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## LEXICALISATION IN MEDIA REPORTS OF RECURRENT DIPHTHERIA OUTBREAK IN NIGERIA: IMPLICATIONS FOR HEALTH COMMUNICATION

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**Abstract:** Linguistic studies on media coverage of pandemics and outbreaks in Nigeria, including the COVID-19 pandemic, Ebola, and Lassa fever, have been extensive. However, the linguistic analysis of media reports on the diphtheria outbreak remains underexplored. This study addresses this gap by examining the lexical choices employed in framing the diphtheria outbreak in Nigeria. Twenty articles from four popular Nigerian newspapers – *The Punch*, *The Guardian*, *The Vanguard*, and *The Premium Times* – were examined to discover the prevalent frames and associated lexical choices. The articles were collected between January and August 2023, a significant period marked by the resurgence of the disease and extensive reporting on its impact on victims. Using frame theory and lexical priming theory as analytical frameworks, the study identified frames such as *health crisis*, *victim*, *government response*, *global aid and response*, *vaccination shortfall/hesitancy*, *public health awareness*, *past antecedent*, and *collaborative effort*. Common lexical choices included terms like “deadly,” “surge,” and “critical situation,” which emphasize fear and urgency. This emotive tone is used purposefully to attract readers’ attention and prime them to interpret the outbreak as an urgent public health issue. Frames like *Public Health Awareness* and *Government Response* are concerned with informing the public. Several other frames, most notably *Vaccination Shortfall/Hesitancy* and *Collaborative Effort*, serve as a rallying cry. They highlight the need for increased vaccination coverage, collaboration among stakeholders, and public participation in health measures. Through framing and lexical choices, the media shapes public opinion, influences perceptions, and guides individual and collective responses to health issues like the diphtheria outbreak. The relevance of this study lies in its contribution to understanding how media framing and lexical choices impact public health communication, ultimately aiding in more effective health crisis management and public engagement strategies.

**Keywords:** diphtheria outbreak, media framing, health communication, lexicalization, media reports, lexical priming.

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## 1. INTRODUCTION

The media, comprising various platforms, such as television, radio, newspapers, online news portals, and social media, plays a pivotal role in disseminating health information to the public. Its significance lies in its ability to reach a wide and diverse audience, making it a powerful tool for public health communication (Arinze-Umobi & Chiweta-Oduah, 2021). Media outlets often serve as intermediaries between health authorities, experts, and the general population, conveying vital information about diseases, preventive measures, treatment options, and vaccination campaigns (Oyama & Okpara, 2017). Through their extensive reach, media platforms have the capacity to educate the public about health risks and promote awareness of ongoing and emerging health issues. By providing timely and accurate information, the media can influence public attitudes and behaviours towards health, encouraging preventive measures and fostering community resilience.

In recent years, Nigeria has witnessed a resurgence of diphtheria cases, leading to significant public health concerns. Diphtheria, a bacterial infectious disease primarily affecting the respiratory system, has been a recurring issue in Nigeria. The Nigeria Centre for Disease Control (NCDC) confirmed suspected diphtheria outbreaks in Lagos and Kano in January 2023, and since then, the outbreak has spread to other states (Adegboye et al., 2023). Epidemiological data reveal an increase in diphtheria cases across various states, with certain areas experiencing higher incidence rates, including Lagos, Kano, Kaduna, Rivers, and others (“Battling the diphtheria outbreak,” 2023; Ayeni, 2023). As of September 24, 2023, approximately 12,000 infections have been reported, with over 7,202 confirmed cases and significant deaths exceeding 453 (The National Primary Health Care Development Agency, 2023).

Despite vaccination programs aimed at controlling diphtheria, challenges in vaccine coverage and healthcare infrastructure have influenced the recurring nature of outbreaks (Abubakar et al., 2020). Reports indicate that diphtheria cases in Nigeria often affect children and adolescents, particularly those in the age group of two to 14 years, adults who have not received adequate vaccination, people living in crowded environments, and healthcare workers exposed to suspected or confirmed cases (Aborode et al., 2023; Gulumbe et al., 2023). The disease spreads easily through direct contact with infected droplets from coughing or sneezing and through contact with contaminated objects. Upon infection, diphtheria targets the throat and nose, forming a thick greyish membrane that can obstruct breathing and cause asphyxia. The toxin released by the bacterium also damages vital organs, such as the heart and nerves, leading to severe complications and potentially death if not promptly treated (Medugu et al., 2023).

Given the recurring nature of diphtheria outbreaks and their impact on public health, it is crucial to understand how media reports frame these events. The media serves as a crucial channel for alerting communities to the presence of the disease, its symptoms, and available healthcare resources. Media platforms also contribute to shaping public perceptions and attitudes towards health issues, impacting individual and collective behaviour. The media has the potential to educate, persuade, and mobilize individuals and communities to adopt health-promoting behaviours. Furthermore, the media can help combat misinformation and rumours that often circulate during health crises. It provides a platform for health experts and authorities to clarify misconceptions and address public concerns, contributing to informed decision-making among the population. Thus, Erubami (2022) opines that while the media has the power to inform and influence behaviour positively, it also faces challenges related to accuracy and responsibility. Striking a balance between

delivering news that captures attention and maintaining public trust is essential for successful health communication. Therefore, the objective of this study is to analyze the lexical choices in media reports of the recurrent diphtheria outbreak in Nigeria, exploring how different frames influence public perception of the outbreak's severity and the necessity for preventive actions.

Studies have been carried out on media reports of pandemics and outbreaks in Nigeria, especially the COVID-19 pandemic (Anwar et al., 2020; Arafat et al., 2020; Mutua & Oloo, 2020; Nwakpu et al., 2020; Obi-Ani et al., 2020; Osisanwo, 2022; Smith et al., 2020), Ebola (Smith & Smith, 2016; Mayrhofer et al., 2017; Roy et al., 2020), Lassa fever (Msughter & Phillips, 2020; Okeya, 2019; Erubami, 2022; Guanah, 2022; Ikwueze, 2023) and other health-related issues, such as cancer (Torwel, & Rodney, 2010; Abubakar et al., 2014; Ezugwu, & Nzekwe, 2015; Oyama, & Okpara, 2017; Uzochukwu, & Ikegbunam, 2022), mental health issues (Arinze-Umobi & Chiweta-Oduah, 2021; Olibamoyo et al., 2021), HIV/AIDS (Ren et al., 2010; Kiwanuka-Tondo et al., 2012; Stevens & Hull, 2013) among others. Linguistic studies (Oyeleye & Osisanwo, 2013; Ekhteyar et al., 2021; Jibril et al., 2021) have also explored lexicalization in media reports. Studies on Diphtheria outbreak in Nigeria (Sadoh & Sadoh, 2011; Adegboye et al., 2023; Aborode et al., 2023; Abubakar et al., 2020; Gulumbe et al., 2023; Medugu et al., 2023, etc.) have mainly been from the non-linguistic perspectives. Adequate scholarly attention from the linguistic perspective has not been paid to diphtheria studies, especially media reports of the outbreak. Such studies are capable of revealing how media can shape public understanding and responses to health crises. Therefore, this study intends to find the gap by examining lexicalization in media reports of the recurrent diphtheria outbreak in Nigeria as well as implications for Health Communication. By examining the lexical choices and framing techniques used in media reports, this study aims to contribute to more effective health communication strategies. It highlights the role of media in shaping public perceptions and behaviours, emphasizing the need for accurate and responsible reporting during health crises.

## 2. METHODOLOGY

This study employs qualitative content analysis as the primary research method. Qualitative content analysis is a systematic approach to examining the content of text data to identify patterns, themes, and meanings. It is particularly suitable for analyzing media reports and textual data in a qualitative manner. The study samples twenty (20) news articles related to diphtheria outbreaks in four popular Nigerian newspapers. These news media are *The Punch*, *The Guardian*, *The Vanguard*, and *The Premium Times*. Online archives and search engines were used to retrieve the relevant media reports. The selected news reports cover an extended period of January to August 2023. This period was a time when the outbreak of the disease reemerged and its effects on victims widely circulated. Thematic analysis of the data collected focuses on identifying recurring themes and frames in media reporting. Thematic analysis helps uncover the underlying narratives and messages conveyed through media coverage. On the other hand, lexical analysis involves the examination of key terms, phrases, and vocabulary used in the selected media reports. This analysis identifies the prevalent terminology associated with diphtheria reporting and its implications on health communications. The breakdown of the sampled news items as well as their sources is given in the appendix (see appendix below). Only limited samples are reproduced in the examples given in the analysis in order to save space in this paper.

### 3. THEORETICAL FRAMEWORK

Two theories are adopted for the analysis of data in this study. These are frame theory and lexical priming theory. The media's framing of the diphtheria outbreak is reinforced through the consistent use of specific lexical elements that prime the audience to perceive the severity of the situation. The theoretical triangulation considers how frames and lexical choices work together.

#### 3.1. Frame Theory

Frame theory is a strong idea used to examine and understand how individuals and society interpret and make sense of information and events. It is typically connected with the work of Erving Goffman and further developed by scholars such as Erving Bateson and George Lakoff. Entman (1993) defines frames as cognitive structures that shape how people experience reality by allowing them to organize, interpret, and ascribe meaning to numerous phenomena. They include crucial aspects such as concepts, values, symbols, and metaphors that aid in the comprehension of complex topics or events. Frames are common in everyday life and are not limited to academic or theoretical situations (Tuchman, 1973). When people hear about a disease outbreak, they may perceive it differently depending on the frames they employ, such as “public health crisis” or “manageable situation.” Social conceptions and cultural norms are intricately related to frames, which can be highly contextual. A frame that resonates in one culture may not resonate in another. Frames are more than just cognitive constructs; they can elicit emotions like anxiety, empathy, or anger, influencing how people react to an issue. Communicators can shape perceptions by using specific frames, thus encouraging support for their perspective (Scheufele, 1999).

Through framing, media plays a critical role in shaping public opinion. Journalists use frames, deliberately or unknowingly, to influence the audience's understanding of events. For instance, describing the spread of diphtheria as a “rapidly escalating outbreak” or a “controlled health issue” can elicit different attitudes. The media's use of frames influences which topics receive importance and attention, potentially elevating or diminishing certain issues. Therefore, frame theory is a valuable tool for understanding how individuals and society interpret their surroundings and the information they encounter. Frame theory helps to understand how media reports frame the diphtheria outbreak. Different frames may influence how the audience perceives the intensity and impact of the outbreak. Journalists use specific words and phrases (lexical choices) to convey their framing. For example, referring to the outbreak as an “outbreak,” “epidemic,” “affected individuals,” and “suffering” shapes perceptions of its severity. The application of specific linguistic features is critical in framing media narratives. Journalists might use terms like “rapidly spreading disease” or “life-threatening infection” to evoke urgency and concern, whereas phrases like “manageable situation” or “contained outbreak” can downplay the severity. These lexical choices influence public perceptions of the crisis and the necessity for preventive actions.

#### 3.2. Lexical Priming Theory

Lexical priming theory is a psychological and linguistic theory that explores how previously encountered words or linguistic elements influence the processing and interpretation of subsequent words or elements (Hoey, 2005). This theory posits that the context in which words are

encountered affects their meaning and interpretation. Words in our mental lexicon are interconnected by associative links, meaning that encountering a word can trigger related words or concepts, influencing our understanding and language production (Pickering & Ferreira, 2008).

Dr. Michael Hoey, the primary developer of lexical priming theory, observed that traditional linguistic theories often failed to explain real-world language use. He argued that language processing is largely shaped by the patterns and associations formed through regular language use, rather than merely adhering to abstract rules and structures. The concept of frequency is an important part of lexical priming. Common words, due to their frequent appearance in language, forge strong associations with others, making them prime targets for activation. For example, hearing the word “cat” might immediately bring to mind related words like “dog” or “pet” (Stanovich & West, 1983). This association explains the efficiency of language processing.

Priming is the central concept in this theory. When people encounter related words or linguistic elements, certain words or concepts in memory are activated, making them more accessible and quicker to process. Semantic priming occurs when the meaning of one word influences the meaning of another. For instance, hearing the word “doctor” can prime words like “hospital,” “stethoscope,” or “patient” due to their related meanings (Neely, 1991). Lexical priming extends beyond individual words to include larger language units such as phrases and sentences. Our mental lexicon stores not just individual words but also collocations and idiomatic expressions. For example, the phrase “break a leg” primes the concept of good luck in the context of theatre, even though the individual words do not convey that meaning on their own (Ellis & Ferreira-Junior, 2009).

This theory provides a framework for understanding how words, phrases, and sentences are interconnected in our mental lexicon, influencing language comprehension, production, acquisition, and change. In this study, lexical priming theory helps explain how specific words and phrases become associated with the diphtheria outbreak and how these language choices influence public understanding and behaviour. For instance, terms like “diphtheria,” “outbreak,” “vaccination,” and “public health crisis” may become primed together due to their frequent co-occurrence in news articles. This means that when the media consistently uses certain terms or frames to describe the outbreak (e.g., “deadly disease,” “emergency situation”), it can condition readers or viewers to associate these terms with the severity and urgency of the event.

## 4. ANALYSIS AND FINDINGS

The analysis of media reports on the diphtheria outbreak in Nigeria reveals several prominent frames that contribute to shaping the public’s understanding of the situation. These frames, characterized by various lexical choices are crucial in priming public perceptions, attitudes, and responses to the health crisis. The identified frames in relation to the lexical choices are discussed below.

### 4.1. Health Crisis Frame

The Health Crisis frame is characterized by the depiction of the outbreak as a severe and urgent public health concern. Diphtheria, a recurrent health issue in the country, has become a pressing concern, prompting media outlets to employ language and framing techniques that underscore the gravity of the situation. In examining the media reports collectively, the pervasive frame of “Health Crisis” emerges as a dominant narrative. The extracts below demonstrate this:



- 1) **Diphtheria outbreak hits Yobe, 289 cases recorded in seven local governments** (Hemba, 2023). There is growing concern in Yobe State over the rapidly spreading cases of diphtheria... Health officials in Yobe State have reported a surge in diphtheria cases over the past few weeks, and they said the situation is becoming increasingly critical.
- 2) **2,455 cases of diphtheria, 83 deaths recorded in 14 months** (Onyedika-Ugoeze, 2023, August 1): Executive Director of NPHCDA, Dr. Faisal Shuaib, disclosed that as of July 27, 2023, 836 cases of diphtheria had been confirmed in 33 local councils across eight states.
- 3) **Over 100 positive cases in Isolation as Diphtheria Outbreak spread to 31 Kano LGA's** (Adewale, 2023, July 29): Latest development officially gathered revealed the near deadly disease has now spread widely covering 31 local government areas, of the total 44 even.
- 4) **Diphtheria outbreak has claimed 122 lives – UNICEF** (Bakam, 2023, August 03): UNICEF Nigeria, in a statement, reported multiple diphtheria outbreaks in different states across the country, mainly Kano, Yobe, Katsina, Lagos, FCT, Sokoto, and Zamfara, putting the case fatality rate (CFR) at 8.7 per cent. Most confirmed cases, approximately 71.5%, have occurred among children aged 2 – 14 years.
- 5) **Deadly throat ailment kills 61 in Kano** (“Deadly throat ailment kills 61 in Kano,” 2023, March 07): An outbreak of highly contagious diphtheria infection has claimed 61 lives in Kano State as of March 2, 2023.
- 6) **171 local councils in 14 states risk spread of diphtheria, FG warns** (Onyedika-Ugoeze, 2023, August 07).
- 7) **NCDC confirms 1,534 diphtheria cases, 137 deaths** (Adejoro, 2023, August 09).

The growing number of diphtheria cases, the worrisome death toll, and the outbreak's extensive geographical impact are recurring themes in several news pieces from credible sources such as Premium Times, The Guardian, The Punch, and The Vanguard. The continuous deployment of alarming statistics emphasizes the gravity of the situation. Reports citing figures such as “2,455 cases of diphtheria” and “836 cases... 83 deaths” from credible sites such as The Guardian and Premium Times, for example, help to frame the outbreak as a major health disaster. These data not only define the scope of the outbreak but also serve as linguistic signals, emphasizing the importance of the situation. Furthermore, the geographical expansion of the disease, as stated in reports, “spread to 31 Kano LGA's” and “affected 27 states,” strengthens the crisis frame. The naming of specific local government regions and states not only offers a spatial context to the situation but also adds a layer of complexity, underscoring its universal character.

Government warnings and alerts play a crucial role in reinforcing the “Health Crisis” frame. Reports stating “171 local councils in 14 states are at high risk” and “FG warns” contribute to the sense of urgency and underscore the need for immediate and widespread public health interventions. The inclusion of official statements from health authorities strengthens the framing of the outbreak as a crisis requiring pressing attention. The framing is further heightened by the mention of organizations such as UNICEF and the Nigeria Centre for Disease Control and Pre-

vention (NCDC), which play key roles in responding to the outbreak. For instance, the UNICEF representative expressing concern over a “case fatality rate (CFR) at 8.7 per cent” and the NCDC confirming “1,534 cases of diphtheria” contribute to the framing of the outbreak as a health crisis, supported by authoritative voices.

Collectively, the lexical terms in the media reports, including “surge,” “deadly,” “contagious,” “multiple outbreaks,” “critical situation,” “rapidly spreading,” “confirmed,” “deaths,” “isolation,” “risk,” “warns,” “claimed lives,” and “concern,” intricately contribute to framing the diphtheria outbreak in Nigeria as a significant health crisis. These carefully selected terms carry strong emotional and contextual weight, fostering a sense of urgency, severity, and widespread impact. The language primes readers to perceive the situation as escalating rapidly, with a heightened risk of transmission, confirmed cases, fatalities, and a critical need for intervention. The use of terms such as “warns” and “concern” further implicates official acknowledgement and underscores the gravity of the outbreak. These lexical choices collectively shape a narrative that portrays the diphtheria outbreak not merely as a health issue but as an imminent and significant public health crisis demanding immediate attention and concerted efforts for containment and mitigation.

#### 4.2. Victim Frame

The Victim frame, as evident in media reports on the diphtheria outbreak in Nigeria, serves as a poignant narrative lens focusing on the human impact of the disease. This frame intricately weaves a narrative that portrays individuals, particularly children, as the afflicted victims of the disease. Highlighting the tragic toll on human lives, terms such as “dead,” “hospitalized,” and “killed” feature prominently in these reports, revealing the profound loss and suffering experienced by those directly affected.

- 1) **Diphtheria: 3 children dead, 7 hospitalised in Kaduna State** (“Diphtheria: 3 dead, 7 hospitalised in Kaduna State,” 2023, July 22): Suspected outbreak of Diphtheria in Makarfi Local Government Area of Kaduna State has killed three children leaving seven others hospitalised... Malam Aliyu Alassan, the Health Secretary of the Makarfi Local Government Council, confirmed this and said most of the affected victims were children...
- 2) **Diphtheria outbreak has claimed 122 lives – UNICEF** (Bakam, 2023, August 03): UNICEF Nigeria, in a statement said the outbreak of diphtheria has tragically claimed 122 lives, with a case fatality rate of 8.7%.
- 3) **Deadly throat ailment kills 61 in Kano** (“Deadly throat ailment kills 61 in Kano,” 2023, March 07): An outbreak of diphtheria infection has claimed 61 lives in Kano State as of March 2, 2023
- 4) **Kano, Lagos lead as diphtheria infection rises to 389** (Adejoro, 2023, March 17): A report by the Nigeria Centre for Disease Control and Prevention has revealed that at least 389 persons have been infected with diphtheria, killing 62 of them in 2023.
- 5) **Diphtheria: Osun confirms death of six-year-old, activates emergency centre** (Ileyemi, 2023, July 11): The Osun State Government has ordered the immediate activation of the emergency response centre to curb the spread of Diphtheria following the death of

a six-year-old. Governor Ademola Adeleke said in a statement on Monday by his spokesperson, Olawale Rasheed, after receiving a situation report from the state's Ministry of Health. Mr Rasheed noted in the statement that the six-year-old who died in Osogbo developed symptoms of diphtheria on 25 June and died of the infection on 7 July.

- 6) **Diphtheria: Nigeria records 102 new infections, 6 deaths** (Ileyemi, 2023, March 21): According to NCDC, Nigeria has recorded a total of 389 confirmed Diphtheria infections and 62 deaths across 24 local government areas in six states...
- 7) **Diphtheria: Kano worst affected as Nigeria records 836 confirmed cases, 80 deaths** (Ileyemi, 2023, July 22): NCDC added that the majority (71.7 per cent) of the 798 confirmed cases occurred among children aged 2 – 14 years.
- 8) **Diphtheria disease spreads to six LGAs in Bauchi, kills 2** (Agwam, 2023, July 26): Two people have been killed as a result of an outbreak of Diphtheria disease in six local government areas of Bauchi State.
- 9) **Diphtheria death toll hits 30 in Yobe, 289 hospitalised** (Musa, 2023, July 21): Yobe State Government has reported 30 deaths from 289 cases of diphtheria from ...

The narrative provided in the preceding excerpts concentrates on specific instances of fatalities, such as the confirmation of three deaths, the UNICEF death toll of 122 lives, and the outbreak taking 61 lives in Kano. The victim narrative is reinforced by the Victim frame, which emphasizes the vulnerable nature of the affected population, particularly children aged 2 to 14 years old, as stated by the NCDC. Furthermore, the reports emphasize the immediacy of responses, with the Osun State Government launching an emergency response centre in the aftermath of the death of a six-year-old. Instances in Yobe and Bauchi, as well as the broader backdrop of 71 deaths reported in 21 states, highlight the ubiquitous nature of victimization, portraying individuals as victims across various regions as susceptible to the lethal impact of diphtheria.

Collectively employing terms such as “deadly,” “tragically,” “claimed lives,” “hospitalized,” “death toll,” “suspected outbreak,” “emergency response,” “human toll,” “laments,” and “complicate,” the Victim frame in the media reports paints a vivid and poignant picture. The narrative revolves around the profound human impact of the crisis, emphasizing the severity of the disease and the immediate threat it poses to individuals. The use of emotionally charged terms like “deadly” and “tragically” heightens the emotional resonance, conveying a sense of urgency and highlighting the devastating consequences on human lives. The quantification of the “death toll” underscores the magnitude of the tragedy, framing it not just as a statistic but as a profound loss. The choice of “laments” adds a layer of emotional depth, emphasizing the mourning associated with the outbreak. Together, the Victim frame effectively positions the outbreak as a humanitarian crisis, prompting emotional engagement and potentially influencing public attitudes and responses. The framing suggests a sense of tragedy and loss, invoking empathy and concern for the victims. By stressing the suffering and fatalities, the media aims to generate public sympathy and, potentially, spur collective action to address the impact of the outbreak on individuals and communities.



### 4.3. Government Response Frame

The Government Response frame in media reports on the diphtheria outbreak in Nigeria encapsulates the concerted efforts and strategic actions undertaken by governmental bodies to address the public health crisis. This frame, marked by a distinct set of lexical choices, portrays a proactive and organized response aimed at curbing the spread of diphtheria. Emphasizing collaborative initiatives, comprehensive plans, and immediate activation of emergency measures, the frame seeks to convey a sense of efficiency in the face of the outbreak.

- 1) **171 local councils in 14 states risk spread of diphtheria, FG warns** (Onyedika-Ugoeze, 2023, August 07): The Federal Ministry of Health, in collaboration with National Primary Healthcare Development Agency (NPHCDA), Nigerian Centre for Disease Control (NCDC) and partners, is mobilising resources to respond effectively to an outbreak in four states... Already, a comprehensive response plan has been activated to ensure early detection, containment of cases, and prevention of further transmission through a multi-phased response strategy.
- 2) **Kano begins contact tracing as diphtheria spreads to 31 LGs** (Odogwu, 2023, July 31): The Kano State Government, on Sunday, said it had activated contact tracing as the diphtheria outbreak in the state has spread to 31 out of the 44 local government areas of the state...
- 3) **Diphtheria: Kano requires 6m doses of vaccine to combat outbreak** (Muntari, 2023, August 23): The Kano State Government said it requires six million doses of vaccines for massive immunisation to combat the outbreak of diphtheria across the 44 Local Government Areas of the state.
- 4) **Diphtheria: Osun confirms death of six-year-old, activates emergency centre** (Ileyemi, 2023, July 11): ...Mr Rasheed noted in the statement that the six-year-old who died in Osogbo developed symptoms of diphtheria on 25 June and died of the infection on 7 July.
- 5) **Nigeria confirms 798 cases of mouth disease in 7 months** (Obinna, 2023, July 07): NCDC said in response to the outbreak in December 2022, it has activated a multi-sectoral national Diphtheria Technical Working Group as a mechanism for coordinating surveillance and response activities across the country.

The linguistic choices in the Government Response frame give a feeling of proactive and coordinated efforts by governmental authorities to handle the diphtheria outbreak. Terms like “mobilising resources,” “comprehensive response plan,” “activated,” and “multi-phased response strategy” lead readers to believe that the authorities will respond forcefully and efficiently. The use of words like “partnership,” “intensified mass vaccination,” and “identified populations at risk” emphasizes the collaborative aspect of the response and communal action. The activation of “contact tracing” in Kano State indicates a targeted and immediate effort to trace and restrict the disease’s spread. The phrase “requires six million doses of vaccines” highlights the magnitude of the immunization effort, portraying it as a major project.

The activation of an “emergency response centre” in Osun State communicates a sense of urgency and immediate action. Phrases like “implemented emergency measures,” “mass vaccination campaigns,” and “surveillance and contact tracing” underscore the comprehensive and strategic approach taken by Yobe State and Nigerian health authorities. The activation of a “multi-sectoral national Diphtheria Technical Working Group” by the NCDC signifies a coordinated, cross-sectoral approach at the national level. These lexical choices collectively contribute to shaping the narrative of an effective, collaborative, and well-coordinated governmental response to the diphtheria outbreak. This frame serves to prime readers towards perceiving the government as actively engaged, responsive, and committed to mitigating the impact of the diphtheria outbreak. This framing is likely intended to reassure the public, convey a sense of control, and instil confidence in the government’s ability to handle the situation.

#### 4.4. Global Aid and Support Frame

The Global Aid and Response Frame in the media coverage of the diphtheria outbreak underscores the collaborative efforts between international health organizations and Nigeria in addressing the public health crisis. The involvement of organizations such as the World Health Organization (WHO) and UNICEF is framed as a positive contribution to the response efforts.

- 1) **2,455 cases of diphtheria, 83 deaths recorded in 14 months** (Onyedika-Ugoeze, 2023, August 01): To curb the disease, the World Health Organisation (WHO) has concluded plans to deliver 1,800 vials of Diphtheria Antitoxin (DAT) to the country.... WHO Country Representative, Walter Mulombo said the WHO team is on the ground in Yobe and Kano states to improve surveillance at the health facility and community level, supporting the active case search and supporting the decentralised isolation centres and referral to the state reference treatment centres.
- 2) **Diphtheria outbreak has claimed 122 lives – UNICEF** (Bello, 2023, August 04): UNICEF Nigeria is amplifying its efforts to counter a growing outbreak of diphtheria that has affected children in 27 states... UNICEF’s commitment extends to several key interventions, including Transporting vaccines and related equipment to the affected states and strengthening routine immunization, training health workers and volunteers for service delivery, risk communication, and community engagement as well as supervising outbreak response activities.
- 3) **Nigeria to receive diphtheria antitoxin in August – WHO** (Odogwu, 2023, July 31): The World Health Organisation on Monday said plans are underway to deliver 1800 vials of Diphtheria Antitoxin to Nigeria on August 2, 2023.
- 4) **Diphtheria outbreak hits Yobe, 289 cases recorded in seven local governments** (Hemba, 2023, July 21): International health organisations, such as the World Health Organisation (WHO) and the Centers for Disease Control and Prevention (CDC), are collaborating with Nigerian health authorities to provide support, expertise, and medical supplies to combat the outbreak effectively.

In the above extracts, the media employs lexical choices that evoke a sense of international collaboration and assistance. These choices are strategically made to influence the framing of the situation, emphasizing global entities like the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) as pivotal players in the response efforts. The use of terms such as "amplifying efforts" and "commitment" by UNICEF underscores a proactive stance, framing their involvement as a dedicated response to a burgeoning crisis. The recurrent mention of the WHO's plans to deliver Diphtheria Antitoxin acts as a lexical primer, shaping perceptions of the global community actively stepping in to bolster the country's capacity to manage and control the outbreak.

The framing within this context aligns with the Lexical Priming Theory, where repeated exposure to terms like "collaborating," "support," and "expertise" primes the audience to associate the diphtheria outbreak with a global health crisis that necessitates collaborative intervention. Phrases like "collaborating with Nigerian health authorities" highlight the synergistic relationship between international organizations and local bodies. The frame not only informs the audience about the external assistance but also serves to frame the outbreak as a challenge that extends beyond national borders. This approach strategically shapes the narrative, emphasizing the interconnectedness of the global health community and the collective responsibility in responding to such health emergencies.

#### 4.5. Vaccination Shortfall and Hesitancy Frame

The Vaccination Shortfall/Hesitancy Frame in media reports on the diphtheria outbreak in Nigeria illuminates a crucial aspect of the crisis, emphasizing the challenges associated with immunization. This frame centres on lexical choices that draw attention to issues such as "unvaccinated children," "low vaccination rates," and the daunting reality of a "large scale zero dose of immunization," framing the issue within the broader context of public health. These are demonstrated in the extracts below.

- 1) **Over 100 positive cases in Isolation as Diphtheria Outbreak spread to 31 Kano LGA's** (Adewale, 2023, July 29): ... This is even as Kano state battles large scale zero dose of immunization, as the country is home to the second-largest number of zero-dose children in the world, United Nations Children Fund (UNICEF) disclosed.
- 2) **Diphtheria outbreak has claimed 122 lives – UNICEF** (Bakam, 2023, August 03): The statement quoted UNICEF Representative in Nigeria, Ms. Cristian Munduate, as saying: "It's heartbreaking to note that only 22 % of the confirmed cases received their routine childhood immunisation vaccinations."
- 3) **Diphtheria outbreak hits Yobe, 289 cases recorded in seven local governments** (Hemba, 2023, July 21): The reasons behind the sudden outbreak are still under investigation, but experts believe that factors such as low vaccination rates, limited access to healthcare facilities, and poor sanitation may be contributing to the disease's rapid spread.
- 4) **Diphtheria: Despite govt's efforts, many Nigerian children unvaccinated – NPHC-DA** (Adebawale-Tambe, 2023, July 31): The National Primary Health Care Development Agency (NPHCDA), on Monday, said a significant number of children are yet to be

vaccinated against diphtheria... hence compromising the country's goal of achieving population immunity. He said the suboptimal vaccination coverage had been the main factor contributing to the diphtheria outbreaks.

- 5) **Nigeria confirms 798 cases of mouth disease in 7 months** (Obinna, 2023, July 07): He said despite the availability of a safe and cost-effective vaccine in the country, the majority i.e. 654 (82 per cent) of 798 confirmed diphtheria cases in the ongoing outbreak were unvaccinated.

As seen above, the reports employ specific lexical choices that shape the narrative surrounding immunization challenges in the context of the diphtheria outbreak in Nigeria. The media emphasizes the impact of low vaccination rates, limited access to healthcare facilities, and poor sanitation as potential contributors to the rapid spread of the disease. The National Primary Health Care Development Agency (NPHCDA) becomes a key actor, expressing worry about the significant number of unvaccinated children compromising the nation's goal of achieving population immunity. Phrases such as "large scale zero dose of immunization," "unvaccinated," "low vaccination rates," "limited access to healthcare facilities," and "poor sanitation" contribute to framing the issue as a deficiency in vaccination coverage and potential barriers to immunization. These terms underscore the critical role of vaccination in preventing the spread of diphtheria and imply that a lack of immunization contributes to the outbreak.

Additionally, the mention of "compromising the country's goal of achieving population immunity" in relation to unvaccinated children emphasizes the broader public health implications of insufficient vaccination coverage. This choice of language suggests that achieving population immunity is a collective goal for the nation's well-being, reinforcing the importance of vaccination. The lexical choices in this frame collectively prime the audience to associate the diphtheria outbreak not only with the immediate health crisis but also with systemic issues related to vaccination gaps and hesitancy. This framing aims to evoke concern about the consequences of low immunization rates and encourages a focus on addressing vaccination challenges as part of the response to the diphtheria outbreak. Through these terms, the frame paints a narrative that goes beyond the immediate health crisis, pointing to underlying factors contributing to the rapid spread of diphtheria. The mention of compromised goals for achieving "population immunity" further underscores the collective responsibility to address vaccination gaps, thereby shaping perceptions about the urgency of immunization efforts. It may serve as a call to action for increased vaccination efforts, addressing hesitancy, and improving coverage to curb the spread of the disease.

#### 4.6. Public Health Awareness Frame

The Public Health Awareness Frame within media reports on the diphtheria outbreak in Nigeria serves as an educational tool, aiming to inform the public about the nature of the disease, its symptoms, and preventive measures. Several lexical choices contribute to this frame, emphasizing the need for public understanding and awareness. The terms used highlight the mode of transmission, available medical interventions, and the vulnerable populations at risk.

- 1) **Deadly throat ailment kills 61 in Kano** (“Deadly throat ailment kills 61 in Kano,” 2023): Diphtheria spreads easily between people through direct contact with infected people’s droplets from coughing or sneezing, and contact with contaminated clothing and objects.
- 2) **Nigeria to receive diphtheria antitoxin in August – WHO** (Odogwu, 2023, July 31): The World Health Organisation on Monday said plans are underway to deliver 1800 vials of Diphtheria Antitoxin to Nigeria on August 2, 2023. Diphtheria antitoxin is a medication made up of antibodies used in the treatment of diphtheria. Erythromycin IV refers to intravenous administration of the antibiotic medication erythromycin. Erythromycin is a macrolide antibiotic that is used to treat various bacterial infections. It works by inhibiting the growth of bacteria, thereby helping the body’s immune system to fight off the infection.
- 3) **Diphtheria: Kano worst affected as Nigeria records 836 confirmed cases, 80 deaths** (Ileyemi, 2023, July 22): It noted that people most at risk of contracting diphtheria are children and adults who have not received any or a single dose of the pentavalent vaccine, people who live in a crowded environment, in areas with poor sanitation and healthcare workers who are exposed to suspected or confirmed cases of diphtheria. The symptoms of diphtheria include fever, runny nose, sore throat, cough, red eyes (conjunctivitis) and neck swelling. In severe cases, NCDC said, a thick grey or white patch appears on the tonsils and/or at the back of the throat, causing difficulty in breathing.
- 4) **Diphtheria: Nigeria records 123 infections, 38 deaths** (Ileyemi, 2023, January 24): According to NCDC, diphtheria is a serious bacterial infection caused by the bacterium called *Corynebacterium* species that affects the nose, throat and sometimes, the skin of an individual.
- 5) **FCTA announces diphtheria outbreak in Abuja as disease kills four-year-old** (Jimoh, 2023, July 04): A diphtheria patient experiences thick, grey matter covering the throat, making breathing hard... The Guardian reports that the disease spreads through airborne respiratory droplets (coughs or sneezes), saliva (kissing or shared drinks).

The above excerpts are intended to spread knowledge about the disease, its transmission, symptoms, and prevention methods. Lexical choices like “spreads easily between people,” “antitoxin,” “pentavalent vaccine,” and “symptoms of diphtheria” all help to raise public awareness. The repeated use of terms like “spreads easily between people” underlines the contagious nature of diphtheria, alerting readers to grasp the risk connected with close contact. This linguistic choice primes the audience to recognize the need for preventive actions and emphasizes the urgency of taking precautions.

The terms “antitoxin” and “pentavalent vaccine” are crucial terms that indicate the available medicinal treatments. By including these terminologies, the stories educate the public on prospective treatments and immunizations, instilling optimism and control over the condition. The phrase “symptoms of diphtheria” is used to convey a detailed explanation of what people should look out for, such as fever, runny nose, sore throat, cough, and neck swelling. This lexical choice helps to provide readers with the knowledge they need to spot probable situations and seek medical



assistance as soon as possible. These terms help readers identify diphtheria with specific ideas such as transmission, prevention, and symptoms. The frame teaches the public strategically, in line with the larger purpose of boosting public health literacy during the pandemic.

#### 4.7. Past Antecedent Frame

The Past Antecedent Frame in media reports on the diphtheria outbreak in Nigeria draws attention to the historical context and links the resurgence of the disease to the impact of past events, particularly the COVID-19 pandemic. As media narratives unfold, the focus extends beyond the immediate outbreak to explore how broader health challenges, lockdown measures, and disruptions in routine immunization during the COVID-19 pandemic may have contributed to the resurgence of Diphtheria. Extracts are shown below.

- 1) **Nigeria to receive 1,800 vials of Diphtheria Antitoxin – WHO** (Adebowale-Tambe, 2023, July 31): He noted that the COVID-19 pandemic has fuelled a recurrence of diphtheria in the country.
- 2) **Over 100 positive cases in Isolation as Diphtheria Outbreak spread to 31 Kano LGA's** (Adewale, 2023, July 29): He equally attributed the resurgence of the disease to the high impact and resultant effect of COVID-19, a global health burden that exposed the near collapse of the nation's health system.
- 3) **Kano begins contact tracing as diphtheria spreads to 31 LGs** (Odogwu, 2023, July 31): The resurgence of diphtheria, according to him, may be linked to the aftermath of the COVID-19 pandemic, which resulted in a lockdown and disruption of routine immunisation of children.

Lexical choices such as “recurrence,” “fuelled a recurrence,” “resurgence of the disease,” “high impact,” “resultant effect of COVID-19,” and “lockdown and disruption of routine immunization” help to shape the narrative around the historical and contextual factors. The consistent use of terms like “recurrence” and “resurgence of the disease” establishes a connection between the current diphtheria outbreak and its reappearance in the past. This framing primes readers to perceive diphtheria as a recurring issue, emphasizing the need to address underlying factors that may aid its return.

COVID-19, caused by the SARS-CoV-2 virus, has been a global pandemic since early 2020. References to the “impact” and “resultant effect of COVID-19” provide a causal link between the pandemic and the resurgence of diphtheria. This lexical choice suggests that the disruptions caused by COVID-19, such as lockdowns and interruptions in routine immunization, have contributed to the current health crisis, creating a broader narrative that contextualizes the outbreak within a larger global health challenge. The phrase “lockdown and disruption of routine immunization” specifically highlights the consequences of pandemic-related measures, suggesting that these events have created conditions conducive to the reemergence of diphtheria. This choice of language primes readers to associate the diphtheria outbreak with the historical impact of the COVID-19 pandemic and the unintended consequences they may have on other health issues.

#### 4.8. Collaborative Effort Frame

The Collaborative Effort Frame in media reports on the Diphtheria outbreak highlights the collective response and cooperation advocated by various stakeholders to combat the public health crisis. This frame underscores the importance of collaborative efforts involving the government, traditional, religious, and community leaders. The emphasis is on fostering partnerships to ensure comprehensive immunization coverage, particularly among children.

- 1) **Diphtheria: Kano worst affected as Nigeria records 836 confirmed cases, 80 deaths** (Ileyemi, 2023, July 22): To prevent the disease, the NCDC urged parents to ensure that their children are fully vaccinated against diphtheria with three doses of the pentavalent vaccine as recommended in the childhood immunisation schedule. It added that healthcare workers should be vigilant and look out for symptoms of diphtheria, and individuals with signs and symptoms suggestive of diphtheria should isolate themselves and notify their local government area's state disease surveillance officer.
- 2) **Diphtheria outbreak hits Yobe, 289 cases recorded in seven local governments** (Hemba, 2023, July 21): As the situation unfolds, health officials and the Yobe State government urge residents to remain vigilant and cooperate fully with the emergency response measures. They are advised to maintain good personal hygiene, avoid close contact with infected individuals.
- 3) **Diphtheria: Despite govt's efforts, many Nigerian children unvaccinated – NPHCDA** (Adebawale-Tambe, 2023, July 31): He urged the government, traditional, religious, and community leaders, to create partnerships to ensure that every child in the country is immunised.
- 4) **Nigeria confirms 798 cases of mouth disease in 7 months** (Obinna, 2023, July 07): He urged the public to remain vigilant and ensure persons with symptoms of diphtheria present early to health facilities for prompt diagnosis and treatment, adding that early diagnosis and institution of effective treatment are key predictors of a favourable outcome.

The word choices in the preceding sample stress unity, cooperation, and shared responsibility in responding to the diphtheria outbreak. The reports communicate a sense of togetherness among diverse stakeholders, including the government, community leaders, and healthcare personnel, through the deliberate use of phrases such as “urge,” “partnerships,” and “cooperate.” This collective front is seen as critical for a comprehensive and effective response to the pandemic. The language used creates an environment that supports collaborative efforts, emphasizing that success in crisis management is dependent on the collaboration of various groups.

Furthermore, the framework encourages monitoring and proactive engagement from both healthcare staff and the general public. The continuous emphasis on being “vigilant” and the urge for individuals to “maintain good personal hygiene” and “avoid close contact” are consistent with the collaborative narrative, implying that a common commitment to preventive actions is critical.

The language here implies that everyone has a role to play in controlling the outbreak and avoiding additional transmission. This communal obligation is portrayed as an ongoing effort, highlighting the long-term commitment required from individuals and communities to address the public health crisis. The media also emphasizes the excellent outcomes that can be obtained through collaborative efforts. Terms like “favourable outcome” are intentionally used to communicate the impression that unity and cooperation lead to successful responses and improved conditions. This optimism helps to frame joint efforts as not just necessary but also hopeful, generating a sense of hope and shared accomplishment in the face of a health crisis. Specific linguistic choices are used in these reports to establish a narrative of communal responsibility, highlighting the collaborative acts required for an effective response to the diphtheria outbreak.

## 5. CONCLUSION

The investigation of media framing in the context of the Nigerian diphtheria outbreak reveals critical insights with important implications for health communication efforts. The study identified distinct frames that shaped the narrative, each with its unique lexical choices, influencing how the public perceives and responds to the crisis. The findings show that the Health Issue Frame, which includes words like “surge,” “deadly,” and “rapidly spreading,” primes readers to perceive the outbreak as an urgent public health issue. Using emotional triggers in health communication can effectively express the seriousness of the condition and drive aggressive measures. Furthermore, the Victim Frame, with language like “claimed lives” and “hospitalized,” emphasizes the outbreak’s human toll, underlining the need for empathy and specific efforts to protect vulnerable populations. As evidenced by the Vaccination Shortfall/Reluctance Frame, the study also emphasizes the significance of tackling vaccine reluctance. Lexical choices like “unvaccinated” and “compromising the country’s goal” put attention on the difficulties connected with low vaccination rates. It is critical for effective health communication to craft messages that address misinformation, create trust, and underline the consequences of not vaccinating. Furthermore, frames such as the Government Response Frame and the Collaborative Effort Frame emphasize the importance of coordinated action by emphasizing the roles of authorities, communities, and global partners in managing the outbreak. Future research in this area may explore more into the impact of media reporting on public views and behaviours related to disease prevention and vaccination. In conclusion, this study underscores the importance of media in shaping public perceptions of health issues. Through framing and lexical choices, the media shapes public understanding, influences perceptions, and guides individual and collective responses to health issues like the diphtheria outbreak.

### *Statement of Conflict of Interest*

The author states that there is no conflict of interest.

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