes virus, a South American hantavirus distinguished by its documented capacity for limited human to human transmission, a characteristic that heightened international concern and increased media attention despite the outbreak remaining geographically distant from Nigeria (Sallam et al., 2026; WHO, 2026a).

Framing theory suggests that the way media select, emphasise, and present certain aspects of an issue influences audience interpretation and meaning construction (Entman, 1993). The media play a central role during infectious disease outbreaks by serving as major sources of information and influencing how the public interprets and respond to health threats (Collinson & Heffernan, 2014; Garfin et al., 2022; Nwakpu et al., 2020). Timely and accurate reporting can support public health efforts by disseminating preventive information, promoting risk awareness, and encouraging adherence to recommended protective behaviours (WHO, 2020). However, sensationalised or poorly contextualised reporting may amplify fear,

uncertainty, and misinformation, particularly when outbreaks involve unfamiliar pathogens associated with high mortality rates (Ahmad & Murad, 2020). The growth of digital journalism has further intensified these effects by enabling rapid dissemination of outbreak-related information across national borders (Cinelli, et al., 2020). Evidence from previous public health emergencies, including Ebola, COVID-19, and mpox, confirms that media framing can influence public risk perceptions, trust in health authorities, and responses to disease-control measures (Chukwu et al., 2025; Edinger et al., 2023; Garfin et al., 2022; Nwakpu et al., 2020; Ogbodo, et.al, 2020; Wogu et al., 2020). The 2026 hantavirus outbreak, therefore, demonstrates the need to examine how an emerging zoonotic disease was framed and communicated in Nigerian online newspapers.

Despite the crucial role of the media in shaping public understanding of emerging health threats, little is known about how Nigerian online newspapers framed the 2026 Andes hantavirus outbreak. Given that media framing influences public risk perception, preparedness, and trust in health authorities, inadequate or episodic coverage may undermine effective health communication during future outbreaks. Against this backdrop, this study seeks to investigate how *Premium Times* and *Sahara Reporters* framed the 2026 Andes hantavirus outbreak with a view to informing future risk communication strategies and strengthening preparedness for emerging infectious disease threats.

RESEARCH QUESTIONS

1. What is the frequency of reports on the 2026 hantavirus outbreak by *Premium Times* and *Sahara Reporters*?
2. What are the major presentation formats used by *Premium Times* and *Sahara Reporters* in reporting the 2026 hantavirus outbreak?
3. What is the level of prominence given to the reports on the 2026 hantavirus outbreak by *Premium Times* and *Sahara Reporters*?
4. What are the dominant frames employed by *Premium Times* and *Sahara Reporters* in reporting the 2026 hantavirus outbreak?

LITERATURE REVIEW

Mass Media and Health Promotion

Existing evidence consistently demonstrates that mass media facilitate health promotion by increasing awareness and encouraging preventive behaviour (Robinson et al., 2014; Stead et al., 2019; Wakefield et al., 2010; Wang et al., 2025). However, scholars differ regarding the extent to which media messages alone can sustain long-term behavioural change without supportive institutional interventions.

In terms of infectious disease outbreaks, media organisations serve as primary sources of information through which the public interprets emerging health threats (Jardine et al., 2015; Kott & Limaye, 2016; Lupton et al., 2021). Empirical studies conducted during outbreaks such as Ebola and COVID-19 demonstrate that media exposure significantly influences risk perception, protective behaviour, and public responses to health emergencies (Chukwu et al., 2025; Collinson & Heffernan, 2014; Edinger et al., 2023; Garfin et al., 2022; Nwakpu et al., 2020; Ogbodo, et.al, 2020). Collinson and Heffernan (2014), for example, found that media-generated awareness can affect behavioural adaptation during epidemics, thereby influencing disease transmission patterns. Similarly, Garfin et al. (2022) reported that media exposure

during the Ebola outbreak shaped perceptions of risk and influenced behavioural responses among affected populations. These findings support the argument that the media do not merely transmit information; they actively shape how health risks are understood and acted upon.

However, scholars argue that the effectiveness of media in health promotion depends significantly on the framing of health information (Guenther et al., 2021; Wakefield et al., 2010). Evidence further shows that media narratives can influence public trust in health authorities, perceived vulnerability, and compliance with health recommendations (Edinger et al., 2023; Ophir, 2018; Garfin et al., 2022). Studies by Ogbodo et al. (2020) and Edinger et al. (2023) demonstrate that framing in COVID-19 and mpox coverage shaped public understanding, responses, and levels of concern. However, scholars also highlight a tension between awareness and sensationalism, where emphasis on mortality, uncertainty, or dramatic events can distort risk perception and increase anxiety (Garfin et al., 2022; Ikiba, 2026). In this regard, McCloskey and Heymann (2020) emphasise collaboration between journalists and public health experts to ensure accurate outbreak reporting, particularly during periods of uncertainty that may foster misinformation and speculation.

The growth of digital and online journalism has further expanded the influence of mass media in health promotion (Altay et al., 2024; Öntaş et al., 2024; Shao et al., 2025). Contemporary health information now circulates across national borders almost instantaneously, enabling rapid dissemination of public health advice but also increasing the speed at which misleading information can spread (Wang et al., 2025). This development is particularly relevant to transboundary disease outbreaks that attract substantial international media attention despite the absence of confirmed cases in the countries reporting on them, a phenomenon increasingly observed during international infectious disease outbreaks (*Premium Times*, 2026; *Sahara Reporters*, 2026). In such situations, media framing may influence public preparedness even in countries not directly affected by the outbreak. Therefore, examining how Nigerian online newspapers framed the hantavirus outbreak contributes to understanding the broader role of mass media in health promotion, risk communication, and public preparedness during novel infectious disease events.

Framing Hantavirus in the Media

Media framing plays a significant role in shaping public understanding of emerging infectious diseases by influencing how risks are defined, interpreted, and acted upon (Chukwu et al., 2025; Nwakpu et al., 2020; Pieri, 2019). Framing theory provides a useful framework for understanding how media organisations select, emphasise, and organise information about health crises in ways that shape public perceptions of disease severity, causes, consequences, and appropriate responses (Entman, 1993; Kott & Limaye, 2016; Ogbodo et al., 2020; Pieri, 2019; Scheufele, 1999). Framing refers to the selection and emphasis of certain aspects of reality in news narratives, which subsequently shapes problem definition, causal attribution, and response recommendations (Entman, 1993, 2004). Thus, “to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation” (Entman, 1993, p. 52). Media frames simplify complex issues for audiences, while also constraining the interpretive range available to them (Scheufele, 1999).

Previous framing studies consistently agree that news media shape public risk perception during health emergencies, yet they differ in the outbreaks examined and the dimensions of framing they prioritise. Research on Ebola, COVID-19, and Zika has repeatedly shown that media narratives influence perceptions of severity, responsibility, and protective behaviour (Abbas, 2020; Adelakun, 2017; Adelakun & Adnan, 2016; Aderogba, 2021; Chukwu et al., 2025; Collinson & Heffernan, 2014; Garfin et al., 2022; Leask et al., 2010; Nwakpu et al., 2020; Ogbodo et al., 2020; Ophir, 2018; Pieri, 2019; Smith & Smith, 2016; Smith et al., 2017; Wogu et al., 2020). However, much of this evidence is drawn from highly publicised global epidemics, with comparatively little attention given to less visible zoonotic diseases such as hantavirus. Existing studies also rely predominantly on content analyses conducted during major international outbreaks, which limits understanding of whether similar framing patterns emerge for diseases that receive less sustained media attention or in media environments outside Western contexts.

The limited available evidence suggests that hantavirus outbreaks are similarly subject to interpretive framing that affects public perception of risk, trust, and behavioural response (Hjelle & Glass, 2000; Predy et al., 1997). In a Canadian outbreak study on hantavirus pulmonary syndrome, 74% of respondents reported receiving information through television news and 57% through newspapers, while formal public health information lines played a minor role (Predy et al., 1997). Although this finding underscores the centrality of news media in shaping initial risk awareness, it is based on a single outbreak in a specific national context, making it difficult to determine whether comparable communication patterns occur across different countries, media systems, or contemporary digital news environments. This unresolved issue remains particularly important given the expansion of online news consumption since that study was conducted.

Recent reporting on the 2026 Andes hantavirus outbreak further highlights communication challenges, including scientific uncertainty, public fear, transparency issues, and misinformation, with COVID-19 comparisons shaping public reactions and risk perceptions (Reuters, 2026). Despite these concerns, empirical research examining how hantavirus outbreaks are framed in news media remains limited. Existing studies have focused predominantly on the epidemiology, mode of transmission, and clinical characteristics of hantavirus (Alonso et al., 2020; Laenen et al., 2019; Lee et al., 1982; Martínez et al., 2020; Mir, 2010; Omoga et al., 2023; Sallam et al., 2026), while comparatively little attention has been paid to the media narratives through which the disease is presented to the public. Consequently, there is limited understanding of the frames employed by news organisations in constructing hantavirus related risks, assigning responsibility, and communicating preventive measures. This gap is particularly evident within the Nigerian context, where little is known regarding how online newspapers frame hantavirus outbreaks.

Given the growing influence of digital news platforms in shaping public understanding of health threats (Altay et al., 2024; Öntaş et al., 2024; Shao et al., 2025; Wang et al., 2025), the present study addresses this gap by analysing the framing of the 2026 hantavirus outbreak in Premium Times and Sahara Reporters. In doing so, it contributes to the broader literature on health communication and media framing by providing empirical insights into how zoonotic disease is represented within Nigerian online news discourse.

Conceptual Framework

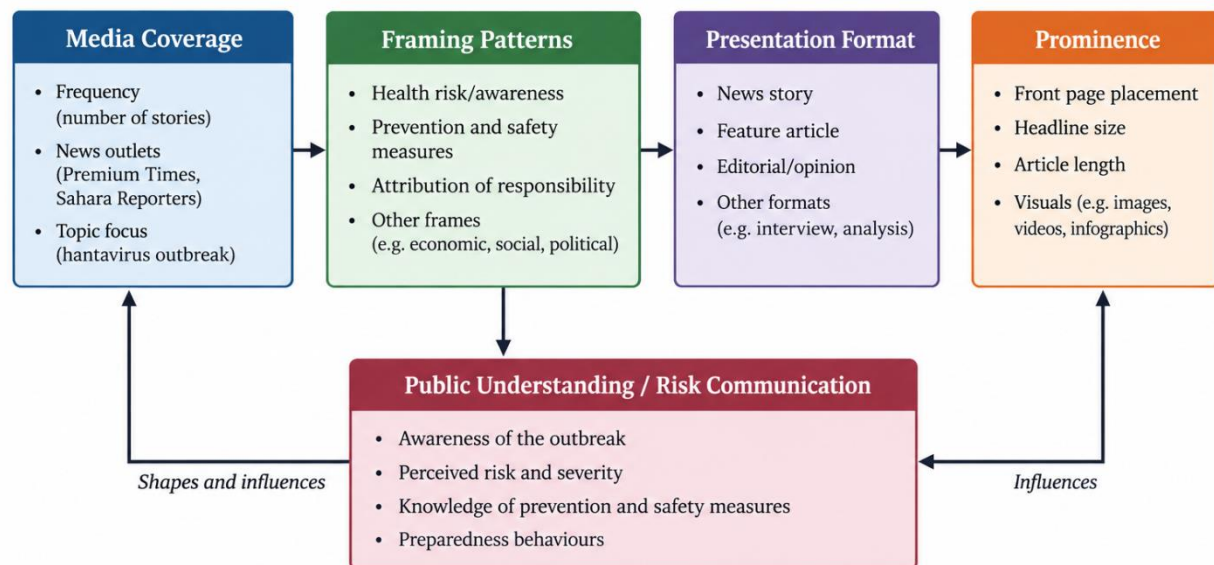


Figure 1. Conceptual framework showing the relationship between media coverage, framing patterns, presentation format, prominence and public understanding/risk communication.

METHODOLOGY

This study adopted a quantitative content analysis design. Content analysis is a systematic, objective, and quantitative technique for analysing communication content in order to identify patterns, themes, and relationships among variables (Kerlinger, 1977; Nnadiukwu, 2010). The method was considered appropriate because it enabled the researchers to examine the dominant frames, presentation formats, frequency, and prominence of reports on the 2026 hantavirus outbreak. Two online newspapers (*Premium Times* and *Sahara Reporters*) were purposively selected because they are among Nigeria's prominent digital news platforms (Ola et al., 2026; Oladosu et al., 2021). Their extensive coverage of public health events and availability of archived online content made them suitable sources for examining how the 2026 hantavirus outbreak was framed and communicated to the Nigerian public.

The population comprised all hantavirus-related stories published by *Premium Times* and *Sahara Reporters* between 2 and 30 May 2026. A total of 29 stories constituted both the population and sample size. Given the relatively short duration of the outbreak under study, a census approach was adopted whereby all hantavirus-related reports published between 2 and 30 May 2026 were analysed.

The coding sheet served as the instrument for data collection. The coding sheet, together with a coding guide, was developed to identify and evaluate the presence of frames in news stories, editorials, features, opinions, and cartoons relating to the 2026 hantavirus outbreak. The unit of analysis was each individual newspaper story. Before coding commenced, coders received training on the coding scheme, definitions of variables, and procedures to ensure consistency

and reliability in the analysis. To ensure the reliability of the research instrument, a pre-test was conducted before using the instrument for data collection in this study. Eight (8) editions of the newspapers were selected and coded independently by two independent coders. Holsti's (1969) inter-coder reliability formula was used to calculate the inter-coder reliability between the two independent coders:

$$CR = \frac{2M}{N_1 + N_2}$$

Where:

- CR = Coefficient of reliability
- M = Number of coding decisions on which both coders agreed
- N_1 = Total coding decisions made by the first coder
- N_2 = Total coding decisions made by the second coder

$$\begin{aligned}\text{Therefore CR} &= \frac{2(17)}{20 + 20} \\ &= \frac{34}{40}\end{aligned}$$

$$CR = 0.85$$

The inter-coder reliability coefficient was 0.85, indicating satisfactory reliability. The content categories assessed in the selected newspapers include:

Story Type: This refers to the format in which a hantavirus-related item was presented. The categories include news stories, features, editorials, opinion articles, and cartoons.

Story Prominence: This refers to the level of attention or importance accorded to a hantavirus-related report. Given the nature of online newspapers, a story was coded as highly **prominent** if it appeared as a homepage lead or featured story, or was published as an editorial; moderately prominent if it appeared in a major news section but not as a homepage lead; and of low prominence if it appeared only within specialised sections and received no homepage visibility.

Frame of Story: This involves the dominant angle or perspective through which the hantavirus outbreak was reported. A story was coded as scientific uncertainty frame if it emphasised uncertainties surrounding the outbreak, including gaps in scientific knowledge, evolving information about transmission, treatment, or the potential spread of the disease. A story was coded as a health risk/awareness frame if it emphasised the severity, symptoms, transmission, mortality, or broader public health implications of the hantavirus outbreak, particularly where such information was presented to inform public understanding, raise awareness, or highlight potential risks to health. A story was coded as a human interest frame if it focused on the personal experiences, suffering, fears, or emotional impact of the outbreak on individuals, families, or communities. A story was coded as attribution of responsibility frame if it attributed responsibility for the cause, prevention, management, or control of the outbreak to governments, health authorities, institutions, organisations, or individuals. A

story was coded as a political response frame if it highlighted actions, reactions, policies, statements, or interventions by government officials, political actors, or public institutions regarding the outbreak. A story was coded as economic consequence frame if it discussed the economic implications of the outbreak, including effects on businesses, tourism, healthcare expenditure, productivity, trade, or livelihoods. A story was coded as prevention and safety measures frame if it focused on public health recommendations, preventive actions, surveillance efforts, quarantine measures, hygiene practices, or other strategies aimed at controlling the outbreak. A story was coded as a misinformation frame if it addressed, corrected, or debunked false claims, rumours, conspiracy theories, or misleading information relating to hantavirus and its outbreak. The frame categories were deductively adapted from previous studies on infectious disease framing (Nwakpu et al., 2020; Ogbodo et al., 2020; Ophir, 2018; Pieri, 2019)

DATA ANALYSIS AND PRESENTATION

A total of 29 hantavirus stories were identified across the selected online newspapers within the study period. Data obtained from the coding process were analysed using descriptive statistics, including frequencies and percentages, with the aid of the Statistical Package for the Social Sciences (SPSS) version 20. The results of the analysis were presented in tables and chart.

Table 1: Frequency of hantavirus reports

		Frequency of reports			
	Newspaper	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Premium Times	17	58.6	58.6	58.6
	Sahara Reporters	12	41.4	41.4	100.0
	Total	29	100.0	100.0	

Table 1 shows that a total of 29 stories were identified during the study period, indicating relatively modest coverage of the outbreak. *Premium Times* recorded 17 reports (58.6%), while *Sahara Reporters* published 12 reports (41.4%).

Table 2: Story Type

Story type		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	News story	24	82.8	82.8	82.8
	Feature	3	10.3	10.3	93.1
	Opinion	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Table 2 shows that news stories constituted the majority of coverage (82.8%), followed by features (10.3%) and opinion articles (6.9%). No editorials or cartoons were recorded. *Premium Times* recorded 14 news stories (48.3%), 2 features (6.9%), and 1 opinion piece (3.4%), while *Sahara Reporters* recorded 10 news stories (34.5%), 1 feature (3.4%), and 1 opinion piece (3.4%). Examples of headlines include:

"Hantavirus: WHO confirms outbreak on cruise ship, three dead, seven infected" - *Premium Times* (5 May 2026)

"Hantavirus: WHO says risk remains low as cruise ship heads to Tenerife." – *Premium Times* (10 May 2026)

"Hantavirus Outbreak: UK To Isolate Ship Passengers At Former COVID-19 Hospital Facility" – *Sahara Reporters* (9 May 2026)

"NCDC Declares No Hantavirus In Nigeria, Says It Is Monitoring ‘Global Situation’" – *Sahara Reporters* (9 May 2026).

Table 3: Story Prominence

Story prominence		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Prominent	4	13.8	13.8	13.8
	Moderately Prominent	6	20.7	20.7	34.5
	Low Prominence	19	65.5	65.5	100.0
	Total	29	100.0	100.0	

Results from Table 3 shows that most stories (65.5%) were classified as low prominence. Six stories (20.7%) were moderately prominent, appearing in major news sections but not as homepage leads, while only 4 (13.8%) were highly prominent and featured as homepage leads or major highlights. Specifically, *Premium Times* recorded 12 (70.6%) low-prominence stories, 2 (11.8%) moderately prominent stories, and 3 (17.6%) highly prominent stories, while *Sahara Reporters* recorded 7 (58.3%) low-prominence stories, 4 (33.3%) moderately prominent stories, and 1 (8.3%) highly prominent story.

Table 4: Frame of Story

Frame of story		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Scientific Uncertainty Frame	3	10.3	10.3	10.3
	Health Risk/Awareness Frame	10	34.5	34.5	44.8
	Human Interest Frame	3	10.3	10.3	55.1
	Attribution of Responsibility Frame	4	13.8	13.8	68.9
	Political Response Frame	2	6.9	6.9	75.8
	Economic Consequence Frame	1	3.4	3.4	79.2
	Prevention and Safety Measures Frame	5	17.2	17.2	96.4
	Misinformation Frame	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Fig. 2: Frame of story

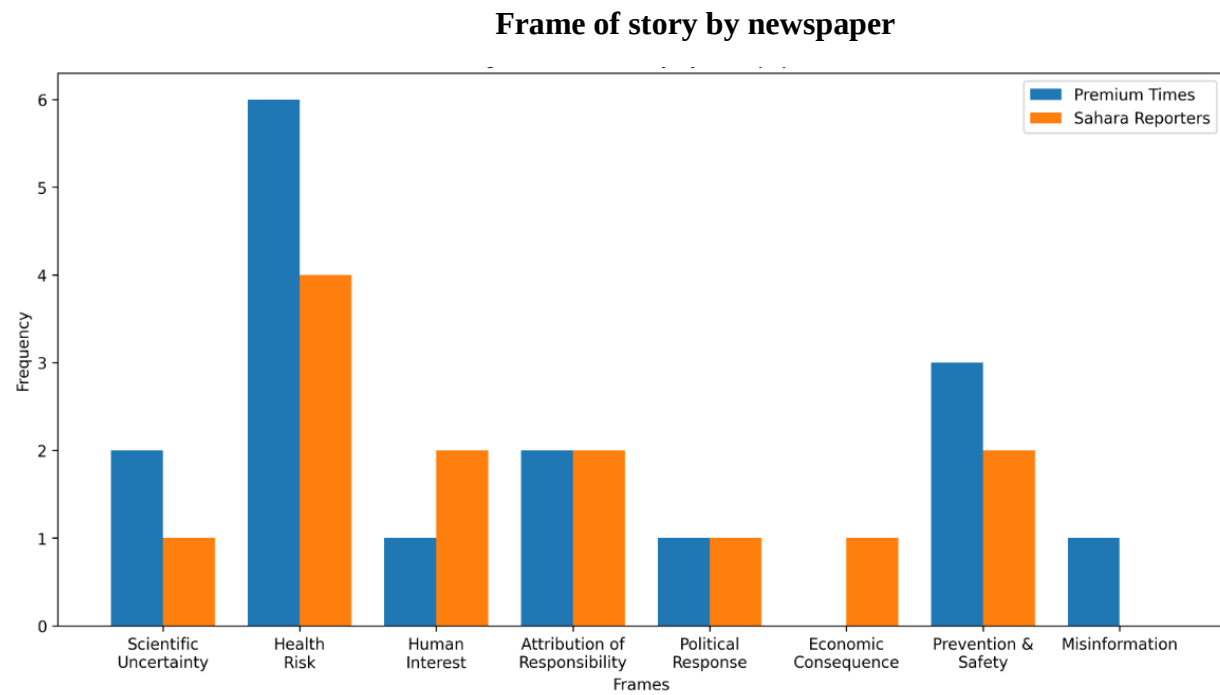


Table 4 and Figure 2 above show the frames used by *Premium Times* and *Sahara Reporters* in reporting the issues of the 2026 hantavirus outbreak within the study period. Health risk/awareness frame constituted 34.5% of all reports. This was followed by 5 (17.2%) stories framed around prevention and safety measures, and 4 (13.8%) using an attribution of responsibility frame, focusing on accountability of institutions or authorities. Scientific uncertainty and human interest frames each accounted for 3 stories (10.3%), while political response (6.9%), economic consequence (3.4%), and misinformation (3.4%) frames were the least represented in the coverage. However, *Premium Times* employed the health risk/awareness frame more frequently than *Sahara Reporters*, recording 6 stories (20.7%) compared to 4 stories (13.8%) respectively. *Premium Times* also recorded 2 scientific uncertainty (6.9%), 2 attribution of responsibility (6.9%), and 1 human interest frame (3.4%), while *Sahara Reporters* recorded 1 scientific uncertainty (3.4%), 2 human interest (6.9%), and 2 attribution of responsibility frames (6.9%).

DISCUSSION

The findings of this study indicate that Nigerian online newspapers devoted relatively limited attention to the 2026 global hantavirus outbreak. Although *Premium Times* and *Sahara Reporters* reported the outbreak, the total of 29 stories recorded within the study period suggests that the issue did not receive substantial media attention. More importantly, coverage declined considerably after the initial outbreak reports despite continued updates from the World Health Organization. This pattern reflects episodic health reporting, in which media attention tends to focus on immediate outbreak events rather than sustained public health education (Pieri, 2019). Unlike studies on Ebola, Lassa fever, and COVID-19 in Nigeria, which documented more extensive media attention due to their direct public health relevance (Nwakpu et al., 2020; Ogbodo et al., 2020; Smith & Smith, 2016; Wogu et al., 2020), coverage of the hantavirus outbreak declined rapidly after the initial reports,

suggesting that the issue was not considered a major public health concern within the Nigerian news agenda.

The dominance of news stories (82.8%) over features (10.3%) and opinion articles (6.9%) further reinforces the episodic nature of the coverage. Most reports merely conveyed emerging developments, official statements, and updates without providing extensive contextualisation or in-depth analysis. This finding is significant because health communication literature emphasises that effective public health reporting requires not only the dissemination of information but also interpretation that helps audiences understand the broader implications of health threats (Wakefield et al., 2010; Stead et al., 2019). The near absence of analytical formats such as features and opinion articles suggests that the newspapers prioritised event-driven reporting over explanatory journalism. Consequently, audiences may have had limited opportunities to gain deeper understanding of the outbreak, its epidemiological characteristics, mode of transmission, or relevance to global health preparedness. This finding aligns with that of Nwakpu et al. (2020), who found that straight news dominated COVID-19 coverage in Nigerian newspapers, with comparatively fewer features, opinion articles, and editorials. However, it partly contrasts with Ogbodo et al. (2020), whose study showed that COVID-19 reporting incorporated multiple interpretative frames and explanatory narratives that helped audiences understand the broader implications of the pandemic.

The study also found that most hantavirus reports were of low prominence (65.5%), with only a small proportion appearing as highly prominent stories (13.8%). This finding is particularly important because prominence reflects editorial judgement regarding the significance of an issue. According to framing theory, media not only determine what information is reported but also signal the relative importance of issues through placement and visibility (Entman, 1993; Scheufele, 1999). The predominance of low-prominence stories suggests that editors did not perceive the outbreak as requiring sustained public attention. This finding may be explained by the geographical distance of the outbreak from Nigeria and the absence of domestic cases. However, such editorial decisions may have implications for public preparedness. Scholars such as Kott and Limaye (2016) argue that early visibility of emerging infectious diseases can improve risk awareness and preparedness even before a disease reaches a particular country. The limited prominence accorded to hantavirus, therefore, suggests a predominantly reactive orientation in health journalism.

Nevertheless, the dominance of the health risk/awareness frame shows that beyond simply creating awareness of the hantavirus outbreak, the newspapers primarily constructed it as a significant threat to public health. This finding aligns with framing theory, which argues that journalists select and emphasise particular aspects of reality to shape audience interpretations (Entman, 1993, 2004). Previous studies demonstrate that during infectious disease outbreaks, media organisations act as key intermediaries through which the public interprets emerging health risks, making such framing especially influential (Jardine et al., 2015; Kott & Limaye, 2016; Lupton et al., 2021).

Evidence from Ebola and COVID-19 outbreaks further shows that media exposure strongly shapes risk perception and protective behaviour, with awareness messages influencing behavioural adaptation and disease response (Collinson & Heffernan, 2014; Garfin et al., 2022; Nwakpu et al., 2020; Ogbodo et al., 2020). Accordingly, the health risk/awareness frame not only reflects heightened attention to disease severity and transmission but also

underscores the media's role in shaping public understanding and action. However, while such framing may enhance risk awareness and encourage vigilance, scholars caution that excessive emphasis on risk can also heighten fear and anxiety, particularly when scientific knowledge about an emerging disease is still evolving (Garfin et al., 2022; Ikiba, 2026).

Interestingly, prevention and safety measures (17.2%) constituted the second most frequently used frame, suggesting that the online newspapers did not focus exclusively on risk amplification. This finding is consistent with health promotion literature, which emphasises that media messages are most effective when they provide actionable guidance alongside risk information (Wakefield et al., 2010; Robinson et al., 2014). The presence of prevention-oriented frames may, therefore, have contributed to public awareness and preparedness by highlighting surveillance efforts and public health recommendations. However, the relatively lower frequency of this frame compared to the health risk/awareness frame suggests that warning audiences about the threat received greater emphasis than empowering them with preventive knowledge.

Another significant finding is the limited use of scientific uncertainty, political response, misinformation, and economic consequence frames. Given that the outbreak involved evolving scientific evidence and attracted considerable international attention, one might have expected greater discussion of uncertainty and misinformation. Reuters (2026) report on the outbreak demonstrated concerns about scientific uncertainty and public misunderstanding in the post-COVID communication environment. The limited attention paid to these dimensions suggests that Nigerian online newspapers relied heavily on official health sources and established narratives rather than critically engaging with competing interpretations or misinformation claims. Although this may have limited speculative reporting and sensationalism, it may also have restricted public understanding of the complexities surrounding novel infectious diseases and the challenges of communicating risk during periods of scientific uncertainty. Such patterns underscore the need for more comprehensive health reporting that balances risk communication, scientific explanation, accountability, and public education in future outbreak coverage.

CONCLUSION

The study found that Nigerian online newspapers gave limited and largely episodic attention to the 2026 hantavirus outbreak despite the international attention it received. Coverage by *Premium Times* and *Sahara Reporters* was dominated by straight news reports, received low prominence, and declined substantially after the initial outbreak announcements. The findings further reveal that the health risk/awareness frame was the dominant narrative, followed by prevention and safety measures frame, indicating that the newspapers primarily sought to inform the public about the outbreak and its potential health implications. However, the limited use of analytical formats and the relatively low emphasis on scientific uncertainty, misinformation, and broader contextual issues suggest gaps in comprehensive health communication. This indicates the need for more sustained, prominent, explanatory, interpretative reporting of emerging infectious diseases to strengthen public awareness, preparedness, and risk communication in Nigeria.

RECOMMENDATIONS

Based on the findings, the study makes the following recommendations:

1. Nigerian online newspapers should provide more sustained coverage of emerging infectious disease outbreaks rather than concentrating attention only during the initial stages of an outbreak.
2. They should increase the use of feature articles, editorials, and expert commentaries to provide in-depth analysis and improve public understanding of novel health threats.
3. Editors should accord greater prominence to reports on emerging infectious diseases, even when outbreaks occur outside Nigeria, to enhance public preparedness and risk awareness.
4. Journalists should balance health risk reporting with more extensive coverage of prevention and safety measures to equip audiences with practical information for disease prevention.
5. News organisations should incorporate greater discussion of scientific uncertainty, misinformation, and public health accountability to promote comprehensive and responsible outbreak communication.

Ethical clearance

This study relied exclusively on secondary data and therefore did not involve human participants or the collection of primary data. Ethical considerations were ensured by using publicly available information from credible secondary sources and representing the information accurately and transparently. The study also maintained academic integrity by acknowledging all sources appropriately and avoiding misrepresentation, fabrication, or manipulation of the data.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Authors' Contributions

All authors conceived the study, including the design, so and so collated the data, and so and so handled the analysis and interpretation, while so and so wrote the initial manuscript. All authors have critically reviewed and approved the final draft, and are responsible for the content and similarity index of the manuscript.

Artificial Intelligence (AI) Use Disclosure

The author(s) declare that no generative Artificial Intelligence (AI) or AI-assisted technologies were used in the writing, analysis, or preparation of this manuscript.

Data availability statement

The datasets on which conclusions were made for this study are available on reasonable request.

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